sahee

sustainability for agriculture, health, education and environment

Sustainability of Rural Development Projects in Swaziland

Why Projects Fail or Succeed

Contents

Introduction

Country background

Swaziland is a small (17'360 km^2), landlocked country in southern Africa with a population of 1.1 Million. Its GNI (Gross National income)[1] for 2006 is estimated at 2'737 Million USD (United States Dollar) or 2'430 USD/capita (World Bank, 2007; Walker and Thaker, 2005). This figure is relatively high compared to other African countries. Swaziland's neighbour Mozambique has a per capita income of only USD 340 (World Bank, 2007). However, the high figure for Swaziland hides great inequalities of income. Two thirds of the country's population live below the poverty line on less than one USD per capita per day, (Economist intelligence Unit, 2004; United Nations Development Programme, 2001; Ngwisha, 2003). Most people living in rural areas are poverty-stricken. 80% of the population earn their livelihoods through agricultural activities, but agriculture only contributes 12% of the GDP (gross domestic product). This study focuses on the disadvantaged rural population that represents the majority of the Swazi population but has very little access to the wealth of the country.

Swaziland is the last monarchy in Africa and has been ruled by the Dlamini clan for centuries. It gained its independence from Britain in 1968. The small Kingdom has one main ethnic group, the Swazi. They live peacefully together with minorities such as Zulu, Xhosa, and people of Indian, Asian, and European descent. The large majority of the Swazi are loyal to their king, Mswati III (Davies et al., 1985; Matsebula, 1988; Walker and Thaker, 2005). The country has been spared from wars and civil unrest but was hit with HIV/AIDS since the 1990s and nowadays has one of highest infection rates worldwide, i.e., 38% of the sexually reproductive population (Daly, 2001). Although a good part of those affected would have good access to anti-retro-viral medication through the Global Fund and programmes run by NGOs and by the ministry of health, many Swazi die untreated because of high stigmatisation (Kanduza, 2003; Tsuubira Muwanga, 2004).

In addition to this calamity, Southern Africa has been affected by many droughts in the past few years, last in 2006/07. In Swaziland, this lead to the complete loss of maize harvests in the Eastern low-lying plain, the Lowveld, and the adjacent Lebombo Range. Drought, poverty, and HIV/AIDS lead to considerable international relief and development aid programs in the country. Relief agencies have set up permanent distribution facilities in the lowveld and are thus probably reducing the need, the capacity, and the will of the local population to develop individual survival strategies of their own. This may increase permanent dependency on external aid.

[1] See glossary on the last page for abbreviations and explanations.

Outline and rationale of the survey

The foundation sahee (Sustainability for Agriculture, Health, Education and Environment) strives to become a reliable and knowledgeable partner for local NGOs in Swaziland. Sahee's aim is to contribute to a sustainable development and empowerment of disadvantaged people. By sustainable development we understand:

- development that has a positive (e.g. social, economic, etc.) long-term impact on the involved people;
- development that is beneficial to or preserves the natural environment;
- development that preserves or improves options and freedom of action of future generations.

For sahee's strategic planning, it is important to know which factors improve the likelihood for a development project to be sustainable. The main research question was: "What kind of rural development projects that have been established in the past two decades have (or have not) been successful and are still functioning (or have failed), and why?" The findings shall help sahee and its local counterparts as well as donors and other interested parties to adjust their efforts towards a development that has positive long-term effects for disadvantaged people, particularly in the rural areas of Swaziland.
The following literature forms our knowledge base in development theories and rural development: (Boserup, 1996; Dixon, 1990; Ellis, 1998; Feeny, 1988; Gabriel, 1991; Gladwin, 1980; Harborth, 1993; Harrison, 1982; Harriss, 1982; Lipton, 1982; Mosse, 2005; Redclift and Sage, 1994; Salinger McBride and Picard, 1989; Scoones and Wolmer, 2003; Stockmann, 1989; Stockmann, 1996; Turnham, 1992). Based on this literature, we have developed twelve hypotheses and adapted them to the Swazi context with the help of the University of Swaziland and local partner NGOs. These hypotheses were expected to reflect key factors for success or failure in rural development. Each hypothesis as listed below forms one chapter in the main part of this study.

1) A project is successful if its beneficiaries took the initiative and formulated the outline of the project.
2) A project is successful if beneficiaries' access to land is secure and other factors relating to the use of land are favourable.
3) A project is successful if capacity building of the beneficiaries has been done carefully during setting up of the project.
4) A project is successful if the follow-up is done well and the external advice is available in case of an emergency.
5) A project is successful if beneficiaries have a highly developed sense of ownership over their project.
6) A project is successful if it is managed by a group with clear structures.
7) A project is successful if it relies on appropriate technology and depends on few external inputs.
8) A project is successful if women have the leadership and represent the majority of the group members.
9) A project is successful if the marketing of products is feasible without external assistance.
10) A project is successful if it results in a clear improvement of the standard of living for each beneficiary.
11) A project is successful if it has included a system for financial sustainability such as a saving scheme.
12) A project is successful if it is neutral or positive for all people who are affected by the project but who are not beneficiaries (neighbours etc.).

Selection of the sample

The survey covers 56 rural development projects in Swaziland. They have been jointly selected by sahee and the following local partner NGOs that have been involved in setting them up:

- ACAT: Africa Cooperation Action Trust, a Swazi NGO established in 1982;
- CAP: Church Agricultural Projects, a Swazi NGO established in 1988 but no longer operating;
- Gone Rural: A Swazi fair trade organisation for handcraft that is made by rural women (and recently, also men) in Swaziland, established in 1992;
- Imbita: Women's finance trust, a Swazi micro finance institute established in 1991;
- LDS: Lutheran Development Services, a Swazi NGO affiliated with the Lutheran World Federation, founded in 1994;
- SFDF: Swaziland Farmer Development Foundation, a Swazi NGO established in 1985;
- WVS: World Vision Swaziland, the national branch of World Vision International, established in Swaziland in 1992.

To become part of the study, each project had to fulfil each of the first three of the following criteria and at least one of criteria four to six:
The project

1. has been implemented at least five years ago (four exceptions), and
2. is intended to improve the livelihood at the household level, and
3. serves a group of people living in a rural setting;
4. improves the availability of water, either for domestic use or for agriculture, or
5. increases the agricultural production, or
6. increases the income at the household level.

The selected 56 projects represent

- all four topographical zones of the country:
  Highveld (14), Middleveld (14), Lowveld (20), Lebombo Range (8);
- all activities as mentioned above (i.e., water supply, agricultural production, and income generation);
- successful, struggling, as well as failed projects.

Methods

All data have been collected by the same research team, consisting of the key researcher and author of this study, Cyril Alther, and his assistant and translator, Nokthula Sibandze. Consisting of one man and one woman, the team was gender-balanced. For each project, information has been collected through three groups of informants:

- staff of the NGO that has been involved setting up the relevant project (1:1 interviews by the author in English; additionally, written information about the project was supplied);
- project members and other beneficiaries at the project sites (group interviews and 1:1 interviews by the research team in English/SiSwati);
- neighbours and local leaders at the project sites who were not beneficiaries (1:1 interviews by the research team in English/SiSwati).

Four sets of questionnaires have been used (see appendices). The data collection included a site visit at each project following the interviews with one or two informants. This gave us an opportunity to deepen issues that were delicate to discuss during interviews. Each site visit was documented with photos.
The research methods base on Bernard (Bernard, 1994).
Initially, a small pilot study was conducted. The experience from the pilot study allowed to improve the comprehensibility of the questions[2]. The pilot project group has then been revisited, and the author conducted in-depth interviews with other members and neighbours

[2] The pilot group is a group of vegetable growers who started their project 1992 when the author had the opportunity to experience life in a homestead of their members.

at this project site. The project used for the pilot study is part of the whole data sample. The pilot study directly preceded the main study.
As a first step of the main survey, basic data (see questions in the appendices) on each project have been collected at the NGOs Headquarters, using information from their archives. Then, structured and informal interviews were conducted with staff of the relevant NGO on each project. These interviews were followed by at least two project site visits. At the first visit, the research team was introduced by the staff of the NGO, and a date was set for the second visit. The second visit lasted between half a day and a full day and included site visits, household visits, and the different sets of interviews mentioned above.
Statistical analysis has been carried out using the program Statview (SAS Institute, 1999) and its comprehensive manual. Correlations have been tested using the Kruskal-Wallis test and the Kendall Rank correlation. A datasheet with 63 indicators for each project is the basis for the statistical analysis presented here. Most indicators are aggregated qualitative data of the surveys (e.g. source of water), and only few are quantitative (e.g. number of project members). As a reference for statistical analysis, the book “Elementary Statistics in Social Research” (Levin and Fox, 1997),was used.

Rating system

Each project received an overall rating regarding its success. The success rating ranges from the top rating “good” followed by “ok” followed by “struggling” down to the lowest rating “failed”. The overall rating has been made based on all available information. The key factor was the current functioning of the project, including the organisational structure and efficiency of the group to pursue the aims of the project. Further factors contributing to the overall rating included the appraisal of a project by each group of interviewees, its economic output, its socio-economic impact, and educational and environmental benefits.
Each project also received a rating for the relevant factor(s) tested in the twelf hypothesis. Ratings for these factors range from 4 (true) to 1 (not true) with steps of 0.5 for each analysed project. Between five and ten question/answer pairs went into the rating of each hypothesis. Answers came from three different groups of interviewees looking at the project from different angles – NGO-staff, members (beneficiaries), and neighbours. The answers given by these three groups were sometimes contradictory and “diluted” a result that seemed clear after interviewing the first group. In the following, we discuss some of these cases in detail.

Summary – Key findings

This chapter provides on overview of the study sample and on the activities supported by the investigated projects, as well as the success of those projects.

Overview

Projects investigated	56
Average number of beneficiaries[3]	220
Average number of members	32
Average age of projects (years)	11 years
Youngest / oldest project (starting year)	1976 / 2005
Average total cost for setup (without contributions of beneficiaries) per project in SZL (Swaziland Lilangeni) - estimate	115'000 SZL (16'500 USD)
Annual average income per project - estimate	60'000 SZL (8'600 USD)

Table 1

The sample of this study consists of 56 development projects which are distributed over the four topographically distinct areas of Swaziland. 14 projects are located in the rather moist highveld in the West, another 14 projects in the adjacent middleveld, 20 projects in the drought-stricken lowveld, and eight projects are situated on the Lebombo range in the East of the country. Analysis showed that the topographical location of a project doesn't influence its overall rating. Projects in the lowveld with severe droughts, for example, are not more likely to fail than those in other areas.

The average number of beneficiaries per project is 220. The highest number of beneficiaries can be found in projects supplying drinking water to households. Such projects often comprise more than 1000 beneficiaries. If they are coupled to area development programmes, they can reach more than 2000 beneficiaries. The smallest number of beneficiaries are found in husbandry projects, which often involve only 20 to 40 beneficiaries. The number of beneficiaries has turned out not to be correlated with the overall success of projects.

The average number of active members per project is 32, ranging from five (livestock project) to 347 (community development project). The size of membership of a project is not correlated to its overall rating, i.e., the success of a project is not related to the number of its members.

The investigated projects had an average age of eleven years at the time of data collection. The duration of a project is not related to its overall success. This shows that time is not a "killer" of projects, but that recent as well as old projects may fail equally. The most recent project stared in 2005, while the oldest dates back to 1976.

It was difficult to determine the financial expenditure to establish the projects. Written information was often not available or plausible, and often several organisations and donors were involved in setting up a project which made it practically impossible to find out the exact amount of funds invested. The estimated average figure of SZL 115'000 per project is therefore likely to be too low. Last but not least, the Swazi Lilangeni lost 50% of its value over the past 15 years as compared to the USD, which hampers comparison over a time span of

[3] See glossary for definitions

30 years – from the oldest project to the youngest. In spite of these constraints, the estimates given in this report provide some idea of the project costs.
The least expensive projects are handicraft projects, which can be launched with as little as 10'000 SZL. They do not require much infrastructure. The most expensive projects are household water and irrigation schemes, which may exceed 1 million SZL.

Most projects are expected to generate household income, either directly or indirectly. Projects to improve Infrastructure such as water projects will naturally result in high costs and low direct financial returns. However, they are one of the preconditions for a sustainable and diversified development, eventually leading to improved livelihoods.
Handicraft projects, if coupled to a market, can result in good earnings per person. Among the investigated projects, the highest total income generated by a project amounted to 400'000 SZL per year from a vegetable garden with 327 beneficiaries, in a year with ample rainfall. Especially income through agricultural activities totally depends on favourable weather conditions.

Activities

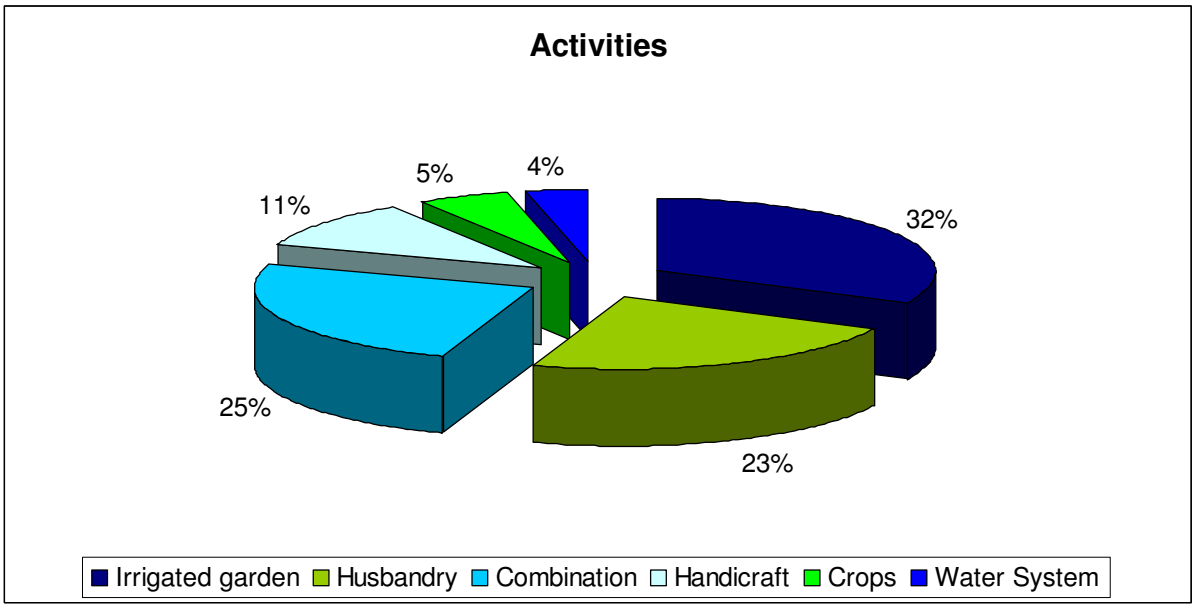

Figure 1

The most frequent project activities were irrigated gardens, mainly to grow vegetables (figure 1). Nearly as frequent were husbandry projects – most of them were poultry projects, some were piggeries and beekeeping projects, and just one involved cows. Only three projects pertained to dryland crop farming. Crop farming is not very popular among the beneficiaries because of unpredictable harvests. Peasants are not keen to plant drought-resistant crops such as cassava or drought-resistant bean varieties because maize is preferred as staple food because of its taste. Subsistence farmers know that they will receive maize distributed by the WFP (United Nations World Food Programme) if their crops fail.
About a quarter of the projects are labelled as "Combination". In these projects, beneficiaries combine different activities, for example husbandry with crop farming or handicraft.
Twelve percent are handicraft projects, all of them initiated by the local fair trade organisation Gone Rural. Three percent are community water projects, which mainly provide water for household consumption.

Success of projects

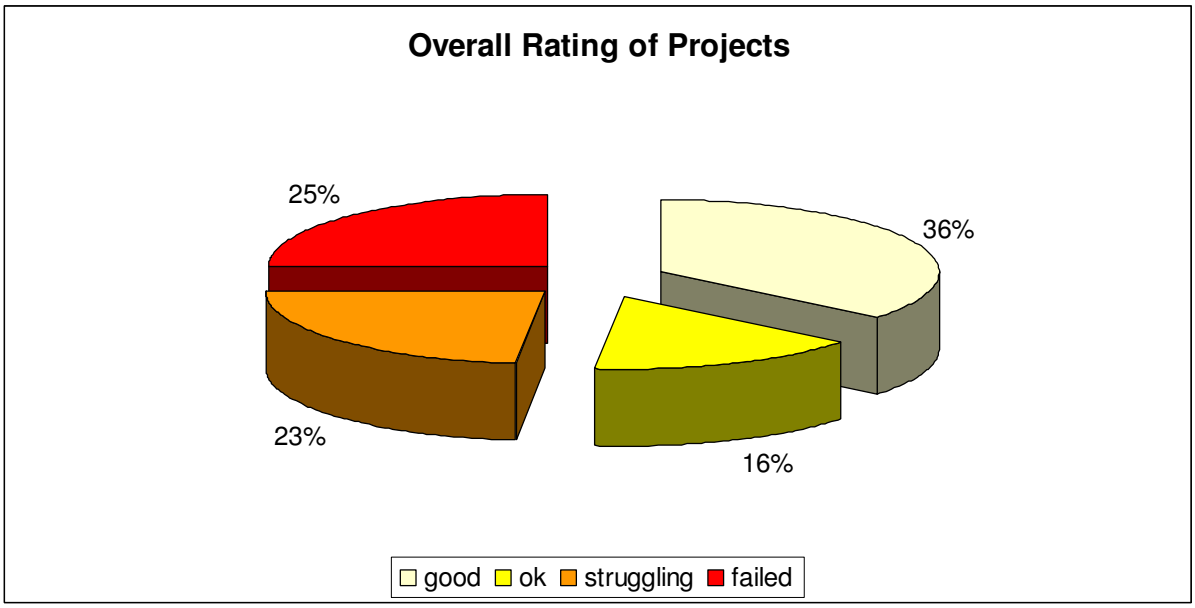

Figure 2

Figure 2 shows the overall rating of the 56 analysed projects. It is merely reflecting sahee's request to the involved NGOs to identify a similar number of successful and of failed/problematic projects.
Projects rated as "good" have a working committee, active members, and are producing as much as has been expected at the start of the project. In very few cases members even increased their activities compared to the original setup with the NGO.
Projects qualified as "ok" have some problems either in production or in their organisation but are operating.
"Struggling" projects are those that show multiple difficulties. Usually the membership of these groups has shrunken. Some of the members are still working for the project or are at least meeting regularly.
Projects categorised as "failed" show very little activity or no activity anymore. If there are still some members, they are not interested in the project anymore.

Most projects categorised as "good" or "ok" are fairly productive and efficient, and beneficiaries pursue their goal through their own efforts. However, the study showed that some of these groups have developed skills to attract support from various sides. They have good connections to NGOs and to governmental sources to boost their development.
Swaziland is well covered by aid organisations; they have become part of the natural environment for many rural Swazi. Many poor Swazi have adapted to these aid structures by developing good skills in asking for support. This continuum of aid can lead to a counterproductive incentive that is harmful to the development of projects that are intended to run without external inputs. To some beneficiaries, easily available support through aid organisations may seem to be an easier way to increase their living standard than working hard in any self-supporting project. On the other hand, the strategy to organise continuous support can also be seen as a sensible way to improve livelihoods; however, this does not make beneficiaries independent from aid.
One of the key elements in development work is capacity building at the grass-root level, so beneficiaries learn how to help themselves. If beneficiaries are able to improve their livelihoods by becoming active players, they take a big step toward a more self-determined future. It may be considered of secondary importance whether these activities are based on "honest skills" like tilling the soil or on "cleverness" like tapping new resources.

