

Information supply in Kitui District

**study towards the information flows for formulation
and implementation of policy plans
between and within the hierarchical levels**



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Delft, August 2001

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Preface

We, Annet Schepman & Sanne Braakman have undertaken a project for our study System Engineering and Policy Analysis at the Delft University of Technology in Kenya for 10 weeks. This project is done in co-operation with Westerveld Conservation Trust, SASOL and UNESCO. They have been great help to us, so we really want to thank some people, without their help we would not have been able to write this report.

First of all we would like to thank Willem Dijk for arranging our project. We are very glad he used his contacts to get us to Kenya. Also Maartje van Westerop for all her kind emails, information and all the arrangements she made for our stay in Kenya. John Baggen for his coaching.

Professor Mutiso during our stay in Kenya for the great stories and keeping us keen during discussions.

Milu and Mutua for their help with the questionnaires. Munanie for being our translator and good company during the fieldwork; without her we would not have understood the people. Sam Mutiso for his good caring during our stay in Kitui Town and his good advice when we had dilemmas.

And of course Father Joseph for his blessing and his wonderful caring during our stay in Nairobi and also the many laughs we had with him.

Annet Schepman & Sanne Braakman

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Summary

For 10 weeks Annet Schepman and Sanne Braakman have worked on a project for their study system engineering and policy analysis at the Delft University of Technology in Kitui District, Kenya.

The project is done in co-operation with SASOL, UNESCO and Westerveld Conservation Trust.

The target of the project is to analyse the information flows from the community to the government and vice versa. Within this problem definition there are more subjects, the implementation and formulation of policy plans and the communication within the levels. The research also confirms some sociological facts about the sand dam areas.

First Annet and Sanne got an overview of the policy plans in Kenya. The research took place in the District Documentation Centre of Kitui. For the division policy plans they went also to KAP, but it turned out that nobody could offer these plans, so it is debatable if the divisional policy plans exist. The outcome of this research is that the policy plans are made by the government. The plans made on lower levels are only project plans.

After the overview of the policy plans the questionnaires are held within the community, in as well sand dam areas as in no dam areas. In those areas committee and community members are interviewed. To divide the information even the chief and assistant-chiefs in the no dam areas were interviewed. These questionnaires are taken in two divisions of Kitui. The main conclusions out of these questionnaires were that the respondents do not know much about the policy plans from the government. The community says that they are not consulted by the government, or any other hierarchical level. Besides, there are many problems in sand dam areas with the co-operation during projects, because the community does not know the advantages of the project.

During the questionnaires Munanie, the translator, went on with the questionnaires and Annet and Sanne did interviews with the governmental officials. On certain levels some departments were not represented, so the amount of interviews reduced during the undertaking. But in two weeks every possible governmental official was interviewed on district and division level. The main conclusions out of these interviews are that even the governmental officials do not know much about the policy plans. The governmental officials say that they consult the community when they are formulating policy plans, but the community says that they are not consulted. The main way of consulting the community is Participatory Rural Appraisal (PRA).

After the interviews, all different parts are compared with each other, conclusions are drawn and the report is written.

The main conclusions and recommendations are that the governmental structure at this moment can only function when all links in that structure are available. Otherwise the information flows from the grasshooter to the Government and vice versa will not pass on. This means that at every (sub)-location a (assistant)-chief has to be available, because if they are missing, the community do not know to whom they have to communicate their needs to. It is also recommended to organise a regular meeting through the (assistant)-chief with several villages to discuss their needs, advice the people about day-to-day-business. Because the villages communicate with each other but does not come up with solutions for the problems. In these meetings the governmental changes can also be told. Because for example some years ago the Government changed the approach, that communities now have to come up themselves with projects, if they do not, no project will be undertaken. Nevertheless, the community still thinks that the Government will come up with projects, because they have not heard of the change in the approach, so nothing is done. In those meetings the community can also be taught on formulating policy plans, because more than half of the respondents told us that they do not have policy plans in their community. If the community needs have to go up to the Government, they have to be written down properly, but the community needs education for that. The committee members need also some education in how to organise a project that will be undertaken and how to mobilise people, because at this moment a high lack of attendance during projects is still experienced. For this problem a solution will also be that the advantages of the project that will be undertaken are shown to the community.

These main issues are discussed in this report, which offers more background for all arguments.

1 Introduction

In this chapter the problem definition and the research questions are presented. Besides, the goal is defined and the limiting conditions are discussed. Subsequently, Kenya will be introduced, because some knowledge about the country, history, economy etc. is necessary to understand the project. An introduction of Kenya, Kitui District and Sahelian Solutions (SASOL) is given, because the investigation aims on that area and is undertaken in co-operation with SASOL. At the end the structure of the report is given.

1.1 Problem definition

The problem definition, which is paramount in this research, is "Are the information flows from the government down to the community and from the community up to the government passing on well?" With this problem definition we aim at the communication between the different hierarchical levels, but also at the communication within those levels. To clarify the problem definition some research questions are defined.

1.2 Research questions

The three research questions to clarify and investigate the problem definition are:

- Can any harsh conclusions be drawn about sociological facts? These facts include the distances to the water resources or the sand dams, the number of households using those water resources, the farming of the households, the procedure of undertaking a project, etceteras.
- What is the procedure of formulating policy plans? This procedure includes the information flow from the community up to the Government and the way the communities are consulted before the policy plans are formulated.
- What is the procedure of implementing of policy plans? This procedure includes the information flow from the Government down to the community and problems experienced with the implementation.
- Are the people within the different hierarchical levels communicating efficient? This research question has a special attention for the communication within the community level.

In chapter 8 Conclusions and recommendations, those research questions will be discussed and, if possible, answered.

1.3 Goal of the project

The goal of the project is to investigate the information flows, as well top-down information flows as bottom-up information flows. Those information flows include the procedure for communicating the needs of the community and the need for policy plans of the community members and the procedure for formulating and implementing the policy plans.

1.4 Limiting conditions

Several limiting conditions can be distinguished: geographical limiting conditions, subject related limiting conditions and other limiting conditions.

1.4.1 Geographical conditions

The project is undertaken in Kenya in co-operation with SASOL, which is operating in Kitui District. This is the reason why the research is aimed at Kitui District. Within Kitui District some areas where SASOL build sand dams are investigated. To divide the data, a spreading in geographical area is obtained by doing this research in Central Division and in Chuluni Division (Kitui District). To get even more divided information and to draw more harsh conclusions these data are compared with the data obtained in areas without sand dams in Chuluni Division. Another reason that only these areas of Kitui District are researched, is because of the limitation of time and the accessibility of some parts of the district.

1.4.2 Subject related limiting conditions

Initially, the project was related to water development, but during the project we saw it was not possible to specify only on water development, because the information flows are related with a lot of facts, so we extend the study and specified on total development of Kitui District.

1.4.3 Other limiting conditions

The persons, who were interviewed, live in the two divisions and have different functions in the community. In sand dam areas only committee and community members are interviewed, so the different kind of functions are limited. In the areas without sand dams, beside the committee and community members, also chiefs and assistant-chiefs are interviewed, so the functions of the respondents within the community are more divided.

1.5 Introduction of Kenya

Kenya straddles the equator and covers an area of some 583,000km², which includes around 13,000 km² of inland water in the form of part of Lake Victoria. It is bordered to the north by the arid bushlands and deserts of Ethiopia and Sudan, to the east by Somalia and the Indian Ocean, to the west by Uganda and Lake Victoria, and to the south by Tanzania. The main rivers in Kenya are the Athi/Galana and the Tana.



Figure 1.1: Map of Kenya

1.5.1 History

Kenya is a former British colony. In 1962 two parties formed a coalition, in May 1963 elections were held and Independence came on 12 December 1963. Now Kenya is a multiparty state, with KANU being the ruling party. The major opposition parties are the National Democratic Party (NDP), the Democratic Party (DP) and FORD-Kenya. The system of government consists of the president, who holds executive power, and a single legislative assembly consisting of 210 members, the attorney general, the speaker, and 12 members who are nominated by the major parties in parliament in proportion to the number of seats won. Before the 1992 election, it was agreed that subsequent presidents could only serve two five-year terms. In the year 2002 elections will be held.

1.5.2 Climate

Kenya's diverse geography means that temperature, rainfall and humidity vary widely, but there are effectively four zones about which generalisations can be made.

Western Kenya is generally hot and fairly humid with rainfall spread throughout the year, falling mostly in the evenings. The greatest precipitation is usually during April when a maximum of 200mm may be recorded, while the lowest falls are in January with an average of 40mm. Temperatures range from a minimum of 14 to 18°C to a maximum of 30 to 34°C over the year.

1.5.3 Economy¹

The performance of the Kenyan economy can best be analysed with reference to two distinct periods, namely the years between 1963 – 1973 and the years after 1973. The period 1963 – 1973 emerged as Kenya's golden economic period because during this time, the economy enjoyed a high rate of growth combined with a healthy balance of payments position and virtual absence of inflation.

After 1973, the Government has tried to respond to several crises through a series of policy initiatives including, structural transformation, structural adjustment and stabilisation policies. These policies have taken the form of devaluation, increased solicitation of international support, reduction of direct participation of the Government in economic activities, decontrol of prices, liberalisation of the economy, creation of export incentives, and budget rationalisation. Most of these policies have formed part of the conditionalities of the loan facilities of the World Bank and the International Monetary Fund which Kenya has had to rely upon following the debt crisis which started in 1982 with Mexico's default on repayment of international loans.

The cornerstone of Kenya's capitalist economy is agriculture, which employs around 80% of the population, contributes

29% of the GDP and accounts for over 50% of the country's export earnings. The principal food crops are maize, sorghum, cassava, beans, and fruit, while the main cash crops are coffee, tea, cotton, sisal, pyrethrum and tobacco. The bulk of the food crops are grown by sub-sistence farmers on small plots of land, whereas most of the cash crops originate from large, privately owned plantations employing contract labor. Coffee and tea are the largest of the agricultural export earners.

1.6 Kitui District

Kitui District in Kenya's Eastern Province is semi-arid and lack of water is a perennial story. This district extends for roughly 200km from north to south and 120km from east to west. It covers an area of approximately 20,556km² including 6,369km² occupied by the uninhabited Tsavo National Park. The climate is hot and dry for most of the year and it can be characterised as an arid and semi arid area with very unreliable rainfall. The high rate of evaporation, combined with unreliable rains (1000mm), limit intensive and meaningful land use and other related development activities. Kitui population stands at 574,215 people with a density of

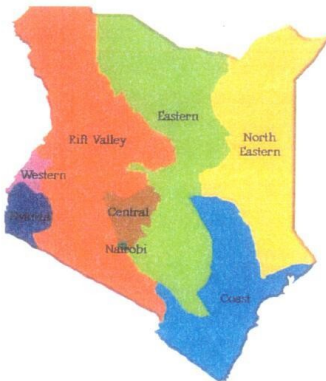


Figure 1.2 Provinces of Kenya

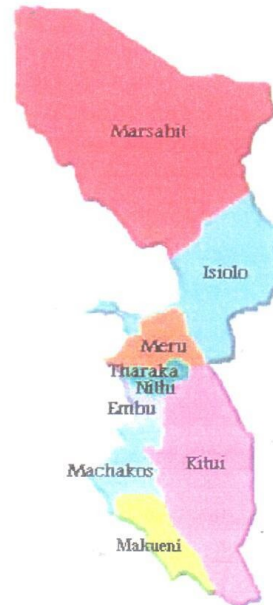


Figure 1.3: Eastern province's districts

¹ Socio-economic profiles, June 1990, chapter 1: Introduction, page 1

213 persons/km².² Sixty per cent of the households in Kitui are female headed and this has impact on the household human capital endowment. This is because of various reasons including men working outside the district, single parenthood and widowhood.

Moving southward from Kitui town, the land falls gradually and rainfall decreases. The land is characterised by scattered homesteads and irregular patches of cropland interspersed with areas under grass or bush.

Water is a common denominator and a major development input; and thus remains the most essential commodity in the district. The search for water is a significant preoccupation of the people of Kitui District as there are only a few water resources such as rivers and springs to serve them. The major sources of water are perennial rivers. The population residing along the rivers does benefit from subsurface water in the sandy riverbeds. Distance to water resources, the frequency of fetching trips and the number of persons per trip varies between the wet and dry seasons. Water resources are usually rare during the dry seasons. In some places, women walk as far as 25-30km, a round trip of around five hours returning with water of questionable quality. However, much of the available water is relatively of good quality partially due to minimal use of agricultural chemicals and little industrial discharge. The size of the households, economic status and proportions of females in the households positively influence the domestic demand for water in the households.

Agriculture and livestock are the two major resources currently being exploited in the district.

The district is an arid and semi arid (ASAL) area and hence dry land farming is practised. Agriculture activities are mainly subsistence in nature and are highly constrained by weather conditions. However, it is important to note that the poor households draw 77% of their incomes from agriculture while the better off households draw 29% of their incomes from agriculture

1.6.1 Climatic Conditions³

The climate of Kitui District is generally dry and characterised by unreliable rainfall, high temperatures and a high rate of evaporation. There are no perennial rivers in the district except the Tana. In spite of its perennial headwaters, the Athi River often runs dry in the middle stretches above the Tsavo confluence due to high evaporation and infiltration losses. All of Kitui's rivers are characterised by high flows in April-May and November-December, and very low flows in the intervening months. The high rate of evaporation, combined with unreliable rains, limit intensive and meaningful land use and other related development activities.

Rainfall is seasonal, with a pronounced maximum in April during the long rains and in November during the short rains. Most of the rain falls in the periods March-April and October-December. There are dry periods falling between June to September and January and February.

Minimum annual mean temperatures in Kitui District vary from 14^o to 18^oC in the west to 18^o to 22^oC in the east. The maximum mean annual temperatures in the western part vary from 26^o to 30^oC and in the eastern part from 30^o to 34^oC. These climatic conditions place severe constraints on both surface and underground water availability as well on the use of land.

1.6.2 Ecological Conditions⁴

The ecology of Kitui is generally fragile and greatly influenced by the topography and rainfall pattern. The land area is classified on the basis of rainfall into three categories:

- high potential agricultural land receiving 762-1,270mm of rainfall and representing only 2.2% (67,000 ha) of the district;
- medium potential land receiving between 500 and 800mm of rainfall, representing 36.6% (1,137,000 ha) of the district and useful only as rangeland; and
- low potential land, receiving less than 500mm of rain, representing 61.2% of the total area.

The forest area in Kitui District is quite small, estimated at less than 1% of the total area, or 204 km².

² Republic of Kenya, 1997

³ Socio-economic profiles, June 1990, Chapter 3: Kitui District, page 47 and Kitui District Development Plan 1997-2001, 2001, page 5

⁴ Socio-economic profiles, June 1990, Chapter 3: Kitui District, page 47

1.6.3 Population profiles⁵

In 1989 population census recorded a population of 412,528 people in the district. This population was growing at a rate of 3.3 % during the inter-censal period 1979-1989.

The population was projected to grow from 537,466 people in 1997 to 574,215 in 1999 and will rise to 613,478 people in 2001. These projections are based on the 1989 population census and assume a growth rate of 3.3 %. According to the 1997 population census, 574,215 people were recorded. In 1989, there were 70,845 households, which are projected to increase to 142,716 in 2001.

With regard to the age/sex composition of the district population, 53 % of the population comprised of females and the overall district male to female ratio was 1:1.16 according to 1989 census. This is a characteristic of the population at all age groups. During the plan period the same trend is projected to prevail. This is partly attributed to migration of males to other districts in search of employment, this being a dry district.

1.6.4 Water resources⁶

Water, being a major development input, remains the most essential commodity in the district. The search for water is a significant preoccupation of the people of Kitui District, as there are only a few water sources such as rivers and springs to serve them.

Kitui receives little and reliable rainfall, most of the district getting less than 730mm/year. The southern and eastern parts receive less than 500mm/year. The rate of evaporation is very high, with the result that rivers and dams dry up as soon as the rain stops. Although there is no information on underground water resources, their prospects appear poor.

Only a very small proportion of Kitui households have access to clean water, and there is very little use of the cleaner rain water through roof catchment. More than half the households use unsanitary methods of disposing of human waste and water-related diseases.

The populations residing along the rivers do benefit from sub-surface water in the sandy riverbeds. The inevitable search for water in the district causes seasonal population mobility. Sources of water are usually rare during the dry season when it is only available in a few river valleys. In places like Endau, Mutomo, Kisasi and Katutu, women walk as far as 25-30 km to fetch water. The water available is of good quality partly due to minimal use of agricultural chemicals and little industrial discharge. Athi River water is however polluted due to industrial discharge and agro-chemical use upstream.

1.7 Introduction of SASOL

In a bid to address the problem of water scarcity in Kitui District a non-governmental organisation, SASOL (standing for Sahelian Solutions Foundation) was founded in 1990. Initially, SASOL intended to facilitate the development of water through construction of shallow wells, water tanks and rock catchments to harness rain water, sand dams and other sources. The main objective was to shorten the distances families had to move in search of water, limiting it to a maximum of two kilometres. Of all these methods, construction of sand dams brought about a unique dimension in the whole water development process in the area. To date over 200 sand dams have been constructed in central and western parts of Kitui district.

⁵ Kitui District Development Plan 1997-2001, 2001, page 8

⁶ Socio-economic profiles, June 1990, Chapter 3: Kitui District, pages 71 and 73 and Kitui District Development Plan 1997-2001, 2001, pages 16, 32, 33

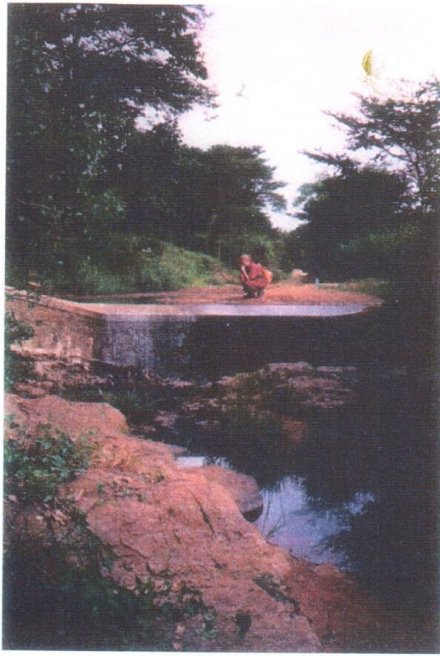


Figure 1.4: Sand dam

Sand dams are not new in the district. The earliest were constructed during the colonial period in 1950's, and most of these are still in existence. At that time, they were referred to as sub-surface dams because the water is stored below the surface. However, the term 'sub-surface dam' is used in some countries to refer to a barrier below the surface. It could also be used to refer to an impervious underground barrier in a low-lying area that prevents the lateral flow of ground water and maintaining or raising the water table. In contrast, a sand dam is made as a concrete or masonry barrier on an ephemeral river. Although the upper side of the wall may be hidden by sand, the lower side is usually exposed, in part due to excavation by water when the river is flowing.

1.8 Structure of this report

This report gives the findings and recommendations of the research. In chapter 2, a project description, the justification of the research, the way of research and the final products of the research will be given. In the following chapter the actors of the research will be analysed. In chapter 4 an overview of the policy plans - on governmental division and district level will be given. The results of the

questionnaires will be discussed in the following chapter. Chapter 6 deals with the results of the interviews to governmental agents. The brainstorm session is given in chapter 7. In the last chapter the conclusions and recommendations will be discussed.

2 Project Description

In this chapter the project is described in terms of the justification, the way of research, the relation of the different parts, the constraints and the final product.

2.1 Justification

It is understandable that communities often focus on technical improvements. Water systems have been designed and constructed according to strictly technical parameters. For many engineers, water is a technical matter. Both agencies and communities usually do not even consider the management aspects of water systems at the community level. It is still believed that if technical problems are solved, the system will work. It may indeed work, but still only sustained if the procedures and institutions to manage the improved systems in communities are strengthened or created at the same time.

Experiences in many projects have shown, however, that when the time comes to look into solutions, technical issues cannot be into solutions, and technical issues cannot be ignored on basis of the argument that they have nothing to do with managerial aspects. Sometimes, systems have so badly

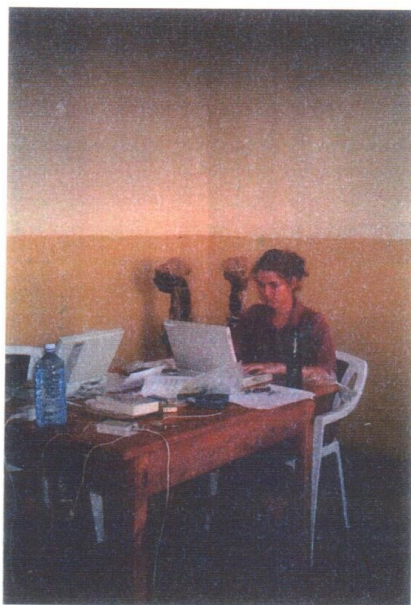


Figure 2.1: Working in Kitui

designed and constructed that at least small improvements have to be made before management aspects can even begin to be addressed. However, technical options should be seen as part of a management solution, not as goals in themselves. Technical improvements can of course also support management solutions. In the case of water, meters and regulators, for example, are important monitoring instruments that can provide information that can be used to support the management of the system.

2.2 Way of research

At the beginning of the project we were taken around for an introduction in the area and in sand dams. After the first introduction, the policy plans made by the Government, Kitui District and the divisions were analysed to get a better description of the intentions of the different authorities for the area.

With full understanding of the policy plans and the organisation structure of Kenya, questionnaires for committee members and community members in areas with sand dams were taken. Also some questionnaires for committee members, community members, chiefs and assistant-chiefs in two areas

without sand dams were taken, in order to get some comparable information.

At last interviewed some governmental officials to investigate their attitude towards policy plans and the implementation.

After the questionnaires and interviews a brainstorm session with several governmental was organised to investigate bottlenecks and solutions. The outcome of this session would be a SWOT-analysis (Strengths, Weaknesses, Opportunities, Treats) with solutions for possible problems.

After the collection of data, the questionnaires, the interviews, the outcomes of the brainstorm session and the knowledge about policy plans was combined and analysed in combination to each other to draw some conclusions and recommendations.

In the figure below, the several parts are presented in a time table.

	week 1	week 2	week 3	week 4	week 5	week 6	week 7	week 8	week 9	week 10
	1 - 7 May	8 - 14 May	15 - 21 May	22 - 28 May	29 May - 4 June	5 - 11 June	12 - 18 June	19 - 25 June	26 June - 2 July	3 - 9 July
Introduction										
Project										
Analysing policy plans										
Questionnaires										
Analysing questionnaires										
Brainstorm										
SWOT-analysis										
Combining policy plans, brainstorm and questionnaires										
Writing report										

Figure 2.2: Time schedule

2.3 Relation of different parts

The relation between the different parts consists of the comparison. After the policy plans are analysed we will compare them with the needs given by the community members, the policy plans will also be compared with the information got from the governmental officials, to see if there are big differences. The questionnaires will be used for the sociological facts and also draw any possible problems within the information from up to down and vice versa. The brainstorm sessions will give a SWOT-analysis and possible solutions for the problems, which came out of the questionnaires and the interviews.

2.4 Final product

The project in Kitui will lead to:

- some conclusions and recommendations about the formulation of policy plans;
- some conclusions and recommendations about the implementation of policy plans;
- some conclusions and recommendations about the information flows between the different hierarchical levels;
- some conclusions and recommendations about the communication within the different hierarchical levels;
- some conclusions and recommendations about consulting the communities about the community policy needs;
- some recommendations for further research.

2.5 Constraints

Some constraints can be identified within the research. These constraints give an explanation for possible limitations of the research.

Within the population the constraints are that the people on the lowest levels are illiterate, there is lack of news papers, radios and televisions to spread information, so people in the community are not aware of what is happening in the rest of the country or what the government changes in policy plans. The only medium to reach those people with information are meetings, organised in their community. Unfortunately the people within the community have also lack of time, because of fetching water far away, so they do not attend those meetings. The community also does not see the advantages of those meetings, so they do not attend the meetings.

Another reason for that the information does not reach or the wrong information reaches the community is that the information they get is influenced by several persons in the bureaucratic system.

Our questionnaires are first translated in English from Dutch. After that the questions are translated in Kikamba by our translator. The answers given to the questions were given in Kikamba, so those were again translated in English. Some information has changed because of the many translations it goes through.

3 Analysis of actors

This chapter gives an overview of the most important actors in Kitui District. The different actors will be noticed by explaining their functions. In the figure below, the different hierarchical levels of Kenya are displayed.

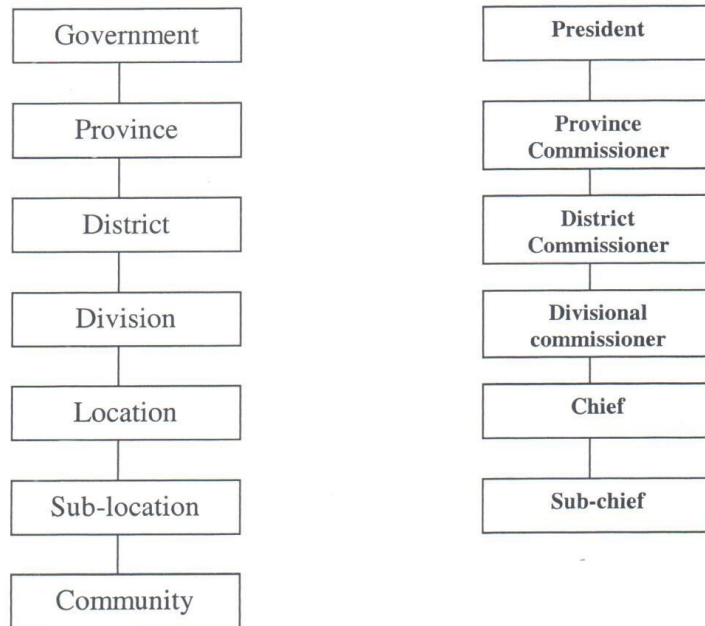


Figure 3.1: Hierarchical structure and representatives of the different levels.

3.1 Administrative and political units⁷

Kitui District is divided into eight administrative divisions: Central, Chuluni, Mutitu, Mutomo, Yatta, Kabati, Mwitika, and Ikutha. These divisions are further sub-divided into 38 administrative locations and 134 sub-locations. The district has four constituencies and four Members of Parliament. There are two local authorities namely County Council and Municipal Council of Kitui. The County Council has 20 wards, while there are 16 Municipal Council wards. All the 16 Municipal Council and 20 County Council wards are represented by elected councillors.

3.2 Supporting development institutions

The following committees and institutions play an active role in the implementation and the execution of the policy plans:

- District Development Committee and its sub-committees
The DDC, which is entrusted with the overall responsibility of identifying development needs in the district, meets four times in a year. However, there have been cases where the committee has met more than the four times due to urgent issues coming up.
The DDC has down some supporting sub-committees, which deal with the technical support of all development activities in the district, like the District Executive Committee, Special Purpose Sub-

⁷ Socio-economic profiles, June 1990, Chapter 3: Kitui District, page 50 & Kitui District development plan 1997-2001, 2000

Committee and the District Planning Unit. These committees meet as required and are fully functional. There are also lower level committees i.e. at the division, location, and sub-location level, which are responsible for selecting and making priorities from the community level.

- District Executive Committee

The DEC is the technical arm of the DDC and is charged with the responsibility of providing technical advice to the DDC with activities including preparation of development plans, management and implementation of projects and programmes.

- Special Purpose Sub-Committee

These are special purpose development related committees which act as sub-committees to the DDC. They include the District Agricultural Committee, District Water Board, Land Control Board, District Teachers Advisory Centre Management Committee, Public Health Management Board, the recently launched District Social Dimensions of Development Committee among others.

- District Planning Unit

The DPU is quite active in the district and has continued to provide the secretariat services to the DDC and DEC effectively. This is evident from the regular DDC and DEC meetings held and the preparation of the Annual Annexes, project documents and reports.

