Information Project

Zanzibar Rural Electrification Project, Phase IV

Project Report

September 2005

By Tanja Winther, Project Leader,
Centre for Development and the Environment (SUM), University of Oslo,

in close collaboration with Information Teams and Project Management, Phase IV

Table of Contents:

Executive summary

The information project was established to improve potential rural customers' understanding of electricity. The target group was people living in Zanzibari villages to be included in Phase IV. The project put emphasis on providing villagers with information about how to obtain connection, what it implies to become a customer, as well as the benefits, costs and dangers connected to the use of electricity. This was achieved by preparing and providing villagers with written information, by explaining the system in detail through village meetings and, in these settings, by demonstrating various appliances in use and their distinct contributions to electricity consumption.

Two teams visited and completed meetings in 39 villages (20 in Pemba and 19 in Unguja), which covers nearly all villages included in Phase IV. The project reached around 8-9 percent of relevant households face to face. In sum, 2581 men and 1020 women attended the meetings, which implies that nearly thirty percent of the audiences were females. The project's organisation and approaches have explicitly worked towards reaching both men and women, and we consider the project to have reached this goal.

One of the project's important purposes, for which provision of information was a precondition, was to improve communication with potential customers. Correspondingly, the meetings constituted a concrete arena for such contact. The meetings are also expected to have long term effects. We anticipate that people's increased understanding of the system will make them prepared to act as informed customers in the future and engage in dialogue with Phase IV and SPFC. It is too early to conclude on the long term effects. However, the high attendance rate, the 317 questions asked during the meetings, and also the quality of these questions which shows that people had understood important aspects of the presentations, indicate that a basis for further communication has been obtained.

Furthermore, village leaders and individual participants among the audiences have explicitly articulated their appreciation as to SFPC/Phase IV's initiative and effort to provide them with information. Several villages have later asked to be revisited and many contacts with staff have been made in the aftermath of the visits/meetings. We would also like to emphasise the importance of the speeches presented by people in the teams who themselves reside in villages experienced with electricity. There were clear signs that the ideas shared by these members were particularly valuated by audiences. Hopefully, such initial ideas and discussions might grow into more specific plans as to how each village can start planning for development through the use of electricity.

Finally, the teams soon discovered the advantage of SFPC staff's presence during the meetings. Many of the topics presented, as well as the questions asked, directly concerned long-term regulations and the relationship between utility and customers. In result, SFPC's regular staff participated in all meetings and not only the first 2-3 meetings as originally

planned. In general, SFPC's management and staff has actively helped and supported the project throughout the period. Without this close cooperation between the utility and the information project, the results would have been far less satisfactory. There is one major challenge left, however, as to how rural customers may ultimately benefit from electricity. This concerns the acute lack of electric meters in Zanzibar and SFPC's inability to provide their customers with kWh-meters at present. Without a quick solution to this problem, there will be much disappointment and frustration in rural Zanzibar. Furthermore, it became clear during village meetings that there is a considerable need for higher volumes in other kinds of service line equipment, such as poles, cut outs, wires and connectors.

In sum, we maintain that the information project has achieved its objects to provide information to and improve communication with people living in rural Zanzibar. The teams have clarified which kinds of support are included in Phase IV and which are not. They have educated future customers but also listened to people's concerns which, in a few cases, has induced changes in the plans for Phase IV. The information project has definitely helped clarifying issues related to Phase IV and the arrival of electricity. It may hopefully also be regarded as a first step towards obtaining a sustainable relationship between the utility and future customers in rural Zanzibar.

Background, objectives and target group

A PhD-study of the social consequences of rural electrification in Zanzibar[1] provided the background knowledge for the proposal and fulfilment of the project. Despite the relatively high electrification degree (over 50% in some villages) and people's general appreciation of the arrival of the new technology, the study also showed that the majority of rural customers have problems understanding the way electricity is organised. Especially the metering and billing system is poorly understood, which produces frustration and disloyal behaviour vis-à-vis the utility.

After having presented some of the findings in August 2004, Winther was asked by the management of Phase IV to present a suggestion as to how potential customer's level of knowledge about electricity could be improved. On September 15 2004, she proposed a plan for an information project, which was presented to and accepted by the staff of Phase IV, State Fuel and Power Corporation (SFPC; the electricity utility in Zanzibar), the Steering Committee for Phase IV and the Royal Norwegian Embassy in Dar es Salaam.

The project has been completed according to the plan[2], though before schedule and with some adjustments as to the content of the information provided. The present report summarises the project's objectives, its organisation and achievements, and it provides some discussions of encountered challenges and further recommendations. Below, the project's objectives are recaptured as they were stated in the project plan.

Objectives

The main goal is to improve people's understanding of the electrical system and the possibilities for and implications of using various electrical appliances. The project will provide information, demonstrations and support for potential electricity customers in rural Unguja and Pemba.

More specifically, increased knowledge about electricity, its organisation and potential uses in an early phase is expected to have the following effects:

1. *Demonstrations of and information about various electrical appliances will clarify actual costs and benefits (Economical aspects, time saving opportunities and risk aspects are relevant).*
2. *Potential customers become enabled to start planning their future types of consumption. Correct dimensioning of meter and fuse depends on a realistic estimation of future consumption.*
3. *On a village level, early planning could induce local initiatives in coordinating people's aspirations for obtaining electricity. Such coordination increases the chances for efficient installation.*

[1] Winther (forthcoming). The study concerned the consequences of the electrification project's three previous phases (1986-1996).

[2] Two activities have not yet been completed, that is, the follow-up visits and the project assessment, which are scheduled for the end of 2005 and 2006, respectively.

4. *Technical knowledge about proper installation (requirements for housing standards, meters etc) and the advantage of using authorized personnel and equipment will reduce the physical risks of using electricity (electric shocks, fires).*
5. *Insight in the implications of having the electric meter installed inside versus outside the dwelling simplifies the customer's decision making on this point.*
6. *Customers with increased knowledge of the metering and billing system are likely to become more confident, more loyal towards the utility company and better customers. Such understanding will enable them to*
    - *Control their own consumption*
    - *Relate to the minimum bill system*
    - *Understand and check their bills*
    - *Take action to have their meter checked or connection closed if needed*
7. *While addressing women and men on these occasions it is expected that the issue of electricity will not only be perceived as a male issue.*
8. *The degree of electrification (percent of households connected) is likely to become higher in the short run, but probably also in the long run.*

The target group includes men and women in rural villages (Unguja and Pemba) where electricity is about to be introduced through Phase IV. The project focuses primarily on potential household consumers and users, but the information provided is also of relevance for people in charge of electricity for collective purposes, which in practice often involves village leaders and development committees.

In addition to these pre-formulated goals and the effects they are expected to produce, the project has emphasised some further aspects in its approach. In brief, we also focused on

- explaining the distinction between the responsibilities of Phase IV and what a customer or village must handle themselves
- providing a prescription of how to proceed when a customer wants connection
- informing people about the way illegal actions on the customer's part are punished

Such changes occurred during the planning phase and as a result of respond received from the audiences during meetings (see elaboration of training of teams and questions asked below). It may also be noted that SFPC has changed its policies and now only recommend that people install their electric meters on the outside of their dwellings, thus former point 5 was modified.

Project organisation

The project was organised under the Project Manager of Phase IV, Mr. Juma Othman Hija, and led by Ms. Winther. This formal anchoring in Phase IV's leadership, including Mr. Hija's personal dedication to seeing the project reach its goals, simplified the project's organisation and smooth fulfilment. Below is an overview of the project's main activities and when they were carried out.

Activities	2004		2005						2006
	3rd quarter	4th quarter	May	June	July	August	Sept.	Nov.	4th quarter
Plan presented									
Plan accepted									
Project preparation, initial phase									
Training of teams									
Production of written material									
Construction of demonstration tables									
Test-visit to Makunduchi village									
Implementation									
Appointments with village leaders									
Village meetings									
Reports from teams									
Project report completed									
Planned follow-up visits									
Assessment - evaluation of the project									

Settlement of teams

Two teams were established to perform the presentations on Pemba and Unguja, respectively. Their compositions were settled by Mr. Hija, Mr. Salum Masud, (Manager of SFPC/Phase IV, Pemba) and Ms. Winther. The following criteria were used: Teams should consist of both male and female members and they should represent staff from SFPC/Phase IV as well as experienced customers from rural areas. The benefit of including rural customers was that they represent the same group as the audiences both commercially (as customers) and socially/culturally (as villagers). Furthermore, the members should possess knowledge of how to use appliances, and at least one person should be familiar with how to operate a generator and mount/demount the demonstration board. Finally, all members should be capable of communicating information in front of large audiences in a pedagogic way to enhance understanding and invite for successive dialogues. Each team was appointed a team leader; Mr. Abeid (Pemba) and Mr. Ali (Unguja). Their full names as well as the other team members' names are given in Appendix 1.