Aid organisations, however, have to be aware of this development, and should try to direct activities by beneficiaries towards a long-term involvement of development projects.

Correlation between activities and success of projects

Where bar charts are used below (figures 3 ff), each category has been assigned an ordinal value: “Good” = 4; “ok” = 3; “struggling” = 2; “failed” = 1.

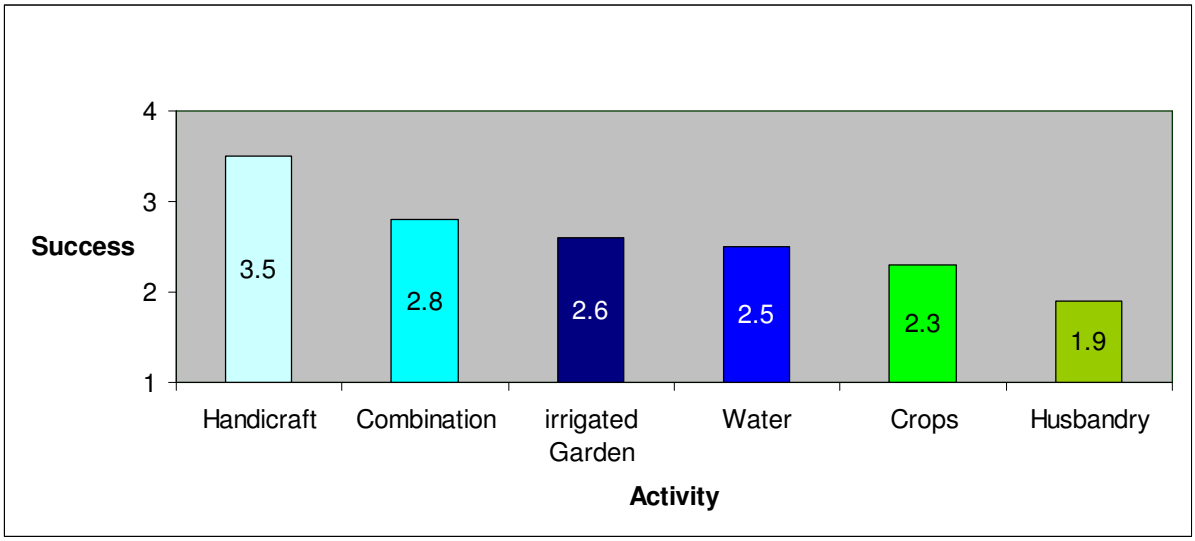

Figure 3

The survey showed that among the investigated projects, handicraft projects are most successful whereas husbandry projects are most likely to fail (figure 3). However, handicraft projects cannot be compared well with the other categories of activities because of a different situation: All handicraft projects in this study are set up by one fair trade organisation, Gone Rural. In each handicraft project, individual freelance workers produce on Gone Rural’s orders. Each worker has a direct relationship to Gone Rural but is also fully dependent on orders by Gone Rural. Since it has been active, Gone Rural has been able to continuously place orders with every group. Everyone working on Gone Rural’s orders has a guaranteed price and market. Without this, handicraft production would be less attractive. The market is the main reason that there are no “failed” handicraft projects.
Another advantage to all other categories is Gone Rural’s access to the international market. Customers are willing to pay high prices for high-quality fair trade goods whereas agricultural produce has to be marketed locally on a market with little buying power.
Continuous supervision, which is part of the fair trade business, increases the likelihood for a sustainable and reliable income for the producers. In remote areas with few possibilities to generate cash income, handicraft is an excellent way to increase household income. Income through fair trade clearly makes a positive contribution to each involved household. However, workers are not organised in groups and remain fully dependent on the fair trade organisation. The skills they learn are of limited use for other activities.

For all other kinds of projects, building soft skills is as important as teaching technical know-how. Beneficiaries have to become independent from the NGO and to organise themselves to take over the full responsibility for running their project well.
NGOs have to invest much time into the education of adults, often illiterate people. This is time consuming and success is not guaranteed because most beneficiaries prefer to take a “shortcut” to get a good income instead of starting an education over a long period of time , promising little immediate financial gains. Although most NGO staff is well aware of the

importance of building soft skills, they cannot always address this issue sufficiently, because of lack of time or financial constraints.

Figure 3 also shows that projects of the category “combination” are on average slightly more successful than projects of the other categories. The diversification of income strategies reduces the dependency on one activity and minimises the risks. Most irrigated gardens in this study also did fairly well. The projects related to “water” (primarily for domestic use) and “crops” (staple and legume production without irrigation) showed more problems, but due to the small number (only two and three projects, respectively) it is not possible to say if these results are typical for these kinds of projects.

The analysed husbandry projects show a high likelihood to fail. Of the 13 husbandry projects, seven failed, three struggled and only three are doing well. In the sample there are seven chicken, three bee, two pig and one cow feedlot project. Projects with all kinds of animals were affected by difficulties, i.e., there seems not to be one breed that is more recommendable than others. The gathered information shows several reasons for the low success rate:
Animal feed is expensive to buy. After the initial phase, many groups did not stock sufficient feed until the livestock was ready to sell, and members were not willing and able to pay money on a short notice to buy additional feed. This eventually lead to low selling prices for the animals.
Marketing, transport, and timing is difficult. Some groups had to feed their animals longer than planned because of a lack of buyers, thus they had to spend more money on feed than planned, while the meat quality declined.
A lack of knowledge, especially how to treat illness-prone hybrid breeds, seems to be another stumbling block on the way to successful husbandry projects.
Last but not least, some husbandry projects struggled or failed because of theft, sometimes caused by jealousy. It seems to be more tempting to steal or kill animals than to steal vegetables or crops.

Our findings suggest that projects that reduce the mentioned risks by ensuring a stable market and proposing coping strategies with natural disasters through irrigation and diversification are more likely to be successful than other projects.

One problem for projects in agriculture is the widespread expectation that beneficiaries can be trained successfully how to cultivate delicate crops on larger scales than they are used to, and how to raise hybrid animal breeds that require much knowledge. The results of this study indicate that these expectations are not justified.

Hypotheses

In each of the following twelve sub-chapters, one hypothesis will be discussed and analysed in detail. We will show which characteristics are related to the success or failure of projects.

1. Beneficiaries' initiative

Hypothesis: "A project is successful if its beneficiaries took the initiative and formulated the outline of the project".

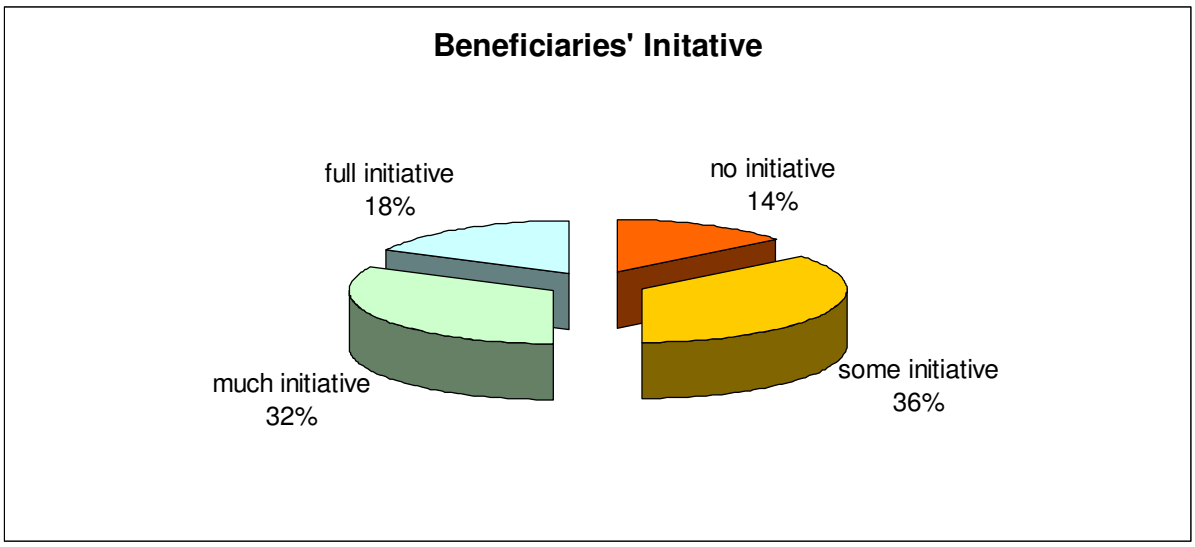

Figure 4

Figure 4 shows that in half of the projects the initiative mainly came from the beneficiaries. In projects labelled with "full initiative", beneficiaries developed their own project and approached an NGO with a comprehensive plan. The NGO's task was limited to supporting the group financially and to assist the beneficiaries during implementation. In projects that were assigned to the category "much initiative", beneficiaries approached an NGO and took the lead in formulating the first project outline. However, they needed some support in refining the project setup. In projects where beneficiaries had "some initiative", the main impetus did not come from a group of beneficiaries but from outside, while the group became interested and contributed their ideas while setting up the project. The category "no initiative" refers to projects that have been entirely initiated and set up from the outside (this applies, e.g., to the fair trade-projects in this study).

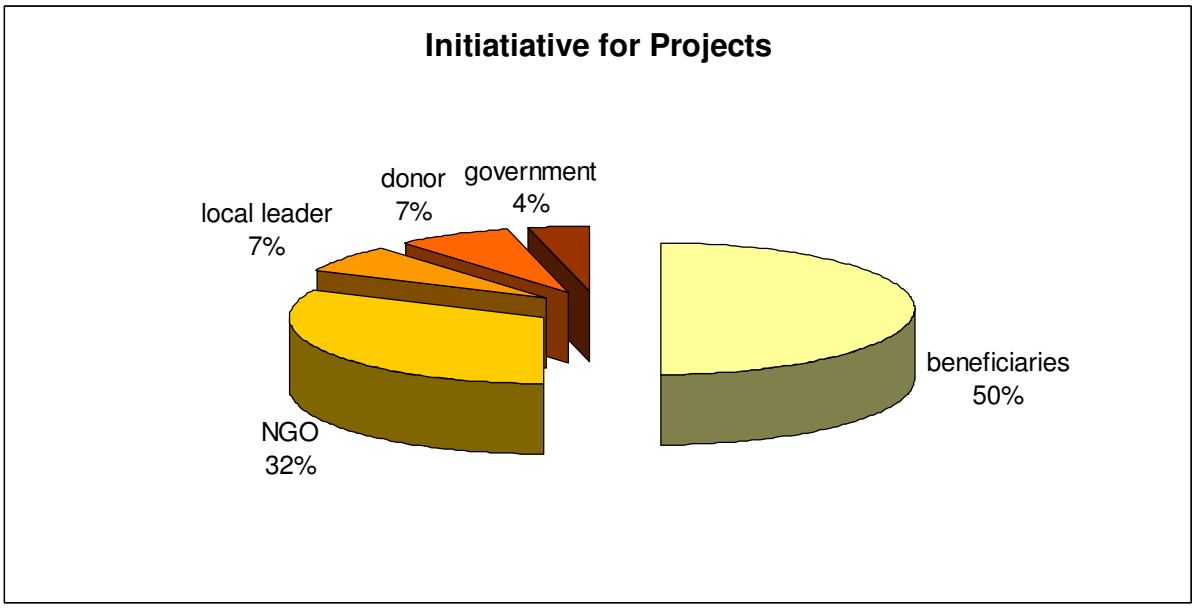

Figure 5

Figure 5 shows that beneficiaries have been the driving force behind half (28) of all investigated projects. A third of the projects (18) has been started on the initiative of a local NGO. Only few projects have been started by a local leader (four), by an external donor (four) or by the government (two).

The results show that projects started on the initiative of a local leader are more successful than other projects. However, due to the small number of only four projects initiated by local leaders, this is statistically not significant. For all other groups of initiators, project success is about equal. This suggests that it is irrelevant for the long-term success of a project if it is initiated by the beneficiaries, by a local leader, by the government or by an NGO.

We have further investigated if projects implemented by groups that had previously developed a working relationship show more long-term success. In 21 projects, the group had already been operating before the project started, whereas in 35 projects, the groups constituted themselves only in order to start the project. The data reveal no significant difference between these two categories, i.e., a project set up by a group that has already a prior working relationship is not necessarily more successful.

2. Access to land

Hypothesis: A project is successful if beneficiaries' access to land is secure and other factors relating to the use of land are favourable.

We asked questions to clarify four aspects within the issue "access to land":
What is the category of the land – is it title deed (i.e., privately owned) land or Swazi Nation Land (SNL), which is always temporarily leased?
How was the land formally allocated to the group?
What is the suitability of the land for a certain project?
Is the land disputed?

While the three first aspects show no correlation with the overall success of projects, the last aspect does show a correlation, as is explained in the following:

Land category: 75% of the projects are established on Swazi Nation Land. Usually, local leaders consent to giving land to a group or community project if they are consulted at an early stage in the planning phase. Local people and NGOs are aware of the importance to settle land issues first with the local leader. 25% of the projects are on title deed land. Projects on title deed land are usually handicraft projects or projects that need only little agricultural surface, for example backyard gardens.
The official or ritual dedication of land: If we compare projects on land that has been given with little formalities with projects that started with major ceremonies transferring the ground such as sod cutting and slaughtering of animals, we find that both do similarly well.
The suitability of land in terms of fertility and access to water and transport also showed no correlation with the success of a project.
Disputes over land: The likelihood that a project is successful dramatically declines if land rights are contested and challenged by neighbours or a local leader.

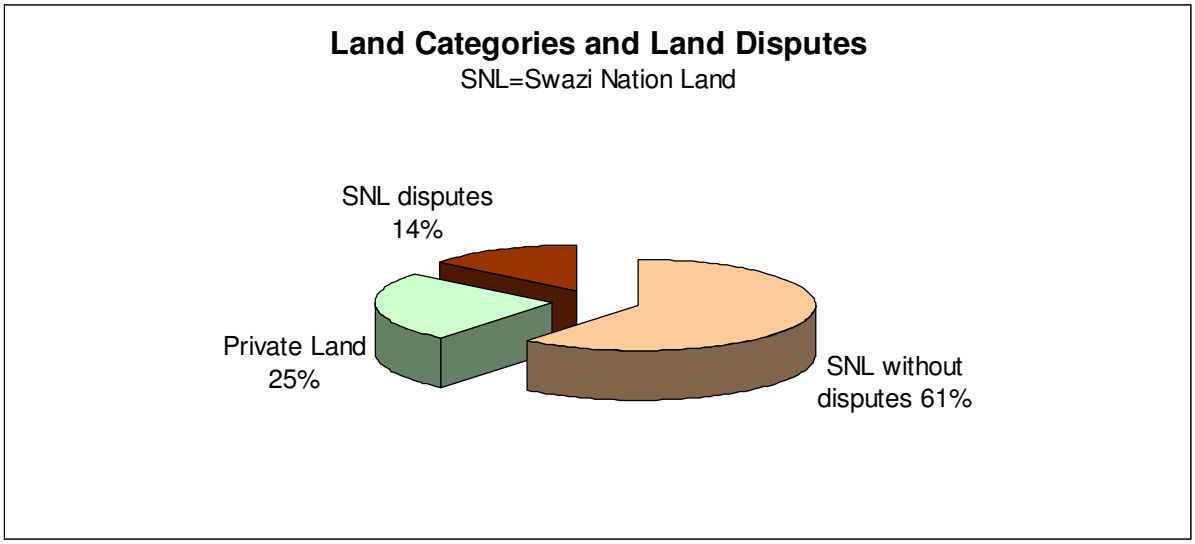

Figure 6

Figure 6 shows that only in 14% of the cases land disputes occured. All disputes occured in projects conducted on Swazi Nation Land (SNL). Figure 7 below shows the success of the three project categories: While projects on private land and on SNL without disputes reach similar values of 2.9 and 2.8, respectively, projects on SNL that are subject to disputes are significantly less successful with an average value of 1.4 (analysis of variance p value of 0.00).
In most cases, disputes over land only became an issue after the death of a leader or when a certain project did financially well and leaders wanted to share in the gains of a project. At the start of a project, it is important but difficult to uncover threats of land conflict. Disputes usually developed over time, but they never occurred on private land. We suggest that the implementing organisations keep an eye on the issue of land disputes and assist a project group in case a land dispute emerges.

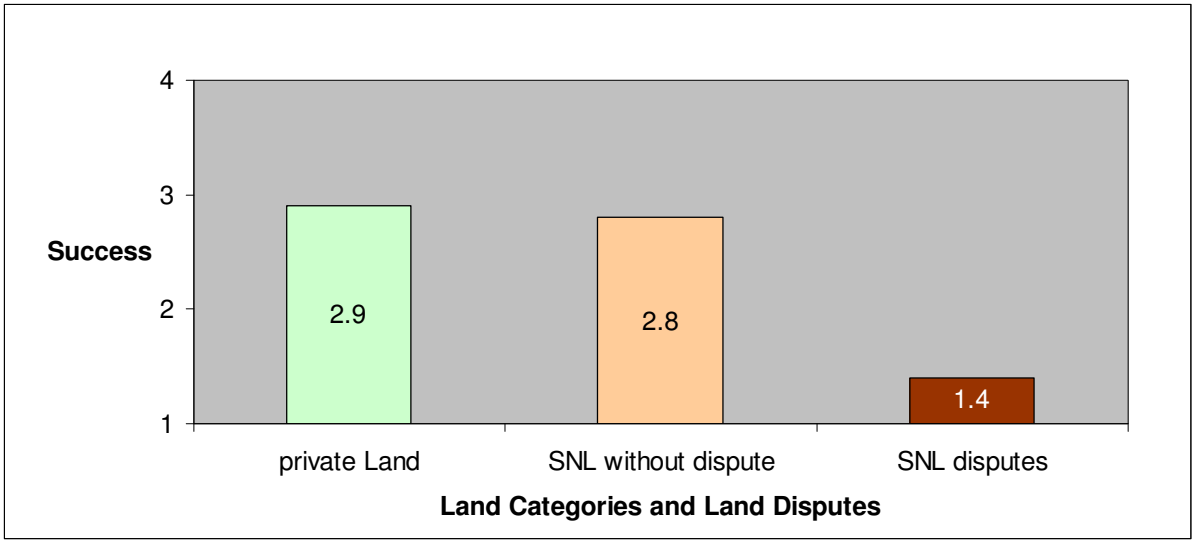

Figure 7

If we combine the answers to all four aspects of “access to land” as mentioned at the beginning of this section, we find that we cannot confirm this hypothesis in all its aspects. Only with respect to the aspect of land disputes, the results show a significant correlation to the success of projects.

3. Capacity building

Hypothesis: A project is successful if capacity building of the beneficiaries has been done carefully during setting up of the project.