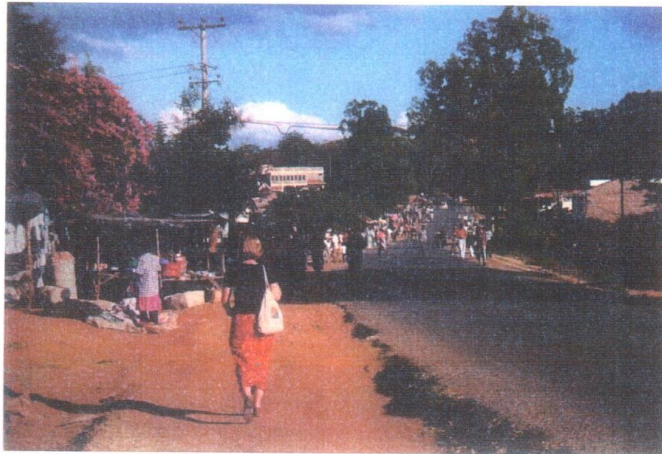


Figure 3.2: On the road in Kitui town

3.3 Local authorities

The district has two local authorities namely Kitui County Council and Kitui Municipal Council

- The Kitui County Council

This council is charged with the responsibility of refuse collection in all major towns and markets district-wide. The council also provides education facilities, bursaries and training of pre-primary schoolteachers. The council is also actively involved in the maintenance of feeder roads in high agriculture production areas within the district. Other responsibilities of the council include population control, pollution control, women groups affairs and self help schemes.

- Kitui Municipal Council

This council serves a population of 72,000 inhabitants in Kitui Town and its outskirts. The most critical issues the council addresses include water supply to Kitui Town and its environs, street lighting, industrial workshops and Jua Kali garages, shelter for the fast growing population community, facilities such as pre-primary, primary, secondary schools and polytechnics. Plans are underway to construct a library, social hall, town hall and the Kitui Town stadium.

3.4 Voluntary Agencies

In the district, there are at least 18 NGOs engaged in various development activities and services. They cover a wide range of development activities and services such as provision of water, education, health, family planning and manpower training and housing programmes. These NGOs are operating through all the organs of DDC. They are ad-hoc members of the DDC and attend DDC meetings. Planning and implementation of projects and programmes are done according to the guidelines stipulated in the District Focus for Rural Development Strategy.

3.5 KAP

Kitui Agricultural Project (KAP) is the successor to Kitui Integrated Development Project (KIDP), a DANIDA funded project that operated in the District until June 1997. KAP started a new phase in January 1998 with a five-year budget. DANIDA is an association with the Kenyan Government and the Government of Denmark, which finances agricultural projects.

3.6 Community & committee members

The community members are the people who are living in the villages, the population. They live there and they have to undertake projects to develop their environment.

A committee undertakes a project to develop an area. Several community members take place in the committee. The target of a committee is to co-ordinate a project that has to be undertaken, and make sure that the project ends successfully.

4 Policy Plans

In this chapter, an overview of the most important policy plans of the different hierarchical levels of Kenya towards development in the area, Kitui District, are given. Most of the information of the policy plans is obtained from the District Information and Documentation Centre (DIDC) in Kitui town.

In chapter 8 those plans will be compared with the information of the questionnaires taken to governmental officials of District and Divisional level and the community and committee members at the lowest levels. In chapter 8 also the way of formulating and implementing policy plans will be discussed and some recommendations will be given.

4.1 Governmental policy plans

The central Government is the only hierarchical level that is in charge of formulating the policy plans, so the Government also formulates the policy plans of lower levels. In this paragraph an overview will be given of the policy plans made for the central level.

On Governmental level very few policy plans are made which are of importance for Kitui District particularly. Most of the governmental policy plans concern national matters like national security. The only governmental policy plan of some importance is in charge of water supply, but dates back from 1990.⁸

The Government's objective is to supply clean and safe drinking water to all Kenyans by the year 2000. Because data on access to clean and safe drinking water has not been generated, it is difficult to measure the progress already made towards attaining this objective. The effort made by the Government to improve the water situation in the country is reflected in the public budgetary outlays on water development. Both rural and urban water supply schemes have received good attention over the years. In addition to the Government's effort, Kenyan communities themselves have played a very significant role in improving the water situation through construction of self-help water supplies.

4.2 District's policy plans

The Kitui District Development Plan⁹ is a policy plan aimed at whole Kitui District. The Government has formulated policy plans for all districts. The contents of the Kitui District Development Plan is extracted from this plan, so it contains only for the district relevant and important information. This paragraph gives an overview of this plan by noticing the development strategies and the specified objectives.

4.2.1 Development strategies

The strategies for Kitui District will be implemented under the guidance of the District Development Committee in close liaison with the Divisional, Locational and Sub-Locational Development Committees as stipulated in the District Focus for Rural Development Strategy.

The, in the light of this investigation, important strategies concern the improvement of the infrastructural facilities. The first strategy concerns the water supply. The district is well endowed with sufficient ground and subsurface water resources that are not yet fully tapped. These will be tapped through the concerted efforts of the community, GOK, NGO, and donors. This will be implemented throughout the district through rehabilitation, construction of boreholes, desilting of sub-surface dams and shallow wells along river Nzeeu. Effort would be made to rehabilitate the stalled Nzeeu-Ungatu pipeline and the water supply of Tiva-Mutomo, Mutitu and Athi-Yatta. Training of water user committees on operations and maintenance will be enhanced over the plan period.

The second strategy concerns the communication within the district. To solve the communication problem, the main road will be asphalt, while other important roads will be gravelled. Rural access roads and minor roads will also be constructed in high and medium potential areas. Modern road maintenance equipment will be procured and the existing old equipment and machines will be

⁸ Socio-economic profiles, June 1990, Chapter 1: Introduction, page 11

⁹ Kitui District Development Plan 1997-2001, 2001

rehabilitated. The improvement of the roads will facilitate marketing of agriculture and livestock products.

4.2.2 Specified objectives

This sub-paragraph provides the objectives of the district to achieve industrial transformation. This transformation calls for overall growth in all sectors of the economy, particularly a dynamic agriculture sector and an expanded market for the industrial products. The government will continue to provide infrastructure, where possible, so as to create an enabling environment for the private sector to participate fully in industrial transformation of the district. Attention will also be paid to ensuring that the issues of poverty are addressed so that all members of the community are allowed to actively participate in development.

For the sector Agriculture, Livestock Development and Marketing a lot of objectives are formulated. The main objectives of the sector are:

- providing the farmers with the necessary education and extension messages for promotion of crop production, soil and water conservation and efficient land use;
- promoting to increase the range of food crops and production of export crops, and those crops that provide raw materials for local industries;
- increase livestock production both for domestic consumption and export to generate foreign exchange to enable the country acquire capital goods for industrialisation.

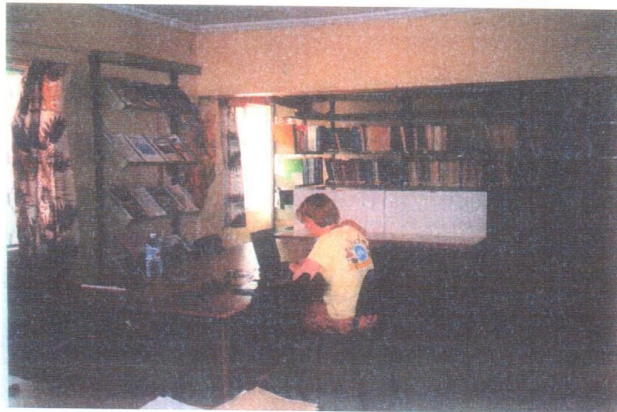


Figure 4.1: Research of literature in the District Information and Documentation Centre (DIDC)

For the sector Land Reclamation, Regional and Water Development the objective is as well to rehabilitate the stalled water structures, and site and construct new water points to enhance availability of water to all citizens, as to train water committee members on project sustainability and water management. This objective is to be realised through:

- development and distribution of sufficient and safe water to all rural and urban areas of the country for domestic, agriculture, livestock and industrial use;
- monitoring and assessment of water quality in order to protect consumers from the danger of pollution of water resources;
- encouraging the beneficiaries to be involved in the planning, implementation operation and maintenance of water supplies.

For the sector Local Government the objective is to ensure the provision of basic education, recreational facilities and garbage collection. This objective is to be realised through:

- promote policies that avoid excessive concentration of population in the large cities by promoting vigorous growth of secondary towns and smaller urban centres;
- strengthen managerial and financial capacity of local authorities to formulate policy, manage authority manpower and resources, and carry out the design, implementation and management of infrastructure investment, as well as ensure that adequate funds are made available to complete projects on time;
- improve the capacity of local authorities to provide municipal services on a sustainable basis by broadening utilities and realistic pricing of urban services.

For the sector Information and Broadcasting one of the objectives is to facilitate the efficient flow of information throughout the country.

4.3 Division's policy plans

In our investigation no policy plans for Central Division and Chuluni Division are found. It is possible that those plans do not exist, because they were not available at the District Information and Documentation Centre. Also KAP (Kitui Agricultural Projects) did not have the concerning information, although the librarian of the DIDC directed us to them. Therefore, the policy of the divisions will rely on the District Development Plans.

5 Questionnaires

To investigate the knowledge about policy plans, the procedure for undertaking projects, the procedure for formulating their own policy plans, the procedure for implementing policy plans, and the problems they experience by undertaking this, we have interviewed a lot of people in different circumstances. In 26 sub-locations where SASOL built sand dams the last 10 years, some sand dam committee members and community members are interviewed. Besides, at 2 locations without sand dams at this moment some community members, committee members (of a random committee) and (assistant)-chiefs are interviewed.

The results of the questionnaires are most of the times presented in percentages, averages and standard deviations¹⁰. To compare this information with information of higher levels, also some governmental officials of district level (Kitui District) and divisional level (Central Division and Chuluni Division) will be interviewed. These results will be discussed in chapter 6. The comparison of the results of all questionnaires on different levels will be discussed in paragraph 5.4 and in paragraph 5.5 some conclusions will be represented.

5.1 Committee members

Committee members are community members who serve on a committee within their own community. These committees are instituted to organise the undertaking of a project, for example building a dam or a school.

5.1.1 Sand dam committee member

The questionnaire, which is presented in appendix I, is taken to 52 sand dam committee members at 26 different areas with sand dams in Central and Chuluni Division, Kitui District. When a sand dam is going to be built, a sand dam committee will be formed, which consists of community members of that area. They are organising the construction of the sand dam.

All sand dams at which committee members are interviewed, are constructed between 1997 and 2000. SASOL came up with the idea to build a sand dam, according to 98%, one member said the community came with the idea itself, but the community decided itself that the sand dam was going to be built.

The range of the time it took between SASOL came with the idea and the committee was formed, is 1 till 14 days, but the mean time is 3.2 days with a standard deviation of 2.9. The time it took to form the committee till the start of the construction varies from 1 till 32 weeks, but the mean time is 2.8 weeks with a standard deviation of 4.2.

Most of the sand dam committee members say they are elected by the community (48%), but also a lot are nominated by the community (40%). The remaining members (12%) say the community selects them.¹¹ A committee exists of 7 till 18 members, with an average of 12.4 persons and a standard deviation of 1.5. There are various functions performed in a committee, the chairman or chairlady is identified by everybody (though only one chairlady) and the vice-chairman (no vice-chairlady) by 77%. The secretary is also identified by all members, the vice-secretary by 69%. The treasurer is mentioned by 96% and the trustee by 54%. No other posts are identified, the others are just members. The chairman of the committee also holds another position in the community, according to 27%. 42% says the chairman was also the chairman of a clan, 29% says the chairman was also a chairman of another committee and the remaining 29% says the chairman was also a preacher.

The old water resource was used by 10 till 400 households with an average of 57.6 households and a standard deviation of 58.1, according to 83% of the respondents. 87% of the committee members

¹⁰ If the standard deviation divided by the average is less than 0.1, it can be concluded that the average is valid for all respondents.

¹¹ Nomination means that the community points which members are capable for the committee, election means that the committee members have made themselves available and the community votes who are in the committee and who not, and selection means that the community discusses and votes who are capable.

undertook average 2.3 trips per person per day to the old water resource with a standard deviation of 0.6 and a maximum of 6 trips per person a day. The remaining 13% undertook average 1.4 trips per donkey per day to the old water resource, with a standard deviation of 0.5 and a maximum of 2 trips per donkey a day. No one undertook a trip per cart to the old water resource.

To reach this water resource the members had to go average 3.1 kilometres (standard deviation is 2.6) with a minimum of 0.3 and a maximum of 15 kilometres. To go this distance, it took them average 69 minutes (standard deviation is 48) with a minimum of 1 minute and a maximum of 180 minutes.

The sand dam is used by 5 till 6000 households with an average of 202 households and a standard deviation of 889, according to 89% of the committee members. 85% of the respondents undertake average 4.3 trips per person per day to the sand dam with a standard deviation of 1.2 trips and a maximum of 6 trips per person a day. 21% of the respondents undertake average 2.3 trips per donkey per day, with a standard deviation of 0.9 and a maximum of 6 trips a day. No one undertakes a trip per cart per day, but some persons undertake some trips per person and per donkey per day.

To reach the sand dam the members have to go average 1.3 kilometres (standard deviation is 1.0) with a minimum of 0.2 kilometres and a maximum of 4 kilometres. To go this distance, it took them average 38 minutes (standard deviation is 28) with a minimum of 3 and a maximum of 120 minutes. So through the construction of the sand dam the average distance to the nearest water resource is decreased with 58% and the time it takes to reach the water resource, is decreased with 45%.

Eight committee members (15%) say that there are people who do not use the sand dam, according to 63% of them because they have their own wells, according to 13% of them because they have another water resource nearby and the other 24% did not give a reason.

Three types of problems are distinguished. The first type is problems with the functioning of the committee. 10% of all committee members experienced the first type of problems, but only 8% identified the problems they experienced. Three members mentioned that other committee members showed up late or did not show up at all. One member also mentioned disagreement about money within the committee and one member said that committee members withdraw themselves. Three members would solve this problem by setting fines for people who do not co-operate and one member would solve the problem by talking about it with each other.

The second type is problems in the period before the construction of the sand dam started, which is experienced by 12% of all committee members. Five members (83%) experienced problems because of lack of knowledge, according three of them expressed in the unawareness of the advantages of a sand dam. One member had problems to mobilise people and one member experienced problems because they had to go far to get water for the building process. The problems because of lack of knowledge can be solved through education on how to build a sand dam and by organising a meeting to inform the community about the advantages. The problem with mobilising can be solved through setting fines. The member who experienced the problem with water did not know how to solve it.

The third type is problems during the construction of the dam, which is experienced by 71% of all sand dam committee members. All members who experienced some problems, experienced problems with co-operation. Besides, 5 respondents also experienced some other problems like lack of materials and lack of knowledge. For the problem of co-operation various reasons are mentioned, like community members run away, withdraw themselves or did not attend work at all (95%), and lack of food at the site and lack of money, so people had to search for work to get money (24%). The problem of co-operation can be solved by setting fines (59%), by organising meetings to motivate the community members (24%), by denying access to people who did not attend work (5%), and by using the chief's power to force people to work (14%). The problem of lack of food and lack of money can be solved by preparing food at the site (16%). 8% of the sand dam committee members was not able to suggest a solution to solve the mentioned problems.

If the sand dam committee members would again be nominated or (s)electd to a dam committee, 89% would act differently. 65% of them would act positively, because they now know the advantages of a sand dam and 54% would first solve the problems before starting the construction of the sand dam.

85% of all committee members said that at this moment some other projects are in progress, like road repair (36%), building a hospital (23%), building a school (21%), tree nursery (36%), a cattle shower (9%), a dispensary (14%) and constructing a well (5%). 16% of them mentioned that they have introduced self-help-groups to undertake several projects.

The mentioned projects are initiated by various persons and organisations, like the community itself (86%), the councillor (6.8%), the chief (34%), the assistant-chief (2%), the headman (5%), NGOs (11%), and self-help-groups (32%).

The needs of the community are known by 73% of the committee members. Those needs are for example water (55%), good roads or a good communication network (63%), a hospital (50%) and a school (48%).

Of those committee members who are aware of the community needs, 58% said they were also aware before they became a committee member. The needs they then knew are for example water (64%), good roads or a good communication network (14%), a hospital (9%), food (5%) and self-help-groups (5%). 18% said they knew about the community policy needs, but they did not have the power to do anything about it.

Those community needs are communicated to the chief (63%), the assistant-chief (45%), the District Officer (3%), the councillor (37%) and the headman (13%). To communicate those needs, meetings are organised to discuss problems and needs. Sometimes those meetings are also visited by responsible people like the headman, councillor, chief and assistant-chief, otherwise representatives of the community go to the responsible people to communicate their needs. The responsible people communicate the needs to the higher levels. Some respondents say they have also contact with the Location Development Committee to communicate their needs.

Most people think they communicate their needs to the right people (92%). Given reasons are, for example, they are the only ones available (22%), they are near to them because they are part of the community (8%), they are the ones who are there for them (5%) and they have elected those people for this purpose (14%). No reasons because of the capability of the responsible people were given.



Figure 5.1: Taking questionnaires

Although the majority thinks they communicate their needs to the right people (92%) and the majority has the idea something is done with the information they provide (57%), they are not really satisfied. Given reasons are; not all information is acted on (71%), it takes a long time before something is done (71%) and very little is done (14%). Lacking a chief and an assistant-chief is the main reason that nothing is done with the information they provide.

65% of all committee members said they communicate with other villages or communities about their community problems, according to 61% of them they talk about them in meetings, they only talk about them casually according to 24% and 36% said they talk about their problems, but without the intention to solve them.

Only 15% of all committee members knows something about policy plans in their community. These plans are formulated through meetings mostly organised by the chief, assistant-chief or headman, in which the community needs are discussed. It depends on the community if those meetings are organised at fixed moments or just as the needs arise. In some cases these meetings are also used to inform the community about governmental policy plans. One committee member says they form a committee of representatives of the community for the formulation of policy plans.

All committee members who are aware of community policy plans think that building a sand dam fits with those community policy plans and they also think that those community policy plans cover the needs of the community.

Of all committee members 14% is once consulted for any development plan. On sub-locational level by the chief or assistant-chief (57%), the headman (43%) and Divisional Development Committee (14%), on location level by the chief or assistant-chief (14%), and the headman (14%) and on divisional level by the chief or assistant-chief (14%). No one of all respondents is consulted by someone for development plans of a higher level.

Of all committee members 6% knows something about the policy plans of the different levels. On sub-location, location and division level plans are made for good roads or a good communication network, schools, hospitals, water (nearer), power, etc. On district, province and governmental level they hear sometimes about policy plans, but they do not see them implemented. One member knows of district level that people have to get more access to nearer water and there is need for a good communication network and one member knows of governmental level that in a couple of years all people have to get access to water.

Of all committee members 14% thinks that building a sand dam fits with the policy plans of different levels, mostly because Kitui is a (semi-)arid area, so there is need for water.

The community policy needs fit with the policy plans of different levels according to 12%. The other members do not know if they fit or think they do not fit.

Almost all committee members implement policy plans mostly by providing labour, materials and cash on different levels: on community level (85%), on sub-location level (75%), on location level (75%), on division level (67%), on district level (29%), on province level (8%) and on governmental level (6%).

All sand dam committee members gave suggestions to improve the formulation of policy plans. Of them 42% suggested that the community should work hand in hand with the Government and with themselves through the chief and assistant-chief, so that the community co-operates in discussing their needs so as to ease formulation of policy plans for their needs and 55% of them adds that they are now lacking an assistant-chief and a chief, so first the Government has to give them those administrative agents. 31% suggested that the members of the community have to co-operate to formulate their own policy plans and ways of implementing them and according to 44% of them after the formulation they have to let the Government know about their policy needs and according to 25% of them they have to be assisted by the Government when they are not able to formulate or implement those plans. 13% suggested that the community needs more knowledge on what is meant by formulation and implementation of policy plans by the governmental agents (chief and assistant-chief), so as to start formulating their own policy plans, which leads to the implementation of the policy plans. 6% suggested that the community should be involved in the policy plan formulation and implementation, not the Government alone. At least some suggestions all of 2% of the committee members: when the community can choose their own headman/chairman, who can translate their community needs, they can formulate their policy plans by co-operation, the community needs leaders who can influence them and who can organise them to make policy plans and set up a local development committee so as to formulate policy plans at the community level.

Most sand dam committee members suggest the same for improving the policy plans implementation, but some gave some complementary information. 12% suggested that the Government should get the information from the community on their policy plan needs before implementing. 2% suggested that the Government should put communities most pressing needs first when implementing policy plans, 2% suggested that the community has to be informed about the governmental policy plans, 2% suggested that the community should implement their own policy plans first before waiting for the Government to do it for them and 2% suggested that through a community development committee, it is much easier for the Government to implement policy plans.

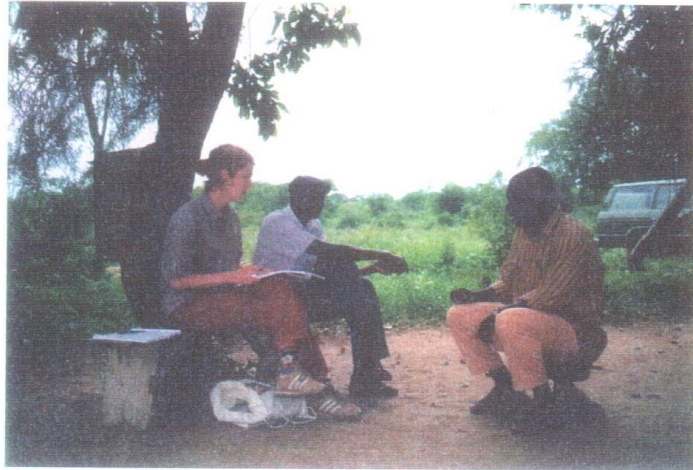


Figure 5.2: Taking questionnaires

Development officers are supposed to act on division, location and sub-location level. Of all committee members 29% knows they have to be there, but they have never seen them and are therefore not able to identify them. 15% was able to identify the Divisional Development Officer: the same person as the District Officer (50%), the chief (25%), a chairlady of some committee (25%) and an agricultural officer (13%). Besides, 10% was able to identify the Location Development Officer: the chief (20%), the assistant-chief (40%) and the person who gets the problems of the self-help-groups. Also 10% was able to identify the sub-Location Development Officer: a women-group development officer (20%) and an adviser for self-help-groups (20%).

At last all committee members placed some comments, among them: 62% would like to thank SASOL for constructing the sand dam, 10% remarked that the sand dam is leaking, so it needs repair, 25% said they need a well or another sand dam, because the water at the sand dam is not sufficient and 44% said they need other projects to develop their area.

Also some investigation on influencing effects or correlation between different questions is done. It turned out that few relations exist. All investigated effects are presented in appendix VIII, the most important ones are discussed here. It can be concluded that if there are problems before the construction of the sand dam starts, problems also arise during the construction. Problems with the functioning of the committee do not have any impact on the process before and during the construction of the sand dam.

Experiencing problems with the committee or before and during the construction of the sand dam is not the only reason to act differently when a member is nominated again, because all members who did not experience problems at all, said they would act differently next time.

5.1.2 Committee member in an area without sand dam(s)

The questionnaire, which is presented in appendix II, is taken to 9 committee members of various committees, for example a committee for building a school or a hospital, but especially not sand dam committee members, in Central Division, Kitui District.

The nearest water resource is according to all committee members a river and it is used by 50 till 5000 households with an average of 1007 households and a standard deviation of 1771, according to 78% of the respondents. 56% of the committee members undertake average 2.6 trips per person per day to the nearest water resource with a standard deviation of 0.6 and a maximum of 3 trips per person a day. Also 56% undertakes average 2.4 trips per donkey per day to the water resource, with a standard deviation of 0.6 and a maximum of 3 trips per donkey a day. At last, 22% undertakes 1 trip per cart per day to the water resource (standard deviation is 0).

To reach this water resource the members had to go average 5.6 kilometres (standard deviation is 2.9) with a minimum of 2 and a maximum of 10 kilometres. To go this distance, it took them average 112.9 minutes (standard deviation is 59.6 minutes) with a minimum of 40 and a maximum of 180 minutes.

All people use the nearest water resource, only one respondent answers that some people do not use it, because it is very far. Those people use the river at a distance of 15 kilometres instead of the nearest water resource at 10 kilometres. The time it takes is not identified.

The community itself comes up with the idea to undertake a project according to all members and one member (11%) adds that self-help groups also initiate projects. According to 89% the community also decides itself that the project is going to be undertaken, one adds that self-help groups also can and the remaining 11% says it is decided by the chief.

Most of the sand dam committee members say they are elected by the community (63%). Besides, they are nominated by the community (13%) and selected by the community (25%). A committee exists of 12 till 15 members, with an average of 13.1 persons and a standard deviation of 1.4.

There are various functions performed in a committee, the chairman and chairlady are identified by everybody (each by 50%, one identifies both), the vice-chairman by 22% and the vice-chairlady by 56%. The secretary and the treasurer are identified by all members, the assistant-secretary by 67%. The artisan is mentioned by one member (11%). No other posts are identified, the others are just members. The chairman of the committee also holds (sometimes) another position in the community, according to 67%. According to 50% of them, he holds also a position in another committee, but not necessarily as a chairman or chairlady and one adds (33%) the chairlady holds also a position at a clan.

Two types of problems are distinguished. The first type is problems with the functioning of the committee. 33% of all committee members experienced the first type of problems, according to 67% of them because of too little power of the chairman and according to 33% because of absence of the committee members. All members would solve this problem by discussions and one adds to invite the local administration and the councillors to advice.

The second type is problems in the period before the construction of the sand dam started, which is experienced by all committee members. 67% experienced problems because of lack of knowledge, 33% experienced problems with the community (according one member because of disagreement), 56% with co-operation, 89% because of lack of materials and 11% with the governmental organisation. The problems because of lack of knowledge can be solved through education (22%). According to 33% the problems can be solved through discussions. Some other solutions, all mentioned by 11%, are advice, provide materials, donation from NGOs or contribution of money and mobilisation or fine those who do not attend.

If the committee members would again be nominated or (s)electd to a committee, 88% would act differently. 43% of them would act positively, 13% would put more effort and 13% would mobilise the community to work effectively.

89% of all committee members said that at this moment some other projects are in progress, like road repair (63%), building a school (38%), tree nursery (38%) and goat rearing (25%). The mentioned projects are initiated by various persons and organisations, like the community itself (25%), NGOs (50%), community groups (13%) and the District Officer (13%).

The needs of the community are known by 89% of the committee members. Those needs are for example water (38%), good roads or a good communication network (25%) and planting trees (13%). Those community needs are communicated to the chief (63%), the assistant-chief (75%), the councillor (38%) and a non-governmental organisation (13%). To communicate those needs, meetings are organised to discuss problems and needs. Sometimes those meetings are also visited by responsible people like the headman, councillor, chief and assistant-chief, but in most cases representatives of the community go to the responsible people to communicate their needs. The responsible people communicate the needs to the higher levels. An other respondent says they are formulated through committee members and through the sub-Location Committee.

Most people think they communicate their needs to the right people (75%). Given reasons are, for example, they are near to them because they are part of the community (50%), they have the representatives of the people (33%) and it depends with the persons if it is the right person. No reasons because of the capability of those people were given. One respondent says it is not the right person because the people they communicate their needs to, lack many things to assist them.

Although the majority thinks they communicate their needs to the right people (75%) and the majority has the idea something is done with the information they provide (71%), they are not really satisfied. Given reasons are not all information is acted on (40%), it takes a long time before something is done (20%) and it is depending on the resources if something is done (20%). For one respondent it is not quite clear if something is done with the information.

All committee members said they communicate with other villages or communities about their community problems. According to 67% of them they talk about them in meetings and 11% said they communicate to educate each other and to discuss about those problems.

All committee members know something about policy plans in their community, like plans for schools, roads, tree nursery, pure water and poverty reduction. These plans are formulated through committee members according to 67%, through discussions with the assistant-chief or with groups are both mentioned by 11%.