Timing and selection of villages

In the initial planning phase (May 2005), Mr. Hija and Mr. Salum prepared lists of villages to visit based on their knowledge of Phase IV's plans for electrification. Compared to the project proposal, the number of villages to visit increased from 35 to 39, to cover nearly all villages included in Phase IV (see Appendix 2). Status for Phase IV at this point (and at the time when meetings were conducted) was that most of the surveying had been completed and a large proportion of poles had been erected. In other words, the information project was realised at a time when people in the villages had started observing the arrival of the grid, but not yet seen its completion or obtained connection. This timing proved to be a fortunate one, as we return to later.

Cooperation between SFPC and Phase IV – and the problem of providing electric meters

The initial phase also included meetings with SFPC's leadership (General Manager and Customer Manager) and extended contact with SFPC's customer office (Mr. Simai, Mr. Omar and Mr. Faina in particular). Strategic elements were discussed and agreed upon, such as the importance of presenting the project as a service related to both Phase IV and SFPC's everyday routines. This was regarded important because of the particular content of the information to be presented, which to a large extent concerned customer-utility regulations, procedures and payment. The project's goal to improve a better, long term relationship between utility and customer further required a united profile of the project. As our evaluation of the meetings below will show, this interconnectedness between Phase IV and SPFC (in project organisation and as presented to villagers in the written material and during meeting performances) proved to be particularly valuable.

Another issue discussed with SPFC's leadership was the fact that electricity bills in Zanzibar contain notions and words which are uniquely stated in English. This contributes to confusion among present Swahili-speaking customers and constitutes a problem of communication. It was agreed upon that SFPC issued a fully translated example of the bill to be used during presentations. SFPC also said they would look into the practical matter of how to add text in Swahili on the regularly issued invoices (by modifying software in the accounting system).

Furthermore, two aspects related to electric meters were brought up. Firstly, the prepaid meter system (Tukuza) which is established in Zanzibar Town is generally regarded to be a benefit to both customers and utility. We therefore discussed whether this could be a solution also in rural areas in the future. In SPFC's opinion, there is a challenge in that such meters are more expensive than conventional kWh meters/readings. But the major obstacle for introducing the system, they contend, is that Tukuza requires vender stations across the islands, which in turn requires SFPC staff to be permanently located in areas with relatively little return. Vender stations further represent a security challenge and require the presence of guards.

The second and major problem related to electric meters is that they are not available in Zanzibar at present. SFPC demands that all meters are purchased through the company to ensure proper quality, thus people are not allowed to buy meters elsewhere. In result, as SFPC does not have meters to offer their customers, people in Zanzibar are waiting to obtain electricity. Around 1000 customers were said to be waiting for connection by July 2005, of which many have paid for a meter they have not yet received. SFPC's representatives did not have a ready solution to this problem. With an estimated 4000 additional customers in areas included in Phase IV, it is obvious that the problem of access to meters must be solved immediately. The question repeatedly came up during village meetings and the team members expressed that this was the most difficult question to respond to. It is easy to understand rural customer's disappointment when, after having sold parts of their trees and livestock to obtain electricity (reported in Makunduchi), they realise that they cannot obtain electricity in their houses.

Training of teams

In Unguja, the "training" of the team went hand in hand with a collective elaboration of the content of the agenda to be presented during village meetings. Together, team leader Mr. Ali, team members Ms. Mwanaidi and Ms. Wanja, and Winther went through and discussed the initial proposal for an agenda. Several changes were made and new points added in the text. We collected information from SFPC's Customer Office to ensure that the information was correct. Mr. Faina (SPFC) also became part of the Unguja Team. The material was worked out in English and translated into Swahili. The final content of the information program was produced through this process. Successively, the internal team members agreed on which parts to present, and the members from Uroa village (Mr. Makame and Ms. Saum[3]) were invited to join the project and receive training. Each member became familiar with the use of a Flip-over, which would highlight the most important points during presentations. Mr. Ali was in charge of having the demonstration boards/tables made and he instructed the rest of the team(s) in how to use it.

After the test-demonstration in Makunduchi on June 1 (recorded on video and attended by one of Zanzibar's Ministers), we sat down to discuss further improvement. Each member received some minor coaching and the sequence of speeches was adjusted, but our shared impression was that the presentation had been quite satisfactory. The meeting had revealed that people expected Phase IV to cover all expenses including the installation of electricity in private houses. The Project Manager of Phase IV was present on this occasion and he made it clear to the audience that such support is not included in the project. In forthcoming meetings, both teams emphasised this point during presentations so as not to raise too high expectations of what Phase IV has to offer.

[3] Due to her commitments as a teacher and mother in Uroa, Ms. Saum later advised that her daughter Ms. Zuhura (21 years old) took over her role in the team.

Training of the Pemba team took place after the material had been worked out, it was thus of a more 'instructive' character. Winther visited the staff in Chake-Chake in May together with Mr. Hija and Mr. Ali and went through the material with them. Following this, Mr. Ali supported the Pemba team by sharing his experiences and knowledge with the Pemba team leader Mr. Abeid. Mr. Hija and Team Unguja later invited Team Pemba for a five day training programme on Unguja (June 13-17). The staff from Pemba watched Team Unguja do several presentations in various villages and performed parts of these themselves. They also made a test performance in Phase IV's office, and were provided advises and suggestions for improvement. Like Team Unguja, the Pemba team soon proved their capability of managing their tasks independently.

During the week that the Pemba team visited Unguja, both teams went to Uroa to see how people there have benefited from electricity. Mr. Makame, member of the Unguja team and resident of Uroa, provided the teams a tour (and food!) and explained the village's quite extraordinary way of organising and using electricity.[4] It is likely that the team members on this trip improved their understanding of electricity's particular potential and challenges in rural areas.

An underlying idea for developing the presentations has been to draw on each member's own knowledge and experiences. The pre-written texts on the Flip-over partly determined the content to be presented. But otherwise, the reference text (agenda) has more been a guide for each member to produce his and her presentation than a fixed manual for what to say. This flexibility was particularly important for speeches made by team members from rural areas. We wanted them to share with their audiences their own experiences (positive and negative) and be a source of inspiration. All team members were encouraged to speak without a manuscript in order to keep a simple language and to obtain eye contact with the audience.

Upon Winther's return to Zanzibar in July she could witness two, strong teams in action, each with their particular expression. Illustrative of the personal character each speech had gained was the distinct members' use of metaphors. In order to explain their points to the audience, one would start the section describing the dangers connected to the use of electricity in this way: "Do you think that the sea might be dangerous?" (Yes) "Do you still go out fishing?" (Yes) "Do you think it might be dangerous to walk on a trafficked road?" (Yes) "Well, it is the same thing with electricity. It might be dangerous, but there are some things we can do to protect ourselves, so that we can safely enjoy its benefits."

Another member would explain the point that electrical appliances consume various amounts of energy by using the image of a person: "Some people are able to eat a lot, while others eat less. It's the same with appliances…".[5] A third member started describing how people may obtain connection to the grid, including the high costs involved, by asking: "What do you

[4] In Uroa, villagers cover expenses for collective use of electricity by putting taxes on sales at the fish market. They early obtained street light and cover light expenses at the school.
[5] The word "to use/consume" electricity is often referred to as "to eat" (*kula*) in Swahili.

need when you want to arrange a wedding". She successively listed up all the various and substantial costs related to such a happy event before embarking on the costs related to electrification. Again, the chosen form had appeal to the audiences in question. It produced some laughter and comments – but probably also a better understanding of, and legitimacy for, the topic in question.