We investigated how NGOs cooperate with local people, how the knowledge transfer is ensured and how the handing-over is done. For this hypothesis, we focus on the time frame between project setup and the end of implementation and financial support by the NGO.
The approach followed by ACAT, LDS, SFDF and World Vision is to provide a comprehensive initial training to a group. NGOs usually convey technical skills such as how to save money and set up saving clubs, improve skills in horticulture, husbandry, and crop cultivation; they empower people to maintain water systems and – most importantly – they train social competences and set up group structures. Thus group members learn their responsibilities and can later work well together. With the exception of Gone Rural, all investigated NGOs include group trainings in their capacity building efforts.
In many projects the training is followed by a considerable input of hardware (fencing, seed, fertiliser, livestock, and water systems). The group is then instructed how to handle the hardware (sometimes external advisors are used, or the groups are invited to attend courses at training centres of the NGOs). After this, NGOs reduce their presence in the project communities.
The handicraft groups of Gone Rural present a different case. This organisation is a fair trade company that contracts rural people as “freelance” workers. Gone Rural offers no capacity building regarding social competences of their workers, and each worker has a direct relation with Gone Rural. Workers depend on orders from Gone Rural. Gone Rural visits their workers regularly and is a reliable buyer. The system ensures permanent monitoring and an ongoing relationship.
The micro finance institute Imbita has quite a different approach compared to Gone Rural. Imbita mainly gives credits to groups, with little intervention apart from collecting interest. Imbita mainly works with groups of well informed and educated rural people or with groups

that have been trained by other NGOs before. Thus the lack of training is not necessarily a drawback for these groups.
Figure 8 shows a strong correlation between the extent of capacity building and the success of projects. Fair trade projects that get continuous support are most successful of all investigated projects thanks to a continuing relationship between producer and buyer. Groups that have received good capacity building and where the project was carefully handed over from the NGO to the beneficiaries are most likely to succeed.

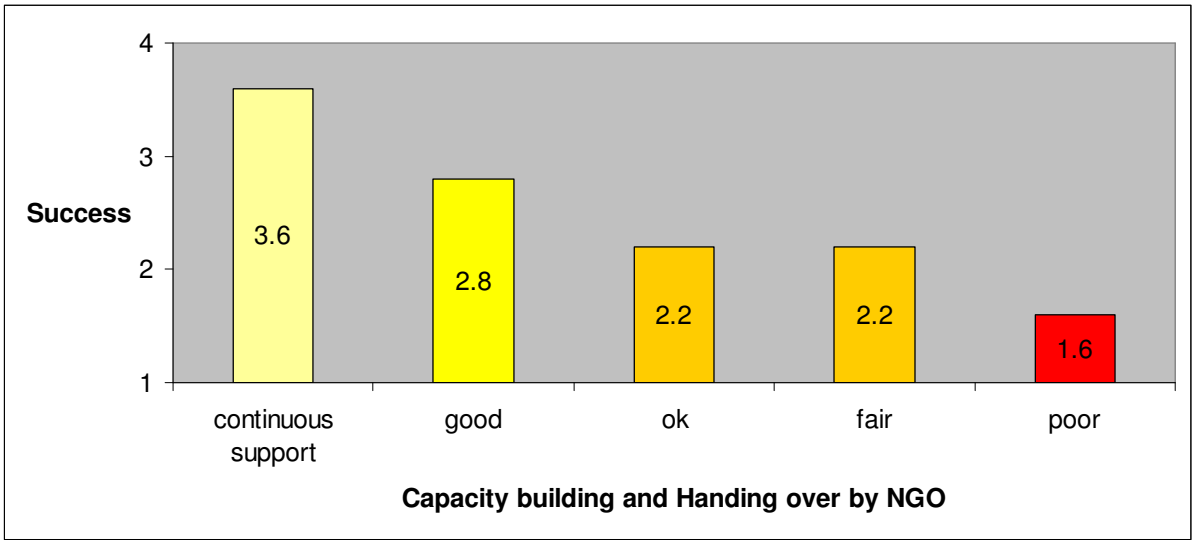

Figure 8

Figure 8 shows that poor capacity building and poor handing over lead to a significantly lower success rate of projects (Kruskal-Wallis p value of 0.01) as estimated by the beneficiaries. However, if we include the perspective of NGO staff and neighbours, the correlation has only a p value of 0.29, which is not highly significant. The fact that answers came from three different groups of interviewees lead to a “dilution” of effects in many cases.

4. Project follow-up

Hypothesis: A project is successful if the follow-up is done well and the external advice is available in case of an emergency.

This project phase succeeds the phase of capacity building and handing over and usually takes between one and two years. For this phase, either advisors, who are commissioned by the NGO, or NGO staff themselves are key persons. They often visit the project first on a weekly basis and later monthly or on demand. If this assistance is done well, the group can rely on competent and responsive follow-up and has good chances to overcome problems in their early stages. A good follow-up strengthens group structures and addresses and solves problems rapidly while enhancing the long-term viability of a project.

Reasons for insufficient follow-up include constraints regarding the availability of NGO staff and insufficient links between the group and local advisors such as rural extension officers. The main cause for this was time pressure. A statistical test of time pressure with the overall rating of projects shows a significant correlation with a p value of 0.04: Projects that had to be finished in a short time span are much more likely to fail than those without a tight time frame. To make projects successful in the long run, NGOs therefore have to invest sufficient time not only for implementation but also for follow-up. The interviews showed that

assistance during the latter phase was highly welcome by all involved parties. Many issues and disputes between local leaders or neighbours and the beneficiaries could be solved.

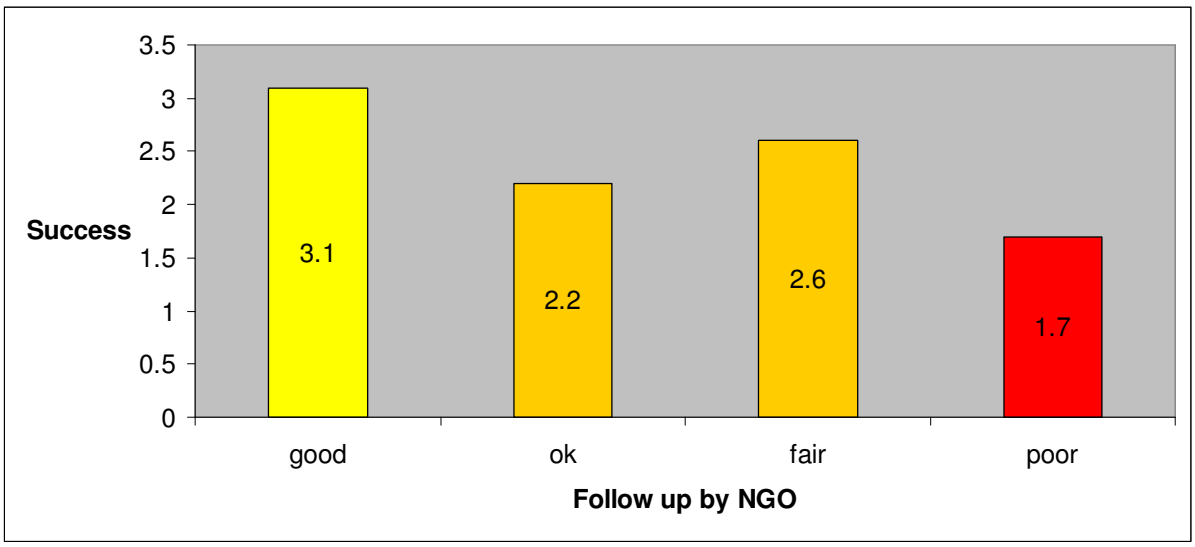

Figure 9

Figure 9 shows that projects where follow-up is carried out carefully are likely to do better compared to projects with poor follow-up. A Kruskal-Wallis test results in a p value of 0.10. This shows that it pays off to invest sufficient time and resources in the follow-up phase and to assist beneficiaries to solve difficulties. However, NGOs also have become aware that prolonged follow-up without a clear "exit" strategy can increase the dependency of beneficiaries on the NGO, harming their self-esteem and sense of ownership.

An evaluation of the two hypotheses "Capacity building" and "Follow-up" shows that it is difficult to separate the effects of capacity building and of follow-up. Both are closely correlated: Most groups that have been trained well by an NGO also report an effective follow-up. Both factors, training as well as follow-up, improved the likelihood of success.

Capacity building, handing over, and follow-up are the key inputs that NGOs provide to beneficiaries. Table 2 gives an overview over inputs that are invested by NGOs in the projects. It has been possible only for few projects to establish their costs, not to mention invested man days. The estimates have been discussed with the staff involved and seemed plausible to them.

Average man days of NGO per project (all phases)	100 – 300 days (estimate)
Average cost for NGO per project without labour (all phases)	SZL 115'000
Average duration of NGO presence per project (all phases)	2 years

Table 2

As mentioned, the results did not show significant correlations for hypotheses 3 and 4, i.e., between capacity building and follow-up, respectively, and the success of projects (Kruskal Wallis p values: 0.29 and 0.10, respectively). The *effects* of capacity building and follow-up, however, do have a strong influence on the outcome of projects. In the following two sections we will discuss hypotheses 5 and 6. They are reflecting the results of capacity building and follow-up. We will see that they are highly correlated with the overall success of projects.

5. Beneficiaries' sense of ownership

Hypothesis: A project is successful if beneficiaries have a highly developed sense of ownership over their project.

Literature shows that a strong sense of ownership of beneficiaries towards their project promotes the project's success and sustainability (Stockmann, 1996). To test this hypothesis, we have investigated the correlation between the sense of ownership of the project group members and project success.

We assume that sense of ownership is a result of capacity building and group training by the NGO assisting the group. An analysis of the correlation between capacity building and sense of ownership showed a fairly strong correlation with a p value of 0.07.
Approaches of the NGOs in regard to capacity building in social aspects show some differences: Groups trained by Gone Rural, LDS, and WV on average have a lower sense of ownership than groups that have been assisted by ACAT, SFDF, or Imbita. Gone Rural as a fair trade organisation is mainly interested in a smooth and efficient production process. Building social capacity is not part of their intervention. Groups trained by LDS and WV are mainly representing "the poorest of the poor" with low educational background and little social skills. It is more difficult and time-consuming to promote a good sense of ownership in such groups than in groups where some members already have some social and technical competences. Constrained resources are often a hindrance to give sufficient support to these groups. However, even if a project fails, individual members have acquired skills which they can now apply in other projects, building on their experience.
Groups with a highly developed sense of ownership are predominant with ACAT, SFDF, and Imbita. While the first two NGOs are emphasising on training, allowing much time for building group skills (particulary ACAT), it is surprising to find a high degree of ownership among groups assisted by Imbita, for this micro finance institute spends little time on group training. Results showed that most Imbita-assisted groups already started on a higher level,i.e., at the project start many group members already had some understanding of financial affairs and knew how to deal with credits. Members of these groups have often had previous experiences in conducting projects. This strengthened the sense of ownership and is an important factor for the sustainability of projects.
With regard to activities – vegetable projects, water projects, and husbandry projects, as well as projects with combined activities – the study revealed no differences in the sense of ownership.

A Kruskal-Wallis analysis of the data reveals a strong correlation between the sense of ownership and project success with a p value of 0.05 (figure 10). The average success rating of projects with a high sense of ownership is 3.2 while that of projects with a low sense of ownership is only 1.5.

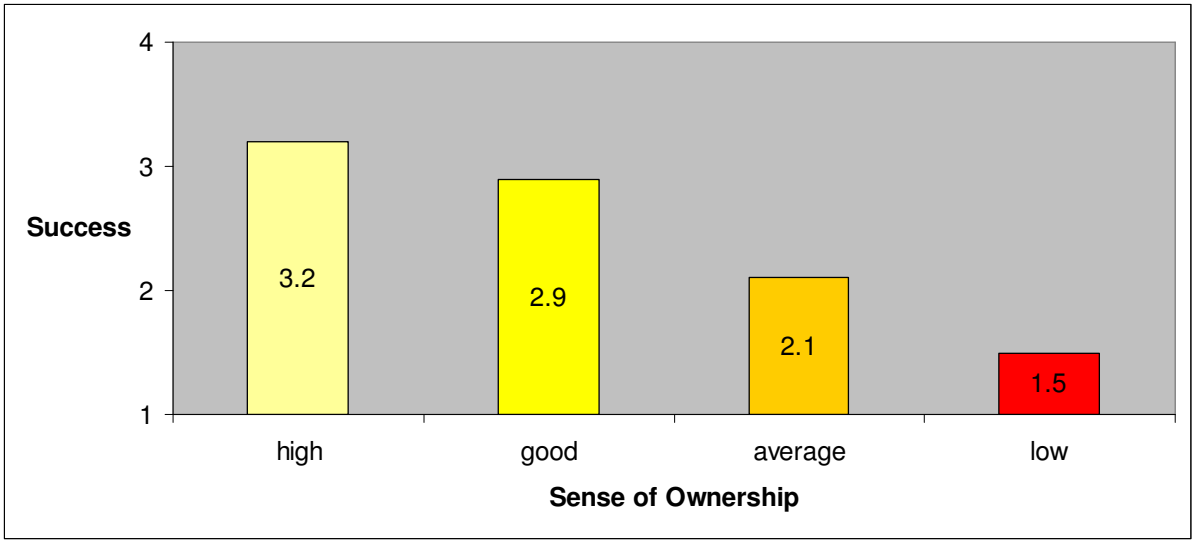

Figure 10

6. Group structure

Hypothesis: A project is successful if it is managed by a group with clear structures.

With this hypothesis we test if there is a relation between the success of a project and the structure within the group. It is assumed that clear responsibilities within the group committee and among group members are beneficial to project success. We also examined the relations among the members and investigated the flow of information and if decisions were made in a transparent way.
It has been investigated if functions within the committees were clear to all members and if all posts were occupied. The frequencies of meetings, the regularity of elections of the committee and the participation of common members have been investigated to test this hypothesis.
Most groups with clear structures have some committee members with a higher educational background. Most successful committees with clear structures are able to take decisions that, although they sometimes arouse controversy among the members, are beneficial for the project goals. Democratic principles are well observed in these groups, contributing towards an efficient management of the project. It is very positive for the project success when all members are well aware of their functions and responsibilities. In clearly structured groups everyone has a clear understanding of his or her role within the group and is able to live up to it. These groups generally showed a high maturity of their members and a high respect towards each other.
In groups where there is only one well educated person, it is difficult to establish a clear and stable group structure. In these projects, that person often tends to dominate the group and committee and to suffocate the development of a transparent and clear group structure.

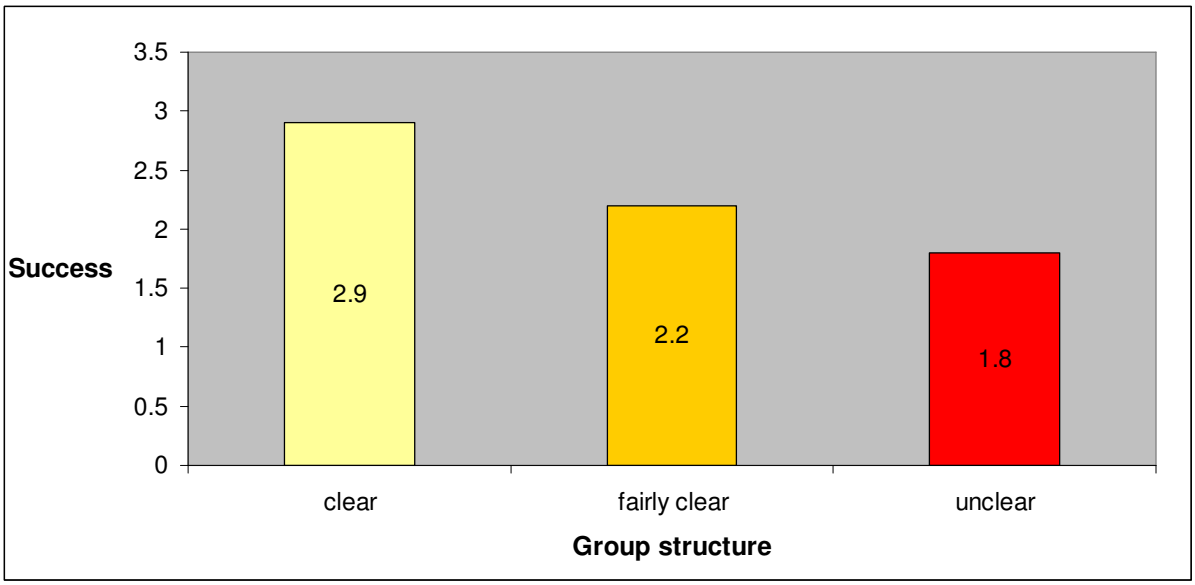

Figure 11

Statistical analysis revealed that group structure has a strong positive correlation with the overall success of projects (Kruskal-Wallis p value: 0.04; see figure 11). It is therefore vital for rural development projects to have clear group structures in order to be successful.

The interview results showed that it is time-consuming and difficult to establish groups that work efficiently together, and that complicated group dynamics often are a hindrance to the success of a project. It may therefore be questioned if the usual approach of NGOs and donors to support only groups of people instead of one family or one household is justified. The aim in rural development is to improve livelihoods at the household level, not to build strong groups. We suggest that development practitioners rethink the approach to support only groups. It is possible that support given to individuals or to families would increase competition among beneficiaries and lead to an increase of income and production of rural development projects.

7. Appropriate technology and few external inputs

Hypothesis: A project is successful if it relies on appropriate technology and depends on few external inputs.

The assumption is that projects that are based on complex technology (e.g. irrigation schemes, tractors, hammer mills) or need continuous input of expensive resources (e.g. fuel for engines, fertiliser, hybrid seeds, etc.) are less likely to succeed than projects with simple technology and little need for expensive inputs. Delicate machinery needs regular maintenance . Rural dwellers in Swaziland often do not have much experience in these tasks and sometimes seem to neglect them. We assume that it is difficult and expensive for beneficiaries to obtain inputs such as feed, seeds, fertiliser, and fuel to operate machines, and that a dependency on them can lead to the failure of a project.
To test this hypothesis, we have investigated which regular inputs are needed for each project and if inputs can be obtained easily. We have also studied which kind of hardware is used to keep the project running and how its maintenance and repairs are organised.
We found that most projects depend on external inputs. Some projects in organic farming have been adopting a low-input approach recently but continue to depend on fuel and other external inputs to some extent. All groups in this study rely on external inputs. Beneficiaries

think that purchasing some inputs is part of every project and do not consider this dependency to be a problem. Costs for seed, fertiliser, and pest control are calculated in advance.
Feed and treatment for fowl and livestock is more expensive than inputs for crop farming. Some husbandry projects have never been able to stand on their own because of the high costs for animal feed.
Likewise, fuel costs for big vegetable gardens, where water has to be pumped with an engine, became a burden for the involved groups. Still, if managed well and if water-efficient irrigation methods are used, an engine-driven pump as such is not a reason for the failure of projects.
Besides running costs for projects, a major problem arises with delicate technology that risks to fail. Several projects had to redimension their production or came to an end because a pump, an engine, or a hammer mill broke. Even sewing machines are prone to breaking. Beneficiaries and NGO staff have not been well trained to maintain and repair machines. In some cases, hardware has been delivered and installed by a profit-making company that was not interested in teaching the involved people. Only in few projects there was a mechanic or a person who was knowledgeable and responsible for the maintenance of a machine. In case of a machine breakdown, well-organised and active groups have often been able to get funds from donors for repair, whereas in weaker groups failure of hardware is often one of the reasons leading to the failure of the whole project.

Although several cases support the underlying assumption of this hypothesis, an analysis of the data set with Kruskal-Wallis analysis did not show a significant correlation between project success and the level of appropriate technology and dependency on external inputs (p value: 0.29; see Figure 12). We conclude that appropriate technology is not among the most crucial factors, i.e., other aspects such as sense of ownership are more important to project success.