Of all committee members who are aware of community policy plans 78% think that the current projects fit with the community policy plans, because there are a lot of projects wanted. Only one respondent thinks that the community policy plans cover the needs of the community, 67% says they do not cover, because their needs are so many.

Of all committee members 33% is once consulted for any development plan on sub-location level, 78% at location level (one respondent attends the Location Development Committee) and 11% on divisional and district level. No one of all respondents is consulted by someone for development plans of a higher level.

Of all committee members 55% know something about the policy plans on sub-location level, 78% on location level, 22% on divisional level and 11% on district level. Only 22% tell about plans for water and 11% about plans for schools, the other respondents do not explain the contains of the plans.

Of all committee members 44% think that the current projects fit with the policy plans of sub-location level, 67% of location level, 22% of divisional level and 11% of district level.

The community policy needs fit with the policy plans of different levels according to 33%. The other members do not know if they fit or think they do not fit.

All committee members implement policy plans mostly by providing labour, participation, materials and cash on different levels: on community level (100%), on sub-location level (89%), on location level (55%), and on division level (11%). Nobody implements policy plans on higher levels.

All committee members gave suggestions to improve the formulation of policy plans. Of them 56% suggested that the community should work hand in hand with the Government and with themselves through the chief and assistant-chief, so that the community co-operates in discussing their needs so as to ease formulation of policy plans for their needs. 44% suggested that the community needs more knowledge on what is meant by policy plans formulation and implementation through education and advice about the importance of policy plans and 11% suggested to introduce cost-sharing, so people are empowered.

Most committee members suggested the same for improving the policy plans implementation, but some gave some complementary information. These suggestions are all mentioned by 11%: meetings organised by chiefs to discuss about problems and to agree to undertake some projects, and assistance of NGOs with funds and with education of the poor or the co-operatives.

Development officers are supposed to act on divisional, location and sub-location level. All committee members say that there are no development officers, sometimes because they are not aware, sometimes because they do not see them. One respondent can tell something about the occupations of the development officers: they have to promote the division, to promote the location and to promote the sub-location.

At last all committee members placed some comments, among them: 67% said they need more water resources, 11% said they need other projects to develop their area and 11% said the Government has to send governmental officers to their community.

Also some investigation to influencing effects or correlation between different questions is done. It turned out that few relations exist. All investigated effects are presented in appendix VIII, the most important ones are discussed here. If the committee members have to go far to the water resource, they use a cart. In the other cases (going by themselves and going by donkey) the percentage of members who have to go far is more or less the same.

It can be concluded that if there are problems with the functioning of the committee, problems also arise by undertaking the project. Experiencing problems is not always a reason to act differently when a member is nominated again, because not all members who experienced problems, would act differently next time.

5.2 Community members

Community members are people who live in the villages. The community members have to assist when projects are undertaken.

5.2.1 Community member in an area with sand dam(s)

The questionnaire, which is presented in appendix III, is taken to 26 community members at 26 different areas with sand dams in Central and Chuluni Division, Kitui District. A community member lives near the sand dam (in the sub-location where the sand dam is built) and assisted with the building process, but did not take place in the sand dam committee.

All interviewed community members farm vegetables and fruits: beans and maize by everybody, grams (4%), millet (15%), cowpeas (89%), sorghum (46%) and others like peas and cassave (65%), and all keep animals: goats (71%), chicken (71%), cattle (56%) and other (6%) for which they have to use water.

All sand dams at which community members are interviewed, are constructed between 1997 and 2000. SASOL came up with the idea to build a sand dam, according to 96%, one member did not

know, and the community decided itself that the sand dam was going to be built (92%), one member said SASOL decided and an other member (both 4%) said the assistant-chief did.

The range of the time it took between the idea was brought and the committee was formed, is 1 till 7 days, but the mean time is 2.8 days with a standard deviation of 1.5. The time it took to form the committee till the start of the construction varies from 1 till 4 weeks, but the mean time is 2.2 weeks with a standard deviation of 0.9.

According to 48% of all community members the members of the sand dam committee are elected by the community, but also a lot are nominated by the community (40%). The remaining members (12%) say the community selects them. A committee exists of 6 till 16 members, with an average of 12.0 persons and a standard deviation of 1.7. There are various functions performed in a committee, the chairman is identified by everybody (though no chairlady) and the vice-chairman (no vice-chairlady) by 85%. The secretary is identified by all members except one (96%), the vice-secretary by 65%. The treasurer is mentioned by 92% and the trustee by 46%. One member also mentioned the artisan (4%), the others are just members. The chairman of the committee also holds another position in the community, according to 27%. 43% says the chairman was also the chairman of a clan, 43% says the chairman was also a chairman of another committee and the remaining 14% says the chairman was also a preacher.

The houses are situated average 2.6 kilometres from the river with a standard deviation of 1.8 and a minimum of 0.02 and a maximum of 5 kilometres and it takes them average 64.4 minutes to reach the river with a standard deviation of 47.5 and a maximum of 150 minutes.

The old water resource is situated average 2.9 kilometres from their houses with a standard deviation of 1.7, a minimum of 0.1 and a maximum of 5 kilometres. To reach the old water resource it took them average 72.2 minutes with a standard deviation of 46.7, a minimum of 5 and a maximum of 180 minutes. 84% of the community members undertook average 2.4 trips per person per day to the old water resource with a standard deviation of 1.0 and a maximum of 6 trips per person a day. The remaining 16% undertook average 1.3 trips per donkey per day to the old water resource, with a standard deviation of 0.5 and a maximum of 2 trips per donkey a day. No one undertook a trip per cart to the old water resource.

12% of all community members had got some influence where the sand dam was situated, all people are satisfied with the way the site was selected. 96% of the community members is using the sand dam, one member has a well at home, so does not use it. The houses are situated average 2.9 kilometres from the sand dam with a standard deviation of 2.0 and a minimum of 0.01 and a maximum of 9 kilometres and it takes average 66.6 minutes to reach the sand dam with a standard deviation of 38.9 and a maximum of 120 minutes. 84% of the respondents undertake average 8.9 trips per person per day to the sand dam with a standard deviation of 21.0 and a maximum of 100 trips¹² per person a day. 16% of the respondents undertake average 2.6 trips per donkey per day, with a standard deviation of 0.5 and a maximum of 3 trips a day. No one undertakes a trip per cart per day.

So through the construction of the sand dam the average distance to the nearest water resource is not decreased, but the time it takes to reach the water resource, is decreased with 7.8%

Three types of problems are distinguished. The first type is problems with the functioning of the committee. 4% of all community members experienced the first type of problems, because the chairman had too little power, there was disagreement between the participants. The community member who experienced this problem did not give a solution for this problem.

The second type is problems in the period before the construction of the sand dam started, which is experienced by 12% of all committee members. 33% of them experienced problems because of lack of knowledge and 67% experienced problems with the co-operation. SASOL informing the people about the advantages can solve the problem because of lack of knowledge. The problem with co-operation can be solved by motivating the people by some means or by using the power of the chief taking something of the people who do not attend.

¹² 100 trips per day were undertaken by someone who lives near the sand dam and just planted some vegetables, so he needed a lot of water for irrigation.

The third type is problems during the construction of the dam, which is experienced by 62% of all sand dam community members. All members (except one) who experienced some problems, experienced problems with co-operation; community members run away or withdraw themselves (56%) and community members did not attend work at all (50%). Besides, one respondent experienced some problems because of lack of materials (stones) and one member (6%) experienced problems because of lack of food.

The problem of co-operation can be solved by setting fines (81%), by organising meetings to motivate the community members (13%), by denying access to the sand dam to people who did not attend work (6%), and by using the chief's power to force people to work (13%). 13% of the sand dam community members were not able to suggest a solution to solve the mentioned problems.

If the community members would be nominated or (s)elected to a dam committee, 73% would act differently. 74% of them would act positively, because they now know the advantages of a sand dam and 16% would first solve the problems before starting the construction of the sand dam.

77% of all community members said that at this moment some other projects are in progress, like road repair (35%), building a hospital (15%), building a school (25%), tree nursery (40%), a dispensary (20%) and constructing a well (10%). 10% of them mentioned that they have introduced self-help-groups to undertake several projects.

The mentioned projects are initiated by various persons and organisations, like the community itself (70%), the councillor (25%), the chief (30%), the assistant-chief (5%), the headman (5%), NGOs (30%), and self-help-groups (45%).

The needs of the community are known by 72% of the community members. Those needs are for example water (50%), good roads or a good communication network (83%), a hospital (61%), a school (22%) and food (17%).

Those community needs are communicated to the chief (50%), the assistant-chief (33%), the councillor (28%), the headman (28%) and SASOL or other NGOs (11%).

To communicate those needs, meetings are organised to discuss problems and needs. Sometimes those meetings are also visited by responsible people like the headman, councillor, chief and assistant-chief, otherwise representatives of the community go to the responsible people to communicate their needs. The responsible people communicate the needs to the higher levels. Some respondents say they have also contact with the Location Development Committee to communicate their needs.

Most people think they communicate their needs to the right people (78%). Given reasons are, for example, they are the only ones available (43%), they are near to them because they are part of the community (29%) and they are the ones who are there for them (36%). No reasons because of the capability of those people were given. The community members who think they do not communicate to the right people, communicate their needs to various persons.

Although the majority thinks they communicate their needs to the right people, the majority has the idea nothing is done with the information they provide (60%). Given reasons are not all information is acted on (71%), it takes a long time before something is done (50%) and very little is done (20%). Of the community members who have the idea nothing is done, 70% has said they communicate their needs to the right people.

58% of all community members said they communicate with other villages or communities about their community problems, according to 53% of them they talk about them in meetings, they only talk about them casually according to 33% and 33% said they talk about their problems, but without the intention to solve them.

Only 12% of all committee members know something about policy plans in their community. The community members are not really able to tell how these plans are formulated, but they formulate them with the community when needs arise.

All committee members who are aware of community policy plans think that building a sand dam fits with those community policy plans, because the area lacks water, and 66% also think that those community policy plans cover the needs of the community, because they discuss their needs before they formulate the plans with the whole community.

Of all community members 15% is once consulted for any development plan: on sub-location level by the assistant-chief (25%), the headman (50%) and sub-Location Development Committee (25%) and on location level by the chief. No one of all respondents is consulted by someone for development plans of a higher level.

Of all community members 12% knows something about the policy plans of the different levels. On sub-location and location level plans are made for schools, hospitals, food, church and planting trees. Nobody knows something of plans of higher levels.

Of all community members 8% thinks that building a sand dam fits with the policy plans of different levels, mostly because Kitui is a (semi-)arid area, so there is need for water, but only until district level they know.

The community policy needs fit with the policy plans of different levels according to one community member. The other members do not know if they fit or think they do not fit.

All sand dam community members gave suggestions to improve the formulation of policy plans. Of them 62% suggested that the community should work hand in hand with the Government and with themselves through the chief and assistant-chief, so that the community co-operates in discussing their needs so as to ease formulation of policy plans for their needs. 25% of them adds that they are now lacking an assistant-chief and a chief, so first the Government has to give them those administrative agents. The community should have its own policy plans according to 15%. The same amount suggested that there should be a committee of only community members, which concerns formulation and implementation of policy plans. 25% suggested that the community needs more knowledge on what is meant by policy plans formulation and implementation. 12% suggested that the community should be involved in the policy plan formulation and implementation. According to 8% the Government has to formulate and implement through agents. At least a suggestion of 4% of the community members: when the Government can get rid of multi-parties, so consists of one party, it would be very possible to implement the policy.

Most sand dam community members suggest the same for improving the policy plans implementation, but some gave some complementary information, all suggestions are mentioned by one member (6%). The Government should get the information from the community on their policy plan needs before implementing, the Government should put communities' most pressing needs first when implementing policy plans, the community has to be informed about the governmental policy plans and the start of implementation, and the community does not have enough money to implement, so they need money.

Development officers are supposed to act on divisional, location and sub-location level. Of all committee members 15% really know they are there. The Divisional Development Officer is the same person as the District Officer (25%) and an agricultural officer (75%), also occupied with forest according to one member. The Location Development Officer is the same person as the chief and the sub-Location Development Officer is the same person as the assistant-chief.

At last all committee members placed some comments, among them: 58% would like to thank SASOL for constructing the sand dam, 12% said they need a well or another sand dam, because the water at the sand dam is not sufficient and 54% said they need other projects to develop their area.

Also some investigation to influencing effects or correlation between different questions is done. It turned out that few relations exist. All investigated effects are presented in appendix VIII, the most important ones are discussed here. If there are problems experienced with the functioning of the committee or before the construction starts, problems are also experienced in the after phases. It has to be remarked that those data are based on very little respondents.

Experiencing problems is not the only reason to act differently when a member is nominated or (s)lected for a sand dam committee, because 70% of all members who did not experience problems, said they would act differently

5.2.2 Community member in an area without sand dam(s)

The questionnaire, which is presented in appendix IV, is taken to 10 community members in areas where no sand dams are built in Central Division, Kitui District. Those community members can be everyone living in the meant area without sand dams and not attending any committee.

All interviewed community members farm vegetables and fruits: beans and maize by everybody, grams (56%), millet (67%), cowpeas (89%), sorghum (67%) and others like cassava, cotton and pumpkins (33%), and all except one keep animals: sheep (75%), cattle and goats (both 100%), chicken (88%) and bees (63%) for which they have to use water.

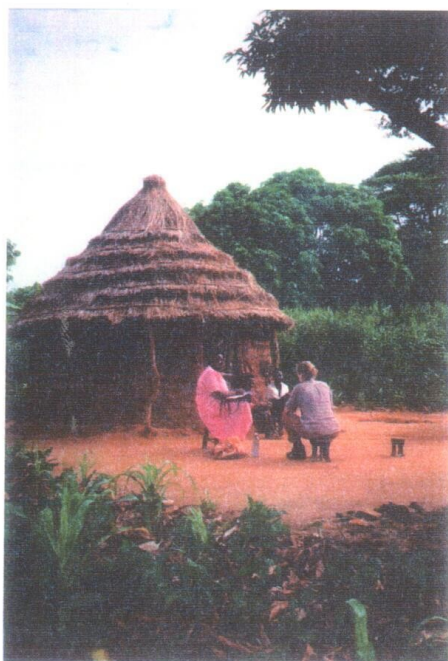


Figure 5.3: Taking questionnaires

The nearest water resource is according to all community members a river and all members use this water resource to fetch their water. The river itself, so not the water resource as a matter of course, is average 4.1 kilometres away from their houses, with a standard deviation of 2.0, a minimum of 2 and a maximum of 6 kilometres. The time it takes to reach the river is average 134.2 minutes with a standard deviation of 74.3, a minimum of 45 and a maximum of 240 minutes.

To reach the nearest water resource the members have to go average 5.1 kilometres (standard deviation is 2.9) with a minimum of 2 and a maximum of 10 kilometres. To go this distance, it took them average 104.2 minutes (standard deviation is 61.5 minutes) with a minimum of 45 and a maximum of 180 minutes.

80% of the committee members undertake average 1.8 trips per person per day to the nearest water resource with a standard deviation of 1.0 and a maximum of 3 trips per person a day. Also 70% undertake average 1.6 trips per donkey per day to the water resource, with a standard deviation of 0.5 and a maximum of 2 trips per donkey a day. At last, 10% undertake 1 trip per cart per week to the water resource (standard deviation is 0).

The community itself comes up with the idea to undertake a project according to all members and one member (11%) adds that self-help groups also initiate projects. According to 89% the community also decides itself that the project is going to be undertaken, one adds that self-help groups also can and the remaining 11% says it is decided by the assistant-chief.

The range of time it took between the idea was brought and the committee was formed, is 4 till 14 days, the mean time is 7.9 days with a standard deviation of 4.6. The time it took to form the

committee till the start of the project varies from 1 till 4 weeks, the mean time is 2.4 weeks with a standard deviation of 1.1.

According to 78% of the community members, the members for a committee are elected by the community. The remaining 22% said they are nominated by the community, nobody said they are selected by the community. A committee exists of 12 till 15 members, with an average of 13.6 persons and a standard deviation of 1.5.

There are various functions performed in a committee, the chairman is identified by everybody, 20% also mentioned the chairlady. The vice-chairman and the vice-chairlady are mentioned both by 40%. The secretary is identified by 90% and the assistant-secretary by 50%. The treasurer is mentioned by 80%. No other posts are identified, the others are just members. The chairman of the committee also holds another position in the community, according to 60%. Only one respondent said he hold also a position in another committee, but not as a chairman, the others did not specify the position.

Two types of problems are distinguished. The first type is problems with the functioning of the committee. 80% of all committee members experienced the first type of problems, according to 25% of them because of too little or too much power of the chairman, 38% of them experienced problems because of disagreement, 13% because of corruption and 25% because of poor attendance. Of all members who experienced some problems 38% would solve this problem by discussions, 13% would invite the local administrators advice, 13% suggested education or seminars and 13% said that agreement with each other would be a solution.

The second type is problems by undertaking a project, which is experienced by 90% of all committee members. 44% experienced problems because of lack of knowledge, 33% experienced problems with the community, 33% experienced problems with the co-operation and 56% because of lack of materials. The problems because of lack of knowledge can be solved through education, training or advice (22%). According to 11% the problems can be solved through discussions and providing materials would be a solution according to 11%.

If the community members would be nominated or (s)electd to committee, all would act differently. 20% of them would act positively, 20% would put more effort and 10% would minimise the differences. The other members did not specify in what way they would act differently.

All community members said that at this moment some projects are in progress, like road repair (20%), building a hospital (10%), building a school (20%) and tree nursery (30%). 10% of them mentioned that they have also some projects initiated by KAP/FDA.

The mentioned projects are initiated by various persons and organisations, like the community itself (70%) and the chief (10%).

The needs of the community are known by all community members. Those needs are for example water (20%), good roads or a good communication network (20%), assist one another or self-help groups (30%) and environmental conservation (10%).

Those community needs are communicated to the chief (80%), the assistant-chief (100%), the District Officer (10%), the councillor (30%), the headman (10%), the village elder (10%) and a NGO (30%).

To communicate those needs, meetings are organised to discuss problems and needs, sometimes they first form a committee to discuss. After the needs are discussed, the responsible people communicate them to higher levels. One respondent says they have also contact with the development committee to communicate their needs.

All members think they communicate their needs to the right people and all members (one member did not answer this question) have the idea something is done with the information they provide, although 20% adds that some information is acted on. Given reasons: it is the right person are, for example, they are the ones who help us (10%) and they are near to them because they are part of the community (30%). No reasons because of the capability of the representatives were given.

All community members communicate with other villages or communities about their community problems, according to 60% of them they talk about them in meetings, the other members did not specify in which way they talk about it.

All community members know something about policy plans in their community, like policy plans for water (30%), schools (20%), road repair or a good communication network (40%) and agricultural development (20%). The policy plans are formulated through discussions with the committee members

60% of all community members think that the current projects fit with those community policy plans and 20% of all community members think the community policy plans cover the needs of the community.

Of all community members 50% is once consulted for any development plan, only on sub-location and on location level. No one of all respondents is consulted by someone for development plans of a higher level.

Of all community members 70% knows something about the policy plans of the different levels, but only on sub-location and location level, like policy plans for water (43%), road repair or a good communication network (29%) and soil conservation (29%). Nobody knows something of plans of higher levels.

Of all community members 30% thinks that the current projects fit with the policy plans of sub-location and location level.

The community policy needs fit with the policy plans of different levels according to 70% of all community members, but only for sub-location (100%) and location level (86%). Two members (20%) say it also fits on the higher levels. The other members do not know if they fit or think they do not fit.

All sand dam community members gave suggestions to improve the formulation of policy plans. Of them 40% suggested that the community should work hand in hand with the Government and with themselves, so that the community co-operates in discussing their needs so as to ease formulation of policy plans for their needs. 20% suggested that the community needs more knowledge on what is meant by policy plans formulation and implementation. The remaining 40% suggested cost sharing of the different projects.

Most sand dam community members suggest the same for improving the policy plans implementation, the only complementary suggestion is improvement through discussions by 30% of all community members.

Development officers are supposed to act on divisional, location and sub-location level. Of all community members 20% know the Divisional Development Officer and 10% know the Location Development Officer. All community members say there is no development officer on sub-location level. Nobody was able to give any information about the occupations of the development officers.

At last all community members placed some comments, among them: 60% said they need more water resources, 40% asked for assistance for other projects to develop their area and they need training, materials and money (10%).

Also some investigation to influencing effects or correlation between different questions is done. It turned out that few relations exist. All investigated effects are presented in appendix VIII, the most important ones are discussed here. If problems are experienced with the functioning of the committee, problems also arise by undertaking the project. Experiencing problems is not the only reason to act differently when a member is nominated or (s)electd for a sand dam committee, because all members would act differently next time. It can be concluded that the community members communicate their needs to the right people, also because they have the idea something is done with the information they provide.

5.3 (Assistant)-chiefs

Chiefs and assistant-chiefs are administrative persons who organise meetings in the community. They are part of the community as well.

5.3.1 Chief

It was meant that the chief of Maliku location and Katulani location were interviewed. Unfortunately, the chief of Katulani did not show up at the appointment, so the results of the questionnaire for chiefs only exist of the answers of the chief of Maliku. The questionnaire is presented in appendix V.

The nearest water resource is a river and it is used by around 300 households. He undertakes 1 trip per donkey per day to the water resource. To reach this water resource he has to go 14 kilometres, which takes him 240 minutes. All households use the nearest water resource.

The community itself comes up with the idea to undertake a project and also decides itself that the project is going to be undertaken.

A committee is elected by the community and exists of around 12 members. There are various functions performed in a committee, the chairman, the vice-chairman, the secretary, the assistant-secretary and the treasurer. No other posts are identified, the others are just members. The chairman of the committee does not hold another position in the community.

Two types of problems are distinguished. The first type is problems with the functioning of the committee, the chief did not experience this problem. The second type is problems by undertaking a project. The chief experienced problems because of lack of knowledge and problems with the community. The problems with the community could be solved through encouragement or motivation. The problems because of lack of knowledge could be solved through education on project matters. If the chief would be nominated or (s)electd to a committee, he would act differently, because he would act positively towards the achievement of water which is life.

At this moment some other projects are in progress, like building a school, repairing roads and self-help-groups. The mentioned projects are initiated by the community itself.

The needs of the community are for example good water, good transport, good schools and good health. Those community needs are communicated to the District Officer, the councillor and the church elders. To communicate those needs, delegates are appointed by the community to communicate the needs to higher levels.

He thinks they are the right persons to communicate their needs to, because they are part of the community. He has the idea something is done with the information he provides, but not all information is acted on. They communicate with other villages or communities about their community problems through chief's barazas.

They have school development policies and women-group policies in his community. These plans are formulated through a committee. The current projects fit with the community policy plans and the community policy plans cover the needs of the community, it is not possible to cover all because there are many needs.

The chief is only consulted for any development plan on sub-location and location level and he only knows something about the policy plans on sub-location and location level. The current projects fit with the policy plans on sub-location, location and divisional level and the community policy needs fit with the policy plans of the same levels.

The chief implements policy plans of community, sub-location, location and division level through participation, attendance and contribution for e.g. schools, poverty reduction and soil conservation.

He would suggest improving the formulation through co-operation at all levels and through mutual understanding, and to improve the implementation through cost sharing, education and good administration.

Development officers are supposed to act on divisional, location and sub-location level. The chief is aware of all of them: the Division Development Officer is an agricultural officer, the same person as the DO, the Location Development Officer is the chief (so himself) and the sub-Location Development Officer is the assistant-chief.

His last comment is that water is all they need for more development in Maliku.

Because these results are based on only one respondent, no relations between questions are investigated.

5.3.2 Assistant-chief

It was meant to take questionnaires to 4 assistant-chiefs at two locations in areas without sand dams in Central Division, Kitui District. At Kavisuni location there were only 3 assistant-chiefs, so 7 assistant-chiefs could be interviewed as maximum. Unfortunately, two assistant-chiefs did not show up at the appointment. Therefore, this questionnaire, which is presented in appendix VI, is taken at five assistant-chiefs, but one was not able to give correct answer, so the results are based on the answers of four assistant-chiefs.

The nearest water resource is according to all assistant-chiefs a river and it is used by 120 till 5000 households with an average of 1837 households and a standard deviation of 2742, according to 75% of the respondents. 50% of the assistant-chiefs undertake average 1 trip per person per day to the nearest water resource (standard deviation is 0). 100% undertake average 1.8 trips per donkey per day to the water resource, with a standard deviation of 1.0 and a maximum of 3 trips per donkey a day. At last, 50% undertakes 4 trips per cart per week to the water resource with a standard deviation of 4.4 and a maximum of 7 trips.

To reach this water resource the members have to go average 9.3 kilometres (standard deviation is 3.4) with a minimum of 6 and a maximum of 14 kilometres. To go this distance, it takes them average 180.0 minutes (standard deviation is 103.9 minutes) with a minimum of 60 and a maximum of 240 minutes.

All people use the nearest water resource, only one respondent answers that some people do not use it, because it is very far, but he said those people use the river at a distance of 8 kilometres while the distance to the nearest water resource is also 8 kilometres. The time it takes is not identified.

All assistant-chiefs say that the community itself comes up with the idea to undertake a project and also decides itself that the project is going to be undertaken, one adds that chiefs and assistant-chiefs also can decide.

All assistant-chiefs say the committee members are elected by the community. A committee exists of 12 till 15 members, with an average of 14.3 persons and a standard deviation of 1.5.

There are various functions performed in a committee, the chairman and chairlady are identified respectively by all and by 75% of all assistant-chiefs, the vice-chairman by 50% and the vice-chairlady by 75%. The secretary and the treasurer are identified by all assistant-chiefs, the assistant-secretary by 50%. No other posts are identified, the others are just members. The chairman of the committee also holds (sometimes) another position in the community, according to 50%. One assistant-chief tells he holds also a position in another committee, but not as a chairman.

Two types of problems are distinguished. The first type is problems with the functioning of the committee. 50% of all assistant-chiefs experienced the first type of problems: disagreement within the

committee, according to one because of lack of leadership skills. One assistant-chief would solve this problem by discussions and the other one by training in leadership.

The second type is problems by undertaking a project, which is experienced by all assistant-chiefs. All experienced problems because of lack of knowledge, 50% experienced problems with the community, 25% experienced problems with the co-operation, 25% because of lack of materials and 25% with the governmental organisation. The problems because of lack of knowledge can be solved through education (22%). Some solutions are education (75%), creating awareness (50%), assistance through incentives from Government, NGO and others (75%), advice to the community (25%) and mobilisation of the community (25%).

If the assistant-chiefs would be nominated or (s)lected to a committee, 75% would act differently. 33% of them would act positively and 33% would put more effort. The assistant-chief who would not act differently said he does not because then he needs to receive training.

All assistant-chiefs said that at this moment some other projects are in progress, like building a school (50%), building a hospital (50%), tree nursery (25%), cattle deep (25%) and youth polytechnics (25%).

The mentioned projects are initiated by various persons and organisations, like the community itself (75%), self-help-groups (25%) and the headman (25%).

The needs of the community are known by all assistant-chiefs. Those needs are for example water (75%), good roads or a good communication network (50%) and storage of cereals (25%).

Those community needs are communicated to the chief (75%), the assistant-chief (75%), the councillor (50%) and a non-governmental organisation (25%). To communicate those needs, a committee is formed, they communicate through the chief or they write a letter with their needs.

Most people think they communicate their needs to the right people (75%). Given reasons are they are near to them because they are part of the community (33%) and they are the only ones available (67%). No reasons because of the capability of the representatives were given.

All assistant-chiefs have the idea something is done with the information they provide: they have a positive response (25%), but it takes a long time before something is done (25%) and it is depending on the resources if something is done (25%).

All assistant-chiefs said they communicate with other villages or communities about their community problems through chief's barazas.

All assistant-chiefs know something about policy plans in their community, like plans for schools, roads, clean water and a hospital. These plans are formulated through committee members according to 50% and through discussions with the community to 50%.

All assistant-chiefs think that the current projects fit with the community policy plans and 50% thinks that the community policy plans cover the needs of the community, it is not possible to cover all because there are many needs.