In conclusion, the 'training' of teams has in reality been a dynamic process in which team members themselves have also taken responsibility for developing the end result. Advices and coaching have been provided, but just as much from one member to the other as from leadership to participant. In the initial phase, Mr. Hija suggested that the teams evaluated their own performance after each meeting. This procedure was carried out in Pemba and Unguja throughout the project. Other staff at Phase IV also gave critical and supportive comments. A precondition for this process of learning, which we regard as having been quite successful, was that the team members were highly motivated, skilled and also prepared to adjust and improve their performances. Their commitment to the project is also reflected in that the teams took on overtime and worked intensively and systematically. In result, they completed the implementation phase ahead of the initial schedule stated in the project plan.

Team members, Pemba, Bi Mariam and Bi Fatma receive training and discuss plans for meetings

Learning by doing; Team members Unguja, Bi Mwanaidi and Bi Wanja, after completing meeting in Uzi village

Project material

As mentioned, the project produced a written agenda for the village meetings. Both teams were also provided with a Flip-over for which they prepared texts and figures to be presented during meetings. Each team member was given a small note book for writing down clue words to enhance presentations and for registering questions and things that occurred during the meetings.

In addition, we worked out an information pamphlet in Swahili, '*Karibu Umeme*' ("Electricity; welcome!"), which included the presented information in detail as well as contact names and various forms (SFPC). Each village received two copies of the pamphlet during the meetings.[6]

Finally, the project developed two demonstration boards/tables to be used with generators. The tables were demountable (into flat pieces) to simplify transport. Each demonstration board contained electric meter, fuse, main switch and ordinary switches and outlets to enhance the explanations of electricity consumption, matters of safety etc. Furthermore, two samples of the following items were purchased and showed in-use after each meeting: Fluorescent light, bulb, mercury bulb (for street light), iron, 2-plate electric cooker, blender, radio and television set. The teams also had pick-ups available.

Preparing demonstration tables at Saateni

Without this material, the project would not have reached its goals to the extent it did. The written agendas served as a reference for each member in preparing their speeches. The Flip-over enhanced communication (though some people in rural Zanzibar are not able to read). Few among the audiences took notes during the meetings and the pamphlet serves as a means for remembering what was said. The pamphlets are also expected to be a source to further explanations and help maintain enduring contact between Phase IV/SFPC and villagers in the aftermath.

[6] 100 samples were printed at the "I-café", Zanzibar Town; 50 for Pemba (showing a map of the grid in Pemba on the front page) and 50 for Unguja (with map of the grid in Unguja).

Resource use

Below is an overview of various participants' time-use in the project.

	Team members employed by SPFC/Phase IV	**Team members from villages**	**Consultant Winther**
(Project plan			1 week)
Project preparation, initial phase	3 people two weeks each	2 people 2 days each	4 weeks (of which 2 in Zanzibar)
Implementation Unguja	4 people 7 weeks each	2 people 6 weeks each	2 weeks (in Zanzibar)
Implementation Pemba	4 people 7 weeks each	2 people 6 weeks each	included above
Preparing of reports	6 people 2 weeks each		
Completion of final report			4 weeks
SUM	**74 weeks**	**24 weeks, 4 days**	**10 weeks**

In addition, management and other staff (Phase IV and SFPC) have contributed with their time.

The total amount of time for team members is higher than sketched in the project plan, which is partly due to the decision to include SPFC staff in the teams. Also, the time necessary for each team to be able to translate questions and report their results was underestimated in the original plan. Winther's 10 weeks are according to the contract of 3/3 2005.

By 19.09.05, the registered costs for the project were as follows:

	USD
Labour (salaries, meals, bonus etc)	4.457
Travelling expenses local	2.864
Travelling expenses international	5.450
Demonstration equipment	1.537
Motor vehicles	40.082
Other expenses (Flip-overs, printing of pamphlets etc)	607
Consultation fee (project plan)	3.904
Consultation fee (not yet registered)	44.279
Travelling expenses international (not yet registered)	2.806
SUM	**105.986**

The project is expected to be completed within the end of September 2005, thus the overview must be regarded as preliminary. No further, major expenses are expected, though.

Implementation: Village meetings

Invitations and attendance

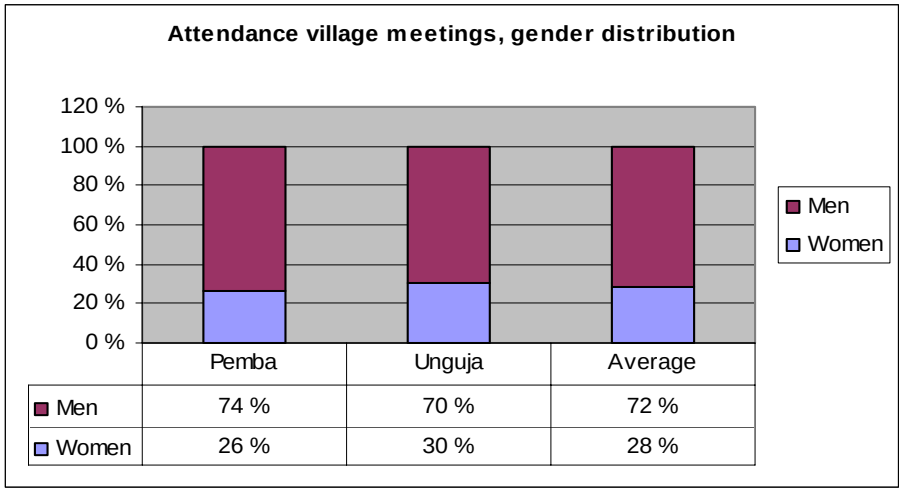
A couple of days before visiting a village, the teams issued and delivered a letter of invitation to the village leader (*Sheha*) in question. The morning tends to be the time of the day when men in particular are at work, thus afternoons were regarded as suited for the meetings. Nearly all meetings started at 2 p.m. and in most cases they lasted to around 6 p.m. (see Appendix 2).

39 villages were visited; 20 in Pemba and 19 in Unguja, which covers the most important villages included in Phase IV. In sum, 3601 people attended the meetings; 1915 in Pemba and 1686 in Unguja. Compared to estimations of the total number of households in 'Phase IV-villages', and assuming that each person present represented one household, the meetings attracted 8% of (relevant) Pemban households and 9 % of those in Unguja.[7]

***Village meeting, Uzi, July* 2005**

In all, 2581 men and 1020 women turned up, which implies that in average, nearly thirty percent of the audiences were females. The distribution of men and women among the audiences in Pemba and Unguja are showed in Figure 1. It indicates that in Unguja, relatively more women attended meetings (i.e. 30%) compared to Pemba (i.e. 26%). In absolute figures, however, the numbers of women attending on the two islands were quite similar: 514 in Pemba and 506 in Unguja.

[7] SFPC July 2001: Rural electrification project, Phase IV, Project Document (pages 10-11). The report estimates that the selected villages for Pemba represent 23 615 households. The corresponding figure for Unguga is 17 839.



	Pemba	Unguja	Average
Men	74 %	70 %	72 %
Women	26 %	30 %	28 %

Figure 1 Attendance during village meetings, distribution by gender

Taken that women's everyday practices are largely influenced by the introduction of electricity, and the fact that men more often than women attend village meetings in Zanzibar, the project was focused on how to reach women. Winther's study had confirmed that women tend to be preoccupied with household responsibilities, often in addition to income-generating work. Consequently, they seldom have time to attend meetings. The study had also mapped the common pattern in Zanzibar that men are in charge of obtaining connection to the electricity grid and paying the monthly bill. As house owners, men are eager to learn about electricity's benefits and challenges. The problem remained as to how we could reach the female part of the population too.

We tried to meet this challenge by emphasising our intention to reach women when sending Shehas the invitations for meetings. The presence and performances of female team members were also thought to signal that the events were relevant to women too. Furthermore, one section of the information program had the rhetoric title: "Is electricity an issue that concerns only men?", which intended to establish the perhaps obvious fact that the new technology is indeed relevant to women too. And finally, we anticipated that demonstrations of equipment such as electric cookers, irons, blenders and lamps would attract women's attention.