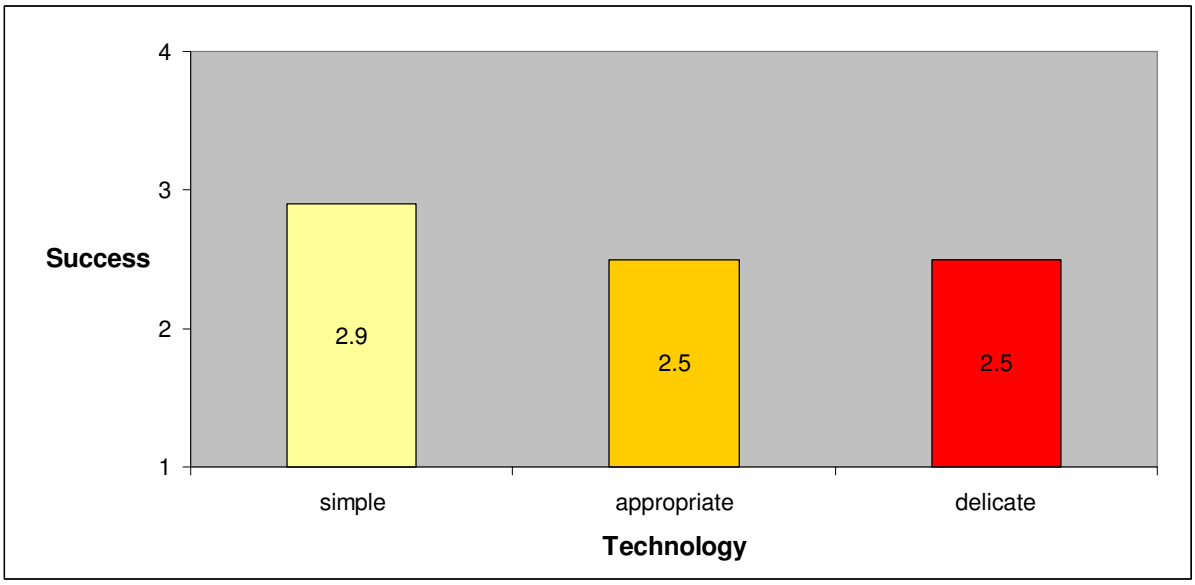

Figure 12

8. Leadership of women

Hypothesis: A project is successful if women have the leadership and represent the majority of the group members.

Literature and research on rural development in Africa show that in many cases women are working harder than men and are more reliable. Women are usually working for the benefit of their family (and their community), while men are rather working for their own well-being or for buying status symbols. Similar observations can be made in Swaziland (Kaino, 2003; Keregero and Keregero, 2000). We wanted to test if these observations hold true for our sample of 56 development projects. When selecting the projects, we found that except for one project, the involved partner organisations had no projects with men only. The reason for this is that local NGOs are well aware of possible problems when working with men only, and therefore prefer to work with mixed groups or with women groups only. In about 20% of the investigated projects, only women are involved, while the other projects have mixed committees and group members. A statistical analysis showed no difference in project success between women- groups and mixed groups (Kruskal-Wallis p value: 0.82). In most mixed groups, women were in the majority and had the lead while men were not dominating. Due to the lack of male groups, we have not been able to test this hypothesis properly.
In mixed groups, men seem to work as hard as women. While men are usually a minority among ordinary members, they are well represented in committees. About a third of the chairpersons are men.
Correlating the gender of committee chairpersons with the success of projects also didn't result in a statistically significant difference between men and women (figure 13). We believe that men who are willing to work in groups are probably representative of the average men, but have qualities that are normally rather attributed to the work ethic of women.

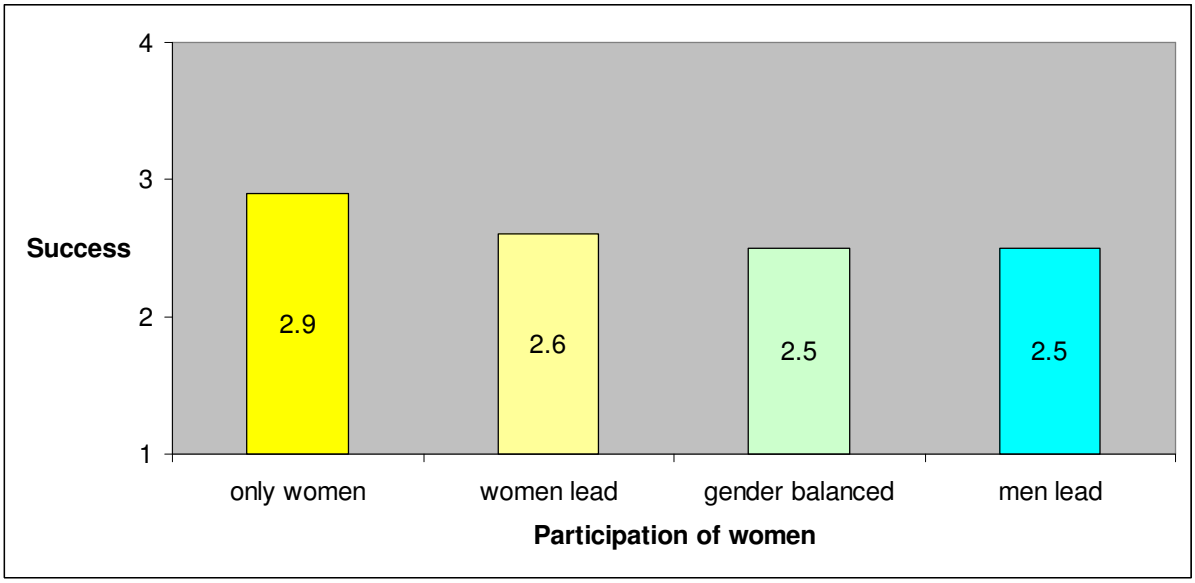

Figure 13

9. Marketing of products

Hypothesis: A project is successful if the marketing of products is feasible without external assistance.

The background to this hypothesis is that projects in rural development are in most cases not only catering for subsistence needs but are also supposed to increase income, be it through the sale of agricultural products or through the sale of handicraft or services (such as grinding mealies with a hammer mill). Thus it is vital that there are reliable ways to sell products and services. If the sale of products is difficult, this could lead to the failure of the whole project.

Our results show that seasonal changes in demand and supply are considerable. Most groups were not able to give detailed information regarding the ratio of products sold to products used for own consumption. Very few producers keep track of their sales. Except for groups supported by Gone Rural, our estimates on income are very rough and are subject to major changes, often due to climatic conditions.
Groups show a variety of marketing initiatives. In many cases products are distributed and sold to neighbours or relatives by individual group members. Other groups organise trips to markets and towns, but usually each member is selling her or his own produce. In times of scarcity, dealers come to gardens and buy produce right from the field. Only few projects have their own stall to sell products.

A study by SFDF (Keregero et al., 1999) showed that marketing was a main problem for many groups. As a result of this finding, SFDF and ACAT set up a marketing company that is supposed to coordinate vegetable producers and offer reliable channels to market vegetables. Groups are thankful for this kind of assistance, but the viability of such a marketing facilitator still needs to be proven.

The importance of marketing assistance with regard to project success remained unclear: Our data show no correlation between marketing efforts and the success of projects (Kruskal-Wallis p value: 0.52; see figure 14). Efforts to support local food producers rarely seem to result in a clear improvement in the marketability of foodstuff. Small-scale Swazi producers and marketing agencies have so far not succeeded on the international market. South-African producers are very competitive and dominate the regional market as well as overseas exports. South African producers do have an advantage because of better access to transport and because they are able to produce on larger scales. For the local Swazi food market, key problems are low buying power, low prices, and a rather low demand due to a relatively small urban population; the majority of Swazi are rural dwellers who cultivate most of their food themselves; in addition, impoverished Swazi get free food parcels.

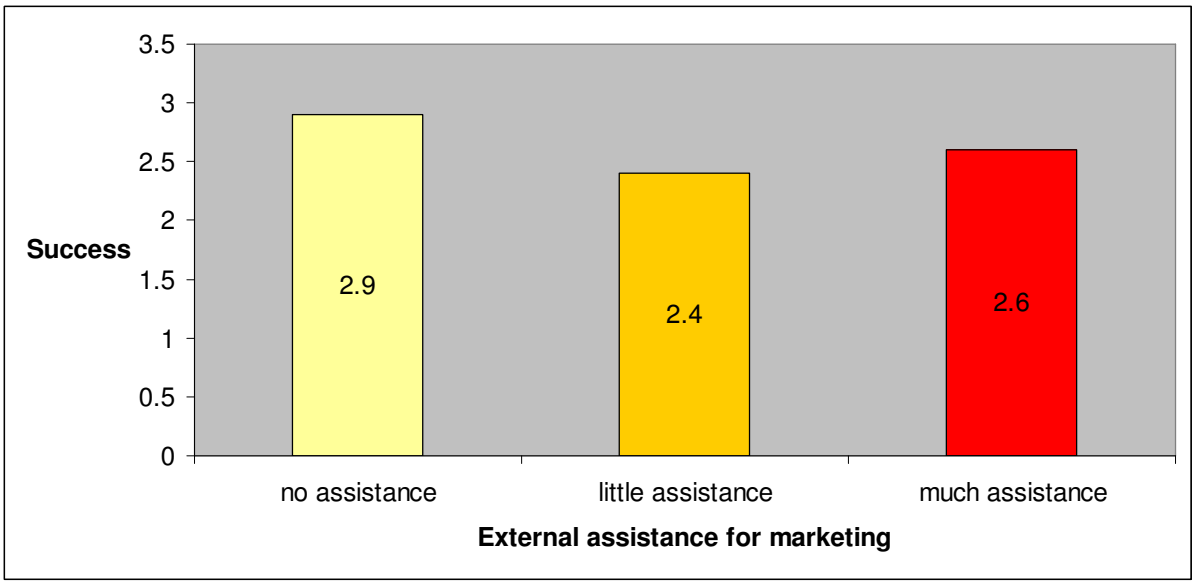

Figure 14

10. Improvement of the standard of living

Hypothesis: A project is successful if it results in a clear improvement of the standard of living for each beneficiary.

The thinking behind this hypothesis is that group members are more inclined to work hard for a project if this project results in obvious – financial – benefits for them. If a project brings clear advantages, it is likely to be continued by its beneficiaries. Our field visits and qualitative data showed that projects rarely lead to a "clear improvement in the standard of living". Members of projects don't distinguish themselves with better clothing, bigger houses, or the possession of more consumer goods compared to their neighbours. The study showed that income generated by a project is mainly used for school fees, medical treatment, and to satisfy demands from poor relatives, long before reinvestments can be made. Some projects failed because members rather used their income for urgent household expenditures than saving funds to buy inputs that are required to continue the project. On the other hand, neighbours jealously watch over any increase of wealth through the benefits of a project. Therefore, people try to hide benefits which they receive through a project.
To estimate the impact of project benefits, we have asked beneficiaries for their own rating. Nearly two thirds of the respondents said that their standard of living remained similar in spite of the project. For one third of the respondents, the project brought a moderate improvement of the standard of living at the homestead level.

In figure 15, Kendall Rank Correlation[4] shows a high correlation between the improvement of the standard of living ascribable to a project and project success, the p value being 0.02. In other words: Projects that result in an improvement of the standard of living have a significantly higher success rate.

[4] We have used Kendall analysis here because there were only two categories, which cannot be calculated with the Kruskal-Wallis test. In this analysis, two outliers are excluded. On page 28 we present an overview of p values, using the Kruskal-Wallis for the whole sample. This results in a higher p value.

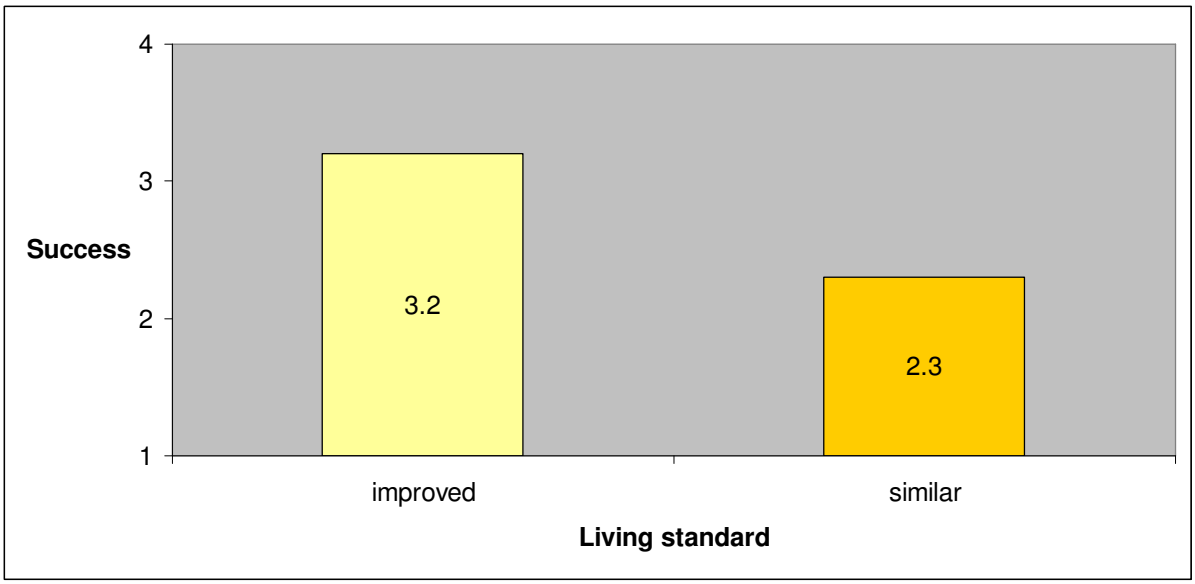

Figure 15: Correlation between project success and improvement of the standard of living.

The analysis of the data revealed another strong correlation: that of the cost to establish a project with the project's effects on the standard of living. Big projects[5] as well as very small projects have a much lower financial impact compared to average-sized projects.

With regard to the generated project income per year, the data show even clearer results: Projects of average size result in an additional total income of SZL 78'000 in average, whereas small as well as big projects result in an additional average income of about SZL 30'000.

On average, beneficiaries reported an improvement of their living standards due to projects that are not very expensive whereas they feel little improvement through expensive projects (figure 16). We assume that these perceptions could be related to the more expensive technology used for costly projects, which is difficult to be maintained by the beneficiaries. This may lead to a frustration of expectations and a low estimation of the project by the beneficiaries.

On the whole, projects seem to have only a small effect on households in terms of a visible improvement of livelihoods. However, many women state that they have become economically more independent thanks to a project and that they were able to send their children to school. Many feel that a project helped to develop some of their dreams for their lives. In the chapter on hypothesis 8, we have shown that a majority of beneficiaries are women. Women predominantly invest in education and health of their family members. The income from projects can help to improve the educational standard of children. Regarding this aspect, development projects are therefore likely to contribute to a sustainable improvement of the Swazi society.

[5] Definition of project size:
Big project: over 100 households connected to a water system, or garden projects over10 hectares, or projects with more than one livestock unit (e.g. 300 chicken);
average project: ranges between big and small projects;
small project: < 10 households connected to a water system or < 1 hectare of a garden or < 0.5 livestock unit

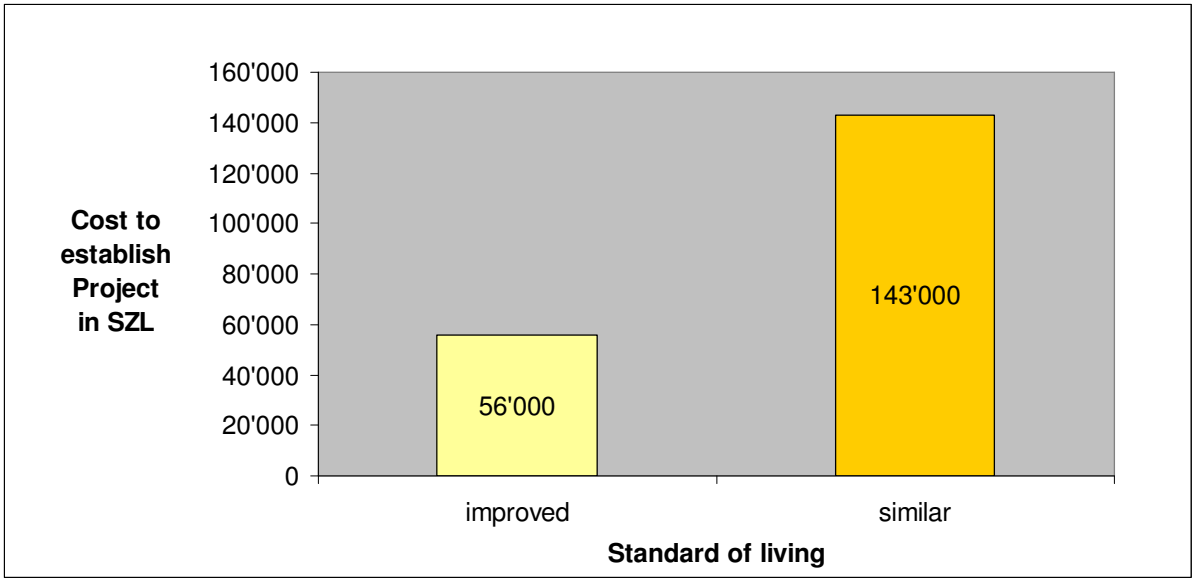

Figure 16: Cost of Project and impact on standard of living.[6]

	Total generated income per project (selected projects[7])	Total generated income per project (all projects)
Small Project	28'000	52'000
Average Project	78'000	74'000
Big Project	31'000	25'000

Table 3: Generated income per year per project in SZL

Table 4 below indicates the financial impact per project member, i.e., how much income is generated per member or household, respectively. Since membership in projects can fluctuate, for the calculations in the following table we used the mean value between the number of members at the start of the project and the number of members at the time of data collection. For small and average projects, membership is around 25 in average, for big projects it is around 50.

	income per member (selected projects[8])	income per member (all projects)
Small Project	1'100	2'600
Middle-sized Project	3'100	3'000
Big Project	1'200	1'000

Table 4: Generated income per year per member in SZL.

11. Financial sustainability

Hypothesis: A project is successful if it has included a system for financial sustainability such as a saving scheme.

The reasoning behind this hypothesis is that projects that include capacity building in financial skills such as working with saving circles are more viable. Long term success

[6] In this analysis, two outliers are excluded.
[7] Special cases such as consumption water and fair trade projects are excluded.
[8] Special cases such as consumption water and fair trade projects are excluded.

seems to be higher because of improved financial stability and better soft skills of all members. Setting up saving clubs involves group training. Members learn how to save money, how to keep books and track all financial transactions. It also teaches them how to elect members into functions with responsibilities and to monitor their performance. Without these skills and financial security, the hypothesis postulates that projects are more likely to fail when minor problems or temporary financial constraints arise.

Our study shows that two thirds of rural development projects have some kind of saving scheme. Projects with an efficient saving system are only a little bit more successful compared to projects with occasional or no savings. A Kruskal-Wallis test results in a p value of 0.29; the same value results for the Kendall Rank correlation (figure 17).