All assistant-chiefs are once consulted for any development plan on sub-location and location level. All assistant-chiefs know something about the policy plans on sub-location level and 75% know something about the plans on location level.

All assistant-chiefs think that the current projects fit with the policy plans on sub-location level and 75% thinks the same of location level, the other one says it also fits with policy plans of NGOs.

The community policy needs fit with the policy plans of different levels according to all assistant-chiefs on sub-location level and according to 75% on location level.

All assistant-chiefs implement policy plans mostly by mobilising people, providing labour, participation, materials and cash on different levels: on community level (75%), on sub-location level (100%), on location level (100%), on divisional level (50%), on province (50%) and on governmental level (25%).

All assistant-chiefs gave suggestions to improve the formulation of policy plans. Of them 50% suggested that the Government should educate and train the community with making policy plans, 25% suggested that the Government should advise the community, 25% suggested that the co-operation at all levels has to be better and 25% suggested to mobilise the community to form self-help-groups etc.

Most assistant-chiefs suggested something else for improving the policy plans implementation, so all suggestions are given. These suggestions are all mentioned by one assistant-chief: education of the community, cost-sharing and providing labour by the community, forming groups and working very close with them, and mobilising the community.

Development officers are supposed to act on division, location and sub-location level. All assistant-chiefs say that there is no development officer on divisional level, and 50% say there is a development officer on location and sub-location level. One respondent says the occupations of the development officers on (sub)-location level are creating awareness by the community. The other respondent says the development officer on location level is the same person as the chief and on sub-location level as the assistant-chief (so himself).

At last all committee members placed some comments, among them: 75% said they need more water resources, 25% said they would like to encourage more NGOs to start projects in their sub-location and 25% said lack of training is the stumbling-block.

Also some investigation to influencing effects or correlation between different questions is done. It turned out that few relations exist. All investigated effects are presented in appendix VIII, the most important ones are discussed here. Because all assistant-chiefs experienced some problems by undertaking a project, all respondents who experienced problems with the functioning of the committee, also experienced those problems. Experiencing problems is not always a reason to act differently, because not all assistant-chiefs who experienced problems, would act differently next time.

5.4 Comparison of all questionnaires

In this paragraph the questionnaires to the different groups will be compared with each other, and conclusions will be drawn out of this comparison. In total 102 questionnaires were undertaken to 52 sand dam committee members, to 26 community members in sand dam areas, to 9 no dam committee members, to 10 no dam community members, to 1 chief and to 4 assistant-chiefs. In those conclusions, the chief and the assistant-chiefs are often grouped together. Only the important and outstanding conclusions will be discussed, because all information of the individual groups can be read in the previous sections. In appendix VII an overview of all answers given by the respondents are presented in a master.

Every household farms beans and maize and 89% of the households farms cowpeas. The households in no dam areas keep more different kind of animals, none of the households in sand dam areas keeps sheep.

Most respondents in the no dam areas fetch water from the nearest water resource, which is in all cases a river. The number of households fetching water from this nearest water resource differs too much to give an average amount. The distance to the nearest water resource is according to the no dam committee members average 5.6 km, according to the no dam community members it is average 5.1 km, and according to the (assistant)-chiefs it is average 10.2 km.

To reach the nearest water resource it takes the no dam committee members average 113 minutes, the no dam community members average 104 minutes, and the (assistant)-chiefs average 192 minutes.

The number of trips per person per day undertaken to the nearest water resource is for the no dam committee members (56%) average 2.4, for no dam community members (80%) average 1.6 and for (assistant)-chiefs (40%) average 1.0. Some respondents use a donkey to reach the nearest water

resource and undertake according to the no dam committee members (56%) average 1.6 trips, according to the no dam community members (70%) average 2.4 trips and according to the (assistant)-chiefs (100%) average 1.6 trips per day. Few respondents undertake a trip per cart to the nearest water resource, 22% of the no dam committee members and 10% of the no dam community member undertake 1 trip per week and the (assistant)-chiefs (40%) undertake average 4 trips per cart per week.

As comparison, first the distance and number of trips to the old water resource and second the distance and number of trips to the sand dam will be given.

The distance to the old water resource is according to the sand dam committee and community members around 3 kilometres (3.1 km for committee members and 2.9 km for community members). To reach the old water resource it took both kind of members around 70 minutes, according to the sand dam committee members average 69 minutes and according to the sand dam community members average 72 minutes.

The number of trips undertaken to the old water resource was 2.3 trips per person per day for the sand dam committee members and 2.4 trips for the sand dam community members, both by around 85%. Around 15% of the members who used a donkey to fetch water undertook average 1.4 trips (committee members) and average 1.3 trips (community members) per day. No one undertook a trip per cart to the old water resource.

Almost all households use the sand dam, but the number of households using the sand dam differs too much to draw a conclusion. The distance to the sand dam according to the sand dam committee members is average 1.4 kilometres, according to the sand dam community members average 2.3 kilometres, which takes them 38 minutes (committee members) and 46 minutes (community members) to reach.

Around 85% of both members undertake average 4.3 trips per person per day (committee members) and average 8.9 trips (community members) to the sand dam and around 15% undertakes 2.3 trips respectively 2.6 trips per donkey per day. No one undertakes a trip per cart to the sand dam.

Comparing the data of the nearest water resource (no dam area) with the data of the old water resource (sand dam area) it can be concluded that the nearest water resource is further away (around 4 kilometres and around 65 minutes) than the old water resource. In the no dam area the respondents undertake less trips per person per day, but more trips per donkey per day to the water resource. Only in the no dam area a cart is used to fetch water.

Comparing the data of the old water resource with the data of the sand dam it can be concluded that the old water resource is further away (around 0.7 kilometres and around 30 minutes) than the sand dam, so building a sand dam has improved the situation. The number of trips undertaken to the sand dam is higher than to the old water resource, in both situations nobody used a cart.

Comparing the data of the nearest water resource with the data of the sand dam it can be concluded that the sand dam is much nearer (around 5 kilometres and around 100 minutes) than the nearest water resource in no dam areas. Also the number of trips undertaken to the water resource per person and per donkey per day is higher to the sand dam than to the water resource in no dam areas. The only difference is that in no dam areas also a cart is used to fetch water.

Therefore, it can be concluded that the nearer a water resource is, more trips to this water resource are undertaken. A reason can be that it is easier for them to fetch water, households have more time to fetch water more often. Only remark at those conclusions is that by undertaking the questionnaires, we experienced that people can often say more easily how long they have to walk to a water resource, than how much kilometres it is, but a lot of them think it hard to estimate both distances.



Figure 5.4: Market in Kitui town

We can conclude that in sand dam areas SASOL almost always came up with the idea to build a sand dam and in no dam areas the community always comes up with the idea to undertake a project. In both areas the community itself decides if a project is to be undertaken.

The time between the idea and forming the committee takes longer in no dam areas (around 5 days), than in sand dam areas. It is hard to draw a conclusion because in the no dam areas few community members are interviewed. The time between forming the committee and starting the project is for all groups more or less the same.

The majority of the respondents said that the committee is formed by election. In no dam areas more committees are elected than in sand dam areas (around 75%). The average number of committee members is around 13 persons. In sand dam areas the average number of committee members is a little bit lower (12 persons) than in no dam areas (14 persons), but it is more or less the same.

The differences between the groups for identifying posts in a committee are few. Everybody identifies a chairman or chairlady and around half of them identifies a vice-chairman or vice-chairlady as posts in a committee, although (vice)-chairladies are only identified in no dam areas. The secretary is identified by almost all respondents, while the assistant-secretary and the treasurer are identified by half of them. Few respondents identified the artisan and the trustee is a post only identified in sand dam areas, identified by around half of those respondents.

In the no dam areas, more than half of all chairmen hold another function in the community, while around 25% of the sand dam committee chairmen does.

In no dam area problems with the functioning of the committee are more often experienced than in sand dam areas. Generally, less than half of all respondents experienced any problems with the functioning of the committee. The experienced problems were poor attendance and little power, which are experienced in all kind of groups. Most respondents give as solution discussion.

To identify problems in the period before the sand dam was constructed is only asked in sand dam areas and is experienced by around 10%. The main kind of problem was the unawareness of the advantages of the sand dam in advance. Organising a meeting to inform the community about the advantages can solve this problem. Also problems with mobilising the people and lack of knowledge are experienced, which can be solved by setting fines and educating the community.

Problems by undertaking a project (building a sand dam) are identified by more than half of all the respondents, but are experienced more often in no dam areas. The main problem in sand dam areas is poor attendance, experienced by more than 50% of all respondents in sand dam areas. Setting fines is most of the times mentioned as a solution, but also denying access or forcing people to work by the chief's power are mentioned. In no dam areas this problem is only experienced by one respondent,

probably because the projects in sand dam areas are undertaken in a shorter period of time. Other reasons can be that the advantages of projects undertaken in no dam areas are easier to comprehend, and therefore people are more willing to co-operate, or the communities in no dam areas are better organised.

The experienced problems in no dam areas are more diverse, lack of materials, disagreement, illiteracy and bad co-operation. Education or advice, discussions, providing materials, mobilisation or setting fines, and contribution of money, for example by NGOs, can solve those problems.

Almost 90% of all the committee members (sand dam and no dam areas) would act differently when they are nominated again. Of the respondents who did not attend the committee also a lot would act differently if they were nominated for a committee, although in the sand dam areas the percentage of community members who would act differently is lower. It can be concluded that almost everybody would act differently.

In no dam areas everybody can identify some projects in progress, while in the sand dam areas, not everybody can. This reason can be that the no dam areas are better organised or that the people (in no dam areas) are more aware of the projects in their area.

	Sand dam committee member	Community member	Committee member (no dam area)	Community member (no dam area)	(assistant) chief	TOTAL
School	9	5	3	2	2	21
Hospital	10	3		1	2	16
Roads (repair)	16	7	5	2	1	31
Tree nursery	16	8	3	3	1	31
Dispensary	6	4				10
Well construction	2	2				4
Self-help-groups	7	2				9
Cattle shower	4				1	5
CAP/FDA				1		1
Youth polytechnic					1	1
Goat rearing			1			1
Other	6	2	2			10

Figure 5.5: Projects in progress

In both kind of areas, the main projects are tree nursery, road repair, building a school and building a hospital. In sand dam areas more different kind of projects are identified.

In all cases half of the respondents said that the community came up with the idea to undertake those projects. Other mentioned initiating persons or organisations are a NGO (not by no dam committee members), self-help-groups and the chief.

The respondents in no dam areas know more about community policy needs than respondents in sand dam areas. Besides, more community members (in both areas) know anything about the community policy needs than committee members.

	Sand dam committee member	Community member	Committee member (no dam area)	Community member (no dam area)	(assistant) chief	TOTAL
Water	21	9	3	2	3	38
School	17	4				21
Hospital	19	11				30
Roads (repair)	24	15	2	2	2	45
Food		3				3
Planting trees			1			1
Dispensary	6	4				10

Environmental conservation				1		1
Assist one another				3	1	4
Storage of cereals					1	1
Other	13	6		1		20

Figure 5.6: Community policy needs

The main community policy needs are a good road and communication network, water and a hospital, but it is depending on the area which projects are needed most. Although in sand dam areas people have to walk less far to fetch water, they mention this more often as a community policy need.

The way of communicating their needs is in all areas more or less the same: through a meeting, initiated by the (assistant)-chief or the community, with the community and sometimes with the responsible people, otherwise representatives of the community are sent to the responsible people.

More than half of all the respondents communicates their needs to the chief. The needs are also communicated by a lot of respondents to the assistant-chief (especially by no dam respondents) and the councillor. Almost everybody thinks they communicate their needs to the right people. Reasons to communicate to those people are for all respondents more or less the same: they are the only ones available or they are near to them.

More than half of the respondents think something is done with the information they provide, only more than half of the sand dam community members think nothing is done with the provided information. Generally, a higher percentage of the respondents in no dam areas think something is done with the provided information than in sand dam areas. Given reasons are for all respondents more or less the same: some information is acted on and some is not, and it takes a long time before something is done.

The majority of all respondents communicate with other villages or communities about their community problems in organised meetings (by the community itself or by the (assistant)-chief), in the no dam areas according to some more respondents than in sand dam areas. Nevertheless, also a lot of the respondents are not aware of such meetings or those meetings are not for problem solving.

In the sand dam areas less than a quarter of the respondents was able to identify some policy plans, while in the no dam areas, everybody was able to identify them.

The way of formulating these policy plans does not differ much in sand dam areas or in no dam areas. Two ways are identified: the community sits together, discusses the needs and formulates the policy plans or a committee is set up to formulate them.

All committee members and (assistant)-chiefs think the current projects (building a sand dam for the sand dam areas) fit with the community policy plans, but not all community members think they fit (19% of the sand dam and 60% of the no dam community members). A reason for this difference can be that the committee members do not want to admit the projects do not fit, because they are responsible for them.

In sand dam areas more respondents think the policy plans cover the needs of the community than in no dam areas.

Most respondents are not consulted for any development plan and most of them are consulted on sub-location level. On (sub)-location level more respondents of no dam areas are consulted and all (assistant)-chiefs are. On divisional level only 2 committee members (sand dam and no dam area) are consulted and nobody is consulted on higher levels.

Few respondents know anything about policy plans and the policy plans of sub-location level are known by the most of them. The awareness of the policy plans is higher in the no dam areas than in the sand dam areas and the awareness of policy plans is higher of committee members than of community members. The (assistant)-chiefs know the most of policy plans. Nobody knows something about policy plans of district level or higher.

Because the awareness of the policy plans is very low, few people can say if the current projects (or building a sand dam) fit in those policy plans. Most of the people who are aware, say they fit, mentioned reasons are they needed water (sand dam areas) and they have many needed projects.

Also few people can say if the community policy needs fit with those policy plans, but most of them say they fit with the policy plans of different levels, although not all needs are covered. Most respondents do not know if they fit.

More than half of the respondents (not the community members) implement policy plans, in most cases by providing labour, materials and cash. Most respondents implement policy plans on community level, the number of respondents who are implementing decreases with the increasing level. Of all respondents, relatively most sand dam committee members implement policy plans.

Most respondents are convinced that the co-operation with the Government will improve the formulation and implementation of policy plans. All kind of respondents suggested this improvement. In sand dam areas the (assistant)-chiefs are often missing, which is a reason of problems with the information flows.

Only respondents in sand dam areas suggested more co-operation within community. In addition several people of different areas mentioned that the community has to formulate their own policy plans and some added that they first need education and training on the way of formulating and implementing policy plans. Respondents of sand dam areas also suggested to implement the most pressing needs first and to implement only the policy plans, which contain the community needs. Especially the respondents in sand dam areas gave a lot of the same answers.

Concluding, co-operation with the Government and within the community is very important. They have not only to share information and knowledge, but also money and materials. When the community organises themselves and make good policy plans, these plans can be brought up to the Government, where they can be put into the governmental policy plans. Those policy plans have to be brought down to the communities via the governmental agents, for example the chief and the assistant-chief. If those agents are missing, they have to be instituted.

Few people are aware of the development officers on divisional, location and sub-location level. In sand dam areas more people are aware of them (around 15%) than in no dam areas (the chief and 2 no dam community members are, but the no dam committee members and the assistant-chiefs are not). The awareness of the sub-location development officer is in sand dam areas a little bit higher, although the awareness of the location development officer is lower. Some of the assistant-chiefs are aware of the (sub)-location development officer, but few no dam community members are.

It can be concluded that few people are aware of the development officers and although they are aware, they have not seen them. Therefore, it is hard for the respondents to mention the occupations of the development officers. The development officer on divisional level is identified as the DO or as an agricultural officer, the development officer on location level is identified as the chief and the development officer on sub-location level is identified as the assistant-chief.

Logically, only respondents in sand dam areas would like to thank SASOL. The majority of all respondents said they need more projects, sometimes specified to the need of a well (sand dam areas) and the need for water resources (no dam areas).

5.5 Conclusions questionnaires

In this paragraph some general conclusions will be drawn about all the questionnaires. Also the main problems which came out of the questionnaires, will be presented and a direction for a solution will be given.

In almost all cases the community comes up with the idea to undertake a project, unless a NGO initiates and implements a project. So the community shows some initiative for projects, besides few projects are undertaken.

The chairman of a no dam committee more often holds other functions than the chairman of a sand dam committee. It is possible that most of the time in no dam areas the same people are in the influential functions. That can be an advantage because the person knows how to organise and manage because he has done it before. But it can also be an disadvantage because when always the same people have the influential functions, they have a lot of power, and other people cannot develop themselves, because they have never the opportunity to be in such a position.

In the no dam areas there are more problems with the functioning of the committee, like poor attendance of the committee members. This is conflicting with the attendance of the participants of projects, because almost no problems are experienced with the attendance of the participants with projects. Nevertheless, the attendance with building a sand dam is very poor. A reason can be that the participants of the projects in no dam areas know the advantages in advance of the project, so that they are more co-operative, or the community members are better organised in no dam areas. An other reason can be that because the projects in sand dam areas are undertaken in a shorter period of time then other projects like building a school, so it takes too much of the community members.

More than half of all the respondents experienced problems during the construction of the sand dam or by undertaking a project. The main problem is that participants run away or give poor attendance, most respondents give as solution to set fines or deny access. We think if you show the advantages of the project in advance, the participants will attend more.

There also is always lack of money and of materials. Educating the community can solve the lack of knowledge, this can solve also the problem of poor attendance because they will sooner see the advantages of a project.

The respondents in no dam areas have more policy plans and know more about the community needs. In the way of making policy plans they are better organised than people in no dam areas. A possible reason can be that the people in the no dam areas are forced to initiate projects, because there is not a NGO who comes up with a project.

The main policy community need for all respondents is a better road or communication network. Constructing good roads and a good communication network will solve many problems. Many people have to walk very far before they can get somewhere by local means, when there are better roads and a better communication network like telephones, the information to and from the villages will go much faster, so people can communicate better about policy plans etc.

More than half of the respondents communicates their needs to the chief. In many sand dam areas the chief and/or the assistant-chief were missing. In those cases people do not know to whom they can communicate their needs. So a first solution would be to institute chiefs and assistant-chiefs everywhere, because missing links in the organisation structure will stop the information flows.

Most people tell their needs in meetings and many thinks they communicate to the right people and think something is done with the provided information. This is strange because there are few projects undertaken. Probably this is a strategic answer, because people are afraid they will not receive any help (anymore) when they tell bad stories about the current administration.

But only more than half of the sand dam community members think nothing is done with the information provide, in this area they also have few policy plans and little knowledge about the community needs.

Very few people are consulted, especially the community members say they are not consulted. It is possible that only some and every time the same people, who are not communicating with the community, are consulted.

Also very few people know about policy plans made by the Government, so the information does not reach the grasshooed. The main problem with this conclusion is that the approach of the Government has changed; the community now has to come up themselves with projects, while in the early days the

Government came up with projects. When the community does not know this change of approach because this kind of information does not reach them, they will never come up with a project because they think the Government will come with projects.

The development officers are not distinguished by most of the respondents. Some of them know they have to be somewhere in the organisation structure, but most of them are not able to identify them. Those officers have to make themselves heard, because otherwise nobody uses their knowledge and assistance.

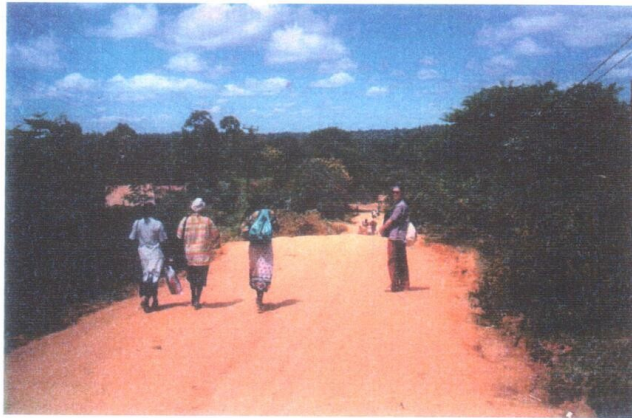


Figure 5.7: On the road in Kitui town

The suggestions for better formulation and implementation are more co-operation with the Government and within the community, that there has to be a chief and assistant-chief and that the community has to make some policy plans with their needs. Our suggestion is that the Government has to organise through the chief and/or the assistant-chief some meetings on regular basis with several villages to hear the needs and give the community education and advice about day-to-day things. This suggestion is also because the communities communicate with each other, but often they cannot come up with a solution.

6 Governmental officials

Besides the questionnaires on the lowest level, also some higher levels are investigated. Because of the limitation of this investigation to Kitui District, people of this level and lower levels are interviewed. The format of this interview is given in Appendix IX.

Beneath an overview is given of the various governmental officials available and interviewed on the several levels.

Function of the governmental officials	Kitui District	Central Division	Chuluni Division	Kitui Agricultural Project ¹³
District Commissioner	YES	-	-	-
Division Officer	-	YES	YES	-
Agricultural Officer	YES		-	-
Education Officer	YES		YES	-
Environment Officer	YES	-	-	-
Development Officer	YES	-	-	-
Forestry Officer	YES		-	-
Health Officer	YES	YES	YES	-
Livestock Officer	YES		-	-
Soil, Water & Agricultural Officer	-	-	YES	-
Water Officer	YES	not allowed	-	-
District Project Co-ordinator	-	-	-	YES
Division Project Co-ordinator	-	-	-	YES
Community Development Training Officer	-	-	-	YES

Table 6.1: Overview interviews with governmental officers (YES: interview is taken, -: function not on that level)

So, in total 18 governmental officials are interviewed, 9 of Kitui District, 2 of Central Division, 4 of Chuluni Division and 3 of KAP. The Divisional Water Officer of Central Division was not allowed to give any information to us by his supervisor, the District Water Officer of Kitui District, who was interviewed several days before. If we needed any further information we had to address the District Water Officer, because he thought the divisional officer would not give any new information, because what is happening on district level includes division level. He would not understand that the Divisional Water Officer could give us some other important information, or otherwise, that the information he provided, could be a confirmation of the given information by the District Water Officer.

In the following, the major outcomes of the questions will be given grouped per matter of the questions. Those outcomes will be split for the several levels, so possible differences can be distinguished. Afterwards, in the conclusions, the major outcomes will be presented.

6.1 The interviews with the governmental officials

In this paragraph the questions and the answers of the interviews with the governmental officials are presented in several sub-paragraph, representing the different subjects.

¹³ KAP is a co-operation of the Government of Denmark and the Government of Kenya. It is sponsored by the Government of Denmark and aims on the development of several parts of Kitui District.

6.1.1 Making policy plans

The first question of the interview was **What is the procedure for making policy plans in your District/Division?** For KAP it concerned the procedure for initiating projects. The meaning of this question was to get information about the procedure and to investigate if there is one, prewritten procedure or if governmental officials are free in choosing the procedure.

On Kitui District level seven of the eight respondents say that policy plans are made by the Government, on District level they only implement policies. One respondent adds that they make some policy plans, but those plans are guided by and have to be consistent with the National Policy Plans. The Health officer does not say that the policy plans are made by the Government, but they are made in the District Health Management Team. Those plans are brought for approval to the District Health Management Board, and sent by them to the Province level. The Province brings it to Central level, the Government.

On Central Division and Chuluni Division all 6 respondents say that the policy plans are made by the headquarters. One respondent of Central and three respondents of Chuluni add that some policy plans are formulated by the District Development Committee, those plans are the prioritised and communicated needs of the community, which are also communicated to the governmental level and put in the policy plans made on this level.

KAP does not make policy plans, but they are a kind of project, a co-operation of the Government of Denmark and the Government of Kenya. In Kenya they come up with a proposal, which has to be approved by both governments. After agreement about the project document they come up with an annual plan. The proposal originates from meetings with the community.

6.1.2 Policy plans of different levels

The following five questions are about the contains of the policy plans of the different levels. Originally, these question were "Do you know anything about the policy plans made by the Government?", followed by questions about policy plans made by the lower levels. According to the answers on question 1, the questions were changed to get information about the contains of the policy plans for the different levels. If a respondent was not able to give any information about the policy plans of a certain level, the question was not asked anymore for the lower levels.

The meaning of those questions was to get information about the knowledge of the governmental officials about the contains of the different policy plans.

Governmental level

Two Kitui District respondents can give examples of policy plans of their department, one other respondent gives several examples of different departments

One respondent says that the National Development Plan is prepared with the inputs of the District Development Plan, just as the National Poverty Reduction Plan and the District Poverty Reduction Plan, so he knows about it. Another respondent knows about the National Policy Plans because he reads about it in books.

The sessional papers of the Government, which contain their strategies, do not reach the district level, even not after requests, tells one respondent. While another respondent gets those sessional reports whenever they are produced. Two respondents admit that they do not know anything (or much) about the policy plans on governmental level.

One Central Division respondent and four Chuluni Division respondents can give information about the policy plans, One Chuluni division respondent adds that the Government decides what has to be done, but not in which way it has to be done. The other Central division respondent tells that few policy plans are for the central level, most policy plans are made for district level.

One KAP respondent can give some information about Governmental policy plans, the other respondent admits that he does not know anything about it.

Province level

The third question, following from the previous question, was **Do you know anything about the policy plans made for the Province?**

All respondents (three Kitui District, both Central Division and three Chuluni Division respondents) tell that policy plans are not made by the Province. One Central Division respondent adds that the function of the Province is monitoring and evaluating the Governmental Policy. The other Central Division respondent adds that they only advice on Province level.

One Kitui District respondent adds that the Province does not implement policy themselves, but they advice the District about the implementation. Another Kitui District respondent adds that the lower levels extract the relevant and important information.

KAP did not give information with this question.

District level

The fourth question of the interview, following the previous ones, was **Do you know anything about the policy plans made for Kitui District?**

One Kitui District respondent say (and the other two respondents say it indirectly) that they do not make policy plans on district level, they only implement policy plans.

Two respondents say that the Government does not make a policy especially for Kitui District, but only a broad policy plan for all districts (only in very specific cases a policy plan for Kitui). One adds that they are informed about those policy plans by letters.

One Central Division respondent does not give exact information, but says that every level has his own policy plans in terms of a planning of the projects.

Division level

The fifth question, again following the previous questions, was **Do you know anything about the policy plans made for the Divisions?** and was only answered by one respondent of Kitui District. This respondent said that at division level they come up with plans to undertake some projects, formulated by the Division Development Committee and NGOs. Those plans are covered in the District Development Plan.

Location level

The sixth question, following the previous questions, was **Do you know anything about the policy plans made for the Locations?**, answered by the same respondent as the previous question. This respondent tells that all plans are linked with the Kitui Development Plan and the Kitui Development Plan is a combination of all Development Plans of the different levels. On location level is a Location Development Committee to identify problems on Location and lower levels.

Sub-location level

The seventh question, and the last one about policy plans of different levels, was **Do you know anything about the policy plans made for the sub-locations?**, again answered by the same respondent of Kitui District. This respondent tells that all plans are linked with the Kitui Development Plan and the Kitui Development Plan is a combination of all Development Plans of the different levels. On sub-location level is also a sub-Location Development Committee to identify problems on sub-location and lower levels.

6.1.3 Community policy needs

The eighth question of the interview was **Do you know anything about the community policy needs?** The meaning of this question was to get information about the knowledge of the governmental officials about the needs of the community, because the policy plans are based on those needs.

Three Kitui District respondents tell that through the different development committees, which starts at the community level with the sub-Location Development Committee, the needs of the communities are communicated to higher levels and finally put into the policy plans at Governmental level.

One Kitui District respondent tells the county councillor discusses about the needs with the community and communicates those needs directly to him, the district officer.

One Kitui District respondent tells that a District Social Environment Officer is instituted, so that the communities can approach him with their needs and the DSEO can also go to the field to collect community needs. Those needs are communicated to the officers of several departments.