Explaining the use of various appliances, Uzi

In average, there has been fewer women present than men, which was not unexpected. There were great variations from village to village, however. In Pwani Mchangani (by the coast) there were only three women present. By contrast, in Mwange (inland) there were more women than men and they stayed until the end to watch the demonstration of appliances.

In sum, we are content with the result that women in average constituted 28% of the audiences. Sometimes we discovered, such as in Makunduchi, that those present represented larger groups of women. Therefore, the information presented would probably pass on to other women after the meetings. We also often observed that women were active in asking questions during the meetings, which confirmed to us that they felt included in the project.

Unexpected difficulties – how to make people come to the meetings?
The teams sometimes experienced challenges in obtaining large audiences. For example, there were few people (9 women and 18 men) attending the meeting in Unguja Ukuu Kaebona on June 11. Here, the Unguja team observed that an internal conflict had occurred in the village due to the particular spread of poles during Phase IV. Only people from the part having received poles attended, apparently, while the rest of the population did not wish to show up at the meeting. In the case of Matemwe, also Unguja, Sheha had misunderstood the date and nobody had been informed about the team's coming. After waiting for an hour, however, the word had spread and people started to show up (41 women and 23 men attended – and a lot of non-registered but lively children). In Uzini village, Unguja, relatively few villagers, women in particular, turned up at the meeting due to a funeral (4 women, 41 men). Finally, in Kibele, Unguja, no women attended (while 71 men did). Some men present explained this by referring to women's duty to cook for their families. The team, however, suspected that women's absence was related to some sort of internal conflict.

As for misunderstandings and events such as funerals, the teams could of course do little on the spot to improve attendance. However, the teams' selection of villages to re-visit (see Appendix 3) is sought to compensate for the relatively low attendance rate in some villages. On the other hand, the experience that electrification might bring up conflicts in a village is a more delicate and difficult matter. We return below to the way conflicts and complaints were brought to the open during some of the meetings. Here, it suffices to establish that due to potential internal conflicts, it might be worth informing people directly about the coming of the teams in question, in addition to the letter sent to Sheha. This is so because Sheha is necessarily positioned within a village and he tends to have (or is thought to have) a say in where electricity is to be put up. Therefore, his opponents might either be uninformed about the arrival of the teams or they might not be motivated to attend the meetings. Correspondingly, the teams' advise in the aftermath that the call for meetings goes through an "influential person" in the village as well as the development committee, in addition to Sheha. The teams further recommend that projects of this kind should include a short feasibility study ahead of village meetings in order to learn about the culture and administration of the village.

The project was partly helped in spreading the news that everybody was welcome to join the meetings through the Zanzibari radio station which announced the project's schedule on several occasions. Furthermore, Television Zanzibar (TVZ) showed glimpses from the project during their evening news on two occasions. The project thus received external marketing support. For future projects of this sort, it might be worth planning such spread of information more systematically and at an early stage.[8]

In conclusion, we think that having reached 8-9% of the households face to face during meetings is a quite satisfactory result. It may be expected that many people attending the meetings regard household connection as a fairly realistic option, that is, they were perhaps not among the poorest part of the population. Many seemed surprised, though, and even taken aback by learning about the high costs involved (people's reactions and questions are treated further below). Furthermore, we might presume that people with particular positions (in village committees, women's groups etc) were present to a high extent and that they have an important role in providing further information to their co-villagers (though problems regarding their representativeness have been mentioned). We should also acknowledge that a certain degree of randomness seems to have determined who were present at some meetings. Nevertheless, we anticipate that the 'word' will pass, that is, that parts of the information will be spread to the remaining part of the population in the aftermath. The written material is of value also to those who did not attend. Moreover, the 15 planned follow-up visits are expected to provide more people with information.

Agenda: the content of meetings

The following issues were presented during each meeting:

1. Introduction (Team leader)
2. Facts about the plans for electrification in the village
3. How may electricity be used in ordinary households?
4. The costs of purchasing and using various appliances
5. Is electricity and issue that concerns only men?
6. Is electricity dangerous?
7. How do you obtain electricity in your house?
8. How is electricity consumption measured?
9. How do you pay for your use of electricity?
10. What to do if you are unable to pay the bill? (Included also fines related to illegal use of electricity)
11. What to do if you discover that something is wrong with the meter or the bill?
12. How may electricity produce development in a village and how may you organise the work and the payment of electricity for collective purposes?
13. Demonstration of appliances

[8] A journalist from TVZ was present during four meetings in Unguja and the company recorded the meetings on two of these occasions. Consequently, two cuts were presented in the Zanzibari news on television. A journalist from a Tanzanian newspaper also attended several meetings and produced (at least) one article on the project. Finally, some parts of the last meetings were recorded for the film project included in Phase IV.

The enclosed Agenda (Appendix 5) was produced ahead of village meetings and provides an elaboration of the topics presented. See also the pamphlet (produced in Swahili and English) "*Karibu Umeme*" which explains each point further. Because both teams adjusted the content of their speeches according to respond from the audiences and as they became more aware of people's interests, the Agenda should be regarded as a sketch of what was said. For example, one of the team members in Unguja presented point 9 which included a calculation of the cost of electricity for lighting and radios as compared to kerosene and batteries. In the pre-written text we had quite modestly assumed that typical monthly expenses on kerosene and batteries are 3000 TSH and 2000 TSH, respectively. Upon asking the audience in Michamvi how much a household spends on kerosene, one woman said she pays 3000 a week, thus 12 000 per month. In result, it will only take her around 2 years time, and not 9 years as shown in the pre-made calculation, until the investment in electricity is 'paid back' and she starts saving a considerable amount of money each month compared to her former expenses on kerosene and batteries (the price of kerosene is higher in rural areas than in town and, in general, increases rapidly at present).

In relation to the way information about electrical appliances and gear was shared with the audiences, the teams pointed out the following in the aftermath (see Appendix 6):

khH-meter: Villagers were instructed in how the meter works, how it records electric consumption and how this can be read on the display. They were also taught what to do in case of problems associated with the meter.

Main switch: Villagers were instructed to immediately switch this off in case of an emergency in their house (such as electric shock)

Various appliances: Villagers were instructed in how the appliances work including the power and usage of electricity consumption.

Upon reflection, one may ask if the agenda/presentations were too elaborated, that is, too long. To the teams, it was certainly demanding to stand/sit in front of an audience for two, sometimes up to three hours. The respond showed, however, that the audiences found each of the topics relevant. They were of course free to leave the meetings, though only a few did, sometimes by returning on a later point. The teams tried to be effective and limit the information provided, for example, by cutting down on information about all the different kinds of fines that exist to punish illegal behaviour. But the core part of the agenda was found relevant and necessary. Consequently, its content was presented throughout the project.

The structure of meetings: pre-planned but also emphasis on dialogue

The meetings often took place inside classrooms, or under the shade of a tree, or in open air. The Pemba team experienced quite a lot of rain in this period (June, July), which caused some extra challenges during the meetings as well as for transport (bad roads) and demonstration of equipment.

Both teams were seated face to face with, and in front of, the audience during the whole meeting. The leader started by explaining the purpose of the visit and announced that people would be welcome to ask questions towards the end. In turn, each team member presented his or her part of the material. Team leaders had the role of binding each part together by adding comments, clearing up issues and so on and they also presented parts of the agenda.

The teams were encouraged to try to make their speeches as lively and interesting as possible. The meetings normally lasted for 1½ to 2 hours before the demonstrations would start. Mr. Hija participated during some meetings and Winther observed 7 of them, both in Unguja and Pemba, respectively. One person was appointed secretary each time and would register attendance, write down people's questions and also register Sheha's name and telephone number for further contact.

Due to the very detailed and technical/economical content of some speeches, it was suggested at one stage to open up for questions after each speech. This induced more questions, which we considered to be an advantage given our aim to obtain communication, but it also became a challenge to keep questions in line with the actual topic and not start a discussion on topics to be presented later. Either way, the teams and their leaders managed to produce a climate which welcomed questions and also made it possible to follow the agenda. Various members answered the questions, according to their topic. As the analysis of questions asked shows below, it was essential to both have staff from Phase IV as well as people familiar with SFPC regulations present to answer the questions. Team leaders express in the aftermath that the most important aspects to have covered by SFPC staff were 1) issues on safety 2) procedures connected to supply and 3) penalties.