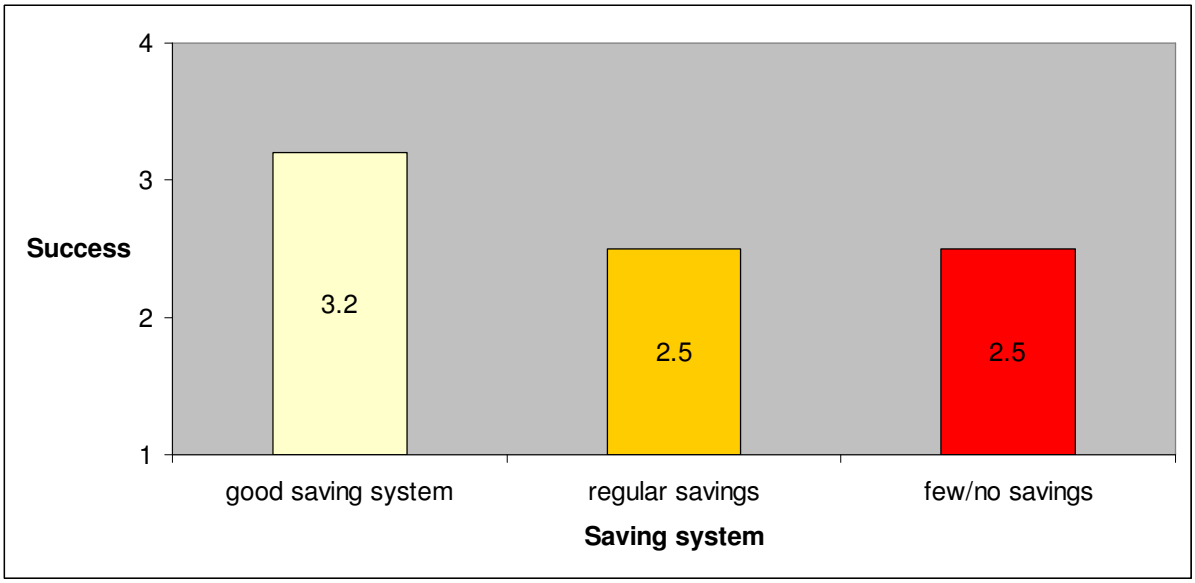

Figure 17

Here are some explanations for this unexpected result:
Some groups that are currently not saving funds had a saving scheme earlier and used the funds to improve the project. Sometimes, members are willing to make individual contributions to improve a project, thus savings are not always a necessity.
Other groups with clear rules show a high degree of solidarity among each other; instead of a common savings account, each member provides inputs in terms of labour. It has been observed that a strong committee and clear group structure is an important asset that can compensate missing savings to some extent.

12. Effects on neighbours

Hypothesis: A project is successful if it is neutral or positive for all people who are affected by the project but who are not beneficiaries (neighbours etc.)

This hypothesis tests the correlation between project sucess and the effects on neighbours and other people who are affected by a project but who are not directly involved. Projects can either have positive effects, e.g. by improving the availability of food and other goods and services, or they can be competing with existing businesses. Nearly all projects have been approved by local authorities. The latter are involved in allocating the required land and are kept informed on who are the project members. We assume that by this procedure, well-received projects are relieved of an otherwise important stumbling block. Misunderstandings,

misgivings, and jealousy are an important issue in Swaziland (see chapter below) and made some groups give up their project because of continuous sabotage by non-members. It is therefore an art in development cooperation, prior to the project start to appease everyone who could be affected. This issue may be addressed by designing projects that are basically open for participation to all people living in a certain area. People who are not suited to become members such as traditional leaders, healers, or dominating persons can be integrated indirectly through their kin, or they can be asked to help setting up a project.

The majority of the projects (37) were considered neutral by non-members in the relevant area. At 14 sites, neighbours said that the project had a positive impact on them whereas in five sites neighbours felt that the project was interfering with their own activities. This signifies that outsiders – especially neighbours – consider a project rather an asset than a threat. Although the issue of jealous neighbours has often been mentioned in interviews with members, the statistical analysis showed no correlation between the effect on neighbours and the overall project success (Kruskal-Wallis p value: 0.59). In figure 18 it can be seen that projects that are considered negative by the neighbours even show a slightly higher success compared to those that are considered neutral.

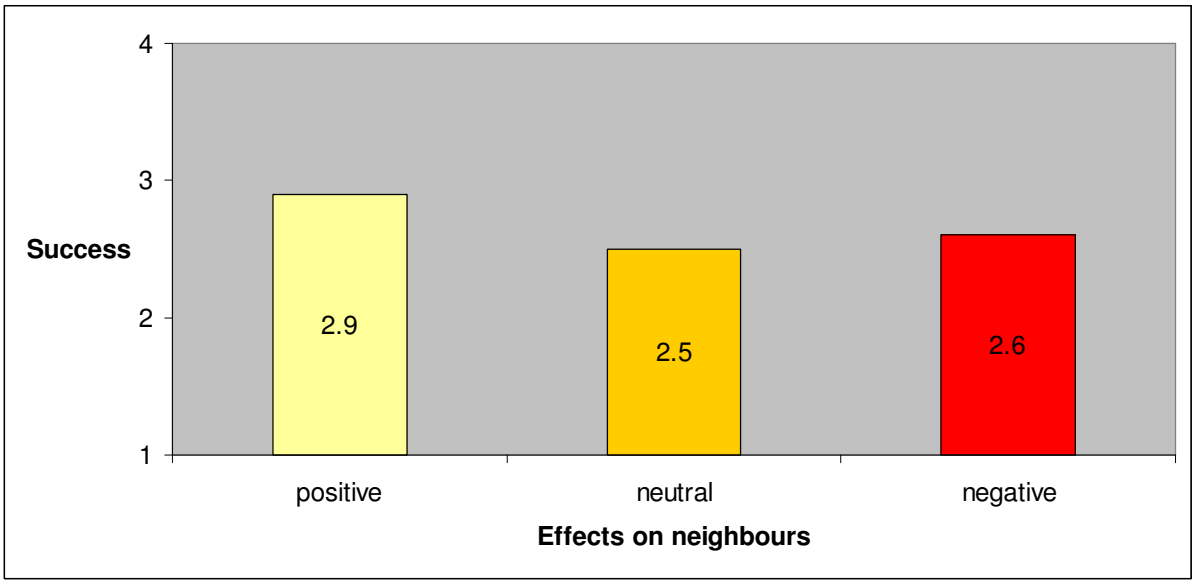

Figure 18

Because the relationship between members and neighbours as well as the relationship among members themselves often seems to be difficult, we dedicate a paragraph to this theme in the next section.

Final comments on the hypotheses

The table below allows an overview over the twelve hypotheses and gives two key figures for each hypothesis: The mean value shows if the assumption taken for a hypothesis has been supported as true by the answers (which would result in a maximum of 4) or if it has been rejected as not true by the answers (which would result in a minimum of 1). Actual mean values range from 2.5 up to 3.2. To give an example: Beneficiaries' initiative: 2.6 signifies that the initiative for a project is only occasionally taken by beneficiaries; Access to land: 3.2 signifies that access to land is rather good on average.
The Kruskal-Wallis p value relates the assumption taken in a hypothesis with the overall success of projects. A low p value (0.05 or less) shows that it is very likely that the

assumption of the hypothesis is correlating with the overall success of a project. This means, using as an example “5. Beneficiaries’ sense of ownership” from the list below: In case beneficiaries have developed a strong sense of ownership over their project, it is highly likely that the project is an overall success.

	Mean value	Correlation (Kruskal-Wallis p value)
1. Beneficiaries’ initiative	2.6	0.67
2. Access to land	3.2	0.25
3. Capacity building	3	0.29
4. Project follow-up	3.1	0.10
5. Beneficiaries’ sense of ownership	2.9	0.05
6. Group structure	3	0.04
7. Appropriate technology and few external inputs	2.9	0.29
8. Leadership of women	2.8	0.82
9. Marketing of products	3.2	0.52
10. Improvement of the standard of living	2.5	0.09
11. Financial sustainability	2.8	0.29
12. Effects on neighbours	3.1	0.59

Table 5: Overview of hypotheses showing the statistical correlation of the respective influencing factors with the overall success of projects.

The mean values in table 5 show high values for the issues *access to land*, *project follow-up*, *marketing of products,* and *effects on neighbours*. This signifies that NGOs give much attention to these issues, and that respondents of all groups rated them as satisfactory or good:
Most groups have easy access to land and rated project follow-up as good. Likewise, marketing of products was feasible for most groups, and the effects on neighbours were considered to be positive for the majority of projects. Most respondents, especially those from implementing NGOs, stated that these four issues were among the most important factors contributing to the overall success of projects.

When looking at the p values in Table 5, our data shows that these four factors are not identical with the factors that statistically correlate most strongly with the success of projects. The closest correlations with project success have been revealed for the following two factors: *beneficiaries’ sense of ownership* (hypothesis 5) and *group structure* (hypothesis 6). A high sense of ownership means that group members feel highly responsible for *their* project. The results show that efforts by local NGOs to train groups and to make members confident with their rights and responsibilities within committees and within the common membership help to increase the long-term success of projects.
Clear group structures lead to a smooth group and project management that is likely to be supported by all members because tasks and responsibilities are clear and can be verified by members. This shows that the absence of internal quarrels and challenging competences lead to successful projects.
Implementing agencies should therefore give top priority to these two issues if projects are to have long-term success. We believe that both issues are, at least partly, a consequence of the investments in capacity building and project follow-up, once these inputs have been internalised and fully taken up by the beneficiaries. However, in this study we were not able to investigate more deeply into the processes of knowledge and information transfer.

In addition to these two factors, there are two more factors that show significant correlations with project success at the 10%-level: Projects with a good, supportive follow-up are much more likely to be successful compared to those without this support (hypothesis 4). The same can be said for the standard of living: If a project contributes to an improvement of the

standard of living that can be felt by the members, it is much more likely to be successful in the long term compared to projects that have no direct influence on the standard of living (hypothesis 10).

We have been somewhat astonished that our study did not come up with stronger correlations between the twelve aspects we have investigated and the overall success of projects. We assume that there are three reasons for this:
1. Information comes from three groups of informants with much differing views, which dilutes pronounced results. 2. Some aspects known from other African countries might not apply to the Swazi context. 3. The sample of 56 Projects is relatively small; a larger sample might lead to a greater number of statistically significant correlations. In addition, the likelihood of statistical errors is relatively high with a small sample.

Besides collecting data to test the hypotheses, the research team discussed with various persons living in Swaziland about their daily lives, their worries, and their hopes. Some issues were often mentioned, and it became clear that they influence people and their lives very much. These issues will be introduced below. We discuss them here to give a broader picture of the Swazi and especially the projects' context.

Context of projects

Although the issue of HIV/AIDS has only surfaced occasionally during the research, we have to keep in mind that the HIV/AIDS pandemic affects Swaziland very much. Roughly 40% of the inhabitants in the reproductive age are infected, and only a small percentage of them are treated. As a consequence, social structures fall apart; children become orphans, and desperation often influences everyday life. On top of this, the ongoing drought devastates harvests in large areas of the country and aggravates the dependency of many Swazi from external (food) help. This "background picture" is always present.

Swaziland's smallness makes it difficult to live in anonymity in the country. People know each other and observe their fellow Swazi closely. Social control is strong. Obtaining an "unearned" advantage, for example through a development project, is not approved of. Instances of jealous behaviour have often been reported, an issue dealt with below.

Another issue is the highly complex political system. It has two levels, that of traditional politics and that of a two-chamber, more modern system. The beneficiaries of the investigated projects live with and under this system that is a part of their context.

The abundance of aid, both relief and development aid, has been mentioned already. It affects the attitude of many beneficiaries (who take all kinds of support as granted) as well as the appropriateness of interventions of many organisations (because they have to fulfil donors' wishes).

The last issue that came up in interviews now and then concerns religion and beliefs. Although the large majority belongs to Christian churches, most people also believe in spirits of the ancestors and occasionally visit an Inyanga[9] or a Sangoma[10].

We believe that a short introduction of these issues is important to better understand the Swazi context.

[9] Medicine man
[10] Spiritual healer, also witchdoctor

Jealousy

Jealousy between project members and non-members as well as among members is an issue in many projects. Incidents are usually not directly leading to the failure of a project; however, most projects where some members earned “good money” had to deal with this issue. In general, if someone exceeds his neighbour in any form, he is regarded jealously, and neighbours often devise strategies to hinder the progress of successful individuals or groups. This is especially true for development projects that have received a visible “free” input such as a water pump or fencing. These given inputs are not the fruit of hard work but the result of immodest behaviour in the eyes of many outsiders. If these inputs lead to an increase in wealth of the beneficiaries of a project, sabotage can occur, with neighbours destroying or stealing hardware and crops or animals.

In gardens, theft has been named as an important reason for hindering the development of wealth. In many cases, group members state that by fellow members who are less successful steal their crops. In one garden, the solution was for every member to plant the same crops at the same time in order to have exactly the same size of heads of cabbage, lettuce, and other vegetables.

One of the approaches to avoid negative effects through jealousy is to offer membership in a project to all people in a certain area. However, at the start of a project, people are often reluctant to join because new members are required to invest a certain amount of labour, and sometimes to provide an input in kind or money. People rather wait and observe, and prefer to join a project that has obvious potential for success after it has overcome its initial difficulties. However, groups with economically successful projects usually become reluctant to accept new members who threaten to dilute their profits. So they devise means to keep newcomers out by introducing restrictions to join or increasing joining fees. Those who are excluded try to badmouth the project and its members, and accuse them to develop their activities on the expense of the whole community.

Although the issue of jealousy was statistically not significant in our study, it has been mentioned as a problem in many interviews and apparently led to the failure of a few projects. It seems to be a “soft” but important factor that worries beneficiaries as well as neighbours of projects.

A possible way to reduce the problem of jealousy is to keep projects more open to people who want to join later. This requires a good follow-up by the NGO that has been assisting the group during project setup. As mentioned before, it seems questionable if the approach of working with groups is the best way to drive development in Swaziland, and to avoid jealousy. Instead, an open approach targeting families or households as core players in development might improve the interest of those who are reluctant to join a group, in becoming players in development.

Swazi politics and the role of local leaders

The Swazi political system combines the modern, fairly democratic Tinkhundla[11] system with the traditional Chiefdom system. In the Chiefdom system, Chief and Indvuna[12] inherit their functions, while in the more modern Tinkhundla system, representatives are elected.

[11] Board of elected Bucophos, headed by the Indvuna Yenkhundla (political body).
For further explications of Swazi terms, please refer to the glossary at the end of the report.
[12] Works below and on behalf of the chief. Under the chief are three to five Indvunas.

Each project that has been investigated in this study had to be brought before the chief to get approved. In most cases, projects are supported by the traditional authorities once they have been approved by them. However, in case of a change within the authorities, former approvals can be revised and even withdrawn.

Some chiefdoms are represented by leaders who lead an urban life in wealth, being physically as well as mentally far from “their” people. Only on rare occasions, they come to their home areas to take part in meetings of the councils and to take decisions. They can become dependent on their local representative who resides in their area. Below the chief is one Indvuna for each subregion; depending on the size of the chiefdom, there can be up to four of them per chiefdom. Tensions can develop between the remote chief and the Indvuna or between the representative and the Indvuna. The chief resides at the Umphagatsi, the chief’s homestead. Here, members of the chief’s family and the Indvuna meet to take decisions on all issues concerning their area and their subjects. Legal issues as well as all issues concerning distribution of land (the chief keeps the land in trust for the king and may allow petitioners to get land for a specific purpose) are discussed at the Umphagatsi. Politically, the Umphagatsi is the highest committee in the chiefdom. It also has the full power of jurisdiction. If its decision is disputed, the next higher authority is the royal kraal at Ludzidzini next to the main residence of the king. For additional advice, each chief has his Libandla, the community’s council. The Libandla consists of educated members who are elected by the chief upon recommendation by community members.

The Inkhundla system is the economical and political structure parallel to the chiefdom system. While Swaziland counts 199 chiefdoms, there are 55 Tinkhundla (sg.: Inkhundla) centres. Each Inkhundla is represented at the national parliament by its elected Member of Parliament. Locally, each Inkhundla is presided by the Indvuna Yenkhundla and is made up by Bucophos – one for each sub-region – who have been elected by ordinary Swazi citizens. The Inkhundla is mainly involved in development policies whereas the political issues are with the member of parliament. The Inkhundla is in a position to support development through funds given by the government.

Members of parliament (MP) down to the Bucophos are dependent on the goodwill of the traditional leaders. Only if the traditional leaders support their political position, they will be nominated and thus eligible.

After his election, an MP, due to the distance from his home area, is quite independent from the traditional leaders. Indvuna yenkhundla and Bucopho, however, living with their communities, remain under vigilance from traditional authorities as well as from those who have elected them. Among other tasks, they have to secure governmental funds to finance local projects. They also have to report problems and to get assistance from the Inkhundla. The Bucopho finds himself sometimes in the role of the scapegoat, being reproached by the Indvuna, the chief, and his people if he was not able to raise funds to finance a certain project.
The MP as an elected leader is not in a position to put pressure on the traditional leaders in his area. He has no control over the chiefs of his area. These hold almost all of the power, and their people have to report to them, not to the MP or Bucopho.

However, informants told us that the coexistence of elected and traditional leaders works fairly well in everyday business. Although the two systems are strongly interwoven, this seems to be usually no problem. The task of the Bucopho is to take orders from the chief to the Inkhundla.

Each Inkhundla gets an annual allocation from the regional development fund of the government (in total SZL 40 Mio) to sponsor development efforts that are initiated by the communities. Each Inkhundla disposed of about SZL 800’000 to spend in 2007. In some

areas the Inkhundla is coordinating its support with local development strategies, but in other areas it may be contradictory to a local development strategy that is pursued by other players such as NGOs (often in cooperation with local staff of the Ministry of Agriculture). The use of the funds of the Inkhundla is not monitored. Tinkhundla like to give large assets such as tractors and pumps to communities. In the past, many fences for community gardens have been sponsored by the funds of the Inkhundla. Occasionally, they even support NGOs that run short of funds. During the study it has become apparent that many groups do approach the Inkhundla for support, and often their requests are approved. However, it has recently been announced that Inkhundla funds will henceforth be focused on large-scale projects such as schools, roads, etc.. It is therefore likely that this source of support for small-scale initiatives such as the projects that have been analysed here, will run dry soon.

We tried to show the interwoven political levels and the financial implications that also affect the projects. Swazi politics and their social and financial implications are a delicate topic, and as outsiders we are still unsure about their exact implications at the project level. We believe that most often the chief or the Indvuna are the key persons for supporting a project. However, advisors, Bucophos, and other representatives can become influential when a traditional leader is only rarely present. On the other hand, we think that social control is functioning well in this small-scale society, and thus may be reducing incidents of corruption and mismanagement in rural areas. The system does not allow people to be outspoken or critical towards traditional leaders because they are in a position to make one's life either easy or very difficult.

Relief and development aid and the competition among NGOs

Swaziland is covered well with aid and development agencies. Most areas are accessible by car, and cell phones also work in remote parts of the country. The homepage of Cango, the umbrella body of all NGOs in Swaziland, lists 63 local organisations as member agencies. In addition to the local Organisations, several international development agencies as well as many UN agencies such as FAO (Food and Agriculture Organization of the United Nations), WFP (World Food Programme), and UNICEF (United Nations Children's Fund) are active in Swaziland. Several of them have their own programs that run parallel to programs of local NGOs.