Three Kitui District respondents can give some information about the various needs of the communities, like food, firewood, education, water, medical care, better roads etc. Three Chuluni Division respondents can also give some information about the needs, like water, food, medical care, education and road repair. One Central Division respondent can also give some information about the needs, like the top 3 of needs: water (clean, enough and within a reasonable distance), roads (communication network) and health facilities. The other Central Division respondent tells that communities have to facilitate their needs, which are communicated to higher level. Not all needs can be covered, because they are so many. One KAP respondent can give a top seven about the needs, like water, food, medical care, education, a higher level of livestock and environmental conservation.

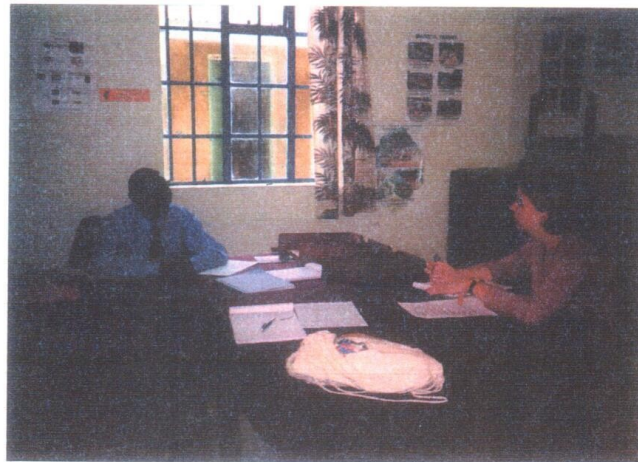


Figure 6.1: Interviewing governmental officials

Two Kitui District respondents tell that the communities have to come up with problems and solutions. One adds that the district assists in the money, technical advice and materials, but the community itself has also to contribute. The other adds that via PRA they get to know those needs.

Also a KAP respondent tells that they get to know the needs via Participatory Rural Appraisal (PRA), in which the community tells them what the problems are and the community prioritises those needs themselves. The communities have also to share in costs and provide labour and materials. The other Chuluni Division respondent tells that they take the committee members to a seminar for two weeks

for a training. In this seminar, the community comes to them with the needs and their policies, which are communicated to district level.

One Kitui District respondent admits that he knows nothing about the community needs himself.

6.1.4 Consulting communities

The ninth question of the interview was **Do you consult communities when you are making a policy plan?** The meaning of this question is to get information about the way they know about the needs of the communities and if the policy plans are really based on those needs.

All respondents (9 of Kitui District, 2 of Central, 4 of Chuluni and both KAP respondents) say that they consult communities. Three of the Kitui District respondents and the one from KAP also name PRA as a way to get to know the needs and the priorities of the communities. They discuss the problems and come up with solutions together. The framework of PRA covers 4 years. One adds that at higher levels they look if the projects are possible, so not all needs are finally covered in action plans, because of lack of money and other resources.

One Central Division adds that they only facilitate the process. The other Central division respondent and one Chuluni respondent adds that at each level the development committee discusses the needs and the priorities and forwards it afterwards to a higher level. At District Level they finally approve or reject the forwarded needs with regard to the limited resources.

One Chuluni Division respondent adds that they organise awareness meetings at the villages to get to know the needs. After those meetings they discuss the outcomes and pass them to higher levels. And one Chuluni Division respondent adds that they organise a seminar for two weeks of training to come up with needs.

The last one adds that it is necessary to consult, otherwise the results are not sufficient.

6.1.5 Mismatch in different policy plans

The tenth question, according to their ideas of the policy plans of the different levels, was **Do you see any mismatch between the different policy plans?** The meaning of this question was to get information about possible problems between the policy plans of different levels, if the contents of the policy plans of a certain level are covered in the policy plans of one level higher.

Six Kitui District, one Central Division, all four Central Division and one KAP respondents tell that they do not see any mismatch. The different respondents have different reasons.

On District level they say because the policy plans are overall and cover the whole country and made by the Government. Each district has for example its own Development Plan, but this information is extracted from the national plans, so it matches. One adds that sometimes not all plans are made with consideration what the needs of the communities are. Another adds that sometimes the policies of the different departments conflict, for example that at the forestry department they want as much as possible land covered with trees, while at the agricultural department they want to use as much as possible land for food production. Two Kitui District respondents say that all needs should be in the policy plans made by the Government, so that there is no mismatch.

On Central Division level they say because the policy plans originate from the same administrative unit and are formulated bottom-up. It is only possible that not all requirements are met in the plans on higher level. On Chuluni division the respondents add that there are no left-outs, so all needs are covered. One adds that it is hard to cover all needs, because they are growing every day.

One Kitui District respondent says that the policy plans do not fit at the end of the period (Kitui Development Plan covers 5 years), because of changing priorities. That is the actual problem.

The other Central Division respondents say that there are a lot of mismatches, because not all the time feasibility studies are done, the community needs are hard to know and those needs are constantly changing.

The other KAP respondent says that their plans come from the communities and mostly fit.

6.1.6 Implementation of policy plans

The next two questions concern the implementation of the policy plans by the respondent him- or herself. It concerns about the procedure of implementation and the problems the respondents face while implementing the policy plans.

Way of implementation

The eleventh question of the interview was **How do you implement policy plans?** The meaning of this question was to get information about the procedure of implementing policy plans and investigate if there is one prewritten way or if the governmental officials are free in choosing the procedure.

Three Kitui District respondents say that they do not implement themselves, but they delegate the implementation to field officers on divisional and locational level.

One Kitui District respondent says that they are given the resources on the basis of their development plans by the Government. One Kitui District respondent says that they have a technical committee within the District Development Committee to implement policies.

One Central Division respondent says that the policy plans are implemented by the departmental heads. Every department receives their budget from the Government to spend on projects approved by the District Development Committee. The other respondent says that implement policy plans together with the communities, using cost-sharing.

One Chuluni Division respondent says that implementing is sometimes difficult, because they only know what they are supposed to implement, but not how they have to implement. They use the communities to implement policy plans. Three respondents say that they mobilise the communities, the field staff and other stakeholders to implement the policy plans.

One KAP respondent says that the implementation is a co-operation between the different stakeholders. The communities also have to contribute something, like cash, labour and materials.

Problems with implementation

The twelfth question, according to the previous one, was **Are there any bottlenecks with the implementation of policy plans and can you suggest some solutions?** The meaning of this question was to get information about the problems the respondents face and their ideas about the solutions for those problems.

Eight Kitui District, both Central Division, all four Chuluni Division and both KAP respondents say that the limitations of the resources, especially financing and transportation, are the most important bottlenecks. One Kitui District adds that most of the time the projects on the lowest levels are lacking the resources. Another adds that you cannot be effective lacking the resources. One Kitui District adds that they sometimes have problems with the co-operation of communities, because they are not very tight and with the contribution of those communities.

One Central Division respondent adds that communities are complaining that nothing is done, because when they are not aware it is not possible to approve everything. The other adds that it is hard for poor communities to undertake the projects themselves.

One Chuluni Division respondent adds that sometimes projects are stopped, because halfway there is no fund left, otherwise, when the project is completed, the maintenance is also a problem.

One KAP respondent adds that the communities are not always used to the idea to come up with their problems, because in early days they did not come up with projects themselves.

One Kitui District respondent says that also the different cultures, different languages, different behaviours etc. cause problems with implementation. One respondent says that also illiteracy (difficult they get ideas from the communities and let them understand the plans), ecological conditions (low rainfall, dry areas and pollution) and political intervention cause problems with the implementation. One respondent tells about three problems: advice, which is not acted on, is useless, legislation and lack of awareness of problems.

Two Chuluni Division respondents also mention lack of co-operation as a problem. Other problems mentioned by the respondents are sabotage by community members, communication problems (language and a bad or lacking communication network), gender problem (they do not want a lady as a head) and ignorance of the community.

Many solutions are giving, they are written down by level:

The Kitui District respondents came up with the following solutions. Funding and loans by IMF and NGOs to develop the country (not a long-lasting solution). Only start projects when the feasibility studies are done and all facilities are arranged. Education for changing different cultures, one common language. Educating and training communities, because they have to come up with the problems and implement (solve) those themselves. Bring awareness through informing people about problems and informing that they have to act themselves to get something done. The officers have to be well gathered (well taken care of) when they are working.

The Central Division respondents said: Utilise the resources better. Involve communities more. They have to help themselves by managing their resources and participation and they have to choose if they want to undertake the projects. Flexible donors (= Governmental level). Forecasting people on economic level. More transparent NGOs and private sector (they are involved in a lot of projects, but the outputs are not visible every time) and the NGOs and the private sector have to involve the communities much more.

The Chuluni Division respondents gave as solution: To solve the transport problems, they have to introduce cost-sharing (also Kap respondent came up with this one) or use motorbikes to reach bad accessible areas. Education of especially the ladies. Stimulating the community to come up with labour and cash (cost-sharing). Organise barazas to meet the representatives.

6.1.7 Information flows between the different levels

The information flows about policy plans, community needs, implementation of policy plans, etc., go in two directions: top-down and bottom-up. The next two questions concern about those information flows.

Top-down information flows

The thirteenth question of the interview was more general **Do you see any problems in the information flows from the top (=Government) to the grasshoo (=community) and can you suggest some solutions?** The meaning of this question was to investigate the information flows between the different levels.

One Kitui District and one KAP respondent say that most of the time the communication is passing on well, because of meetings on different levels and representatives, the officers, on the lowest levels. One adds that some officers are not able to operate and communicate well, so the communication is difficult, which can cause some problems.

Three Kitui District, three Chuluni Division and one KAP respondent say that because of poor infrastructure it takes very long to communicate, so sometimes it takes too long. One Kitui District respondent adds that communication is not always easy because of language problems.

One Kitui District respondent says that the problems are at the lowest levels, because they think it's difficult to communicate well. So it is possible that the information stops after the District level. One Kitui District respondent says that communities are not informed which of the discussed problems are to be addressed.

Two Kitui District, one Chuluni Division, and both Central Division respondents say that there are no bottlenecks, the communication between all levels goes well. The Central Division respondent says only one little problem is that sometimes someone holds a problem at a certain level to benefit an other project.

The solutions for these problems are giving by different people. The Kitui District respondents said connecting everybody to internet and email for very fast communication or eventually using the

telephone more often, improve communication network is a solution. Or educate people in a common language (English), organise meetings with different departments and the community (all levels represented) to discuss which problems will be addressed, or they have to train themselves for fast and effective communication. If lower officers are also funded, so they can also spend money on for example community level, they have more responsibility so they will communicate better. The Chuluni respondents came up with solutions like centralise some policies, like money and management of implementation. Cost-sharing of services, for example for transport problems or education and seminars to assist one another and to show other how you do something. KAP said that tree plan of information, from up to down would be a solution.

Bottom-up information flows

The fourteenth question, according to the previous one, was **Do you see any problems in the information flows from the grasshooth to the top and can you suggest some solutions?** The meaning of this question, like the previous one, was to investigate the information flows between the different levels.

Four Kitui District, one Central Division and one Chuluni Division respondent say that there are no problems, the information is communicated well to the higher levels. One Kitui District and a Central Division respondent add that it is possible that someone at a higher level thinks the information not worth to communicate to higher levels. One Kitui District respondent adds that from the community to the top is the most efficient way of communication.

One Kitui District respondent says that the problems are at the lowest levels, because they think it is difficult to communicate well. One Kitui District and two Chuluni Division respondent say that because of poor infrastructure it takes very long to communicate, so sometimes it takes too long and the problems are solved too late.

Also one Kitui District and one Chuluni Division respondent mention distortion, changed information when it reaches the right person, as a problem, because those information is not the original information.

One KAP respondent mentions that the communities are still not used to tell their problems and their needs. In earlier times all information went top-down, so they are used to be told what their needs are.

The solution the Kitui District respondents gave are if lower officers are also funded, they have more responsibility so they will communicate better. Or without an improvement of the economy, it is very hard to solve all the problems they have to cope with. The Chuluni Division respondents found it hard to give any solutions, because those problems are natural, not created by any person. KAP came up with the same solution as in the previous question: tree plan of information, from the bottom to the top.

6.1.8 Remaining remarks

The last question of the interview was **Do you have any comments?** The meaning of this question was to get information about matters the governmental officials think important, but are left out the interview. Only the important ones are displayed here.

One Kitui District respondent has several remarks, the important ones. The community has to be trained, they have to involve the government in the projects, to see the benefits of those projects. The communities have to organise themselves and have to organise with good people at the top. The community has to be involved in the funding of projects and the government has to tell how to implement their plans especially towards water policy: keeping the water sources save from pollution is a problem, the communities up-stream has to be told not to pollute the water.

One Central Division respondent remarks that communities should be on the forefront at all activities to be undertaken in that particular area, so that they can take that as their own project.

One KAP respondent wishes that the Government picked up the approach of KAP: to give the community money and to let them prioritise their needs and plans themselves, so they have to think

and discuss about it. Elected people, for example committee members are very valuable, because they have more support from the community. The main problems are poverty and culture: people have to work for food, so they cannot assist for something else and people have some principles, for example by their religion, which are very hard to change.

6.2 Conclusions and recommendations interviews

The main outcomes of the interviews will be discussed in this paragraph. Also, some remarks, which are not mentioned above, are discussed.

Policy plans

There can be concluded that most governmental officials know that the policy plans are formulated at the highest (governmental) level, but they are not always aware in which way. They also say that they only implement. The only things that are written on the lower levels are the project plans. It can be concluded that the awareness of the contents and the origin of the policy plans are very poor. No one can exactly tell the way of formulation. Three respondents admit that they do not know anything about the contents of the policy plans. Around half of the respondents are able to mention some issues of the policy plans, some other say they know the contents, but do not mention some examples.

The exact function of the Province is not clear, advising, evaluating and monitoring are mentioned.

Very few respondents can give some information about the policy plans for the lower levels. Some say that policy plans are not made for the lower levels, but that the lower levels have to extract the important and relevant information from the policy plans for the higher levels.

Community policy needs

All respondents claim that they know anything about the community policy needs, except one person. Around half of the respondents are able to mention some needs, the other tell the way they get to know those needs.

It can be concluded that generally, the governmental officials are well informed about the community policy needs.

Consulting communities

It can be concluded out of the interviews that generally, the needs of the communities are heard and put in policy plans and that projects are never initiated by higher levels.

All respondents say that communities are consulted before policy plans are made. Some of them mention Participatory Rural Appraisal (PRA) as a way to get to know the community needs. Through PRA the community identifies their problems themselves and the community prioritises those needs themselves. Others mention other ways of consulting, but according to the majority policy plans are formulated with the knowledge of those needs and projects are only initiated when the community has communicated that project as a need.

Mismatch in different policy plans

Almost all the respondents (besides two) say that there are no mismatches between the different policy plans, because they are made by the same administrative unit. Besides, the policy plans of lower levels are extracted from the plan of higher levels, so they fit. The two respondents see some problems towards the covering of the community needs and the accurateness of the policy plans.

Implementation of policy plans

In most cases, at District and Division level they do not implement policy plans, but they delegate it to lower levels. At the lower levels they implement the policy plans in co-operation with all stakeholders.

It can be concluded that there is no standard procedure for implementation, but every department implements policy plans on its own way. It can be recommended to formulate a procedure for implementation, which can be used as a guideline. But it has to be a very flexible guideline because every environment is different, so the implementation-approach is also different.

The main problem with implementation is limitations of resources. Without sufficient resources it is very hard to be effective. The solutions the respondents gave are like funding and loans, they should only start a project when the feasibility studies are done and all facilities are arranged, they should utilise the resources better or cost-sharing.

Other problems during the implementation process are lack of co-operation. Solutions for this problem could be educating and training of the community or inform the community about the advantages of the project. And a very good suggestion is that there should be more co-operation between the government and the community by undertaking a project, so the community feels also responsible for the project.

The problem with illiteracy of the community can be solved by education.

Information flows between the different levels

Almost half of the respondents say that there are no problems with the information flows either top-down or bottom-up. But the other half of the respondents say that the communication takes long, sometimes too long, so that when it reaches the right people it is too late. Some solutions for this problem are improving the communication network by, for example, connect everybody to the internet or at least give everybody a telephone. Improving the road-network will also help a lot, because the people have to travel less hours, so they can put that left effort in something else. Another solution will be organise regular meetings with the responsible people, so they can discuss certain issues, which are known directly.

Remaining remarks

There can be draw one conclusion out of the remarks, most of the times they identify the problems at other levels (mostly the lowest levels), not on their own level.

7 Brainstorm session

The last part of the research was a brainstorm session with several people of different levels. In this brainstorm session the strengths, weaknesses, opportunities, and threats (SWOT-analysis) of the current procedures for formulation and implementation of policy plans and for the communication within levels are discussed.

7.1 Goal

The goal of the session is a SWOT-analysis in which the current problems of the information flows are triggered. Besides, it is a goal to come up with some solutions for those problems. It is important those problems and solutions come out of the invited people themselves, because they have a better understanding of those data as they have to deal with them and they are part of the system.

7.2 Procedure

The session would start with an introduction about our research, a short explanation of a SWOT-analysis, the goal of the session and the fitting in our research. After that, the part about the strengths was introduced. Strengths are the good things of the information flows. Everybody had to brainstorm about the strengths of the information flows. To conduct the brainstorming, four subjects were introduced to place the quotes in: formulation, implementation, communication within levels and

remaining. Besides, those four subjects were divided in two parts: the top-down and the bottom-up information flows. It was proposed that everybody put at least one quote in every part, so at least eight quotes per person were obtained.

On the wall, papers were hang up with those subjects written on it. The participants could write their quotes on post-its and put them in the part they think it belongs to. After half an hour of brainstorming, all those quotes would be discussed. After this discussion, everybody had to write down a priority list of the three most important strengths. After this part, the weaknesses, the bad spots of the information flows, were introduced. The procedure was exact the same. The third part were the opportunities, the points of interest in the subject, which can be more efficient in the future. The last part of the SWOT-analysis was the brainstorming about the threats, circumstances from outside, which can influence the subject negatively.

The last part of the whole session was a brainstorm and discussion about some current problems. About four problems would be deal with, the participants could come up with problems themselves, problems arisen in the

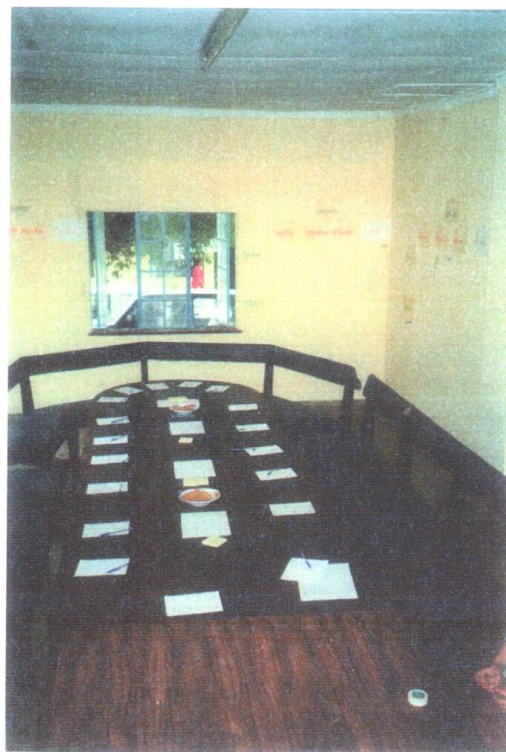


Figure 7.1: Brainstorm session

SWOT-analysis could be discussed, and otherwise we would introduce some problems ourselves. Per problem, the participants would start to brainstorm about possible solutions for that problem. After

the brainstorm the solutions would be discussed and everybody had to write down a priority list of the three most important solutions. The same procedure would be followed for the other problems. The session would end with a word of thanks before lunchtime.

7.3 Outcomes

In co-operation with the District Officer I (DO I) the session was organised. The DO I wrote a letter to all invited persons; the governmental officials we interviewed and some councillors. During our interviews the session was also mentioned and everybody promised to attend.

Unfortunately, only one person of the Water Department came to the brainstorm session, so after three hours of waiting, we decided to cancel the meeting.

Through this meeting we experienced that the governmental officials do not feel responsible to attend a meeting they have promised to attend and they were also asked to attend by the DO I.

8 Conclusions and recommendations

In this chapter the conclusions and recommendations will be presented. In the first paragraph the conclusions will be presented divided into different parts. The last paragraph contains the recommendations.

8.1 Conclusions

The conclusions of the research will be given in this paragraph. The several parts are compared to each other, so that a connection exists between these parts.

8.1.1 Conclusions questionnaires in relation to policy plans

Very few sand dam respondents make policy plans in their community, but in the no dam areas there are more people who make policy plans in their community.

There can be said that the main community policy need is good roads or a good communication network. Other urgent needs are water and health care.

The policy plans of the government contain the objective to supply clean and safe drinking water to all Kenyans by the year 2000. In addition to the Government's effort, Kenyan communities themselves have played a very significant role in improving the water situation through construction of self-help water supplies. So the need of water is in the governmental policy plans.

The Kitui Development Plan contains: the district is well endowed with sufficient ground and subsurface water resources that are not yet fully tapped. These will be tapped through the concerted efforts of the community, GOK, NGO, and Donors. It also contains: the second strategy concerns the communication within the district. To solve the communication problem, the main road will be asphalt, while other important roads will be gravelled. Rural access roads and minor roads will also be constructed in high and medium potential areas.

It can be concluded that two main needs of the communities are in the Kitui Development Plan. However, it is possible that it is not implemented in the respondents area.

We can conclude that few respondents know something about the policy plans. The policy plans made for the sub-location and location level are better known but not very good. The division policy plans are hardly known and nobody is aware of the policy plans for higher levels.

When the respondents know something about the policy plans most of them can only say that the plans are about water (the most common answer), or about roads and communication networks, schools, soil conservation and tree nursery. Although the Kitui Development Plan deals with most of these subjects (except schools), the respondents can not exactly tell what this plan contains, only that it deals with those subjects.

Very few people know about policy plans made by the government, so the policy plans do not reach the grasshooter. We can conclude that the plans of sub-location and location level policy are best known by the respondents, so the projects or sand dam fits most of them, but on a higher level people do not know anymore. The main problem with this conclusion is that the approach of the government has changed: the community now has to come up themselves with projects, while in the early days the government came up with projects. When the community does not know this change of approach because this kind of information does not reach them, they will never come up with a project because they think the government will.

Because most of the respondents know little about the policy plans, it is obvious that they say the needs do not fit or they do not know if they fit with the policy plans.

About the implementation of the policy plans, it can be concluded that the higher level the less respondents are implementing the policy plans. Most of the people say they implement those policy plans by providing labour, materials and cash. This is not really implementing, because they are told

to work or to raise money, and they are not getting the policy plans and figuring out how they can reach the targets.

Very few people are consulted by the government, especially the community members say they are not consulted. It is possible that other people than the respondents are consulted, because some community needs are in the Kitui Development Plan.

8.1.2 Conclusions questionnaires in relation to interviews

All governmental officials say they are informed about the community needs, because projects are only initiated when they know it is a community need. The district assists in money, technical advice and materials, but the community itself has also to contribute. There are various ways to be informed: through the different development committees, the county councillor and Participatory Rural Appraisal (PRA).

The community members have not the idea that they are consulted for any policy plan, but they communicate their needs in meetings. The majority thinks they communicate those needs to the right people (more than half of the respondents communicate their needs to the chief) and has the idea something is done with the provided information, although few projects are undertaken.

It can be concluded that the procedure of communicating the community needs from the lowest levels to higher levels according to the governmental officials is not the procedure the people on the lower level experience. However, they have the idea they can communicate their needs to the right people and there is acted on those information.

This can have several reasons: that the governmental officials consult the wrong people, and/or that the lower level is not interested in policy plans and needs, because they are too busy with fetching food and water.

Therefor, it can be recommended that both procedures are pursued. The community discusses their needs and prioritises them. In regular meetings, organised by the administrative people (at this moment they are often missing, so they have to be instituted) for several communities together, those prioritised needs are discussed. Besides, those meetings can be used to educate the communities how to formulate policy plans, the communities can exchange problems and solutions and can be advised on some day-to-day issues.

The mentioned needs of the communities by the governmental officials are: food, firewood, education, water, medical care, better roads, a higher level of livestock and environmental conservation. Not all needs can be covered, because they are so many.

The main policy community need according to the community and committee members is a better communication network (road repair), other needs are water, schools and hospitals.

Therefor it can be concluded that the governmental officials are well aware about the needs of the communities, but relatively few projects are to be undertaken. The reason is not quite clear, maybe it is concerned with the problems experienced with the implementation process (limiting resources, see below), or there are so many needs of different communities that not all can be solved.

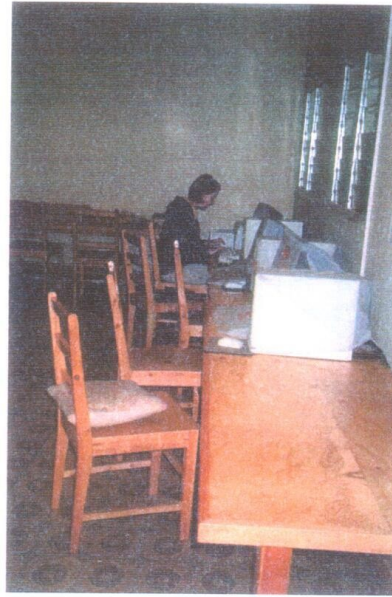


Figure 8.1: Working in Nairobi

The implementation process according to the governmental officials takes place on the lowest levels through delegation and in co-operation with the communities, who also have to contribute money and labour. The people on the lower levels say they implement at this moment by providing labour, cash and materials. To improve the implementation process the community members suggest to co-operate between the different levels.

It can be concluded that the community does not have the idea the Government, chief, assistant-chief and other administrative people are co-operating with them while they are implementing policy plans, but the governmental officials say they do.

Therefore, it can be recommended that all administrative people are instituted, like the chief and assistant-chief who are missing in some places, to improve the co-operation between the different levels.

According to the governmental officials they experience some problems with the implementation of policy plans, like the limitations of the resources, lack of co-operation of communities, communication problems, illiteracy, ecological conditions, political intervention and lack of awareness.

Most of those problems are also experienced by the people of the lower levels by undertaking projects. Although the main problem is lack of co-operation instead of the main problem mentioned by the governmental officials is lack of resources.

Most respondents give as solution setting fines or denying access. We suggest if you show the advantages of the project in advance, the participants will attend more, because nobody complains about the poor attendance of the participants with projects in no dam areas. That is probably because the community knows the advantages of for example a hospital, because they saw in other areas. There is also always lack of money of materials, which is hard to solve. The lack of knowledge can be solved by educating the community, this can solve also the problem of poor attendance because they will sooner see the advantages of a project. The communities can be educated through meetings organised by the administrative people, who also can provide advice to the communities how to handle the project.

Solutions suggested by the governmental officials for those problems are: funding and loans, feasibility studies, education and training communities, bring awareness, utilise the resources better, involve communities more and cost-sharing. Some of those solutions are also mentioned by the community members, although the majority suggested to set fines to solve the problem with lack of co-operation.

It can be concluded that quite the same problems are experienced on the different levels and quite the same solutions are suggested. Therefore, it is strange that the problems are not solved. It can be recommended that by undertaking a project the Government and the community work together to undertake the project, but also solve the arising problems by discussing them together and come up with solutions.

8.1.3 Conclusions interviews in relation to policy plans

It is hard to compare the policy plans with the awareness of the governmental officials, because less information about those plans is found. Therefore, the awareness of the governmental officials towards the governmental policy plans will be discussed here.

The majority of the governmental officials on district and division level and of KAP says to know something about governmental policy plans, of the governmental officials 22% and of KAP 33% admits they are not aware of those plans. Nevertheless, the minority is able to give some information about the contents of those policy plans. It is remarked that most policy plans are made for the lower levels, so there is not much to tell about.

Mentioned policy plans are for agricultural production, so for food production, education, environmental conservation, milk market policy, cattle production, production of bee keeping, livestock production, water quality control, health care and security.

The district policy plans, which are discussed in this report, are about water supply, improvement communication network, improvement agriculture, education and facilitation for efficient information flows.

The majority of the governmental officials on district and division level and of KAP is aware of the district policy plans. Nobody gave exact information about those plans, some mentioned that the Government only makes policy plans for the district level, not specific for one district, like Kitui policy plans.