In all, people asked 317 questions during the meetings (162 in Pemba and 155 in Unguja), of which some represented requests for support. Thus in average, there were 8 questions in each village. The teams were able to answer nearly all questions on the spot, though some issues, particularly related to support for additional poles, were brought back to Phase IV's office in the aftermath.

Due to the often large crowds and the limited time, people did not get a chance to try the electrical appliances themselves (Winther's initial idea), but they were shown how they work. Often, people would be sitting/standing quite far away and not, for instance, be able to see the meter wheel running when a switch was turned on. The team member doing the demonstration would loudly explain what went on, however. The Pemba team often had the

demonstration table available during the initial presentations outside and could regularly point to the various elements during presentations.

People's eagerness to watch the demonstrations indicates that they found them interesting. At one point, the Unguja team changed the sequence of events by both starting and ending the meeting with demonstrations of appliances (so as to increase the chance that women would have the time to watch demonstrations). In result, quite a few among the audience left after the first demonstration. It thus appeared that this part of the program attracted people to come. After this 'experiment', the team decided to return to the initial program and make demonstrations only in the end, and, as usual, by inviting women to watch first because they are often in a hurry to return to the household. We expect, therefore, that the visibility of demonstration tables and appliances effectively marketed the meetings before they started. The objects and the prospect of watching them in work appeared to motivate people to stay towards the end. We also received indications that the demonstration of appliances and equipment increased people's feeling of reward for attending the meetings.

Analyses of questions asked

The project highlights the importance of communication. Therefore, we are satisfied with noting that men and women used the opportunity to ask various types of questions. Here, we pay attention to the issues that people took up. The content of the questions speak directly of people's concerns and they influenced the teams' emphasis during successive presentations. The content of the questions also indicate that people were just as interested in the project of electrification as they were in learning about everyday routines and regulations related to purchasing and using electricity. The very blend of questions demonstrates that potential customers see the system as a whole and reflects their concerns at the particular moment when the meetings were held.

Spread in types of questions

Below we see a great variety in the questions asked during meetings (all questions are given in Appendix 5). They range from general concerns about Phase IV to detailed questions as to payment and use of appliances. Results from Pemba and Unguja are shown separately, but they are relatively similar in the types and quantities of questions asked. Differences will be commented when considered relevant.

Figure 2 and 3 show the spread in types of questions asked in Pemba and Unguja, respectively. In Pemba, there were 162 questions in all. Each question may concern several categories, thus the sum is larger than 162. For example, the question "If the meter gets stolen, what is SFPC going to do?" relates both to the category "Theft" and "Bills, payment, regulations".

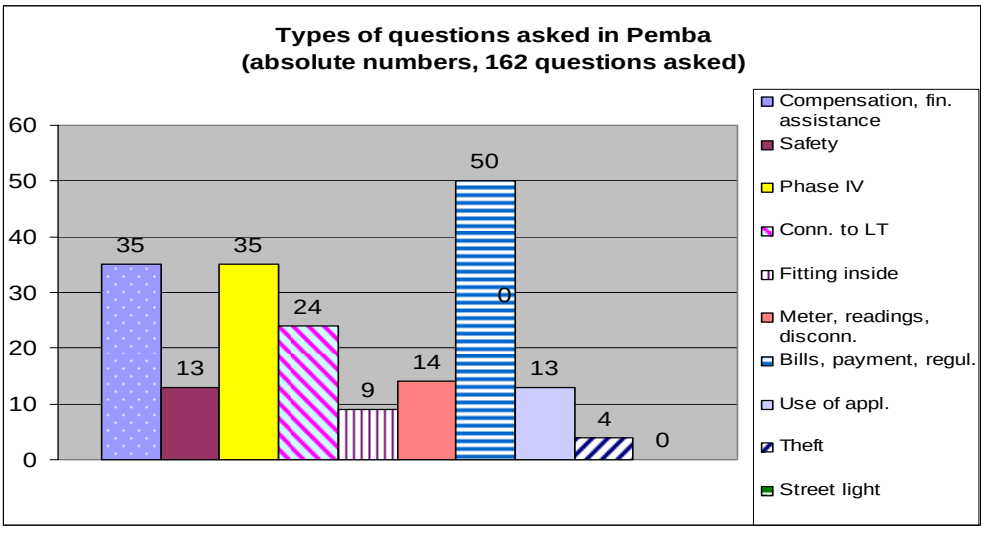


Figure 2 Types and numbers of questions asked in Pemba

The corresponding distribution of questions in Unguja is slightly different (see Figure 3). In Pemba, questions centred more on "Compensation and requests for financial assistance" and questions concerning "Meters" than in Unguja. In Unguja, people put relatively more emphasis on "Bills, payment and regulations", "Fitting inside" and "Theft" than in Pemba. In Unguja, the issue of street light was probably stimulated by the speech provided by the team member from Uroa, where the population has obtained such services. In Pemba, no questions concerned street light.

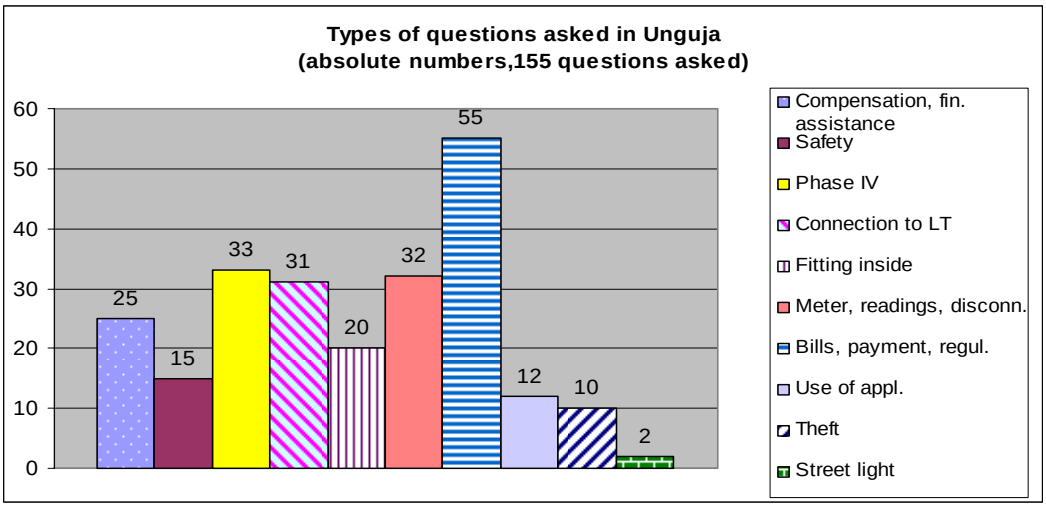


Figure 3 Types and numbers of questions asked in Unguja

If we group some of the categories and look at how they are spread in percent of the questions asked in Pemba and Unguja, respectively, we first see the distribution according to the questions' technical/economical emphasis in Figure 4.

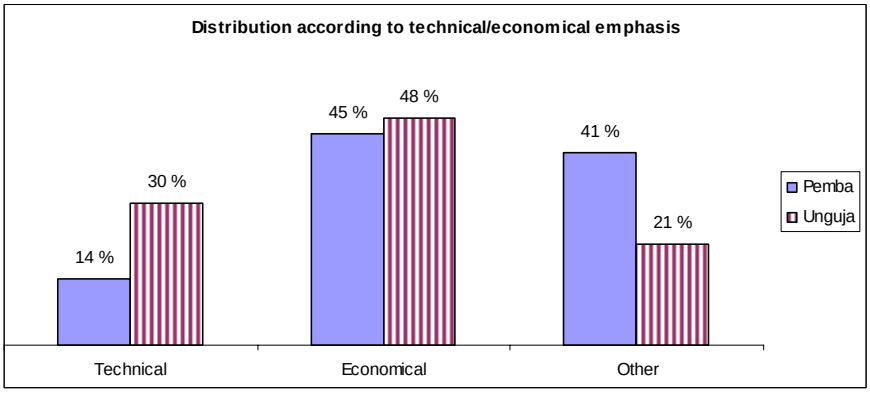


Figure 4 Distribution of questions according to technical/economical emphasis

Economical issues constitute nearly half of all questions asked. This speaks of people's great concern as to how they will be able to finance electricity. Economical issues relate to financial assistance but also to payment for installation and electricity consumption. As seen, technical issues were more often brought up in Unguja than Pemba, whereas the "other group" is

larger in Pemba, meaning that they were neither of a directly technical or economical character, but more about procedures, regulations and at what time and where electricity will become available.