The lowlands of the country did not receive sufficient rainfall in the past 15 years. During the terrible drought in 1992, the WFP has established centres to distribute food in the Lowveld and has never since left this area. People living in the Lowveld became used to food aid and further reduced their farming activities. Alternative strategies to generate income with drought-resistant crops, husbandry, handicraft, and trade were not vital for them anymore because of the well-established and reliable food relief. We have interviewed smallholders living in the Lebombo range, which gets some rainfall but is close to the Lowveld. These peasants said they were able to sell staples, legumes, and vegetables to the peasants of the Lowveld in exchange for animals and services before the food aid started. Nowadays, however, peasants from the Lowveld no longer buy regionally produced food but wait for free food parcels from food relief agencies. Some food-producing projects in the Lebombo range ceased to be feasible because nobody bought food anymore. A promising new approach are FAO vouchers. The FAO gives these vouchers to food-deficient peasants in the Lowveld to buy locally grown seeds or food, thus increasing the demand for locally produced food and seeds. We hope that farmers in Swaziland who are still able to produce food for the local market now see a future thanks to this system.
Relief is further threatening sustainable development in so far as local development agencies are used as distributors of food aid. Food aid involves large sums of money and has become an important income strategy for several local NGOs. They are paid to distribute food in the

areas where they are active with development work. The more food they distribute, the more they earn. Generally, funds for development work are more difficult to raise compared to funds for relief work. Directors of local NGOs are in a dilemma: They have the option of either dismissing some of their staff if living up to their belief of “helping the poor to help themselves” but refraining from food distribution, or else to keep their staff and continue to work thanks to the funds they get from food distribution. Several NGOs decided in favour of food aid in spite of its destructive implications making the poor more and more dependent on handouts. The issue of food distribution will be increasingly controversial in the coming years because of the newly developing shortage and price increase of staples.

Last but not least, there is some competition also among development agencies. In recent years, new, often foreign development agencies have set foot in Swaziland. Their arrival can be tempting but also confusing for the local population. New agencies sometimes try to attract beneficiaries by promising fabulous packages of inputs. Hardware such as pumps, water pipes, fencing material, and new clothes are given free of charge if people are ready to join a project of a new agency. This can lead to the destruction of well-established and well-functioning self help groups. There have been cases where groups suddenly fell apart and members turned to a new project, hoping to get more inputs for less effort.
The study revealed that several projects that started with costly inputs instead of building on soft skills and technical skills, were faced by a rapidly dwindling interest among the beneficiaries once the inputs had been given. Local people flock to input-heavy projects to get easy benefits. They seem to be skilled to ask agencies for inputs (as observed during the study) but often are reluctant to make major contributions themselves. Thus, once the sources that provide them with inputs have dried up, these groups tend to dissolve.

Religion and beliefs

Spiritual life in Swaziland is characterised by a variety of Christian practices combined with the use of spiritual powers and ancestor worship. This mix is part of daily life in Swaziland and has a considerable influence on people. Most people are attached to one of the Christian denominations, many of them to a Zionist church. At the same time, Sangomas and Inyangas are called on to avoid black magic or to curse enemies. At few instances during some interviews, hints about fear of black magic surfaced. However, it has not been possible to investigate further into this issue: Religion, beliefs, and spirits were not an issue in most interviews, and interviewees were not showing emphasis on this issue. At the outset of the research, we had expected land issues to be linked with traditional ceremonies, involving spirits or gods of the land. However, in most cases land allocation seemed to be a straight-forward procedure without much spiritual background.

Christian development agencies seem to blend well into the local tradition of spiritual beliefs. Interviews showed that members in some projects that were assisted by Christian NGOs included bible study in their weekly meetings. It has not been found that Christian beliefs are imposed on people or that people would be excluded from participating in projects on religious grounds. Local people rather seemed to see an additional asset in a Christian NGO compared to a denominationally neutral NGO. Meetings are sometimes opened with prayers – in groups supported by Christian NGOs as much as in groups supported by NGOs that are not faith-based. Rural people seem to live in a close relation with God and spirits; worship and prayer is an important part of everyday life for most rural Swazi.

Concluding remarks

The question, put at the very beginning, “why do projects fail or succeed?”, cannot be answered in one or two sentences or by relating to a few key hypotheses. The study revealed a high degree of complexity in the rural context in Swaziland. There are many players on various levels with changing degrees of influence.
Our impression was that small-scale development projects enable disadvantaged people to develop life skills and self-esteem. Rural people can develop a common vision with neighbours and friends and make their vision become true with the assistance of an NGO. With such small projects, people improve their organisational skills, learn about finances and constitutions, and learn to take over responsibilities and to become accountable to others. Small-scale projects open a window to a wider world for many poor peasants. They get access to a market and to a social network that can strengthen the backbone of each project member.
Once the members of a project become aware that the project is not just an easy way to gain wealth with little input, they are heading to a promising future. If they internalise that a project involves a process in which members have to become responsible, knowledgeable persons working hand in hand with other project members to attain a common aim, it is likely that their project will be successful and sustainable.
Even if a project ends after some years, interviews with former members who understood the underlying implications of their project showed that they may start new initiatives thanks to the understanding and to the skills they have learned.
Most projects also result in a way to earn a modest additional income that is directly beneficial to women and children. Much of the generated income is used to pay for school fees and medical treatment. Projects thus contribute to a higher school attendance and allow many children to continue their education. The results further revealed that cooperation between implementing NGOs, local authorities, and beneficiaries are in most cases satisfactory or even good. Most projects showed a careful setting up: Authorities were well informed and often involved in outlining a project, and beneficiaries knew in many cases what was expected of them.
One of the difficulties of many projects is to achieve a stable membership. In most cases the membership shrinks over the years until a small core group remains. A smooth transition from “founders” to a “new generation” is rare, and some projects came to an end during such a transition. With few exceptions NGOs stop visiting their former projects shortly after handing-over; thus, many groups have no possibility to improve their skills or to develop their project. This problem is often due to a lack of funds. We believe that this issue must be improved if projects are to last over a longer time. In general, projects rarely trigger a dynamic movement by serving as a prototype which is imitated by new groups. We advocate that involved NGOs monitor the context during the follow-up phase and signal an openness to support other interested groups to develop complementary projects.
The study also revealed how delicate it is to maintain a balance between creating dependency and giving necessary guidelines. Most NGOs try to let the groups stand by themselves within a timeframe of one to two years. Maintaining a close relationship for longer increases dependency; leaving groups earlier may lead to crumbling of committees that are not yet strong enough to operate themselves.

Constraints regarding the results of the study

We are aware of the possibility of biased answers in this study, and of their implications on the results. Respondents have been informed that sahee is a foundation giving financial support to NGOs. The interviews with the staff of the NGOs were therefore not free of a bias, as sahee has a working relationship with most of the NGOs mentioned in this study, by

supporting some of their current projects. To the NGOs and their staff, we have not just been a research team but also a donor. Although we tried hard to curb expectations of beneficiaries regarding potential financial assistance from sahee, often the answers given were clearly formulated in order to get support. Furthermore, beneficiaries also knew of the relationship between sahee and the implementing NGO, thus criticism towards the relevant NGO may not have been outspoken by some interviewees.
Another difficulty was the average age of projects of eleven years. Many interviewees – staff as well as beneficiaries – were not involved in the project at the time when it had started. Written documentation is not always available. Much "soft" information could not be reconstructed (e.g. relationship between staff of the NGO with beneficiaries at the time of implementation).
However, thanks to the use of different sources of information and different groups of interviewees, missing and blurred information could be reconstructed to some extent.

Recommendations summarised

Analysis of the results shows positive effects on the long-term success of the investigated projects if

- beneficiaries have developed a high sense of ownership, and
- group structures are clear.

Self-worth, dignity, confidence, and self-reliance are all part of ownership and initiative. Projects that instilled these qualities performed better than others.
The fact that group structure came out as an important factor reflects the fundamental importance of "governance". In other words, the group structures developed through the projects are able to give orientation to all partners inside and outside of projects and reduce occurrence of misunderstandings and quarrels as a consequence.

In addition to these two factors that showed a highly significant correlation with the overall success of projects, we suggest that local NGOs also consider the following interventions as important means to achieve sustainable projects:

- to secure a good follow up by
  - keeping some minimal long-term contact with all groups (e.g. one yearly visit), and
  - assisting groups with committee re-elections.
- to make sure that beneficiaries feel an improvement of their standard of living through the project.

Further issues to be considered are:

- to channel forces from non-members into setting up new projects,
- to offer regular trainings for all members of projects, and
- to use previous experiences of group members and cultivate a sharing of skills and knowledge among members.

There is need for further research. It is recommended to analyse how sense of ownership by the members of a project develops and how NGOs can contribute to develop it. It also should be investigated which factors are responsible to attain clear group structures. Both issues have been found to be vital to the success of projects.

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Cyril Alther, June 8th, 2008

Glossary

ACAT	Africa Co-Operative Action Trust; Swazi NGO, Mbabane
AIDS	Acquired Immunodeficiency Syndrome
Beneficiary	Person who benefits through a project directly, i.e. family members living in the same household as a project member, all persons living in the catchment area of a water scheme etc.
Bucopho	Elected representative of a community, lowest political charge
CAP	Church Agricultural Projects; Swazi NGO, not operating anymore
Chief (Sikhulu)	The chief is the most senior local leader in the traditional system. He reports directly to the king. The country is subdivided into 199 chiefdoms.
FAO	Food and Agriculture Organization of the United Nations
GDP	Gross Domestic Product
GNI	Gross National Income (World Bank Method)
Gone Rural	Swazi Fair Trade Organisation working with rural women, Malkerns
HIV	Human Immunodeficiency Virus
Imbita	Imbita Women's finance Forum; Swazi Micro Credit Institute
Indvuna	The Indvuna is the local leader below the chief. Under one chief there are 3 – 5 Indvunas. The Indvuna is closer to the people than the chief.
Inkhundla (pl: tinkhundla)	Local parliament of elected Bucophos and headed by the Indvuna Yenkhundla. It is part of the modern political system. There are 55 Inkhundla centres in Swaziland. Governmental development funds are distributed through them. Board of elected Bucophos, headed by the Indvuna Yenkhundla (political body)
Inyanga	Medicine man
LDS	Lutheran Development Services; Swazi NGO, affiliated with Lutheran Church and Lutheran World Federation, Mbabane
Libandla	Community's council of knowledgeable persons, advising the chief, appointed by the chief
Member	Person who is considered as a member of a project, usually, members figure on a list containing all members of a specific project.
NGO	Non Governmental Organisation (= Not-for-Profit Organisation)
Sangoma	Spiritual healer, also witchdoctor
SFDF	Swaziland Farmer Development Foundation; Swazi NGO, Manzini
sg.	singular
SZL	Swaziland Lilangeni – local currency. Dec. 07: 7 SZL = 1 USD
SNL	Swazi Nation Land; held in trust by Chiefs for the King and is given to individuals or groups on a leasehold.
Umphagatsi	1) homestead of the chief; 2) inner council at the chief's homestead, body of advisors to the chief
UN	United Nations
UNICEF	United Nations Children's Fund
USD	United States Dollar
WFP	World Food Programme
WVS	World Vision Swaziland; Swazi Branch of World Vision International, Mbabane

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Appendices

Questionnaires

Basic Information		
Name of Project		
Year Project started		
Location of Project		
Name of Group		
Name(s) of implementing organization(s)		
Name(s) of Donor(s)		
Activities (ask group members as well)	☐ Staples	☐ Community Building
	☐ Vegetables Plots: _____ m2 to _____m2	☐ Irrigation Water ☐Household Water
	☐ Chicken	☐ Handicraft
	☐ Cattle	☐ Transport
	☐ Saving & Credit Scheme	☐Other (specify):
Total number of beneficiaries (ask group members as well)	F: M: Children:	
Number of group members (ask group members as well)	When Project was launched: F: _____ M: _____ Currently (if discontinued, final year): F: M:	
Number of committee members (ask group members as well)	When Project was launched: F: _____ M: _____ Currently (if discontinued, final year): F: M:	
Sex, Age & education level of leader (ask group members as well)	Project-Start: M ☐ F☐ Age: ____ Education: Currently/final yr: M ☐ F☐ Age: ____ Education:	
External input (NGO, commissioned craftsmen and advisers)	Planning: Manpower: _____ SZL/ _____ days Material: _____ SZL Implement: Manpower: _____ SZL/ _____ days Material: _____ SZL Marketing/: Manpower: _____ SZL/ _____ days Follow up Material: _____ SZL TOTAL: _____ SZL/ _____ days	
Local input (group members, local authorities, neighbours)	Manpower: _____ days Cash: _____SZL Other:	
Size of the project	Land (Garden): _____ha Livestock Nr. & Kind: Length of Pipes: _____ m Generated Income: _____ SZL/year	

Interview-questions to staff of NGOs

Questions			Answers				
Nr	Basic Information						
1	Name of the Project						
	The Group						
3	Know how (technical) of the group to manage the project	at the start of the project	good	sufficient	bad		
4	Know how	Was the required knowledge locally available before the project start? – if not, how was it taught – to whom?					
5		when NGO pulled out	good	sufficient	bad		
6	Was group interested in project?	at the start of the project	yes	relatively	little		
7		at the time when the NGO pulled out	yes	relatively	little		
	The Project: Cooperation between NGO and Group members and Ownership of Project						
8	Who iniciated the project?		Local leader	Group of local people	NGO	Governmen t	External donor
9	Vision/aim of the project	Explain original aim/vision. Who has developed it?					
10	Survey	Has there been a market assessment or establishment of needs before	yes	no			
11	Effective outcome of the project	Describe the outcome just after implementation	as planned	partly as planned	not as planned	in general positive outcome	in general negative outcome
12	Pressure of time	from donor-side	yes	no			
13		from NGO	yes	no			
14		from group	yes	no			
15	Interferences into project	Did any players interfer with other ideas in the project? NO	other NGO	Neighbors	Local leader	Donor	Governmen t
16	Major events	during planning	yes	no	describe:		
17		during setup	yes	no	describe:		
18		after setup	yes	no	describe:		
19	What was your role during planning and implementation of the project?		leading	equal partners	assisting	Delivery of funds / hardware	
20	Has the group been visited by NGO staff or extension workers after handing over?		how many times?	no			
	Technical Aspects and Water						
21	Water source		Ground-water	Dam	River	Tank	
22	Water provision		Pump	Gravity fed			
	The social context						
23	Information and acceptance of the aims of the project	Have non-members been informed about the aims and impact of the project before it started?	yes	no			
24		Have traditional leaders been informed?	yes, Chief	no, Chief	yes, Indvuna	no, Indvuna	
25		How was their attitude towards the project?					

Interview-questions to groups of members

Nr	Questions		Answers				
	Basic Information						
1	Name of the Project						
2	Is the project still operational?		yes, larger since imple-mentation	yes, on same scale	yes, on smaller scale	no, since: Reason:	
	The Group						
3	Information about the group	Validate "Basic Information" from questionnaire					
4		When was the group originally formed (before start of the project)?	year				
5		Why was the group formed?					
6		Who is your leader/chair person?					
7		Since when has she her position?	year				
8		Has the leader been re-elected?	yes (times)		no		
9		How is the committee elected? - what are the charges? How long is the term of assignment? Who is responsible for... (distributing resources, collect savings, call meetings)					
10		Has each member the same access to the project's resources?	yes	no	explain		
11		Did committee members change since start of the project?	yes, all	some	no	explain why:	
12		Group size:	too big	ok	too small		
13		How can group size be optimized? What is more important (size, group					
14		What are the conditions to become a group member? (Test criteria: age, sex, personality, assets, close relatives)					
15		Are there HH with more than one group member?	no	few	many	max. Nr.:	
16		Are those who are members more or less respected in your area?	more	same	less		
17		Number of group meetings per year					
18		In case you have disagreements in your group - how do you solve them?	explain: (strategy?)				
19		How do you decide which crops to plant in the communal garden?	Group-decision	Season	Water-availability	Price of seed/seedl.	Market demand
20		Do you have a written constitution?	yes	no			
21		How did you set it up? (Got help?)					
22		Has the group a saving scheme?	yes	no			
23		How much does each member contribute to the saving scheme per month?	SZL				
		Describe the cooperation among the group members	good	average	poor		
		Classification organizational structure of group and committee (contributions of group members)	responsibiliti es clear	responsibiliti es unclear	hierarchic	democratic	
	The Project: Cooperation between NGO and Group members and Ownership of Project						
24	Recall the beginning of your project - how did it start?	Explain original aim/vision. Who has developed it?	describe				
25		Iniciative of project	Local leader	Group of local people	NGO	Governmen t	External donor
26		What was your role during planning and implementation of the project?	leading	equal partners	assisting	passive	
27		Did the project address the main issue for development?	yes	no	describe		
28		Was the chief or the indvuna active in setting up the project?	yes, Chief	yes, Indvuna			
29		Was the land given to the group as part of a traditional ceremony?	yes	no			
30		Land rights	SNL	tradit. given to group	Title deed (to group)	Indvuna's land	Other:
31		Is the kind of land suitable to achieve the goals of the project?	yes	no	describe:		
32		Has there been a traditional ceremony to start the project?	yes	no			
33		Which other traditional ceremonies have had influence on your project?	describe				
34	Effective outcome of the project	Describe the outcome just after implementation	as planned	partly as planned	not as planned	in general positive outcome	in general negative outcome
35		Do you feel comfortable with the project today?	yes	quite	no		
36	Assistence of NGO	In which fields did the NGO support you primarily?	technical knowledge	social compe-tences	hardware	other:	
37		Field of social competences (building the group)	good	sufficient	not sufficient		
38		Field of technical knowledge (handle the project, maintenance etc.)	good	sufficient	not sufficient		
39		In relation to time: was project conducted…	too fast	in a good time span	too slow		

40	Perception of the NGO-staff	Describe your cooperation with the NGO's staff on a personal level [did you feel comfortable working with them?]	excellent	good	ok	some mis-understand-ings	they did not understand our needs
41	Know how	Was the required knowledge locally available before the project start? – if not, how was it taught – to whom?	yes	no	describe		
42	After implementation:	Was it clear to you whom to contact in an emergency?	yes	no	describe		
43		Did you get the support needed from outside? From whom?	yes	no	describe		
44		Has the group been visited by NGO staff or extension workers after handing over?	how many times?	no			
45		Did you have problems with the installed hardware (did it break?)	yes	no			
46		What are the key problems in regard to the technology used (maintenance costs, running costs, repairs)?					
47		What happens when hardware breaks? (Procedure - responsibilities, skills)					
48		How is maintenance organized?					
49		Who is responsible for maintenance?					
50		How much pays every member towards maintenance scheme?					
51	Inputs after Implementation of original project	Hardware	same NGO	other NGO	Inkhundla	Governmen t	Other:
52		Capacity building	same NGO	other NGO	Inkhundla	Governmen	Other:
		Describe:					
53	Kickstart for new initiatives	Did the project trigger new projects in the area?	yes	no	describe:		
		Classification of follow up	good	sufficient	poor	mainly through:	
		Classification sense of ownership	high	average	low		
	Buying and Selling/Marketing						
54	External inputs	Are there any inputs that need to be bought regularly (e.g. seeds, fertilizer, petrol)?	yes	no	describe:		
55		Can the needed inputs be obtained easily?	yes	with some difficulty	no (difficult)		
56		Necessary inputs are bought:	by group	individually			
57		Is there any person receiving a salary from the group (chairperson, Committee, Members, employees)?	Members	Employees	Total/year (SZL)		
58	Marketing and distances	Where do you sell your products usually?	describe:				
59		How much (in %) can not be sold (what, when, why)?	describe:			%	
60		How do you sell the products?	through group	individually	middle-person		
61		How often do neighbors come to buy goods?	daily	weekly	monthly	season:	
62		How often do other people (traders etc.) come to buy products right from the site?	daily	weekly	monthly	season:	
63		Are products sold at a stall/shop near the project site?	yes	no			
64		Distance to all-weather road	_____ km				
65		Distance to closest public transport (bus stop)	_____ km				
66		Distance to closest market (visits per month)	_____ km	____ times			
67		Is there a car/bakkie available for the group?	group owned	member of group	through neighbour		
68		How are goods brought to the buyer?	foot	bicycle	motorbike	bus/combi	own car
	Difficulties						
69	Availability of water	In which months is there enough water?					
70		How does this affect the project?					
71	What do you consider as main problems in your project?	Describe and indicate two main threats (neighbours, pest, cattle, pandemic)					