It can be concluded that the awareness of the governmental policy plans is low, some governmental officials say it is hard to get information about the policy plans, others say they are informed. Probably it depends on the anxiousness of the governmental officials to get the information, but it seems also that there a different procedures between the different departments.

For the policy plans of lower levels it is hard to draw a conclusion, because the governmental officials did not specify the contains of these policy plans. However, some governmental officials say there are no policy plans on district level, so in that case they are really unaware of policy plans.

Therefor, it can be recommended that an uniform procedure for informing the lower levels about the governmental policy plans will be introduced, because the policy plans of lower levels have to rely on those governmental policy plans. Besides, it can be recommended that the policy plans also involve the procedure for implementing them. This means, that it is important that those plans are not only containing what has to be done, but also how it has to be done.



Figure 8.2: Presentation of our results in Kitui Town

8.1.4 General Conclusions

In this paragraph the overall conclusions and recommendations will be given. The problem questions will be answered and the main conclusions of the report will be enunciate. For the possible problems we will try to give a solutions' direction.

The problem question contained the target to look if the information flows are passing on well. It can be concluded that the information flows do not pass on well. First of all the top-down information flows will be discussed, after that the bottom-up information flows. Also the communication within a level will be scrutinised. Those three subjects are part of the research questions. One research questions, about the sociological facts, concerns about the information of the questionnaires, which is discussed in chapter 5.

Top-down information flows

The awareness of the policy plans is, as well by the respondents on lower levels as even by the governmental officials, low, because the policy plans do not reach lower levels. A solution can be a better road or communication network, so that the information from and to the grasshhood and other levels will go much faster and more efficient, and so that the people can react faster on changes in plans or changes in needs.

A better road network will also help the community members, because they can fetch water more easily and use the time they have left to farm more food or undertake a project. Also the attainableness will be better, because at this moment some people has to walk very far before they can go by local means to town or elsewhere. So if they can reach and can be reached better, information from and to the town will go much faster. People can also trade more easily, so they can make income.

Bottom-up information flows

The bottom-up information flows contain the community needs. The conclusion we can draw within this subject is that the community feels like they are not consulted, while the governmental officials say they do. The reason can be that the governmental officials consult the wrong people, or the ones who are consulted are always the same people, who are not communicating with their community. In the no dam areas we see that the chairman more often holds also other functions within the community. This can be an advantage, because the chairman has some experience with organising and mobilising people. It can also be a disadvantage because the chairman always has the powerful functions so the rest of the community is kept ignorant and nobody else can develop themselves in organising and management skills.

Another reason for the needs which are not reaching the top, can be that the assistant-chief and chief are missing in a location. The hierarchical structure at this moment can only work when all the links are available. Some assistant-chiefs and chiefs are missing, so the information can not go smoothly to the top, because the community does not know to whom they have to communicate their needs to. Also vice versa, the higher levels do not know how to reach the grasshoo because the assistant-chief and chief are missing.

Information within levels

The recommendation for better communication network does also fit here. The offices of different divisions are far away from each other, so with a telephone or even e-mail, they are able to communicate more easily with each other (and between levels).

At the lowest level, the community is not well organised. First they have to organise themselves properly, which can be done by educating the community how to organise themselves. When the needs have to be communicated up to the Government, the community has to write them down properly, therefore the community also needs education. When the community is undertaking a project, first of all the committee which is co-ordinating the project has to be well organised and must not withdraw. When the co-ordination of a project is good, the project has much more chance of ending well. Therefore, the committee members also need training.

After that, the advantages of a project have to be clear for the community. The main reason for poor attendance at the construction of the sand dams was the lack of knowledge of the advantages for the community. These advantages can be told in meetings with several villages, where also the policy plans or changes will be told and the community gets advice about day-to-day business. Because the different villages discuss their problems with each other, but often they can not come up with solutions for the problems.

8.2 Recommendations

Some recommendations for further research following up this research can be advised. The first research that can be done is the best way of educating the community. How can you show the community the advantages of a project and how can you teach them how to write proper policy plans, which are covering their needs.

The second recommendation for further research is about the effectiveness of the information flows, how you can make them more efficient, for example by skipping some hierarchical levels by the supply of information from the community to the Government.

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Appendices

Appendix I: Questionnaire sand dam committee member

- | | |
|------------------------------|-----------------------|
| - Date interview: _____ | - District: _____ |
| - Name analyst: _____ | - Division: _____ |
| - Respondent's name: _____ | - Location: _____ |
| - Dam's name: _____ | - Sub-location: _____ |
| - Stream/river's name: _____ | - Village: _____ |

Introduction

1. Time between the idea & forming the committee: _____ (days)
2. Time between forming the committee and starting the construction of the dam: _____ (weeks)
3. Start date construction sand dam: _____ (day-month-year)
4. Date sand dam completed: _____ (day-month-year)
5. How many households used the old water resource? _____ (number)
6. How many trips did you undertake to the old water resource?

<input type="checkbox"/> _____	per person per day
<input type="checkbox"/> _____	per donkey per day
<input type="checkbox"/> _____	per cart per week
7. Distance old water resource? _____ (kilometres)
 _____ (minutes)
8. How many households use the sand dam? _____ (number)
9. How many trips do you undertake to the sand dam?

<input type="checkbox"/> _____	per person per day
<input type="checkbox"/> _____	per donkey per day
<input type="checkbox"/> _____	per cart per week
10. Distance sand dam? _____ (kilometres)
 _____ (minutes)
11. Are there households who aren't using the sand dam?

<input type="checkbox"/> YES (why) _____
<input type="checkbox"/> NO

Structure organisation

12. From who came the idea to built a sand dam or water resource?

<input type="checkbox"/> COMMUNITY	<input type="checkbox"/> ASSISTENT-CHIEF
<input type="checkbox"/> DISTRICT OFFICER	<input type="checkbox"/> SASOL
<input type="checkbox"/> COUNCILLOR	<input type="checkbox"/> SELF-HELP GROUPS
<input type="checkbox"/> CHIEF	
<input type="checkbox"/> OTHER (specify) _____	
13. Who decided that the sand dam was going to be built?

<input type="checkbox"/> COMMUNITY	<input type="checkbox"/> ASSISTENT-CHIEF
<input type="checkbox"/> DISTRICT OFFICER	<input type="checkbox"/> SASOL
<input type="checkbox"/> COUNCILLOR	<input type="checkbox"/> SELF-HELP GROUPS
<input type="checkbox"/> CHIEF	
<input type="checkbox"/> (OTHER) _____	

14. In what way is a committee formed? _____

15. Number of committee members: _____ (persons)

16. Can you identify various posts in the dam committee?

- | | |
|---|--|
| <input type="checkbox"/> CHAIRMAN | <input type="checkbox"/> SECRETARY |
| <input type="checkbox"/> VICE CHAIRMAN | <input type="checkbox"/> ASSISTANT SECRETARY |
| <input type="checkbox"/> CHAIRLADY | <input type="checkbox"/> TREASURER |
| <input type="checkbox"/> VICE CHAIRLADY | <input type="checkbox"/> ARTISAN |
| <input type="checkbox"/> (OTHER) _____ | |
| <input type="checkbox"/> NO | |

17. Does the chairperson hold any other position in the community?

- ☐ YES (specify) _____
- ☐ NO

18. Did you experience any problems with the functioning of the committee?

- ☐ YES
- ☐ NO (go to question 21)

19. What kind of problems did you experience? (specify)

- ☐ CHAIRPERSON POSSESS A LOT OF/LITTLE POWER _____
- ☐ INFLUENCE BY THE BUREAUCRATS (e.g. chief) _____
- ☐ CORRUPTION _____
- ☐ DISAGREEMENT _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____

20. Do you think some of the problems you experienced can be solved, and in what way?

- ☐ CHAIRPERSON POSSESS A LOT OF/LITTLE POWER _____
- ☐ INFLUENCE BY THE BUREAUCRATS (e.g. chief) _____
- ☐ CORRUPTION _____
- ☐ DISAGREEMENT _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____

21. Did you experience any other problem in the period before the sand dam was constructed?

- ☐ YES
- ☐ NO (go to question 24)

22. What kind of problems did you experience? (please specify the problems)

- ☐ WITH SASOL _____
- ☐ WITHIN THE COMMUNITY _____
- ☐ WITH THE CO-OPERATION _____
- ☐ WITH MATERIALS _____
- ☐ BECAUSE OF LACK OF KNOWLEDGE _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____

23. Do you think some of the problems you experienced can be solved? (specify in what way)

- ☐ WITH SASOL _____
- ☐ WITHIN THE COMMUNITY _____
- ☐ WITH THE CO-OPERATION _____
- ☐ WITH MATERIALS _____
- ☐ BECAUSE OF LACK OF KNOWLEDGE _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____

24. Did you experience any problems in the period during the construction of the sand dam?

- ☐ YES
- ☐ NO (go to question 27)

25. What kind of problems did you experience? (please specify the problems)

- ☐ WITH SASOL _____
- ☐ WITHIN THE COMMUNITY _____
- ☐ WITH THE CO-OPERATION _____
- ☐ WITH MATERIALS _____
- ☐ BECAUSE OF LACK OF KNOWLEDGE _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____

26. Do you think some of the problems you experienced can be solved? (specify in what way)

- ☐ WITH SASOL _____
- ☐ WITHIN THE COMMUNITY _____
- ☐ WITH THE CO-OPERATION _____
- ☐ WITH MATERIALS _____
- ☐ BECAUSE OF LACK OF KNOWLEDGE _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____

27. Suppose you are again nominated/elected to the dam committee, would you act differently?

- ☐ YES (specify) _____
- ☐ NO (specify) _____

28. Are there any other projects in progress (for example school, road, hospital)

- ☐ YES (specify) _____
☐ NO (go to question 30)

29. Who came up with the idea of this project (these projects)?

- | | |
|---|---|
| <input type="checkbox"/> COMMUNITY | <input type="checkbox"/> ASSISTENT-CHIEF |
| <input type="checkbox"/> DISTRICT OFFICER | <input type="checkbox"/> SASOL |
| <input type="checkbox"/> COUNCILLOR | <input type="checkbox"/> SELF-HELP GROUPS |
| <input type="checkbox"/> CHIEF | |
| <input type="checkbox"/> (OTHER) _____ | |

Policy plans

30. Are there any policy plans in your community?

- ☐ YES (specify) _____
☐ NO (go to question 32)

31. How are the policy plans formulated? _____

32. Do you know anything about the policy needs of the community?

- ☐ YES (specify) _____
☐ NO (go to question 40)

33. Before you became a sand dam committee member, did you know anything about the your community needs?

- ☐ YES (specify) _____
☐ NO

34. Do you think that building sand dams in your location fits with the community policy plans?

- ☐ YES (specify) _____
☐ NO (specify) _____

35. Do you think that the community policy plans cover the needs of the community?

- ☐ YES (specify) _____
☐ NO (specify) _____

36. To who do you communicate your community needs?

- | | |
|--|---|
| <input type="checkbox"/> CHIEF | <input type="checkbox"/> SASOL |
| <input type="checkbox"/> ASSISTENT-CHIEF | <input type="checkbox"/> NON-GOVERNMENTAL |
| <input type="checkbox"/> DISTRICT OFFICER | ORGANISATION |
| <input type="checkbox"/> PROVINCE COMMISSIONER | |
| <input type="checkbox"/> (OTHER) _____ | |

37. How do you communicate your community needs: _____

38. Do you think you communicate your community needs to the right people?

- ☐ YES (specify) _____
☐ NO (specify) _____

39. Do you have the idea whether something is done with the information provide?

- ☐ YES (specify) _____
☐ NO (specify) _____

40. Is there a development officer on

- ☐ DIVISION-LEVEL _____
☐ LOCATION-LEVEL _____
☐ SUB-LOCATION-LEVEL _____
☐ NO

41. What are the occupations of

- ☐ DIVISION-DEVELOPMENT OFFICER _____
☐ LOCATION- DEVELOPMENT OFFICER _____
☐ SUB-LOCATION- DEVELOPMENT OFFICER _____

42. Are you consulted for any development plans in your location made by

- ☐ SUB-LOCATION _____
☐ LOCATION _____
☐ DIVISION _____
☐ DISTRICT _____
☐ PROVINCE _____
☐ GOVERNMENT _____
☐ (OTHER) _____

43. Do you know anything about the policy plans made by

- ☐ SUB-LOCATION _____
☐ LOCATION _____
☐ DIVISION _____
☐ DISTRICT _____
☐ PROVINCE _____
☐ GOVERNMENT _____
☐ (OTHER) _____

44. Do you think that building a sand dam in your location fits with the policy plans made by

- ☐ SUB-LOCATION _____
- ☐ LOCATION _____
- ☐ DIVISION _____
- ☐ DISTRICT _____
- ☐ PROVINCE _____
- ☐ GOVERNMENT _____
- ☐ (OTHER) _____

45. Do you think that the community policy needs fits with the policy plans made by

- ☐ SUB-LOCATION _____
- ☐ LOCATION _____
- ☐ DIVISION _____
- ☐ DISTRICT _____
- ☐ PROVINCE _____
- ☐ GOVERNMENT _____
- ☐ (OTHER) _____

46. Do you implement policy plans made by (specify how)

- ☐ COMMUNITY
 - ☐ YES _____
 - ☐ NO (why) _____
- ☐ SUB-LOCATION
 - ☐ YES _____
 - ☐ NO (why) _____
- ☐ LOCATION
 - ☐ YES _____
 - ☐ NO (why) _____
- ☐ DIVISION
 - ☐ YES _____
 - ☐ NO (why) _____
- ☐ DISTRICT
 - ☐ YES _____
 - ☐ NO (why) _____
- ☐ PROVINCE
 - ☐ YES _____
 - ☐ NO (why) _____
- ☐ GOVERNMENT
 - ☐ YES _____
 - ☐ NO (why) _____
- ☐ (OTHER) _____

47. Can you suggest some ways of improving policy plans formulation? _____

48. Can you suggest some ways of improving policy plans implementation? _____

49. Do you communicate with other villages/communities about your community problems?

- ☐ YES (how) _____
☐ NO (why not) _____

50. Do you have any comments?

- ☐ YES _____

☐ NO

THANK YOU VERY MUCH FOR YOUR INFORMATION

Appendix II: Questionnaire committee member (area without sand dam)

- Date interview: _____
- Name analyst: _____
- Respondent's name: _____
- Stream/river's name: _____
- District: _____
- Division: _____
- Location: _____
- Sub-location: _____
- Village: _____
- Committee: _____

Water resources

1. How many households use the nearest water resources ? _____ (number)
2. How many trips did you undertake to the old water resource?
 - ☐ _____ per person per day
 - ☐ _____ per donkey per day
 - ☐ _____ per cart per week
3. Distance water resource? _____ (kilometres)
 _____ (minutes)
4. What kind of water resource is this?
 - ☐ RIVER
 - ☐ SAND DAM
 - ☐ BOREHOLE
 - ☐ (OTHER) _____
 - ☐ WELL
 - ☐ CATCHMENT
5. Are there people who aren't using this nearest water resource?
 - ☐ YES (why) _____
 - ☐ NO
6. How far is the water resource they use? _____ (kilometres)
 _____ (minutes)
7. What kind of water resource is this?
 - ☐ RIVER
 - ☐ SAND DAM
 - ☐ BOREHOLE
 - ☐ (OTHER) _____
 - ☐ WELL
 - ☐ CATCHMENT

Structure organisation

8. Who comes up with an idea to undertake a project in your community?
 - ☐ COMMUNITY ITSELF
 - ☐ DISTRICT OFFICER
 - ☐ COUNCILLOR
 - ☐ CHIEF
 - ☐ (OTHER) _____
 - ☐ ASSISTANT-CHIEF
 - ☐ NON-GOVERNMENTAL ORGANISATION
 - ☐ SELF-HELP GROUPS

9. Who decides that a project is to be undertaken?

- | | |
|---|---|
| <input type="checkbox"/> COMMUNITY ITSELF | <input type="checkbox"/> ASSISTENT-CHIEF |
| <input type="checkbox"/> DISTRICT OFFICER | <input type="checkbox"/> NON-GOVERMENTAL |
| <input type="checkbox"/> COUNCILLOR | <input type="checkbox"/> ORGANISATION |
| <input type="checkbox"/> CHIEF | <input type="checkbox"/> SELF-HELP GROUPS |
| <input type="checkbox"/> (OTHER) _____ | |

10. In what way is a committee formed? _____

11. Average number of committee members: _____ (persons)

12. Can you identify various posts in a committee?

- | | |
|---|--|
| <input type="checkbox"/> CHAIRMAN | <input type="checkbox"/> SECRETARY |
| <input type="checkbox"/> VICE-CHAIRMAN | <input type="checkbox"/> ASSISTENT-SECRETARY |
| <input type="checkbox"/> CHAIRLADY | <input type="checkbox"/> THEASURER |
| <input type="checkbox"/> VICE-CHAIRLADY | <input type="checkbox"/> ARTISAN |
| <input type="checkbox"/> (OTHER) _____ | |
| <input type="checkbox"/> NO | |

13. Does a chairperson hold any other position in this community?

- ☐ YES (specify) _____
- ☐ NO
- ☐ SOMETIMES (specify) _____

14. Did you experience any problems with the functioning of the committee?

- ☐ YES
- ☐ NO (go to question 17)

15. What kind of problems did you experience? (specify)

- ☐ CHAIRPERSON POSSESS A LOT OF/LITTLE POWER _____
- ☐ INFLUENCE BY THE BUREAUCRATS (e.g. chief) _____
- ☐ CORRUPTION _____
- ☐ DISAGREEMENT _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____

16. Do you think some of the problems you experienced can be solved, and in what way?

- ☐ CHAIRPERSON POSSESS A LOT OF/LITTLE POWER _____
- ☐ INFLUENCE BY THE BUREAUCRATS (e.g. chief) _____
- ☐ CORRUPTION _____
- ☐ DISAGREEMENT _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____

17. Did you experience any other problems by undertaking a project?

- ☐ YES
- ☐ NO (go to question 20)

18. What kind of problems did you experience? (specify)

- ☐ WITH GOVERNMENTAL ORGANISATION _____
- ☐ WITHIN THE COMMUNITY _____
- ☐ WITH THE CO-OPERATION _____
- ☐ WITH MATERIALS _____
- ☐ BECAUSE OF LACK OF KNOWLEDGE _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____

19. Do you think some of the problems you experienced can be solved, and in what way?

- ☐ WITH GOVERNMENTAL ORGANISATION _____
- ☐ WITHIN THE COMMUNITY _____
- ☐ WITH THE CO-OPERATION _____
- ☐ WITH MATERIALS _____
- ☐ BECAUSE OF LACK OF KNOWLEDGE _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____

20. Suppose you are again nominated/elected to the dam committee, would you act differently?

- ☐ YES (specify) _____
- ☐ NO (specify) _____

21. Are there any projects in progress (for example school, road, hospital)

- ☐ YES (specify) _____
- ☐ NO (go to question 23)

22. Who came up with the idea of this project (these projects)?

- | | |
|---|---|
| <input type="checkbox"/> COMMUNITY | <input type="checkbox"/> ASSISTENT-CHIEF |
| <input type="checkbox"/> DISTRICT OFFICER | <input type="checkbox"/> NON GOVERNMENTAL |
| <input type="checkbox"/> COUNCILLER | <input type="checkbox"/> ORAGNISATION |
| <input type="checkbox"/> CHIEF | <input type="checkbox"/> SELF-HELP GROUPS |
| <input type="checkbox"/> (OTHER) _____ | |

Policy plans

23. Are there any policy plans in your community?

- ☐ YES (specify) _____
- ☐ NO (go to question 25)

24. How are the policy plans formulated? _____

25. Do you know anything about the policy needs of the community?

- ☐ YES (specify) _____
- ☐ NO (go to question 32)

26. Do you think the current projects in your location fits with the community policy plans?

- ☐ YES (specify) _____
- ☐ NO (specify) _____

27. Do you think that the community policy plans cover the policy needs of the community?

- ☐ YES (specify) _____
- ☐ NO (specify) _____

28. To who do you communicate the community needs?

- | | |
|--|---|
| <input type="checkbox"/> CHIEF | <input type="checkbox"/> SASOL |
| <input type="checkbox"/> ASSISTENT-CHIEF | <input type="checkbox"/> NON-GOVERNMENTAL |
| <input type="checkbox"/> DISTRICT OFFICER | <input type="checkbox"/> ORGANISATION |
| <input type="checkbox"/> PROVINCE COMMISSIONER | |
| <input type="checkbox"/> (OTHER) _____ | |

29. How do you communicate your community needs: _____

30. Do you think you communicate your community needs to the right people?

- ☐ YES (specify) _____
- ☐ NO (specify) _____

31. Do you have the idea whether something is done with the information provide?

- ☐ YES (specify) _____
- ☐ NO (specify) _____

32. Is there a development officer on
- ☐ DIVISION-LEVEL _____
 - ☐ LOCATION-LEVEL _____
 - ☐ SUB-LOCATION-LEVEL _____
 - ☐ NO
33. What are the occupations of
- ☐ DIVISION-DEVELOPMENT OFFICER _____
 - ☐ LOCATION- DEVELOPMENT OFFICER _____
 - ☐ SUB-LOCATION- DEVELOPMENT OFFICER _____
34. Are you consulted for any development plans in your location made by
- ☐ SUB-LOCATION _____
 - ☐ LOCATION _____
 - ☐ DIVISION _____
 - ☐ DISTRICT _____
 - ☐ PROVINCE _____
 - ☐ GOVERNMENT _____
 - ☐ (OTHER) _____
35. Do you know anything about the policy plans made by
- ☐ SUB-LOCATION _____
 - ☐ LOCATION _____
 - ☐ DIVISION _____
 - ☐ DISTRICT _____
 - ☐ PROVINCE _____
 - ☐ GOVERNMENT _____
 - ☐ (OTHER) _____
36. Do you think that the current projects in your location fits with the policy plans made by
- ☐ SUB-LOCATION _____
 - ☐ LOCATION _____
 - ☐ DIVISION _____
 - ☐ DISTRICT _____
 - ☐ PROVINCE _____
 - ☐ GOVERNMENT _____
 - ☐ (OTHER) _____
37. Do you think that the community policy needs fits with the policy plans made by
- ☐ SUB-LOCATION _____
 - ☐ LOCATION _____
 - ☐ DIVISION _____
 - ☐ DISTRICT _____
 - ☐ PROVINCE _____
 - ☐ GOVERNMENT _____
 - ☐ (OTHER) _____

38. Do you implement policy plans made by (specify how)

☐ COMMUNITY

☐ YES _____

☐ NO (why) _____

☐ SUB-LOCATION

☐ YES _____

☐ NO (why) _____

☐ LOCATION

☐ YES _____

☐ NO (why) _____

☐ DIVISION

☐ YES _____

☐ NO (why) _____

☐ DISTRICT

☐ YES _____

☐ NO (why) _____

☐ PROVINCE

☐ YES _____

☐ NO (why) _____

☐ GOVERNMENT

☐ YES _____

☐ NO (why) _____

☐ (OTHER) _____

39. Can you suggest some ways of improving policy plans formulation? _____

40. Can you suggest some ways of improving policy plans implementation? _____

41. Do you communicate with other villages/communities about your community problems?

☐ YES (how) _____

☐ NO (why) _____

42. Do you have any comments?

☐ YES _____

☐ NO _____

THANK YOU VERY MUCH FOR YOUR INFORMATION

Appendix III: Questionnaire community member (area with sand dam)

- | | |
|------------------------------|-----------------------|
| - Date interview: _____ | - District: _____ |
| - Name analyst: _____ | - Division: _____ |
| - Respondent's name: _____ | - Location: _____ |
| - Dam's name: _____ | - Sub-location: _____ |
| - Stream/river's name: _____ | - Village: _____ |

Introduction

1. What do you farm?

<input type="checkbox"/> BEANS	<input type="checkbox"/> MILLET
<input type="checkbox"/> MAIZE	<input type="checkbox"/> COWPEAS
<input type="checkbox"/> GRAMS	<input type="checkbox"/> SORGHUM
<input type="checkbox"/> (OTHER) _____	
2. Do you keep animals?

<input type="checkbox"/> SHEEP	<input type="checkbox"/> BEES
<input type="checkbox"/> CATTLE	<input type="checkbox"/> CHICKEN
<input type="checkbox"/> GOATS	
<input type="checkbox"/> (OTHER) _____	
3. How far is your house situated from the river? _____ (kilometres)
 _____ (minutes)
4. How far is your house situated from the sand dam? _____ (kilometres)
 _____ (minutes)
5. Did you have any influence where the dam was situated?

<input type="checkbox"/> YES (how) _____
<input type="checkbox"/> NO
6. Are you satisfied with the way the site was selected? (Please specify)

<input type="checkbox"/> YES _____
<input type="checkbox"/> NO _____

Organisation sand dam

7. Time between the idea & forming the committee: _____ (days)
8. Time between forming the committee and starting the construction of the dam: ____ (weeks)
9. Start date construction sand dam: _____ (day-month-year)
10. Date sand dam completed: _____ (day-month-year)
11. How many trips did you undertake to the old water resource?