Another way of grouping the questions is to look at the 'level of concern', that is, to what extent they related to 1) Phase IV as such; 2) individual connection to the low tension net (LT); 3) everyday customer-utility regulations; or 4) other aspects. What Figure 5 shows is the great spread in questions on these categories. The spread underscores the importance of the information project to have covered both Phase IV and everyday regulations and routines. In other words, the questions address responsibilities of both Phase IV and SPFC in general. Furthermore, we see again the tendency that questions in Pemba were of a slightly more general sort, whereas people in Unguja asked more questions oriented at specific issues.

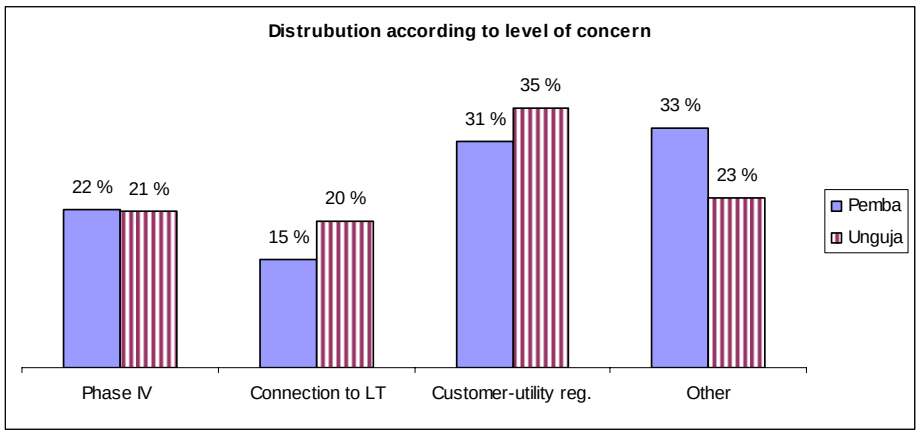


Figure 5 Distribution of questions according to level of concern

The (modest) differences between questions asked in Pemba and Unguja may be explained by the simple fact that two distinct teams presented their speeches on the two islands respectively. However, in Unguja, some of the villages included in Phase IV already have electricity in the relatively near neighbourhood. Consequently, people here might have been more experienced with electricity before they attended meetings (hence, perhaps, their greater emphasis on regulations and theft). What is more, the supply of electricity in Pemba is radically much weaker than in Unguja due to the difficulties with diesel generators and provision of fuel. People's concern for the unstable supply was sometimes reflected in questions asked in Pemba. One man in Ukutini, for example, asked if the minimum bill must be paid even when there is a power cut. (The answer, that he must do so, speaks of the importance of changing the power system in Pemba. There are no sorts of compensation to customers but extremely frequent abruptions in supply.) Another difference between questions asked in Pemba and Unguja relate to compensation. More often in Pemba than in Unguja, people brought up the question of poverty and how Phase IV may help those who cannot afford electricity. And finally, several people in Pemba asked about support for financing electricity to the mosques, while in Unguja nobody did. But again, the differences

in questions asked could reflect differences in what had already been said during presentations.

Feed-back from the audiences

It might reflect the Zanzibari politeness in general, but we interpret people's many positive comments as expressing a genuine appreciation as to the effort to provide them with information. Such views were reflected during the formal setting of the meetings (see Appendix 4), but also in the aftermath. In particular, several people expressed satisfaction of having heard the speeches of team members from rural areas. In return, they were explicitly invited to come and visit the village of Uroa, for instance, at a later stage.

Signs of improved understanding and communication

A qualitative evaluation of the questions asked provides a good indication of the project's degree of accomplishment. Nearly without exceptions, the questions reflect that people among the audiences have

- listened to and understood what was said
- wished to have some points repeated or further explained or discussed
- used the opportunity to make requests for further support, either financially or otherwise
- used the opportunity to question some issues (plans for Phase IV, unsteady supply, lack of meters etc)

It is of course impossible to conclude that everybody present reached the same level of understanding as those who came forward with their questions. But compared to Winther's study of people's knowledge of the electricity system in other parts of rural Zanzibar, the results are quite striking.

For example, one person (in Makunduchi) asked whether it is allowed to use a normal tariff if you start a business at home. By this he showed that he is aware of the existence of various tariffs and also that this issue constitutes a "grey zone" (should small "shops" kept at home be on a domestic or commercial tariff?). The team on their part responded quite nuanced: If you produce sweets at home and sell some of it to neighbouring children, it might not be considered a "shop". But if you sell various items of considerable quantities, then you should be on the more expensive commercial tariff.

Another person (also Makunduchi) posed the relevant question of why it is illegal to provide a neighbour with electricity if this one cannot afford it. He thus openly contrasted certain ethical aspects with the formal regulations of which he has become aware (supporting a poor neighbour through unauthorised connection is illegal). Importantly here, and of general relevance, the team's answer did not simply refer to the importance that people follow regulations. They explained in detail why the regulation is the way it is: (1) separate meter and main switch in each house mean increased security for the customer (2) multiple, illegal connections mean loss of income for the utility which makes other customers suffer in the

long run due to increased prices. In his respond, the customer expressed that he had understood why each house should have a separate meter.

These dialogues are strikingly open compared to Winther's earlier observations. In electrified areas, the relationship between utility and rural customers tends to be quite antagonistic. People sometimes to try to hide their practices from a utility they believe is cheating them. By instead learning in advance about the arguments behind various regulations, there is a greater potential for loyal behaviour, mutual trust and thus less frustration in the future. It has been the project's objectives to provide education and promote a more sustainable utility-customer relationship in the future. From the content of questions people asked during the meetings, and based on Winther's observations of the teams' ways of answering them on some of these occasions, it appears that the teams have succeeded in reaching the project's goals.

Signs of conflicts and adjustments of plans

As mentioned, it is not uncommon that large-scale projects like electrification produce conflicts in the local communities in which they are introduced. Taken that most people have very limited access to material resources in rural Zanzibar, the prospect that some parts and not others will "receive" electricity may become a sensitive matter. This was reflected in the way some groups were said to have stayed away from meetings in certain villages (see above). Dissatisfaction with existing plans also came up as an issue during some of the meetings. In Ole M-Buyuni, Pemba, for example, one person asked why poles had only been erected in Ole and not in Uhanga. It might not have been easy for the teams to answer such questions. Neither was it their role to solve internal conflicts which often stem from a range of sources.

Nevertheless, one of the crucial advantages of completing the project at this particular stage was the possibility to register various people's points of view related to the construction of the grid. Without the information project, contact between Phase IV and the village would primarily, if not only, have gone through Sheha. By opening up for discussions with the village populations before the low tension lines has been completed, Phase IV received input which sometimes resulted in changes of plans. For example, in some villages (Uzini and Kibele, Unguja), people had managed to finance and erect poles for the service line (LT) themselves. During the meeting it was agreed that Phase IV will provide the wiring for LT. The villagers also asked for further poles, and the management has promised to look into this. In Mwera, it was discovered that an already illuminated part of the village mistakenly had received poles during Phase IV, whereas the other part of the village remained with no plans for electrification. Consequently, Phase IV modified its plans so as to cover the whole of Mwera.

In conclusion, the timing of the information project proved to be valuable in that Phase IV was able to receive various viewpoints and have the plans for electrification modified before implementation is completed. A considerable demand for further equipment was also detected.

Monitoring progress, registering results

Team leaders were appointed the responsibility to lead the implementation phase on each island respectively, evaluate the teams' progress and register results.

A registration form helped the teams structure the registering of questions and contacts in each village. These tasks were systematically carried out. The information was summarised and all questions were translated into English.

Furthermore, team leaders and Mr. Muhammed of the Pemba team have, on their own initiative, presented written minutes of the teams' activities every day during implementation.[9] Here, they also made short notes showing their own evaluation of each particular meeting. In addition, they have jointly produced a final report on the project's achievements (see Appendix 6) and answered a range of questions from Winther through e-mail in the aftermath. This extra effort on the teams' part has highly simplified the task of summarising and analysing the project's results. It simultaneously speaks of the members' strong commitment to the project as such.