Interview-questions for 1:1 interviews with group members

Nr.	Questions		Answers				
	Name of the Project						
	Membership and group						
1	Membership in project	Who in your household is/are member(s) in the project?	describe:				
2		How did you become a member?	describe:				
3		Why did you want to become a member (income, integration)?					
4		What would happen if you can't be any longer a member (Health, other task)?	describe:				
5		What do you contribute to the group?	SZL/month:		days of work:	other:	
6		Did social aspects in your life change since you are a member (respect, integration)?	improve	no	get worse	describe	
7		How do you take group decisions? (new member, big investment)	describe:				
8		In case you have disagreements in your group - how do you solve them?	explain: (strategy?)				
9		Are all group-members actively participating in the project?	yes	no	describe:		
	Household data						
10	Number of people in the household		M	F	Children below 16		
11	Expenditures	How much money do you have to pay per year for	food	school fees	other:		
12	Income	Staple food	self-sufficient	buy _____ months			
13		Income	describe:				
14		Transfer payments	describe:				
15		Trade	describe:				
16		Other sources for HH (collecting firewood, wild food)	describe:				
17		Estimated average income of HH	SZL/month:				
	The Project						
18	Which changes at the HH level are a consequence of your membership in the project?	Use the products of the project for consumption in the HH	never	very little	less than half of all produces	half of all produces	more than half of all produces
19		Better quality of food	yes	the same	worse		
20		Better health	yes	the same	worse		
21		Better quality of life (joy)	yes	the same	worse		
22		Increased social competences	yes	the same	worse		
23		Increased knowledge (marketing)	yes	the same	worse		
24		Independence of wife from husband	yes	the same	worse		
25		How much do you get thanks to the project?	SZL/month:				
26		*Evaluation of effects on HH thanks to project*	positive	neutral	negative		
	Marketing - selling and buying						
27	Project-Expenses	How much do you pay for inputs per year (e.g. seeds, fertilizer, pesticides)?	seeds & seedlings	fertilizer	treatment	other:	Total/plot
28	Labor & Transport costs	How much do you pay for people helping you (per year)	on project site	for transport	other		
29		Who is usually working for you?	family members	group members	friends	neighbours	other:
30		If no employment: Do other group-members employ people (how often, for how much)?					
31		How much do you pay for transport per month?	SZL				
32		Is there anyone with a car?	group member	neighbour	no		
33	Marketing	How and where are you selling your products?					
34	What do you consider as main problems in your project?	Describe and indicate two main threats to you in connection with the project					

Interview-questions to non-members

Nr	Questions		Answers				
1	Name of the Project						
	The Project						
2	Perception of local leaders	Attitude of Indvuna towards the project (interview or indirect information)					
3		Attitude of Chief towards the project (interview or indirect information)					
4		Was the chief or the indvuna active in setting up the project?	yes, Chief	yes, Indvuna			
5	Information and acceptance of the aims of the project	Have non-members been informed about the aims and impact of the project before it started?	yes	no			
6		What is the attitude of the majority of the neighbours towards the activities of the group?	approve	neutral	disapprove		
7		What have been highlights of the project?					
8		What have been main difficulties of the project?					
9		What are reasons not to be active in the project?					
	Effects on the area						
10	Kickstart for new initiatives	Did the project trigger new projects in the area?	yes	no	describe:		
	Effects on non-members in the area	Short- and long-term effects in regard of:					
11		- Availability of food	better	neutral	worse		
12		- Availability of water	better	neutral	worse		
13		- Change of economic situation	better	neutral	worse		
14		- Ease of transport	better	neutral	worse		
15		- Level of knowledge	better	neutral	worse		
16		- Market Access	better	neutral	worse		
17	Social system	Did the project influence the social layers in the area?	yes	no			
	Economic situation						
18		Economic status of the area	very poor	poor	average	above average	wealthy
19		Are there any people employed in the area?	yes (% HH)		no		
20		Is the employment through the project?	yes	no			
21		Are there any transfer payments	yes (% HH)		no		

Data

ID/NGO	NGO	Project	Region		Altitude	Remote	Nr. Beneficiarie
ACAT1	ACAT	Maphakane	Lubombo	Lowveld	375	not remote	110
ACAT10	ACAT	Nkhaba Youth	Hhohho	Highveld	1450	not remote	90
ACAT10.1	ACAT	Nkhaba Chicken	Hhohho	Highveld	1450	not remote	90
ACAT10.2	ACAT	Nkhaba Hammermill	Hhohho	Highveld	1350	not remote	100
ACAT2	ACAT	Kaphunga	Shiselweni	Middleveld	800	little remote	2150
ACAT3	ACAT	Ngobolweni	Shiselweni	Middleveld	600	Remote	750
ACAT4	ACAT	Mbhoke Shop	Shiselweni	Middleveld	700	Remote	150
ACAT5	ACAT	Kholwane	Shiselweni	Middleveld	800	Remote	270
ACAT6	ACAT	Mbhoke Garden	Shiselweni	Middleveld	400	little remote	80
ACAT7	ACAT	Tikhetseleni	Lubombo	Lowveld	375	not remote	150
ACAT8	ACAT	Masibambisane	Lubombo	Lowveld	350	not remote	120
ACAT9	ACAT	Phumelela	Lubombo	Lowveld	400	little remote	130
CAP1	CAP	Tabelweni	Hhohho	Highveld	1300	remote	60
GR1	GR	Mpuluzi	Hhohho	Highveld	1350	Remote	300
GR2	GR	Mahlanya	Manzini	Middleveld	700	not remote	400
GR3	GR	Ngwavuma	Lubombo	Lowveld	300	Remote	400
GR4	GR	The Potters	Hhohho	Highveld	1000	not remote	38
GR5	GR	Mtholweni	Manzini	Highveld	1050	little remote	165
GR6	GR	Edlangeni I	Hhohho	Highveld	1150	little remote	350
Imbita1	Imbita	Intfutfuko	Lubombo	Lowveld	230	Remote	110
Imbita2	Imbita	Ticalele	Lubombo	Lubombo	580	little remote	200
Imbita3	Imbita	Siphofaneni Legumes Ass	Lubombo	Lowveld	200	little remote	120
Imbita4	Imbita	Ligolide Letfu	Manzini	Middleveld	500	not remote	86
Imbita5	Imbita	Luve Legume Growers	Manzini	Middleveld	600	not remote	115
Imbita6	Imbita	Inkhomba	Manzini	Middleveld	630	not remote	36
LDS1	LDS	Zandondo	Hhohho	Lowveld	360	little remote	347
LDS2	LDS	Mbuthu Feedlot	Lubombo	Lowveld	200	not remote	17
LDS3	LDS	Mbuthu Garden	Lubombo	Lowveld	200	not remote	267
LDS4	LDS	Mbuthu Domestic Water	Lubombo	Lowveld	200	not remote	1000
LDS5	LDS	Nsubane Piggery	Lubombo	Lowveld	270	little remote	41
LDS6	LDS	Sitanani Vegetable Garde	Shiselweni	Lowveld	350	not remote	150
SFDF1	SFDF	Mahhuku	Lubombo	Lubombo	400	little remote	327
SFDF10	SFDF	Nkiliji	Manzini	Middleveld	630	little remote	299
SFDF11	SFDF	Gundvini	Manzini	Middleveld	400	not remote	180
SFDF12	SFDF	Lundzi Phaphamani Bees	Manzini	Highveld	1300	Remote	104
SFDF13	SFDF	Bambanani Poultry	Shiselweni	Highveld	1000	not remote	205
SFDF14	SFDF	Masibambisane	Shiselweni	Middleveld	600	not remote	170
SFDF15	SFDF	Vulamehlo	Manzini	Highveld	1050	Remote	258
SFDF16	SFDF	Asitfwalisane Bees	Shiselweni	Lowveld	300	Remote	36
SFDF17	SFDF	Lubhaca Lwabomake bee	Manzini	Highveld	1200	Remote	129
SFDF18	SFDF	Velezizweni	Manzini	Highveld	800	little remote	107
SFDF19	SFDF	Elubhaceni Poultry	Manzini	Highveld	1200	Remote	50
SFDF2	SFDF	Mampempeni	Lubombo	Lowveld	290	remote	143
SFDF3	SFDF	Impendulo	Manzini	Lowveld	300	little remote	163
SFDF4	SFDF	Lesibovu	Manzini	Lowveld	350	little remote	140
SFDF5	SFDF	Ndvongeni	Lubombo	Lowveld	350	Remote	139
SFDF6	SFDF	Sipophaneni	Lubombo	Lowveld	200	not remote	77
SFDF7	SFDF	Eni-Ngcayini	Hhohho	Middleveld	900	Remote	400
SFDF8	SFDF	Mfelankhomo	Hhohho	Lowveld	400	remote	107
SFDF9	SFDF	Bhelinkhosi	Manzini	Middleveld	700	little remote	233
WVS1	WVS	Mhlumeni Garden	Lubombo	Lubombo	400	not remote	325
WVS2	WVS	Sitsatsaweni Community	Lubombo	Lubombo	580	little remote	70
WVS3	WVS	OVC Project	Lubombo	Lubombo	600	not remote	16
WVS4	WVS	DonsananiLomabhidla	Lubombo	Lubombo	580	little remote	92
WVS5	WVS	Vukani Kusile	Lubombo	Lubombo	480	little remote	66
WVS6	WVS	Mbalenhle	Lubombo	Lubombo	500	little remote	124

ID/NGO	Nr. Members sta	Sex members sta	Nr. Members 07	Sex members 07	Start year	Lead age start	Lead sex start	Leader age 07
ACAT1	32	mixed	12	women	1989		female	
ACAT10	23	mixed	15	mixed	1990			28
ACAT10.1	12	women	0		1992	60	female	70
ACAT10.2	23	mixed	11	mixed	1992	40	female	45
ACAT2	16	mixed	269	mixed	1982	50	male	45
ACAT3	18	mixed	77	mixed	1990	50	male	55
ACAT4	40	mixed	25	mixed	1986			60
ACAT5	36	mixed	27	women	1988	50	female	50
ACAT6	20	mixed	12	mixed	1992			60
ACAT7	40	women	19	women	1993	50	female	55
ACAT8	26	mixed	16	women	1990	68	male	61
ACAT9	20	mixed	12	mixed	1992	40	male	45
CAP1	13	mixed	10	mixed	1991		female	45
GR1	42	women	60	women	2005			
GR2	50	women	56	women	1992			
GR3	20	women	68	women	1994			
GR4	11	women	4	women	1988			
GR5	40	women	27	women	1976		female	45
GR6	65	women	74	women	1993			
Imbita1	35	mixed	15	mixed	2000	50	male	44
Imbita2	26	mixed	0		2001	47	female	45
Imbita3	12	mixed	18	mixed	2003			45
Imbita4	12	women	10	women	2002	40	female	59
Imbita5	22	mixed	14	mixed	2003	44	male	47
Imbita6	16	women	7	women	1994	40	female	50
LDS1	347	mixed	0		1997	55	male	55
LDS2	5	men	0		1994	40	male	43
LDS3	37	mixed	0		1997	35	female	45
LDS4	75	mixed	92	mixed	1997	21	male	31
LDS5	12	mixed	9	mixed	1998	54	male	65
LDS6	15	mixed	15	women	1994		female	50
SFDF1	50	mixed	24	mixed	1998	45	female	54
SFDF10	27	mixed	20	mixed	1995	42	female	60
SFDF11	28	mixed	11	women	1997	45	female	50
SFDF12	14	mixed	0		1998		female	50
SFDF13	43	women	0		1996	45	female	
SFDF14	23	mixed	17	mixed	1997	42	male	40
SFDF15	26	mixed	23	mixed	2000		male	50
SFDF16	11	mixed	10	mixed	1999		male	55
SFDF17	14	mixed	18	mixed	1997	54	female	65
SFDF18	20	mixed	13	women	1996	50	female	60
SFDF19	15	mixed	8	mixed	2001		female	50
SFDF2	24	mixed	20	mixed	2002	52	male	40
SFDF3	15	mixed	8	mixed	1998	50	female	58
SFDF4	15	women	0	women	2000	33	female	36
SFDF5	17	mixed	43	mixed	2000	45	male	52
SFDF6	29	mixed	12	mixed	1996		female	55
SFDF7	80	mixed	100	mixed	2002		male	
SFDF8	17	mixed	15	women	2000	60	male	47
SFDF9	23	mixed	0		1994	48	female	59
WVS1	30	mixed	35	mixed	1996		male	41
WVS2	11	mixed	10	mixed	2002	55	male	60
WVS3	6	mixed	6	mixed	2004	52	male	55
WVS4	26	mixed	12	mixed	2000		female	55
WVS5	22	mixed	10	mixed	2001	50	female	50
WVS6	28	mixed	23	mixed	2001	35	male	35

ID/NGO	Leader sex 07	Gr. active before	Gr. perc by NGO	local input	Project size	Market survey	Interference	Time pressure	Water source
ACAT1	female	no	ok	average	small	yes	no	no	Pump
ACAT10	male	no	ok	low	average	yes	no	yes	no water
ACAT10.1	female	no		average	average				harvester
ACAT10.2	female	no		average	average				no water
ACAT2	female	no	ok	average	big	no	no	no	Pipes grav
ACAT3	male	no		average	big	no need	no	no	Pipes grav
ACAT4	male	no	ok	average	small	no	no	no	no water
ACAT5	female	no	ok	average	small	no	Neighbour	no	Pipes grav
ACAT6	female	no	bad	average	average		no	no	Pump
ACAT7	female	no	good	low	small	no need	local leader	no	no water
ACAT8	female	no	good	average	small		Neighbour	no	Pipes grav
ACAT9	female	no		average	small		no	no	Pump
CAP1	female	yes		average	average		no	no	Pipes grav
GR1		yes	good	low	small	yes	no	no	no water
GR2		no	good	low	small	yes	no	no	no water
GR3		yes	good	low	small	yes	Neighbour	no	no water
GR4		yes	good	low	small	yes	no	no	no water
GR5	female	no	good	average	average	yes	no	no	no water
GR6		no	good	low	small	yes	no	no	no water
Imbita1	male	yes		average	big	yes	no	no	no water
Imbita2	female	no		average	average	yes	no	no	no water
Imbita3	female	no		high	average	yes	no	no	no water
Imbita4	female	yes	good	high	average	yes	no	no	no water
Imbita5	male	no	good	average	average	yes	no	no	no water
Imbita6	female	yes	ok	average	small	no	no	no	no water
LDS1	male	no	bad	average	average		Neighbour		harvester
LDS2	male	no	good	average	average	yes	no	no	Pump
LDS3	female	no	good	low	average	yes	no	yes	Pump
LDS4	male	no	ok	average	average	no need	no	no	Pump
LDS5	male	yes	ok	low	small	yes	Neighbour	no	no water
LDS6	female	yes	ok	average	average	no	Neighbour	no	Pump
SFDF1	female	no	good	average	average	yes	no	little	Pipes grav
SFDF10	male	no	good	average	average	yes	no	no	Pipes grav
SFDF11	female	yes	ok	average	small	no	no	no	no water
SFDF12	female	yes	ok	low	small	no	Neighbour	yes	no water
SFDF13		yes	ok	average	big	no	no	yes	no water
SFDF14	female	yes	good	average	average	yes	no	little	no water
SFDF15	female	yes	good	high	small	no	no	no	no water
SFDF16	male	yes		average	small		no	no	no water
SFDF17	male	yes	ok	average	small	yes	no	no	no water
SFDF18	female	no		average	average		Neighbour		Pipes grav
SFDF19	female	yes	ok	average	average	no	no	little	River
SFDF2	female	yes	ok	average	average	yes	local leader	yes	Pipes grav
SFDF3	male	yes	bad	high	average	yes	no	little	Pump
SFDF4	female	no	good	low	average	yes	Neighbour	no	Pipes grav
SFDF5	male	no	good	high	small	yes	Neighbour	no	Pipes grav
SFDF6	female	no	good	average	average	yes	no	no	Pump
SFDF7	female	no		average				yes	no water
SFDF8	female	no	good	average	average	yes	no	no	Pipes grav
SFDF9	female	no	good	average	small	yes	no	little	Pump
WVS1	female	no		average	average		no		Pipes grav
WVS2	male	no	ok	low	small	no	no	yes	Pump
WVS3	male	no	ok	low	big	yes	no		Pump
WVS4	female	yes	good	low	average	yes	local leader	yes	Pump
WVS5	female	yes	good	high	average	yes	local leader	yes	Pipes grav
WVS6	female	no	ok	average	average	yes	no		Pump

ID/NGO	Gr meets/year	Constitution	orig. aim was…	Land access	local knowl. ava	Marketing place	Marketing pers	main objective
ACAT1	50	self-written	similar	given undisp	little knowled	at project	individuals	Combination
ACAT10	12	co-written	similar	given undisp	high knowled	at project	individuals	Combination
ACAT10.1		self-written	same	given undisp	little knowled	at project	group	Husbandry
ACAT10.2	50	co-written	different	given undisp	little knowled	at project	group	Combination
ACAT2	50	co-written	similar	given undisp	no knowledge	at project	group	Combination
ACAT3	12	self-written	same	given undisp	high knowled	no sales	no sales	Water
ACAT4	50	co-written	similar	given undisp	little knowled	at project	group	Combination
ACAT5	12	co-written	similar	given dispute	little knowled	at project	group	Combination
ACAT6	50	self-written	different	given undisp	no knowledge	combined	both	ir. Garden
ACAT7	50	co-written	same	given undisp	no knowledge	no sales	no sales	Combination
ACAT8	50	co-written	similar	given undisp	little knowled	combined	group	ir. Garden
ACAT9	50	co-written	different	given undisp	little knowled	at market	group	Combination
CAP1	50		similar	given undisp	high knowled	at market	individuals	ir. Garden
GR1	17	no	similar	private land	little knowled	at market	individuals	Handicraft
GR2	50	no	same	private land	little knowled	at market	individuals	Handicraft
GR3	50	no	same	private land	high knowled	at market	individuals	Handicraft
GR4	12	no	same	private land	high knowled	at market	individuals	Handicraft
GR5	17	no	similar	given undisp	little knowled	at market	individuals	Handicraft
GR6	25	no	same	private land	little knowled	at market	individuals	Handicraft
Imbita1	50	co-written	same	private land	high knowled	at project	individuals	Combination
Imbita2	4	self-written	same	private land	high knowled	at market	group	Staples/Legu
Imbita3	12	co-written	same	private land	high knowled	at market	individuals	Staples/Legu
Imbita4	24	co-written	similar	given undisp	little knowled	at project	group	Combination
Imbita5	12	self-written	same	private land	high knowled	at market	group	Staples/Legu
Imbita6	12	self-written	similar	private land	little knowled	combined	individuals	Combination
LDS1		by NGO	similar	given dispute	little knowled	no sales	no sales	Combination
LDS2	12	by NGO	same	given undisp	little knowled	at market	group	Husbandry
LDS3	9	by NGO	different	given undisp	high knowled	at project	individuals	ir. Garden
LDS4	12	co-written	same	given undisp	little knowled	no sales	no sales	Water
LDS5	50	co-written	same	given undisp	little knowled	no sales	group	Husbandry
LDS6	100	co-written	same	given undisp	high knowled	combined	individuals	ir. Garden
SFDF1	12	co-written	same	given undisp	little knowled	at project	group	ir. Garden
SFDF10	100	self-written	same	given undisp	little knowled	at project	individuals	ir. Garden
SFDF11	12	co-written	similar	given undisp	little knowled	combined	both	Husbandry
SFDF12	50	self-written	different	given undisp	no knowledge	at project	both	Husbandry
SFDF13	24	co-written	different	given undisp	high knowled	combined	both	Husbandry
SFDF14	50	co-written	same	given undisp	high knowled	combined	group	Husbandry
SFDF15	12	co-written	different	given undisp	high knowled	no sales	individuals	Husbandry
SFDF16	12	co-written	different	private land	no knowledge	at project	individuals	Husbandry
SFDF17	12	co-written	similar	given undisp	little knowled	at project	group	Husbandry
SFDF18	50	co-written	different	given dispute	little knowled	at market	group	Husbandry
SFDF19	12	co-written	different	private land	high knowled	combined	individuals	Husbandry
SFDF2	20	co-written	same	given undisp	little knowled	at market	individuals	ir. Garden
SFDF3	24	co-written	similar	private land	little knowled	combined	both	Combination
SFDF4	n.a.	co-written	same	given dispute	little knowled	combined	both	ir. Garden
SFDF5	100	self-written	same	given undisp	high knowled	at project	individuals	ir. Garden
SFDF6	50	by NGO	similar	given undisp	little knowled	combined	individuals	ir. Garden
SFDF7		co-written	same	given undisp		no sales	no sales	Combination
SFDF8	12	co-written	same	given undisp	little knowled	combined	individuals	ir. Garden
SFDF9	100		similar	given dispute	high knowled	at project	both	ir. Garden
WVS1	12	co-written	similar	given dispute	high knowled	combined	individuals	ir. Garden
WVS2	12	no	similar	given undisp	high knowled	no sales	no sales	ir. Garden
WVS3	36	co-written	same	private land	little knowled	at market	NGO	Husbandry
WVS4	3	self-written	similar	given dispute	high knowled	combined	individuals	ir. Garden
WVS5			same	given dispute	high knowled	combined	both	ir. Garden
WVS6	24	co-written	different	given undisp	little knowled	at project	individuals	ir. Garden