<input type="checkbox"/> _____ per person per day
<input type="checkbox"/> _____ per donkey per day
<input type="checkbox"/> _____ per cart per week
12. Distance old water resource? _____ (kilometres)
 _____ (minutes)

13. Do you use the sand dam?

- ☐ YES
☐ NO (why) _____ (go to question 16)

14. How many trips do you undertake to the sand dam?

- ☐ _____ per person per day
☐ _____ per donkey per day
☐ _____ per cart per week

15. Distance sand dam? _____ (kilometres)
 _____ (minutes)

Structure organisation

16. Who came up with the idea to build a sand dam or water resource?

- | | |
|--|---|
| <input type="checkbox"/> COMMUNITY | <input type="checkbox"/> ASSISTENT-CHIEF |
| <input type="checkbox"/> DISTRICT OFFICER | <input type="checkbox"/> SASOL |
| <input type="checkbox"/> COUNCILLOR | <input type="checkbox"/> SELF-HELP GROUPS |
| <input type="checkbox"/> CHIEF | |
| <input type="checkbox"/> OTHER (specify) _____ | |

17. Who decided that the sand dam was going to be built?

- | | |
|---|---|
| <input type="checkbox"/> COMMUNITY | <input type="checkbox"/> ASSISTENT-CHIEF |
| <input type="checkbox"/> DISTRICT OFFICER | <input type="checkbox"/> SASOL |
| <input type="checkbox"/> COUNCILLOR | <input type="checkbox"/> SELF-HELP GROUPS |
| <input type="checkbox"/> CHIEF | |
| <input type="checkbox"/> (OTHER) _____ | |

18. In what way is a committee formed? _____

19. Number of committee members: _____ (persons)

20. Can you identify various posts in the dam committee?

- | | |
|---|--|
| <input type="checkbox"/> CHAIRMAN | <input type="checkbox"/> SECRETARY |
| <input type="checkbox"/> VICE CHAIRMAN | <input type="checkbox"/> ASSISTANT SECRETARY |
| <input type="checkbox"/> CHAIRLADY | <input type="checkbox"/> TREASURER |
| <input type="checkbox"/> VICE CHAIRLADY | <input type="checkbox"/> ARTISAN |
| <input type="checkbox"/> (OTHER) _____ | |
| <input type="checkbox"/> NO | |

21. Does the chairperson hold any other position in the community?

- ☐ YES (specify) _____
☐ NO

22. Did you experience any problems with the functioning of the committee?

- ☐ YES
☐ NO (go to question 25)

23. What kind of problems did you experience? (specify)

- ☐ CHAIRPERSON POSSESS A LOT OF/LITTLE POWER _____
- ☐ INFLUENCE BY THE BUREAUCRATS (e.g. chief) _____
- ☐ CORRUPTION _____
- ☐ DISAGREEMENT _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____

24. Do you think some of the problems you experienced can be solved, and in what way?

- ☐ CHAIRPERSON POSSESS A LOT OF/LITTLE POWER _____
- ☐ INFLUENCE BY THE BUREAUCRATS (e.g. chief) _____
- ☐ CORRUPTION _____
- ☐ DISAGREEMENT _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____

25. Did you experience any other problem in the period before the sand dam was constructed?

- ☐ YES
- ☐ NO (go to question 28)

26. What kind of problems did you experience? (please specify the problems)

- ☐ WITH SASOL _____
- ☐ WITHIN THE COMMUNITY _____
- ☐ WITH THE CO-OPERATION _____
- ☐ WITH MATERIALS _____
- ☐ BECAUSE OF LACK OF KNOWLEDGE _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____

27. Do you think some of the problems you experienced can be solved? (specify in what way)

- ☐ WITH SASOL _____
- ☐ WITHIN THE COMMUNITY _____
- ☐ WITH THE CO-OPERATION _____
- ☐ WITH MATERIALS _____
- ☐ BECAUSE OF LACK OF KNOWLEDGE _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____

28. Did you experience any problems in the period during the construction of the sand dam?

- ☐ YES
- ☐ NO (go to question 31)

29. What kind of problems did you experience? (please specify the problems)

- ☐ WITH SASOL _____
- ☐ WITHIN THE COMMUNITY _____
- ☐ WITH THE CO-OPERATION _____
- ☐ WITH MATERIALS _____
- ☐ BECAUSE OF LACK OF KNOWLEDGE _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____

30. Do you think some of the problems you experienced can be solved? (specify in what way)

- ☐ WITH SASOL _____
- ☐ WITHIN THE COMMUNITY _____
- ☐ WITH THE CO-OPERATION _____
- ☐ WITH MATERIALS _____
- ☐ BECAUSE OF LACK OF KNOWLEDGE _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____

31. Suppose you are nominated/elected to the dam committee, would you act differently?

- ☐ YES (specify) _____
- ☐ NO (specify) _____

32. Are there any other projects in progress (for example school, road, hospital)

- ☐ YES (specify) _____
- ☐ NO (go to question 34)

33. Who came up with the idea of this project (these projects)?

- | | |
|---|---|
| <input type="checkbox"/> COMMUNITY | <input type="checkbox"/> ASSISTENT-CHIEF |
| <input type="checkbox"/> DISTRICT OFFICER | <input type="checkbox"/> SASOL |
| <input type="checkbox"/> COUNCILLOR | <input type="checkbox"/> SELF-HELP GROUPS |
| <input type="checkbox"/> CHIEF | |
| <input type="checkbox"/> (OTHER) _____ | |

Policy plans

34. Are there any policy plans in your community?

- ☐ YES (specify) _____
- ☐ NO (go to question 36)

35. How are the policy plans formulated? _____

36. Do you know anything about the policy needs of the community?

- ☐ YES (specify) _____
☐ NO (go to question 43)
37. Do you think that building sand dams in your location fits with the community policy plans?
☐ YES (specify) _____
☐ NO (specify) _____
38. Do you think that the community policy plans cover the needs of the community?
☐ YES (specify) _____
☐ NO (specify) _____
39. To whom do you communicate your community needs?
☐ CHIEF ☐ SASOL
☐ ASSISTENT-CHIEF ☐ NON-GOVERNMENTAL ORGANISATION
☐ DISTRICT OFFICER
☐ PROVINCE COMMISSIONER
☐ (OTHER) _____
☐ NO ONE (go to question 43)
40. How do you communicate your community needs: _____

41. Do you think you communicate your community needs to the right people?
☐ YES (specify) _____
☐ NO (specify) _____
42. Do you have the idea whether something is done with the information provide?
☐ YES (specify) _____
☐ NO (specify) _____
43. Is there a development officer on
☐ DIVISION-LEVEL _____
☐ LOCATION-LEVEL _____
☐ SUB-LOCATION-LEVEL _____
☐ NO
44. What are the occupations of
☐ DIVISION-DEVELOPMENT OFFICER _____
☐ LOCATION- DEVELOPMENT OFFICER _____
☐ SUB-LOCATION- DEVELOPMENT OFFICER _____

45. Are you consulted for any development plans in your location made by

- ☐ SUB-LOCATION _____
- ☐ LOCATION _____
- ☐ DIVISION _____
- ☐ DISTRICT _____
- ☐ PROVINCE _____
- ☐ GOVERNMENT _____
- ☐ (OTHER) _____
- ☐ NO

46. Do you know anything about the policy plans made by

- ☐ SUB-LOCATION _____
- ☐ LOCATION _____
- ☐ DIVISION _____
- ☐ DISTRICT _____
- ☐ PROVINCE _____
- ☐ GOVERNMENT _____
- ☐ (OTHER) _____
- ☐ NO (go to question 49)

47. Do you think that building a sand dam in your location fits with the policy plans made by

- ☐ SUB-LOCATION _____
- ☐ LOCATION _____
- ☐ DIVISION _____
- ☐ DISTRICT _____
- ☐ PROVINCE _____
- ☐ GOVERNMENT _____
- ☐ (OTHER) _____

48. Do you think that the community policy needs fits with the policy plans made by

- ☐ SUB-LOCATION _____
- ☐ LOCATION _____
- ☐ DIVISION _____
- ☐ DISTRICT _____
- ☐ PROVINCE _____
- ☐ GOVERNMENT _____
- ☐ (OTHER) _____

49. Can you suggest some ways of improving policy plans formulation? _____

50. Can you suggest some ways of improving policy plans implementation? _____

51. Do you communicate with other villages/communities about your community problems?

☐ YES (how) _____

☐ NO (why) _____

52. Do you have any comments?

☐ YES _____

☐ NO

THANK YOU VERY MUCH FOR YOUR INFORMATION

Appendix IV: Questionnaire community member (area without sand dam)

- Date interview: _____
- Name analyst: _____
- Respondent's name: _____
- Stream/river's name: _____
- District: _____
- Division: _____
- Location: _____
- Sub-location: _____
- Village: _____

Introduction

1. What do you farm?
 - ☐ BEANS
 - ☐ MAIZE
 - ☐ GRAMS
 - ☐ (OTHER) _____
 - ☐ MILLET
 - ☐ COWPEAS
 - ☐ SORGHUM
2. Do you keep animals?
 - ☐ SHEEP
 - ☐ CATTLE
 - ☐ GOATS
 - ☐ (OTHER) _____
 - ☐ BEES
 - ☐ CHICKEN
3. How far is your house situated from the river? _____ (kilometres)
 _____ (minutes)
4. Do you take water from the nearest water resource?
 - ☐ YES
 - ☐ NO (why) _____
5. How many trips did you undertake to the water resource?
 - ☐ _____ per person per day
 - ☐ _____ per donkey per day
 - ☐ _____ per cart per week
6. Distance old water resource? _____ (kilometres)
 _____ (minutes)
7. What kind of water resource is this?
 - ☐ RIVER
 - ☐ SAND DAM
 - ☐ BOREHOLE
 - ☐ (OTHER) _____
 - ☐ WELL
 - ☐ CATCHMENT

Structure organisation

8. Who comes up with an idea to undertake a project in your community?
 - ☐ COMMUNITY
 - ☐ DISTRICT OFFICER
 - ☐ COUNCILLOR
 - ☐ CHIEF
 - ☐ OTHER (specify) _____
 - ☐ ASSISTENT-CHIEF
 - ☐ NON-GOVERNMENTAL ORGANISATION
 - ☐ SELF-HELP GROUPS

9. Who decides that a project is to be undertaken?

- | | |
|---|---|
| <input type="checkbox"/> COMMUNITY | <input type="checkbox"/> ASSISTENT-CHIEF |
| <input type="checkbox"/> DISTRICT OFFICER | <input type="checkbox"/> NON-GOVERNMENTAL |
| <input type="checkbox"/> COUNCILLOR | <input type="checkbox"/> ORGANISATION |
| <input type="checkbox"/> CHIEF | <input type="checkbox"/> SELF-HELP GROUPS |
| <input type="checkbox"/> (OTHER) _____ | |

10. In what way is a committee formed? _____

11. Number of committee members: _____ (persons)

12. Average time between an idea & forming the committee: _____ (days)

13. Average time between forming a committee and starting the project: _____ (weeks)

14. Can you identify various posts in the dam committee?

- | | |
|---|--|
| <input type="checkbox"/> CHAIRMAN | <input type="checkbox"/> SECRETARY |
| <input type="checkbox"/> VICE CHAIRMAN | <input type="checkbox"/> ASSISTANT SECRETARY |
| <input type="checkbox"/> CHAIRLADY | <input type="checkbox"/> TREASURER |
| <input type="checkbox"/> VICE CHAIRLADY | <input type="checkbox"/> ARTISAN |
| <input type="checkbox"/> (OTHER) _____ | |
| <input type="checkbox"/> NO | |

15. Does the chairperson hold any other position in the community?

- ☐ YES (specify) _____
- ☐ NO

16. Did you experience any problems with the functioning of the committee?

- ☐ YES
- ☐ NO (go to question 19)

17. What kind of problems did you experience? (specify)

- ☐ CHAIRPERSON POSSESS A LOT OF/LITTLE POWER _____
- ☐ INFLUENCE BY THE BUREAUCRATS (e.g. chief) _____
- ☐ CORRUPTION _____
- ☐ DISAGREEMENT _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____

18. Do you think some of the problems you experienced can be solved, and in what way?

- ☐ CHAIRPERSON POSSESS A LOT OF/LITTLE POWER _____
- ☐ INFLUENCE BY THE BUREAUCRATS (e.g. chief) _____
- ☐ CORRUPTION _____
- ☐ DISAGREEMENT _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____

19. Did you experience any other problems by undertaking a project?

- ☐ YES
- ☐ NO (go to question 22)

20. What kind of problems did you experience? (please specify the problems)

- ☐ WITH GOVERNMENTAL ORGANISATION _____
- ☐ WITHIN THE COMMUNITY _____
- ☐ WITH THE CO-OPERATION _____
- ☐ WITH MATERIALS _____
- ☐ BECAUSE OF LACK OF KNOWLEDGE _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____

21. Do you think some of the problems you experienced can be solved? (specify in what way)

- ☐ WITH GOVERNMENTAL ORGANISATION _____
- ☐ WITHIN THE COMMUNITY _____
- ☐ WITH THE CO-OPERATION _____
- ☐ WITH MATERIALS _____
- ☐ BECAUSE OF LACK OF KNOWLEDGE _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____

22. Suppose you are nominated/elected to the dam committee, would you act differently?

- ☐ YES (specify) _____
- ☐ NO (specify) _____

23. Are there any projects in progress (for example school, road, hospital)

- ☐ YES (specify) _____
- ☐ NO (go to question 25)

24. Who came up with the idea of this project (these projects)?

- | | |
|---|---|
| <input type="checkbox"/> COMMUNITY | <input type="checkbox"/> ASSISTENT-CHIEF |
| <input type="checkbox"/> DISTRICT OFFICER | <input type="checkbox"/> NON-GOVERNMENTAL |
| <input type="checkbox"/> COUNCILLOR | ORGANISATION |
| <input type="checkbox"/> CHIEF | <input type="checkbox"/> SELF-HELP GROUPS |
| <input type="checkbox"/> (OTHER) _____ | |

Policy plans

25. Are there any policy plans in your community?

- ☐ YES (specify) _____
- ☐ NO (go to question 27)

26. How are the policy plans formulated? _____

27. Do you know anything about the policy needs of the community?

- ☐ YES (specify) _____
- ☐ NO (go to question 34)

28. Do you think that building sand dams in your location fits with the community policy plans?

- ☐ YES (specify) _____
- ☐ NO (specify) _____

29. Do you think that the community policy plans cover the needs of the community?

- ☐ YES (specify) _____
- ☐ NO (specify) _____

30. To whom do you communicate your community needs?

- | | |
|---|---|
| <input type="checkbox"/> CHIEF | <input type="checkbox"/> SASOL |
| <input type="checkbox"/> ASSISTENT-CHIEF | <input type="checkbox"/> NON-GOVERNMENTAL |
| <input type="checkbox"/> DISTRICT OFFICER | ORGANISATION |
| <input type="checkbox"/> PROVINCE COMMISSIONER | |
| <input type="checkbox"/> (OTHER) _____ | |
| <input type="checkbox"/> NO ONE (go to question 34) | |

31. How do you communicate your community needs: _____

32. Do you think you communicate your community needs to the right people?

- ☐ YES (specify) _____
- ☐ NO (specify) _____

33. Do you have the idea whether something is done with the information provide?

- ☐ YES (specify) _____
☐ NO (specify) _____

34. Is there a development officer on

- ☐ DIVISION-LEVEL _____
☐ LOCATION-LEVEL _____
☐ SUB-LOCATION-LEVEL _____
☐ NO

35. What are the occupations of

- ☐ DIVISION-DEVELOPMENT OFFICER _____
☐ LOCATION- DEVELOPMENT OFFICER _____
☐ SUB-LOCATION- DEVELOPMENT OFFICER _____

36. Are you consulted for any development plans in your location made by

- ☐ SUB-LOCATION _____
☐ LOCATION _____
☐ DIVISION _____
☐ DISTRICT _____
☐ PROVINCE _____
☐ GOVERNMENT _____
☐ (OTHER) _____
☐ NO

37. Do you know anything about the policy plans made by

- ☐ SUB-LOCATION _____
☐ LOCATION _____
☐ DIVISION _____
☐ DISTRICT _____
☐ PROVINCE _____
☐ GOVERNMENT _____
☐ (OTHER) _____
☐ NO

38. Do you think that the current projects in your location fits with the policy plans made by

- ☐ SUB-LOCATION _____
☐ LOCATION _____
☐ DIVISION _____
☐ DISTRICT _____
☐ PROVINCE _____
☐ GOVERNMENT _____
☐ (OTHER) _____

39. Do you think that the community policy needs fits with the policy plans made by
- ☐ SUB-LOCATION _____
 - ☐ LOCATION _____
 - ☐ DIVISION _____
 - ☐ DISTRICT _____
 - ☐ PROVINCE _____
 - ☐ GOVERNMENT _____
 - ☐ (OTHER) _____
40. Can you suggest some ways of improving policy plans formulation? _____
- _____
- _____
41. Can you suggest some ways of improving policy plans implementation? _____
- _____
- _____
42. Do you communicate with other villages/communities about your community problems?
- ☐ YES (how) _____
 - ☐ NO (why) _____
43. Do you have any comments?
- ☐ YES _____
 - ☐ NO _____

THANK YOU VERY MUCH FOR YOUR INFORMATION

Appendix V: Questionnaire chief (area without sand dam)

- | | |
|------------------------------|-----------------------|
| - Date interview: _____ | - Division: _____ |
| - Name analyst: _____ | - Location: _____ |
| - Chief's name: _____ | - Sub-location: _____ |
| - Stream/river's name: _____ | - Village: _____ |
| - District: _____ | - Committee: _____ |

Water resources

1. How many households use the nearest water resources ? _____ (number)
2. How many trips did you undertake to the old water resource?

<input type="checkbox"/> _____	per person per day
<input type="checkbox"/> _____	per donkey per day
<input type="checkbox"/> _____	per cart per week
3. Distance water resource? _____ (kilometres)
 _____ (minutes)
4. What kind of water resource is this?

<input type="checkbox"/> RIVER	<input type="checkbox"/> WELL
<input type="checkbox"/> SAND DAM	<input type="checkbox"/> CATCHMENT
<input type="checkbox"/> BOREHOLE	
<input type="checkbox"/> (OTHER) _____	
5. Are there people who aren't using this nearest water resource?

<input type="checkbox"/> YES (why) _____
<input type="checkbox"/> NO
6. How far is the water resource they use? _____ (kilometres)
 _____ (minutes)
7. What kind of water resource is this?

<input type="checkbox"/> RIVER	<input type="checkbox"/> WELL
<input type="checkbox"/> SAND DAM	<input type="checkbox"/> CATCHMENT
<input type="checkbox"/> BOREHOLE	
<input type="checkbox"/> (OTHER) _____	

Structure organisation

8. Who comes up with an idea to undertake a project in your community?

<input type="checkbox"/> COMMUNITY ITSELF	<input type="checkbox"/> ASSISTANT-CHIEF
<input type="checkbox"/> DISTRICT OFFICER	<input type="checkbox"/> NON-GOVERNMENTAL
<input type="checkbox"/> COUNCILLOR	ORGANISATION
<input type="checkbox"/> CHIEF	<input type="checkbox"/> SELF-HELP GROUPS
<input type="checkbox"/> (OTHER) _____	

9. Who decides that a project is to be undertaken?

- | | |
|---|---|
| <input type="checkbox"/> COMMUNITY ITSELF | <input type="checkbox"/> ASSISTENT-CHIEF |
| <input type="checkbox"/> DISTRICT OFFICER | <input type="checkbox"/> NON-GOVERMENTAL |
| <input type="checkbox"/> COUNCILLOR | <input type="checkbox"/> ORGANISATION |
| <input type="checkbox"/> CHIEF | <input type="checkbox"/> SELF-HELP GROUPS |
| <input type="checkbox"/> (OTHER) _____ | |

10. In what way is a committee formed? _____

11. Average number of committee members: _____ (persons)

12. Can you identify various posts in a committee?

- | | |
|---|--|
| <input type="checkbox"/> CHAIRMAN | <input type="checkbox"/> SECRETARY |
| <input type="checkbox"/> VICE-CHAIRMAN | <input type="checkbox"/> ASSISTENT-SECRETARY |
| <input type="checkbox"/> CHAIRLADY | <input type="checkbox"/> THEASURER |
| <input type="checkbox"/> VICE-CHAIRLADY | <input type="checkbox"/> ARTISAN |
| <input type="checkbox"/> (OTHER) _____ | |
| <input type="checkbox"/> NO | |

13. Does a chairperson hold any other position in this community?

- ☐ YES (specify) _____
- ☐ NO
- ☐ SOMETIMES (specify) _____

14. Did you experience any problems with the functioning of the committee?

- ☐ YES
- ☐ NO (go to question 17)

15. What kind of problems did you experience? (specify)

- ☐ CHAIRPERSON POSSESS A LOT OF/LITTLE POWER _____
- ☐ INFLUENCE BY THE BUREAUCRATS (e.g. chief) _____
- ☐ CORRUPTION _____
- ☐ DISAGREEMENT _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____

16. Do you think some of the problems you experienced can be solved, and in what way?

- ☐ CHAIRPERSON POSSESS A LOT OF/LITTLE POWER _____
- ☐ INFLUENCE BY THE BUREAUCRATS (e.g. chief) _____
- ☐ CORRUPTION _____
- ☐ DISAGREEMENT _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____

17. Did you experience any other problems by undertaking a project?

- ☐ YES
- ☐ NO (go to question 20)

18. What kind of problems did you experience? (specify)

- ☐ WITH GOVERNMENTAL ORGANISATION _____
- ☐ WITHIN THE COMMUNITY _____
- ☐ WITH THE CO-OPERATION _____
- ☐ WITH MATERIALS _____
- ☐ BECAUSE OF LACK OF KNOWLEDGE _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____

19. Do you think some of the problems you experienced can be solved, and in what way?

- ☐ WITH GOVERNMENTAL ORGANISATION _____
- ☐ WITHIN THE COMMUNITY _____
- ☐ WITH THE CO-OPERATION _____
- ☐ WITH MATERIALS _____
- ☐ BECAUSE OF LACK OF KNOWLEDGE _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____

20. Suppose you are nominated/elected to the dam committee, would you act differently?

- ☐ YES (specify) _____
- ☐ NO (specify) _____

21. Are there any projects in progress (for example school, road, hospital)

- ☐ YES (specify) _____
- ☐ NO (go to question 23)

22. Who came up with the idea of this project (these projects)?

- | | |
|---|---|
| <input type="checkbox"/> COMMUNITY | <input type="checkbox"/> ASSISTENT-CHIEF |
| <input type="checkbox"/> DISTRICT OFFICER | <input type="checkbox"/> NON GOVERNMENTAL |
| <input type="checkbox"/> COUNCILLER | <input type="checkbox"/> ORAGNISATION |
| <input type="checkbox"/> CHIEF | <input type="checkbox"/> SELF-HELP GROUPS |
| <input type="checkbox"/> (OTHER) _____ | |

Policy plans

23. Are there any policy plans in your community?

- ☐ YES (specify) _____
- ☐ NO (go to question 25)

24. How are the policy plans formulated? _____

25. Do you know anything about the policy needs of the community?

- ☐ YES (specify) _____
- ☐ NO (go to question 32)

26. Do you think the current projects in your location fits with the community policy plans?

- ☐ YES (specify) _____
- ☐ NO (specify) _____

27. Do you think that the community policy plans cover the policy needs of the community?

- ☐ YES (specify) _____
- ☐ NO (specify) _____

28. To who do you communicate the community needs?

- | | |
|--|---|
| <input type="checkbox"/> CHIEF | <input type="checkbox"/> SASOL |
| <input type="checkbox"/> ASSISTENT-CHIEF | <input type="checkbox"/> NON-GOVERNMENTAL |
| <input type="checkbox"/> DISTRICT OFFICER | <input type="checkbox"/> ORGANISATION |
| <input type="checkbox"/> PROVINCE COMMISSIONER | |
| <input type="checkbox"/> (OTHER) _____ | |

29. How do you communicate your community needs: _____

30. Do you think you communicate your community needs to the right people?

- ☐ YES (specify) _____
- ☐ NO (specify) _____

31. Do you have the idea whether something is done with the information provide?

- ☐ YES (specify) _____
- ☐ NO (specify) _____

32. Is there a development officer on
- ☐ DIVISION-LEVEL _____
 - ☐ LOCATION-LEVEL _____
 - ☐ SUB-LOCATION-LEVEL _____
 - ☐ NO
33. What are the occupations of
- ☐ DIVISION-DEVELOPMENT OFFICER _____
 - ☐ LOCATION- DEVELOPMENT OFFICER _____
 - ☐ SUB-LOCATION- DEVELOPMENT OFFICER _____
34. Are you consulted for any development plans in your location made by
- ☐ SUB-LOCATION _____
 - ☐ LOCATION _____
 - ☐ DIVISION _____
 - ☐ DISTRICT _____
 - ☐ PROVINCE _____
 - ☐ GOVERNMENT _____
 - ☐ (OTHER) _____
35. Do you know anything about the policy plans made by
- ☐ SUB-LOCATION _____
 - ☐ LOCATION _____
 - ☐ DIVISION _____
 - ☐ DISTRICT _____
 - ☐ PROVINCE _____
 - ☐ GOVERNMENT _____
 - ☐ (OTHER) _____
36. Do you think that the current projects in your location fits with the policy plans made by
- ☐ SUB-LOCATION _____
 - ☐ LOCATION _____
 - ☐ DIVISION _____
 - ☐ DISTRICT _____
 - ☐ PROVINCE _____
 - ☐ GOVERNMENT _____
 - ☐ (OTHER) _____
37. Do you think that the community policy needs fits with the policy plans made by
- ☐ SUB-LOCATION _____
 - ☐ LOCATION _____
 - ☐ DIVISION _____
 - ☐ DISTRICT _____
 - ☐ PROVINCE _____
 - ☐ GOVERNMENT _____
 - ☐ (OTHER) _____
38. Do you implement policy plans made by (specify how)

- ☐ COMMUNITY
 - ☐ YES _____
 - ☐ NO (why) _____
- ☐ SUB-LOCATION
 - ☐ YES _____
 - ☐ NO (why) _____
- ☐ LOCATION
 - ☐ YES _____
 - ☐ NO (why) _____
- ☐ DIVISION
 - ☐ YES _____
 - ☐ NO (why) _____
- ☐ DISTRICT
 - ☐ YES _____
 - ☐ NO (why) _____
- ☐ PROVINCE
 - ☐ YES _____
 - ☐ NO (why) _____
- ☐ GOVERNMENT
 - ☐ YES _____
 - ☐ NO (why) _____
- ☐ (OTHER) _____

39. Can you suggest some ways of improving policy plans formulation? _____

40. Can you suggest some ways of improving policy plans implementation? _____

41. Do you communicate with other villages/communities about your community problems?

- ☐ YES (how) _____
- ☐ NO (why) _____

42. Do you have any comments?

- ☐ YES _____
- ☐ NO _____

THANK YOU VERY MUCH FOR YOUR INFORMATION

Appendix VI: Questionnaire assistant-chief (area without sand dam)

- | | |
|------------------------------|-----------------------|
| - Date interview: _____ | - Division: _____ |
| - Name analyst: _____ | - Location: _____ |
| - Respondent's name: _____ | - Sub-location: _____ |
| - Stream/river's name: _____ | - Village: _____ |
| - District: _____ | - Committee: _____ |

Water resources

1. How many households use the nearest water resources ? _____ (number)
2. How many trips did you undertake to the old water resource?

<input type="checkbox"/> _____	per person per day
<input type="checkbox"/> _____	per donkey per day
<input type="checkbox"/> _____	per cart per week
3. Distance water resource? _____ (kilometres)
 _____ (minutes)
4. What kind of water resource is this?

<input type="checkbox"/> RIVER	<input type="checkbox"/> WELL
<input type="checkbox"/> SAND DAM	<input type="checkbox"/> CATCHMENT
<input type="checkbox"/> BOREHOLE	
<input type="checkbox"/> (OTHER) _____	
5. Are there people who aren't using this nearest water resource?

<input type="checkbox"/> YES (why) _____
<input type="checkbox"/> NO
6. How far is the water resource they use? _____ (kilometres)
 _____ (minutes)
7. What kind of water resource is this?