[9] These minutes are not included in this report, but available if needed.

Conclusion and recommendations

As far as we are positioned to evaluate the results ourselves, we maintain that the information project has obtained what it set out to do: 1) improve people's level of knowledge about electricity and 2) enhance communication between utility and customers, also in the longer perspective.

In a sense, we have sought to 'demystify' electricity by telling people about its real dangers but also how one may make precautions and reduce the risks involved. We have certainly marketed electricity's great potential for use in everyday life, but also provided detailed information about the economical costs involved. We have sought to kill the myth that the utility is always cheating its customers. Instead we have aimed to create legitimacy to the way regulations are formed and pointed to the ways customers themselves may check that their equipment is in order and that invoices are correct. Simultaneously, we provided an arena for people to learn about and discuss the plans for Phase IV. The respond documented in this report tells us that the effort has been welcomed – and that the project has had a good timing and produced positive effects.

People who attended the meetings were encouraged to get in touch with SFPC staff, Phase IV or the experienced customers from the teams whenever they wish. Many people have already responded to this. In addition, the teams plan to make follow-up visits at the end of 2005. Here, they will engage in dialogue of a more informal kind and, upon requests from the villages in question, be able to repeat the meeting agenda.

It is not within the information project's mandate to advice SPFC as to how they should organise the contact with their customers in the future. However, there is little doubt that people living in villages which were electrified during Phase I-III would also benefit from attending similar meetings. Normally, the only situations in which customers meet with SPFC staff are at the time of meter reading, payment and, in some cases, disconnection. These contexts are characterised by the staff being in a hurry, and customers being either too shy or even afraid to ask questions they might have on their mind. By contrast, the great advantage with the information project was that the events were uniquely tuned at providing villagers with support. The meetings also concerned the system as such and did not go into the situation of singular persons. Due to the increased possibilities this kind of setting produce for educational and communicational purposes, we recommend that SFPC look into the possibility of conducting visits to villages not yet visited. It might also be an idea to repeat the visits and meetings after a year or two.

Further recommendations:

- It is absolutely necessary to solve the problem of meters as soon as possible. Without access to such equipment, people will not benefit from Phase IV as they have been promised. Provision of further equipment such as additional poles, cut outs, wires, connectors etc should also be considered so that people who are motivated to become customers, but situated too far from the service line, may become connected.

- SFPC should modify the invoice software so as to include Swahili notions and words in full on the monthly issued bills.
- Despite the signs that the audiences understood the electricity system after having heard the presentations, the billing system remains quite complex. We advice in particular that the minimum bill system is reconsidered. A tariff which reflects real consumption from the first unit would be more pedagogic – and appear more just to the customers.
- The respond from this project confirms that people in rural Zanzibar are eager to obtain electricity but notably also that they have very limited economical resources. Electricity and development are closely connected phenomena, particularly in rural areas. We advice that SPFC and Zanzibari authorities take care not to raise tariffs too suddenly or too much for the group in question in the years to come.
- For other projects of this kind, it could be worth considering establishing working stations and camps in the various areas to save travelling expenses.
- Experience has shown that contacting Sheha through a written letter is not always sufficient in making all kinds of groups within a village attend the meetings. It would therefore be an advantage to acquire knowledge about village administration in advance. This may be achieved by conducting short feasibility studies before implementation. Projects of this kind should include a plan for marketing the team's schedule and purposes.
- The team members have developed a thorough knowledge of utility regulations, technical aspects and the billing system. They have also proven their capability to communicate and explain complex issues to larger or smaller audiences. SPFC could consider making use of this knowledge more permanently within their system for handling customer relations.
- Assessment of the information project is scheduled for the end of 2006.

Appendixes

Appendix 1 Team members

Team A (Unguja):
Mr. Ali Abeid Haji, team leader (Phase IV)
Ms. Wanja Khamis Hemed (Phase IV)
Ms. Mwanaidi Silima Jaffar (Phase IV)
Mr. Makame Hassan Juma (Uroa village)
Ms. Zuhura Salum Mchenga (Uroa) (took over for Ms. Saum Pandu, Uroa)
Mr. Faina Idarous Faina (SFPC, customer office)

Team B (Pemba):
Mr. Abeid Salim Makame, team leader (SFPC/Phase IV)
Ms. Mariam Masoud (Phase IV)
Ms. Fatma Khamis (Phase IV)
Mr. Masudi Musa Ali (Ole village)
Ms. Kidawa Salum Hemedi (Pujini village)
Mr. Muhamedi Khamisi Juma (SFPC)

Appendix 2 Villages visited in Pemba and Unguja

Time table and attendance rates Pemba

Pemba	VILLAGE	DATE	START	END	ATTENDANCE WOMEN	ATTENDANCE MEN
1	PUJINI KIBARIDI	22.06.2005	2 p.m.	6:00 p.m.	52	64
2	KIUYU M-BUYUNI	23.06.2005	2 p.m.	6:30 p.m.	-	110
3	KWALE MICHEWENI	25.06.2005	2 p.m.	5:00 p.m.	20	84
4	FINYA	27.06.2005	2 p.m.	6:30 p.m.	31	44
5	M/MDOGO	28.06.2005	2 p.m.	6:00 p.m.	12	66
6	MGOGONI	29.06.2005	2 p.m.	5:30 p.m.	11	45
7	DAYA	30.06.2005	2 p.m.	5:30 p.m.	21	48
8	KIUYU MINUNGWINI	02.07.2005	2 p.m.	6:00 p.m.	3	80
9	OLE M-BUYUNI	04.07.2005	2 p.m.	5:30 p.m.	1	40
10	KIUNGONI	05.07.2005	2 p.m.	6:15 p.m.	12	88
11	SHUMBA MJINI	06.07.2005	2 p.m.	6:00 p.m.	41	127
12	UWANDANI	07.07.2005	2 p.m.	6:00 p.m.	6	42
13	MAKOMBENI	09.07.2005	2 p.m.	6:15 p.m.	34	65
14	MJIMBINI	10.07.2005	2 p.m.	6:30 p.m.	170	168
15	KOJANI	11.07.2005	2 p.m.	6:30 p.m.	5	92
16	MWAMBE	12.07.2005	2 p.m.	6:00 p.m.	-	21
17	MICHENZANI /CHANJAANI	13.07.2005	2 p.m.	6:30 p.m.	6	23
18	WAMBAA	20.07.2005	2 p.m.	6:30 p.m.	22	47
19	CHAMBANI	21.07.2005	2 p.m.	6:00 p.m.	30	50
20	UKUTINI	02.08.2005	2 p.m.	6:00 p.m.	29	105
SUM PEMBA					**506**	**1409**

Attendance Pemba	1915
Per cent women	26 %
Per cent men	74 %

Appendix 2 (cont.) Villages visited in Pemba and Unguja

Time table and attendance rates Unguja

Unguja	VILLAGE	DATE	START	END	ATTENDANCE WOMEN	ATTENDANCE MEN
1	MAKUNDUCHI	01.06.2005	3 p.m.	6.30 p.m.	5	125
2	KIKUNGWI	09.06.2005	2 p.m.	ca 6 p.m.	34	60
3	U/UKUU – K/BONA	11.06.2005	2 p.m.	ca 6 p.m.	9	18
4	KITOGANI	14.06.2005	10 a.m.	ca 2 p.m.	8	30
5	MUUNGONI	14.06.2005	2 p.m.	ca 6 p.m.	30	69
6	MUYUNI	15.06.2005	2 p.m.	ca 6 p.m.	24	45
7	MWERA KIUNGONI	16.06.2005	3 p.m.	ca 6 p.m.	21	45
8	UZINI	18.06.2005	2 p.m.	ca 6 p.m.	4	41
9	KIBELE	21.06.2005	2 p.m.	ca 6 p.m.	0	71
10	UPENJA	22.06.2005	2 p.m.	ca 6 p.m.	41	50
11	KIBENI	23.06.2005	2 p.m.	ca 6 p.m.	25	77
12	KINYASINI	25.06.2005	2 p.m.	ca 6 p.m.	11	31
13	MUANGE	28.06.2005	2 p.m.	ca 6 p.m.	83	52
14	PWANI MCHANGANI	05.07.2005	2 p.m.	ca 6 p.m.	4	82
15	MATEMWE	06.07.2005	2 p.m.	ca 6 p.m.	41	23
16	UZI	13.07.2005	2 p.m.	ca 6 p.m.	33	134
17	MICHAMVI	14.07.2005	2 p.m.	ca 6 p.m.	33	50
18	UKONGORONI	20.07.2005	2 p.m.	ca 6 p.m.	101	100
19	MCHANGANI	23.07.2005	2 p.m.	ca 6 p.m.	7	69
SUM UNGUJA					**514**	**1172**