ID/NGO	Income/year	state	savings	gr.motivation	Iniciative	Group: role in setup	handover	follow up	follow up by
ACAT1	60000	smaller	yes	high	NGO	assisting	good	good	NGO
ACAT10	75000	same size	no	high	NGO	equal partners	good	good	NGO
ACAT10.1	70000	discontinued	yes	moderate	NGO	leading	good	good	NGO
ACAT10.2	10000	same size	yes	high	NGO	leading	good	good	NGO
ACAT2	30000	larger	yes	high	local leader	leading	good	good	NGO
ACAT3	0	larger	yes	high	NGO	equal partners	ok	fair	NGO
ACAT4	20000	relaunched	yes	moderate	NGO	assisting	fair	fair	NGO
ACAT5	15000	smaller	no	moderate	NGO	leading	good	good	NGO
ACAT6	200'000	relaunched	yes	high	local leader	leading	good	fair	RDA
ACAT7	7500	smaller	yes	high	local group	leading	good	good	NGO
ACAT8	17000	same size	yes	moderate	local group	equal partners	good	good	NGO
ACAT9	25000	smaller	yes	high	local group	equal partners	good	good	NGO
CAP1	150000	larger	yes	high	local leader	leading	fair	good	RDA
GR1	47000	same size	no	moderate	local group	assisting	no need	good	NGO
GR2	200000	same size	no	moderate	NGO	assisting	no need	good	NGO
GR3	200000	larger	no	moderate	NGO	assisting	no need	good	NGO
GR4	15000	smaller	no	moderate	NGO	assisting	no need	ok	NGO
GR5	42000	smaller	no	moderate	local group	assisting	no need	good	NGO
GR6	173000	same size	no	moderate	NGO	assisting	no need	good	NGO
Imbita1	60000	smaller	yes	moderate	External Don	leading	ok	ok	RDA
Imbita2	40000	discontinued	yes	low	External Don	leading	poor	fair	RDA
Imbita3	20000	larger	yes	moderate	External Don	assisting	ok	fair	RDA
Imbita4	25000	same size	yes	high	local group	leading	no need	ok	RDA
Imbita5	100000	smaller	yes	moderate	External Don	leading	ok	ok	RDA
Imbita6	16000	smaller	yes	high	local group	leading	no need	poor	
LDS1	0	discontinued	yes	low	NGO	unclear	poor	poor	
LDS2	18000	discontinued	no	high	local group	leading	ok	ok	NGO
LDS3	not known	discontinued	yes	moderate	NGO	equal partners	fair	poor	NGO
LDS4	0	discontinued	yes	high	local group	equal partners	ok	ok	NGO
LDS5	40'000	relaunched	no	high	local group	leading	poor	poor	NGO
LDS6	60'000	same size	no	moderate	local leader	leading	fair	fair	NGO
SFDF1	400000	same size	yes	high	local group	equal partners	good	fair	RDA
SFDF10	43000	smaller	yes	high	NGO	equal partners	good	good	NGO
SFDF11	30000	same size	yes	high	local group	equal partners	good	good	NGO
SFDF12	5000	discontinued	no	moderate	local group	assisting	fair	poor	NGO
SFDF13	0	discontinued	yes	high - low(no	local group	leading	good	sufficient	NGO
SFDF14	70000	same size	yes	high	local group	leading	good	good	NGO
SFDF15	2000	discontinued	yes	high	local group	leading	good	poor	NGO
SFDF16	5000	smaller	no	high	local group	assisting	good	good	NGO
SFDF17	60000				government	leading	ok	ok	RDA
SFDF18	20000	discontinued	no	high	local group	leading	ok	good	NGO
SFDF19	37000	discontinued	yes	moderate	government	leading	ok	ok	RDA
SFDF2	120000	same size	yes	high	local group	equal partners	good	good	NGO
SFDF3	70000	smaller	yes	high	local group	leading	good	good	NGO
SFDF4	138'000	discontinued	yes	moderate	NGO	assisting	good	good	NGO
SFDF5	100000	larger	no	moderate	local group	leading	good	ok	NGO
SFDF6	240000	same size	yes	moderate	local group	assisting	ok	fair	RDA
SFDF7	15000	smaller	no	low	local group	assisting	ok	fair	NGO
SFDF8	22000	larger	yes	moderate	local group	assisting	good	good	NGO
SFDF9	50000	discontinued	yes	high	local leader	equal partners	good	good	NGO
WVS1	40000	re-launched	yes	moderate	local group	equal partners	good	good	NGO
WVS2	1000	smaller	no	moderate	NGO	equal partners	poor	fair	NGO
WVS3	36000	same size	yes	low	NGO	assisting	poor	ok	NGO
WVS4	15000	discontinued	yes	low	local group	equal partners	ok	ok	NGO
WVS5	45000	smaller	yes	low	local group	equal partners	ok	ok	NGO
WVS6	8000	smaller	no	low	NGO	assisting	ok	ok	NGO

ID/NGO	group structure	hierarchy	group quality	group/indiviual	open to new m.	m.respected	involv loc auth.	Input NGO
ACAT1	clear	democratic	good	indep. Indiv.	yes	ambivalent	strong	Skills
ACAT10	clear	democratic	good	indep. Indiv.	yes	more	weak	skills
ACAT10.1	clear	oligarchic	fair	group	yes	same	average	skills
ACAT10.2	clear	democratic	good	group	no	same	strong	skills
ACAT2	clear	democratic	good	group&individual	yes	ambivalent	strong	Skills
ACAT3	clear	hierarchic	fair	group&individual	limited	more	strong	hardware
ACAT4	fairly clear	hierarchic	poor	group	yes	ambivalent	average	skills
ACAT5	clear	democratic	fair	group&individual	yes	same	average	skills
ACAT6	fairly clear	not known	fair	group&individual	yes	more	strong	skills
ACAT7	clear	democratic	good	group	yes	more	weak	skills, hardware
ACAT8	clear	democratic	good	group&individual	yes	same	average	skills
ACAT9	clear	democratic	good	group&individual	limited	same	strong	skills, hardware
CAP1	clear	democratic	good	indep. Indiv.	limited	same	strong	hardware
GR1	clear	individuals	good	indep. Indiv.	limited	same	weak	skills, hardware
GR2	clear	individuals	fair	indep. Indiv.	limited	ambivalent	weak	hardware
GR3	clear	individuals	fair	indep. Indiv.	no	more	weak	skills, hardware
GR4	clear	individuals	good	group&individual	no	more	average	skills, hardware
GR5	fairly clear	individuals	fair	indep. Indiv.	no	ambivalent	average	hardware
GR6	clear	individuals	fair	indep. Indiv.	no	more	average	hardware
Imbita1	clear	democratic	fair	group&individual	no	same	average	hardware
Imbita2	fairly clear	democratic	poor	indep. Indiv.	yes	same	weak	hardware
Imbita3	clear	democratic	good	indep. Indiv.	limited	more	weak	skills, hardware
Imbita4	clear	democratic	good	group	no	more	average	hardware
Imbita5	clear	democratic	fair	indep. Indiv.	yes	same	weak	hardware
Imbita6	clear	oligarchic	good	indep. Indiv.	limited	more	average	hardware
LDS1	unclear	autocratic	poor	mix	yes	same	average	skills, hardware
LDS2	clear	not known	fair	group	no	more	strong	hardware
LDS3	clear	democratic	good	group&individual	limited	same	average	skills, hardware
LDS4	clear	democratic	good	group&individual	yes	same	strong	skills, hardware
LDS5	clear	hierarchic	families	group	no	same	average	hardware
LDS6	clear	democratic	fair	indep. Indiv.	limited	same	average	hardware
SFDF1	clear	democratic	good	group&individual	limited	same	strong	skills
SFDF10	clear	democratic	good	group&individual	yes	more	strong	skills, hardware
SFDF11	clear	democratic	fair	group	limited	same	strong	skills, hardware
SFDF12	fairly clear	not known	fair	group	limited	less	average	skills
SFDF13	fairly clear	democratic	good - now p	group	no	more	average	skills, hardware
SFDF14	clear	democratic	good	group	no	more	average	skills, hardware
SFDF15	clear	democratic	good	group&individual	limited	more	average	skills
SFDF16	clear	hierarchic	fair	indep. Indiv.	yes	more	average	skills
SFDF17	fairly clear	democratic	good	group&individual	yes	more	average	skills
SFDF18	clear	democratic	good	group	no	more	strong	skills
SFDF19	fairly clear	democratic	good	indep. Indiv.	yes	more	weak	hardware
SFDF2	clear	democratic	fair	group&individual	no	more	average	skills, hardware
SFDF3	clear	democratic	good	group&individual	yes	more	average	skills, hardware
SFDF4	fairly clear	not known	fair	group	n.a.	ambivalent	controversial	skills
SFDF5	fairly clear	hierarchic	good	indep. Indiv.	limited	more	strong	skills, hardware
SFDF6	fairly clear	not known	fair	indep. Indiv.	no	more	average	skills
SFDF7	unclear	not known	fair	group&individual	yes	same	strong	hardware
SFDF8	clear	democratic	good	group&individual	no	ambivalent	controversial	skills, hardware
SFDF9	clear	hierarchic	fair	group&individual	yes	same	controversial	skills, hardware
WVS1	clear	democratic	fair	group&individual	yes	more	strong	skills, group structure,
WVS2	unclear	democratic	fair	group	yes	same	strong	skills, hardware
WVS3	unclear	democratic	fair	group	no	same	strong	skills, hardware
WVS4	clear	oligarchic	poor	group&individual	n.a.	same	strong	hardware
WVS5	clear	democratic	poor	group pressure	limited	more	yes	skills, hardware
WVS6	unclear	democratic	poor	group&individual	no	less	yes	skills, social, hardware

ID/NGO	technology	maintenance	later assistance	trigger new proj	view neighbours	inputs	selling	Poverty
ACAT1	delicate	difficult	no	yes	good	little dependent	little difficult	average
ACAT10	appropriate	easy	yes	no	ambivalent	dependent	easy	average
ACAT10.1	appropriate	easy	no	individuals	good	dependent	easy	average
ACAT10.2	delicate	average	yes	individuals	good	little dependent	little difficult	average
ACAT2	appropriate	average	yes	yes	ambivalent	little dependent	easy	average
ACAT3	appropriate	average	yes	yes	good	little dependent	n.a.	above average
ACAT4	simple	easy	yes	no	ambivalent	dependent	n.a.	poor
ACAT5	appropriate	average	yes	no	ambivalent	dependent	little difficult	poor
ACAT6	delicate	average	yes	individuals	good	little dependent	little difficult	poor
ACAT7	simple	easy	no	no	good	dependent	little difficult	average
ACAT8	simple	easy	yes	individuals	ambivalent	little dependent	easy	average
ACAT9	delicate	difficult	yes	yes	good	little dependent	easy	average
CAP1	appropriate	easy	yes	yes	good	dependent	easy	poor
GR1	simple	easy	yes	no	good	dependent	little difficult	poor
GR2	simple	easy	yes	no	ambivalent	dependent	easy	above average
GR3	simple	easy	yes	no	good	dependent	easy	very poor
GR4	appropriate	average	yes	no	ambivalent	dependent	easy	average
GR5	simple	easy	yes	no	ambivalent	dependent	little difficult	poor
GR6	simple	easy	yes	yes	good	dependent	easy	poor
Imbita1	appropriate	easy	yes	no	ambivalent	dependent	difficult	poor
Imbita2	simple	easy	no	no	neutral	dependent	easy	average
Imbita3	appropriate	easy	no	individuals	approve	little dependent	easy	average
Imbita4	delicate	difficult	yes	individuals	approve	dependent	easy	poor
Imbita5	simple	easy	no	no	same	little dependent	easy	average
Imbita6	simple	easy	no	yes	approve	little dependent	little difficult	above average
LDS1	appropriate	easy	yes	yes	same	little dependent	n.a.	average
LDS2	appropriate	easy	no	no	not known	dependent	easy	very poor
LDS3	delicate	difficult	little	individuals	approve	dependent	easy	very poor
LDS4	delicate	difficult	no	yes	approve	little dependent	n.a.	very poor
LDS5	appropriate	easy	yes	individuals	neutral	dependent	difficult	very poor
LDS6	delicate	difficult	yes	yes	neutral	dependent	easy	poor
SFDF1	appropriate	easy	yes	no	ambivalent	little dependent	easy	poor
SFDF10	appropriate	easy	yes	yes	approve	little dependent	easy	average
SFDF11	simple	easy	yes	individuals	approve	little dependent	easy	average
SFDF12	simple	easy	yes	no	ambivalent	little dependent	easy	poor
SFDF13	appropriate	easy	yes	individuals	ambivalent	little dependent	little difficult	average
SFDF14	appropriate	easy	yes	no	approve	little dependent	easy	average
SFDF15	simple	easy	yes	no	ambivalent	little dependent	easy	average
SFDF16	appropriate	easy	yes	no	approve	little dependent	easy	poor
SFDF17	appropriate	easy	yes	individuals	neutral	little dependent	easy	average
SFDF18	simple	easy	yes	individuals	ambivalent	little dependent	easy	average
SFDF19	appropriate	average	yes	individuals	neutral	dependent	little difficult	average
SFDF2	appropriate	easy	no	no	approve	little dependent	little difficult	average
SFDF3	delicate	difficult	no	individuals	approve	dependent	little difficult	poor
SFDF4	appropriate	easy	yes	no	ambivalent	little dependent	easy	poor
SFDF5	appropriate	easy	yes	yes	approve	little dependent	easy	poor
SFDF6	delicate	difficult	yes	individuals	approve	dependent	easy	poor
SFDF7	appropriate	average	yes	no	neutral	little dependent	n.a.	poor
SFDF8	appropriate	easy	yes	individuals	ambivalent	little dependent	little difficult	average
SFDF9	delicate	difficult	no	yes	approve	dependent	easy	average
WVS1	appropriate	difficult	yes	yes	ambivalent	little dependent	little difficult	poor
WVS2	delicate	difficult	no	individuals	ambivalent	little dependent	easy	average
WVS3	appropriate	average	no	yes	approve	dependent	little difficult	average
WVS4	delicate	difficult	yes	yes	ambivalent	little dependent	little difficult	average
WVS5	delicate	average	no	yes	approve	little dependent	easy	average
WVS6	delicate	average	yes	no	ambivalent	little dependent	easy	average

ID/NGO	employm.HH%	water	threat 1	threat 2	threat 3
ACAT1	30	issue	theft	market	pump/machine
ACAT10	60	no problem	lack of profit	group members	knowledge
ACAT10.1	60	issue	group members	Theft	
ACAT10.2	50	no problem	market	pump/machine	
ACAT2	50	issue	group members	payments	pump/machine
ACAT3	60	issue	water	water system	
ACAT4	30	no problem	group members	knowledge	
ACAT5	20	problem	lack of profit	pump/machine	water
ACAT6	50	no problem	pump/machine	group members	pests
ACAT7	30	issue	market	savings	water
ACAT8	40	no problem	theft	soil	market
ACAT9	25	issue	pump/machine	soil	pests
CAP1	25	seasonal issu	water		
GR1	60	problem	market	Water	Health
GR2	50	issue	market	Health	
GR3	25	problem	group members	market	
GR4	50	issue	market	pump/machine	
GR5	25	issue	market	water	group members
GR6	65	issue	health	market	
Imbita1	40	issue	lack of profit	market	knowledge
Imbita2	30	issue	lack of profit	water	group members
Imbita3	25	issue	pests	group members	Water
Imbita4	20	issue	lack of profit	pump/machine	jealous neighbours
Imbita5	60	issue	water	cattle	theft
Imbita6	50	issue	lack of profit	jealous neighbors	group members
LDS1	30	issue	group members	authority quarrels	jealous neighbours
LDS2	25	issue	lack of profit		
LDS3	25	problem	water	Theft	
LDS4	25	problem	water	pump/machine	
LDS5	25	issue	market	Fencing	Water
LDS6	25	problem	water	jealous neighbours	
SFDF1	10	problem	water	Theft	applic. Pesticides
SFDF10	40	no problem	lack members	pests	
SFDF11	50	issue	theft	market	pests
SFDF12	60	problem	theft	knowledge	water
SFDF13	40	issue	group members	payments	market
SFDF14	60	issue	theft	pests	water
SFDF15	50	issue	knowledge	pandemics (HIV)	group members
SFDF16	35	issue	market	cattle	theft
SFDF17	50	issue	theft	climate	
SFDF18	50	no problem	theft	jealous neighbours	
SFDF19	50	problem	market	climate	water
SFDF2	75	no problem	dam	market	Water
SFDF3	30	problem	water	pump/machine	theft
SFDF4	40	no problem	jealous neighbors	property issues	Water
SFDF5	25	problem	water	jealous neighbors	theft
SFDF6	50	issue	pump/machine	pests	theft
SFDF7	30	issue	theft	group members	
SFDF8	50	issue	market	pests	Water
SFDF9	25	issue	land rights	pump/machine	theft
WVS1	25	problem	water	group members	low soil-fertility
WVS2	30	problem	water	savings	water system
WVS3	50	issue	pests	payments	market
WVS4	50	problem	pump/machine	group members	authorities
WVS5	75	sufficient	group members	water system	
WVS6	50	sufficient	pests	Theft	group members

Explanations:

Figures in pink are estimates; value of beneficiaries for ACAT 2 is not comparable because it comprises many projects.

Figures in green are estimated maximum values.

Figures in blue are effective profits – in all other cases we established sales volumes.

Missing information: information was not available.