<input type="checkbox"/> RIVER	<input type="checkbox"/> WELL
<input type="checkbox"/> SAND DAM	<input type="checkbox"/> CATCHMENT
<input type="checkbox"/> BOREHOLE	
<input type="checkbox"/> (OTHER) _____	

Structure organisation

8. Who comes up with an idea to undertake a project in your community?

<input type="checkbox"/> COMMUNITY ITSELF	<input type="checkbox"/> ASSISTANT-CHIEF
<input type="checkbox"/> DISTRICT OFFICER	<input type="checkbox"/> NON-GOVERNMENTAL ORGANISATION
<input type="checkbox"/> COUNCILLOR	<input type="checkbox"/> SELF-HELP GROUPS
<input type="checkbox"/> CHIEF	
<input type="checkbox"/> (OTHER) _____	

9. Who decides that a project is to be undertaken?

- | | |
|---|---|
| <input type="checkbox"/> COMMUNITY ITSELF | <input type="checkbox"/> ASSISTENT-CHIEF |
| <input type="checkbox"/> DISTRICT OFFICER | <input type="checkbox"/> NON-GOVERMENTAL |
| <input type="checkbox"/> COUNCILLOR | ORGANISATION |
| <input type="checkbox"/> CHIEF | <input type="checkbox"/> SELF-HELP GROUPS |
| <input type="checkbox"/> (OTHER) _____ | |

10. In what way is a committee formed? _____

11. Average number of committee members: _____ (persons)

12. Can you identify various posts in a committee?

- | | |
|---|--|
| <input type="checkbox"/> CHAIRMAN | <input type="checkbox"/> SECRETARY |
| <input type="checkbox"/> VICE-CHAIRMAN | <input type="checkbox"/> ASSISTENT-SECRETARY |
| <input type="checkbox"/> CHAIRLADY | <input type="checkbox"/> THEASURER |
| <input type="checkbox"/> VICE-CHAIRLADY | <input type="checkbox"/> ARTISAN |
| <input type="checkbox"/> (OTHER) _____ | |
| <input type="checkbox"/> NO | |

13. Does a chairperson hold any other position in this community?

- ☐ YES (specify) _____
- ☐ NO
- ☐ SOMETIMES (specify) _____

14. Did you experience any problems with the functioning of the committee?

- ☐ YES
- ☐ NO (go to question 17)

15. What kind of problems did you experience? (specify)

- ☐ CHAIRPERSON POSSESS A LOT OF/LITTLE POWER _____
- ☐ INFLUENCE BY THE BUREAUCRATS (e.g. chief) _____
- ☐ CORRUPTION _____
- ☐ DISAGREEMENT _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____

16. Do you think some of the problems you experienced can be solved, and in what way?

- ☐ CHAIRPERSON POSSESS A LOT OF/LITTLE POWER _____
- ☐ INFLUENCE BY THE BUREAUCRATS (e.g. chief) _____
- ☐ CORRUPTION _____
- ☐ DISAGREEMENT _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____

17. Did you experience any other problems by undertaking a project?

- ☐ YES
- ☐ NO (go to question 20)

18. What kind of problems did you experience? (specify)

- ☐ WITH GOVERNMENTAL ORGANISATION _____
- ☐ WITHIN THE COMMUNITY _____
- ☐ WITH THE CO-OPERATION _____
- ☐ WITH MATERIALS _____
- ☐ BECAUSE OF LACK OF KNOWLEDGE _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____

19. Do you think some of the problems you experienced can be solved, and in what way?

- ☐ WITH GOVERNMENTAL ORGANISATION _____
- ☐ WITHIN THE COMMUNITY _____
- ☐ WITH THE CO-OPERATION _____
- ☐ WITH MATERIALS _____
- ☐ BECAUSE OF LACK OF KNOWLEDGE _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____
- ☐ (OTHER) _____

20. Suppose you are nominated/elected to the dam committee, would you act differently?

- ☐ YES (specify) _____
- ☐ NO (specify) _____

21. Are there any projects in progress (for example school, road, hospital)

- ☐ YES (specify) _____
- ☐ NO (go to question 23)

22. From who came the idea of this project (these projects)?

- | | |
|---|---|
| <input type="checkbox"/> COMMUNITY | <input type="checkbox"/> ASSISTENT-CHIEF |
| <input type="checkbox"/> DISTRICT OFFICER | <input type="checkbox"/> NON GOVERNMENTAL |
| <input type="checkbox"/> COUNCILLER | <input type="checkbox"/> ORAGNISATION |
| <input type="checkbox"/> CHIEF | <input type="checkbox"/> SELF-HELP GROUPS |
| <input type="checkbox"/> (OTHER) _____ | |

Policy plans

23. Are there any policy plans in your community?

- ☐ YES (specify) _____
- ☐ NO (go to question 25)

24. How are the policy plans formulated? _____

25. Do you know anything about the policy needs of the community?

- ☐ YES (specify) _____
- ☐ NO (go to question 32)

26. Do you think the current projects in your location fits with the community policy plans?

- ☐ YES (specify) _____
- ☐ NO (specify) _____

27. Do you think that the community policy plans cover the policy needs of the community?

- ☐ YES (specify) _____
- ☐ NO (specify) _____

28. To who do you communicate the community needs?

- | | |
|--|---|
| <input type="checkbox"/> CHIEF | <input type="checkbox"/> SASOL |
| <input type="checkbox"/> ASSISTENT-CHIEF | <input type="checkbox"/> NON-GOVERNMENTAL |
| <input type="checkbox"/> DISTRICT OFFICER | <input type="checkbox"/> ORGANISATION |
| <input type="checkbox"/> PROVINCE COMMISSIONER | |
| <input type="checkbox"/> (OTHER) _____ | |

29. How do you communicate your community needs: _____

30. Do you think you communicate your community needs to the right people?

- ☐ YES (specify) _____
- ☐ NO (specify) _____

31. Do you have the idea whether something is done with the information provide?

- ☐ YES (specify) _____
- ☐ NO (specify) _____

32. Is there a development officer on
- ☐ DIVISION-LEVEL _____
 - ☐ LOCATION-LEVEL _____
 - ☐ SUB-LOCATION-LEVEL _____
 - ☐ NO
33. What are the occupations of
- ☐ DIVISION-DEVELOPMENT OFFICER _____
 - ☐ LOCATION- DEVELOPMENT OFFICER _____
 - ☐ SUB-LOCATION- DEVELOPMENT OFFICER _____
34. Are you consulted for any development plans in your location made by
- ☐ SUB-LOCATION _____
 - ☐ LOCATION _____
 - ☐ DIVISION _____
 - ☐ DISTRICT _____
 - ☐ PROVINCE _____
 - ☐ GOVERNMENT _____
 - ☐ (OTHER) _____
35. Do you know anything about the policy plans made by
- ☐ SUB-LOCATION _____
 - ☐ LOCATION _____
 - ☐ DIVISION _____
 - ☐ DISTRICT _____
 - ☐ PROVINCE _____
 - ☐ GOVERNMENT _____
 - ☐ (OTHER) _____
36. Do you think that the current projects in your location fits with the policy plans made by
- ☐ SUB-LOCATION _____
 - ☐ LOCATION _____
 - ☐ DIVISION _____
 - ☐ DISTRICT _____
 - ☐ PROVINCE _____
 - ☐ GOVERNMENT _____
 - ☐ (OTHER) _____
37. Do you think that the community policy needs fits with the policy plans made by
- ☐ SUB-LOCATION _____
 - ☐ LOCATION _____
 - ☐ DIVISION _____
 - ☐ DISTRICT _____
 - ☐ PROVINCE _____
 - ☐ GOVERNMENT _____
 - ☐ (OTHER) _____

38. Do you implement policy plans made by (specify how)

- ☐ COMMUNITY
 - ☐ YES _____
 - ☐ NO (why) _____
- ☐ SUB-LOCATION
 - ☐ YES _____
 - ☐ NO (why) _____
- ☐ LOCATION
 - ☐ YES _____
 - ☐ NO (why) _____
- ☐ DIVISION
 - ☐ YES _____
 - ☐ NO (why) _____
- ☐ DISTRICT
 - ☐ YES _____
 - ☐ NO (why) _____
- ☐ PROVINCE
 - ☐ YES _____
 - ☐ NO (why) _____
- ☐ GOVERNMENT
 - ☐ YES _____
 - ☐ NO (why) _____
- ☐ (OTHER) _____

39. Can you suggest some ways of improving policy plans formulation? _____

40. Can you suggest some ways of improving policy plans implementation? _____

41. Do you communicate with other villages/communities about your community problems?

- ☐ YES (how) _____
- ☐ NO (why) _____

42. Do you have any comments?

- ☐ YES _____
- ☐ NO _____

THANK YOU VERY MUCH FOR YOUR INFORMATION

Appendix VII: Overview of all answers in the master

Appendix VIII: Influencing effects and correlation

In this appendix the investigation to the possible influencing effects between questions and the possible correlation between questions is presented. In most of the cases there are no influencing effects and no conclusions can be drawn about the correlation.

If the correlation rate comes to 1 there is a strong positive correlation, when the rate comes to -1 there is a strong negative correlation and when the rate comes to 0 there is certainly no correlation.

Influencing effects between the questions of sand dam committee members

A lot of possible influencing effects are investigated, but most of them turned out to be not influencing. The main ones are mentioned in this section.

Only in 8% of all cases both the time it took between SASOL came with the idea and the committee was formed, and the time it took to form the committee till the start of the construction, are above average and in 56% of all cases they are both below average. When the cases committee members experienced some problems with the functioning of the committee are compared to those time ranges, it turned out in all cases both times are above average the committee members did not experience problems with the functioning of the committee. Besides, in 52% of all cases both times were beneath average and no problems were experienced and in 40% of all cases the committee members experienced some problems, both times were beneath average.

Because in only 8% of all cases both times are above average and in 10% of all cases the committee members experienced some problems with the functioning of the committee, it is hard to draw a conclusion.

In total 13% of all committee members went to the old water resource with a donkey, in 43% of those cases the distance was above average and in 29% of those cases the time it took was above average. In 31% of the cases the committee members did not use a donkey to go to the old water resource, the distance was above average and in 42% of all cases the time was above average.

In total 21% of all committee members go to the sand dam with a donkey, in 36% of those cases the distance is above average and also the time it takes is above average. For 41% of all committee members who do not use a donkey to go to the sand dam to fetch water, the distance and the time it takes are above average.

So in both cases (going by themselves or going by donkey) the percentage of members who have to go a distance above average is more or less the same.

For 50% of the sand dams which are not used by all community members, applies that the distance in kilometres is above average and for 38% of those sand dams is the time to reach them above average.

Three types of problems are identified: problems with the functioning of the committee (10%), problems before the construction of the sand dam (12%) and problems during the construction of the sand dam (71%). In neither of all cases are problems with the functioning and problems before the construction of the sand dam experienced by the same committee members. In 6% of all cases committee members experienced both problems with the functioning of the committee and problems during the construction of the sand dam. Problems before and during the construction of the sand dam are both experienced by 12% of all committee members, so in all cases when a member experienced problems before the construction of the sand dam, problems were also experienced during the construction of the sand dam. All three types of problems were not experienced by any committee member and 25% of all members did not experience any problem at all.

It can be concluded that if there are problems before the construction starts, problems also arise during the construction. Problems with the functioning of the committee do not have any impact on the process before and during the construction of the sand dam.

Most committee members have learned from their membership, because 88% would act differently when they are nominated again. Of the members who experienced problems with the functioning of the committee 80% would act differently, all members who experienced problems before the construction of the sand dam would act differently the next time and 84% of the members who

experienced problems during the construction would act differently. All the committee members who did not experience any problems at all (25%) said they would act differently the next time and all committee members who experienced some problems before the construction of the sand dam would also act differently. One member (17%) would act the same way next time while he experienced a problem with the functioning of the committee and all committee members who said they would act the same way next time, experienced some problems during the construction of the sand dam. It can be concluded that experiencing problems is not the only reason to act differently when a members is nominated again, because all members who did not experience problems, said they would act differently next time.

The community members are supposed to communicate their needs to higher levels. For this purpose, they communicate their needs to different people. Of them who communicated their needs to the chief (46%), 96% said he is the right person, 54% said they have the idea that something is done with the information they provided and 54% respondents gave both answers.

Of all respondents who communicated their needs to the assistant-chief (33% in total), 100% said he is the right person, 53% said they have the idea something is done with the information they provide and 53% gave both answers.

The only respondent who communicated his needs to the District Officer, said he is the right person, but he does not have the idea something is done with the information.

Correlation between the questions of sand dam committee members

According to the correlation rate no conclusions for the old water resource can be drawn about the relation between the number of trips per person per day and distance in kilometres (correlation rate = -0.37) and the number of trips per person per day and distance in minutes (correlation rate = -0.44). According to the correlation rate also no conclusion can be drawn about the relation between number of trips per donkey per day and distance in kilometres (correlation rate = -0.14) and the number of trips per donkey per day and distance in minutes (correlation rate = 0.12).

For the sand dam only a conclusion can be drawn about the number of trips per person per day and distance in kilometres, because the correlation rate = -0.046, there is no relation between both factors. For the other relations no conclusions can be drawn: the number of trips per person per day and distance in minutes (correlation rate = -0.24), the number of trips per donkey per day and distance in kilometres (correlation rate = -0.76) and the number of trips per donkey per day and distance in minutes (correlation rate = -0.69).

Generally, it can be concluded that there does not exist a relation between the number of trips undertaken to the water resource and the distance and the time it takes to reach this water resource (most rates come rather up to 0 than to 1 or -1).

For the relation between the distance to the old water resource and the distance to the sand dam can no conclusions be drawn, the correlation rate for the distance in kilometres is 0.11 and correlation rate for the time it takes is 0.42.

For the distance to the water resources in relation to the number of households can only concluded that there is no relation between the distance to the sand dam in kilometres and the number of households using the sand dam (correlation rate = -0.073). For the other relations no conclusions can be drawn: the distance to the old water resource in kilometres and the number of households using the old water resource (correlation rate = -0.12), the distance to the old water resource in minutes and the number of households using the old water resource (correlation rate = -0.13 and the distance to the sand dam in minutes and the number of households using the sand dam (correlation = -0.16).

Also the number of committee members related to the time taken to form the committee and related to the time before constructing is investigated. For all those relations can be concluded that there is no relation: number of committee members and time between the idea and forming the committee (correlation rate = 0.084), number of committee members and time between forming the committee

and start construction (correlation rate = 0.093) and time between the idea and forming the committee and time between forming the committee and start construction (correlation rate = -0.018).

It can be concluded that according to the correlation rates in some cases no relations between the questions exist. In most cases no conclusions can be drawn according to the correlation rates.

Influencing effects between the questions of committee members (no dam areas)

A lot of possible influencing effects are investigated, but most of them turned out to be not influencing. The main ones are mentioned in this sub-paragraph.

In total 56% of all committee members go to the water resource by person, in total in 40% of those cases the distance and the time it takes, are above average. Also 56% of all committee members go to the water resource with a donkey, in 40% of those cases the distance is above average and in 20% of those cases the time it takes is above average. In 22% of the cases the committee members go to the water resource with a cart, the distance and the time it takes are in all cases above average.

So in case the committee members use a cart, they have to go far to the water resource. In the other both cases (going by themselves and going by donkey) the percentage of members who have to go far is more or less the same.

Two types of problems are identified: problems with the functioning of the committee (33%) and problems by undertaking a project (100%). Because all committee members experienced some problems by undertaking a project, all members who experienced problems with the functioning of the committee, also experienced those problems.

It can be concluded that if there are problems with the functioning of the committee, problems also arise by undertaking the project.

Most committee members have learned from their membership, because 78% would act differently when they are nominated again. Of the members who experienced problems with the functioning of the committee 66% would act differently and of all members who experienced problems by undertaking a project 78% would act differently. The other members would not act differently while they experienced some problems.

It can be concluded that experiencing problems is not always a reason to act differently when a member is nominated again, because not all members who experienced problems, would act differently next time.

The community members are supposed to communicate their needs to higher levels. For this purpose, they communicate their needs to different people. Of them who communicated their needs to the chief (63%), 60% said he is the right person, 40% said they have the idea that something is done with the information they provided and 20% respondents gave both answers. Of all respondents who communicated their needs to the assistant-chief (75%), 80% said he is the right person, all said they have the idea something is done with the information they provide and 80% gave both answers. All respondents who communicate their needs to the councillor, think he is the right person and have the idea something is done with the information they provide. The only respondent who communicated his needs to an NGO, said he is not the right person, but he has the idea something is done with the information.

Correlation between the questions of committee members (no dam areas)

According to the correlation rate no conclusions for the water resource can be drawn about the relation between the number of trips per person per day and distance in kilometres (correlation rate = 0.36) and the number of trips per person per day and distance in minutes (correlation rate = 0.21). According to the correlation rate also no conclusion can be drawn about the relation between number of trips per donkey per day and distance in kilometres (correlation rate = -0.59) and the number of trips per donkey per day and distance in minutes (correlation rate = -0.5). The correlation rate can not be determined for the relation between the number of trips per cart per week and the distance to the

water resource in kilometres and minutes, because the standard deviation for the number of trips per cart per week is zero.

Generally, it can be concluded that there does not exist a relation between the number of trips undertaken to the water resource and the distance and the time it takes to reach this water resource (most rates come rather up to 0 than to 1 or -1).

For the distance to the water resource in relation to the number of households no conclusions can be drawn for the relation between the distance to the water resource in kilometres and the number of households using the water resource (correlation rate = -0.39) and the distance to the water resource in minutes and the number of households using the water resource (correlation rate = -0.64).

It can be concluded that according to the correlation rates in some cases no relations between the questions exist. In most cases no conclusions can be drawn according to the correlation rates.

Influencing effects between the questions of community members (sand dam areas)

A lot of possible influencing effects are investigated, but most of them turned out to be not influencing. The main ones are mentioned in this sub-paragraph.

In 31% of all cases both the time it took between the idea was brought and the committee was formed, and the time it took to form the committee till the start of the construction, are above average and in 35% of all cases they are both below average. When the cases community members experienced some problems with the functioning of the committee are compared to those time ranges, it turned out in all cases both times were above and in all cases both times were beneath average the community members did not experience any problems with the functioning of the committee, so no conclusions can be drawn.

In total 16% of all community members went to the old water resource with a donkey, in 75% of those cases the distance and the time it took were above average. In 62% of the cases the committee members did not use a donkey to go to the old water resource, the distance was above average and in 48% of all cases the time was above average.

In total 16% of all committee members go to the sand dam with a donkey, in 25% of those cases the distance is above average and in 50% of those cases the time it takes is above average. For 48% of all committee members who do not use a donkey to go to the sand dam to fetch water, the distance and the time it takes are above average.

So in case of the old water resource both distance and time taken with a donkey, were more often above average than without a donkey. In case of the sand dam it is quite the same, only the distance taken with a donkey is less often above average.

For the community member who does not use the sand dam, only the time it takes to reach the sand dam is above average.

Three types of problems are identified: problems with the functioning of the committee (4%), problems before the construction of the sand dam (12%) and problems during the construction of the sand dam (62%). In the only case a community member experienced problems with the functioning of the committee, this member also experienced problems before and during the construction of the sand dam. Three community members experienced problems only before and during the construction of the sand dam, so in all cases a community member experienced problems before the construction of the sand dam, he also experienced problems during the construction. Of all community members 38% did not experience any problem at all.

It can be concluded that if there are problems with the functioning of the committee or before the construction starts, problems are also experienced in the after phases. It has to be remarked that those data are based on very little respondents.

Most community members have learned from the sand dam committee, because 73% would act differently when they are nominated or (s)electd for a dam committee. The member who experienced

problems with the functioning of the committee would act differently, all members who experienced problems before the construction of the sand dam would act differently and 69% of the members who experienced problems during the construction would act differently the next time. Of all the community members who did not experience any problems at all, 70% said they would act differently the next time. Four members (25%) would act the same way next time while they experienced some problems during the construction of the sand dam.

It can be concluded that experiencing problems is not the only reason to act differently when a member is nominated or (s)elected for a sand dam committee, because 70% of all members who did not experience problems, said they would act differently.

The community members are supposed to communicate their needs to higher levels. For this purpose, they communicate their needs to different people. Of them who communicated their needs to the chief (50%), 89% said he is the right person, 56% said they have the idea that something is done with the information they provided and 56% respondents gave both answers.

Of all respondents who communicated their needs to the assistant-chief (33% in total), 83% said he is the right person, 17% said they have the idea something is done with the information they provide and 17% gave both answers. The respondents who communicated their needs to the councillor (28%), 80% think he is the right person, 60% have the idea something is done with the information and 40% gives both answers. The headman (28%) is the right person according to 80%, something is done with the information according to 40% and 40% gave both answers. The only respondents who communicated their needs to SASOL or another NGO, said they are the right organisations and they have the idea something is done with the information..

Almost every community member who has the idea something is done with the information he provides, says he communicates his needs to the right person. Only in one case, a member said he had the idea something is done, but he did not think he communicated his needs to the right person, the councillor. In almost all cases more members think they communicate their needs to the right people, than members think the information they provide, is acted on.

Correlation between the questions of community members (sand dam areas)

According to the correlation rate no conclusions for the old water resource can be drawn about the relation between the number of trips per person per day and distance in kilometres (correlation rate = -0.47) and the number of trips per person per day and distance in minutes (correlation rate = -0.54). According to the correlation rate also no conclusion can be drawn about the relation between number of trips per donkey per day and distance in kilometres (correlation rate = -0.24). It can only be concluded that there is no relation between the number of trips per donkey per day and distance in minutes (correlation rate = 0).

For the sand dam only a conclusion can be drawn about the number of trips per donkey per day and the distance in kilometres, because the correlation rate = -0.019, there is no relation between both factors. For the other relations no conclusions can be drawn: the number of trips per person per day and distance in minutes (correlation rate = -0.18), the number of trips per person per day and distance in minutes (correlation rate = -0.28) and the number of trips per donkey per day and distance in minutes (correlation rate = -0.25).

Generally, it can be concluded that there does not exist a relation between the number of trips undertaken to the water resource and the distance and the time it takes to reach this water resource (most rates come rather up to 0 than to 1 or -1).

For the relation between the distance to the old water resource and the distance to the sand dam no conclusions can be drawn, the correlation rate for the distance in kilometres is 0.17 and correlation rate for the time it takes is 0.44.

Also the number of committee members related to the time taken before forming the committee and related to the time before constructing is investigated. It can be concluded that there is no relation between the number of committee members and the time taken before forming the committee, because the correlation rate is 0.00. For the other relations, no conclusions can be drawn: the number of committee members and time between forming the committee and start construction (correlation rate

= 0.17) and the time between the idea and forming the committee and time between forming the committee and start construction (correlation rate = 0.44).

It can be concluded that according to the correlation rates in some cases no relations between the questions exist. In most cases no conclusions can be drawn according to the correlation rates.

Influencing effects between the questions of community members (no dam areas)

A lot of possible influencing effects are investigated, but most of them turned out to be not influencing. The main ones are mentioned in this sub-paragraph.

In 10% of all cases both the time it took between the idea was brought and the committee was formed, and the time it took to form the committee till the start of the project, are above average and in 20% of all cases they are both below average. When the cases community members experienced some problems with the functioning of the committee (80%) are compared to those time ranges, it turned out in the case both times were above average the community members experienced any problems with the functioning of the committee. In the cases both times were beneath average, one community member experienced problems and one did not, so no conclusions can be drawn.

In total 80% of all community members go to the water resource by person, in total in 50% of those cases the distance and in 40% of those cases the time it takes, are above average. Also 70% of all community members go to the water resource with a donkey, in 57% of those cases the distance is above average and in 29% of those cases the time it takes is above average. One community member goes to the water resource with a cart, only the distance is above average. So in all cases the distance is more often above average than the time it takes to reach the water resource.

Two types of problems are identified: problems with the functioning of the committee (80%) and problems by undertaking a project (90%). All committee members who experienced problems with the functioning of the committee, also experienced some problems by undertaking a project. The only member, who did not experience some problems by undertaking a project, did also not experience some problems with the functioning of the committee.

It can be concluded that if there are problems with the functioning of the committee, problems also arise by undertaking the project.

All community members have learned from the committee, because 100% would act differently when they are nominated or (s)elected for a committee. So, all members who experienced one or both types of problems would act differently next time and the member who did not experience any problem at all, would also act differently.

It can be concluded that experiencing problems is not the only reason to act differently when a members is nominated or (s)elected for a sand dam committee, because all members would act differently next time.

The community members are supposed to communicate their needs to higher levels. For this purpose, they communicate their needs to different people. All community members think they communicate their needs to the right people and all (except one who did not give an answer) community members have the idea something is done with the information they provide. The community member, who did answer if something is done with the information he provides, communicates his needs to the chief (in total 80% of all members communicate to him).

It can be concluded that the community members communicate their needs to the right people, also because they have the idea something is done with the information they provide.

Correlation between the questions of community members (no dam areas)

According to the correlation rate no conclusions for the water resource can be drawn about the relation between the number of trips per person per day and distance in kilometres (correlation rate = -

0.90) and the number of trips per person per day and distance in minutes (correlation rate = -0.80). According to the correlation rate also no conclusion can be drawn about the relation between number of trips per donkey per day and distance in kilometres (correlation rate = -0.80) and the number of trips per donkey per day and distance in minutes (correlation rate = -0.88). For the number of trips undertaken with a cart in relation to the distance the correlation rate can not be determined, because the standard deviation of the number of trips per cart per day is zero.

Generally, it can be concluded that there exists a weak relation between the number of trips undertaken to the water resource and the distance and the time it takes to reach this water resource (most rates come rather up to 1 or -1 than to 0).

The relation between the distance to the river and the distance to the water resource in kilometres, is a weak one (correlation rate = 0.88), but it can be concluded that a relation between the distance to the river and the distance to the water resource in minutes exists (correlation rate = 0.98), so the further the river is away from the households, the further the water resource is also away.

Also the number of committee members related to the time taken before forming the committee (correlation rate = -0.48) and related to the time before undertaking (correlation rate = 0) are investigated, so it only can be concluded that there is no relation between the number of committee members and the time before undertaking the project. Also no conclusions can be drawn about the relation between the time between the idea and forming the committee and the time between forming the committee and undertaking the project (correlation rate = 0.21).

It can be concluded that according to the correlation rates in some cases no relations between the questions exist. In most cases no conclusions can be drawn according to the correlation rates.

Influencing effects between the questions of assistant-chiefs

A lot of possible influencing effects are investigated, but most of them turned out to be not influencing. The main ones are mentioned in this sub-paragraph.

One assistant-chief lives more than the average distance from the water resource and he goes to the water resource by all three means: by person, by donkey and by cart. Besides, 50% lives more than the average time from the water resource and the other assistant-chief who this concerns goes with a donkey to the water resource.

So in 50% of the cases the assistant-chief goes by person or by cart to the water resource and in 25% of the cases he goes by donkey, they have to far to the water resource and only 50% of the assistant-chiefs who go per donkey to the water resource take more time than average to reach it.

Two types of problems are identified: problems with the functioning of the committee (50%) and problems by undertaking a project (100%). Because all assistant-chiefs experienced some problems by undertaking a project, all respondents who experienced problems with the functioning of the committee, also experienced those problems.

Most assistant-chiefs have learned from the committee, because 75% would act differently when they are nominated or (s)elected for a committee. The assistant-chief who would not act differently next time, experienced both types of problems. So, of the assistant-chiefs who experienced problems with the functioning of the committee 50% would act differently and of them who experienced problems by undertaking a project 75% would act differently.

It can be concluded that experiencing problems is not always a reason to act differently, because not all assistant-chiefs who experienced problems, would act differently next time.

The assistant-chiefs are supposed to communicate their needs to higher levels. For this purpose, they communicate their needs to different people. Of them 75% thinks he communicates his needs to the right people. The assistant-chief who does not think it is the right person, communicates his needs to

the chief (in total 75% of the assistant-chiefs do). All assistant-chief have the idea something is done with the information they provide.

Generally it can be concluded that the assistant-chiefs communicate their needs to the right people.

Correlation between the questions of the assistant-chiefs

According to the correlation rate no conclusions for the nearest water resource can be drawn about the relation between the number of trips per donkey per day and distance in kilometres (correlation rate = -0.78) and the number of trips per donkey per day and distance in minutes (correlation rate = -0.87). For the relation between the number of trips per person and the distance to the water resource, the correlation rate can not be estimated, because the standard deviation for the number of trips per person per day is zero. According to the correlation rate it can be concluded that there is a strong relation between number of trips per cart per week and distance in kilometres (correlation rate = 1) and the number of trips per cart per week and distance in minutes (correlation rate = 1), so if the distance increases, the number of trips per cart per week also increases. It has to be remarked that this conclusion is only based on two data, so it is not very reliable.

Generally, it can be concluded that there does not exist a relation between the number of trips undertaken to the water resource and the distance and the time it takes to reach this water resource.

For the distance to the water resource in relation to the number of households can only concluded that there is no relation between the distance to the sand dam in minutes and the number of households using the water resource (correlation rate = -0.0999). For the other relation no conclusions can be drawn: the distance to the old water resource in kilometres and the number of households using the water resource (correlation rate = -0.66).

It can be concluded that according to the correlation rates in some cases no relations between the questions exist. In most cases no conclusions can be drawn according to the correlation rates.

Appendix VII: Questionnaire governmental officials

Interviews governmental officials

Date:

Time:

Name respondent:

Function respondent:

District: Kitui

Division:

1. What is the procedure for making policy plans in your District/Division?
2. Do you know anything about the policy plans made by the government?
3. Do you know anything about the policy plans made by the Province?
4. Do you know anything about the policy plans made by the Kitui District?
5. Do you know anything about the policy plans made by the Divisions?
6. Do you know anything about the policy plans made by the Locations?
7. Do you know anything about the policy plans made by the sub-locations?
8. Do you know anything about the community policy needs?
9. Do you consult communities when you are making a policy plan?
10. Do you see any mismatch between the different policy plans?
11. How do you implement policy plans made by
 - SUB-LOCATION
 - LOCATION
 - DIVISION
 - DISTRICT
 - PROVINCE
 - GOVERNMENT
12. Are there any bottlenecks with the implementation of policy plans made by
 - SUB-LOCATION
 - LOCATION
 - DIVISION
 - DISTRICT
 - PROVINCE
 - GOVERNMENT
13. In general, do you see any problems in the information flows from the top (=Government) to the grasshoo (=community)? Solutions?
14. And do you see any problems in the information flows from the grasshoo to the top? Solutions?
15. Do you have any comments?