Attendance Unguja	1686
Per cent women	30 %
Per cent men	70 %

Appendix 3 Plans for follow-up visits

NO.	DATE	UNGUJA	PEMBA
1	11.07.2005	KIBELE	SHUMBA - MJINI
2	11.09.2005	U/UKUU - KAEBONA	KIUYU - MBUYUNI
3	11.12.2005	MUUNGONI	MJIMBINI
4	15/11/2005	MCHANGANI	MAKOMBENI
5	17/11/2005	KIBENI	P/KIBARIDI
6	19/11/2005	MATEMBWE	UWANDANI
7	22/11/2005	KINYASINI	KOJANI
8	26/11/2005	MWANGE	MGOGONI
9	28/11/2005		DAYA

Appendix 4 Questions asked during village meetings

Questions asked, Pemba

1 PUJINI KIBARIDI

Where is the main office situated?
When will the people of this village benefit from electricity?
Will there be any compensation for destruction of houses where the electrical line will pass?
Is there any reduction of payment for people who use high quantities of electricity?
If electricity is far from our houses will there be any help from SFPC to obtain it?
If a petty trader has a very little business, will he/she still have to pay the business tariff?
In which part of Kibaridi village will electricity reach?

2 KIUYU –M-BUYUNI

If the wiring of an old building is outdated, will there be a need to change it?
Do town dwellers (like Wete) pay for the street light or other light around there?
How many electrical poles will be brought to Kiuyu M-buyuni?
Who is responsible for the electricity provided in mosques or other praying areas?
When will rural customers benefit from the Rural Electrification Project Phase IV?
Is it true that rural customers in Phase 4 will obtain electricity for free?
Who will pay the school bill in rural areas?
When will be the time of contact between the customer and SFPC?
How will the lower class people be able to use electricity for self employment?
What will those people do who are connected to electricity but not users of electricity?
We request SFPC to look into the distribution of poles in our village, we have been given few compared to other villages and according to our large size.

3 KWALE MICHEWENI

Why are SFPC workers not punished the same way as customers and ordinary people, in case of committed forgery?
In case meters outside our houses become stolen, what are the appropriate measures taken by the SFPC?
Will there be any loans for non-beneficial rural customers?
When will the people of Micheweni be able to use electricity?
What compensation will the customers receive in case of "over voltage" and unfortunate effects of this?
What sort of help will be provided to the mosques or other praying areas?

4 FINYA

If a certain house has been built before the establishment of main line (HT), is there possibility that the house might become broken?
What should a customer do if the bill is wrong?
Why is the minimum price for businesses 4020/= even for the poorest people?
If the meter becomes destructed will there not be electricity in the house?
If the meter is owned by SFPC, why then must a customer fill in a form and pay 6000/= in case the meter is destructed?
What will SFPC do to help if one of their customers gets a shock?
Is there any possibility for a customer to introduce his/her own meter?

When will the residents of Finya benefit from electricity?
Must the person responsible to do the fitting come from SFPC?

5 MCHANGA MDOGO

We have been told that 140,000/= is only for meter and other electrical equipment. What are those equipments?
Is it true that SFPC will connect social institutions such as schools, hospitals etc?
When will Mchanga-Mdogo benefit from the electric service?
Is it possible for the customer to have his/her own meter and not a SFPC meter?
Does SFPC compensate people whose houses are located by the main line?
Who is responsible for payment of electric bills in the praying areas?

6 MGOGONI

If a customer joins the electricity and, a few days later, includes domestic appliances, would it be necessary to inform SFPC?

The poles have so far only reached a small part of the village. Which other areas will receive poles?
Is there any possibility for getting loans?
What should I do if I need electricity for ceremonies such as weddings and during funerals?
When will Mgogoni dwellers benefit from electricity?
If a customer needs poles for electricity, what would his expenses be?

7 DAYA

Who will pay for the roof poles?
In which parts (of the village) will the electricity line pass?
If the lowest price for electricity is 140,000/= for 5-10m, how about 1-4m?
If the switch is in a low position on the wall, how are we going to protect the children?
Should I get the electrical wire (black) at the shop or from the SFPC?
If I provide all necessary electrical facilities by myself, why does this not affect the estimation of 140,000/?
Who will responsible for connecting/supplying electricity to/in the mosques?
If SFPC builds HT near my house, what procedures will be taken?
What is the cost when a house is cut off from supply?
We ask for explanations concerning payment from SFPC staff in the village. Is it necessary to pay to the SFPC or do they come to our village?
Will there be any loans from the SFPC for poor people?
Are all bills under the responsibility of the company?

8 MINUNGWINI

When will electricity reach Kuuyu Minungwini?
When do we fill in the contact form?
What am I going to do if the bill is based on five hours' use only?
If there is a problem with my bill, who should I go and see at SFPC's office?
If I am situated far from the electricity poles, what will SFPC do to ensure that I would benefit from electricity?

9 OLE M-BUYUNI

Only rich people who have the ability to pay 140,000/= will benefit from electricity. How about the poor ones?
Why have poles only been established in M-Buyuni village?

Will there be any reduction in payment for a customer who has already completed the fitting?
Why might there be an increase in payment from 140,000/= to 250,000/=?
Is it necessary that the person who does the electrical wiring is employed by SFPC?
What will SFPC will do for Uhanga people to benefit from electricity?
Is it possible to help your neighbour join electricity for ceremonies or funerals?

10 KIUNGONI

Who is responsible for paying the bill of the mosque?
How is SFPC going to help people in areas where electricity has not reached ?
If the customer's meter has been stolen what measures are to be taken?
How can a person join electricity temporary (what procedures)?
Will there be any loans for the customers?
If an electric shock happens what are we going to do?
If a person takes electricity from far away will there be any help from SFPC?

11 SHUMBA MJINI

Will SFPC reduce some of the costs for the new customers?
If the meter is stolen, what will SFPC do?
Why is it important that the customer reports what kind of appliances he/she intends to obtain in his/her house?
If a black wire passing above a customer's house causes destruction, what will SFPC do?
Is there any reduction in costs for customers who become connected at an early stage?
If a customer introduces new/more appliances in his house, what should he do?
Will all customers pay 140,000/=?
Must wire connectors be bought directly from SFPC?
Is it possible for a house to have two meters?
When will Shumba vyamboni villagers receive electricity?
When will we receive feed back on our questions and who will provide it?

12 UWANDANI

Who is the best person suited for doing the fitting inside?
Will there be any loans for poor people?
Where could we see the persons responsible for fitting?
Can an individual person buy roof poles by himself?
Is there any cost for a person who stops (consuming) electricity?
We ask SFPC to think about the cost of electricity due to our poor living conditions.

13 MAKOMBENI

Can we preserve shrimps ("duvi") in the freezer?
How far from the main line (HT) could somebody build a house?
What would the SFPC payment be if the line passed at my house?
Why is it necessary for SFPC to force it’s customer to buy tools and equipment from them?
If a bill is delayed, what should a customer do?
If I own a shop in my house, what would be the type of my bill?
What should I do if the reading of the meter is different to what is stated on my bill?
If I have a lot of lights outside my house, can I use those lights for ceremonial activities or funerals?

How could I reduce the cost to 50 units a month while I have a lot of electrical equipment in my house?
Is it fair that a customer is supposed to fix 3-5 poles without any refund from SFPC?
Does Bi Tanja understand what you are doing?
The cost of electrical bills should be reduced according to our poverty

We have an urgent need for electricity

14 MJIMBINI

Who will be responsible for payment in praying houses?
Is there any offer for rural customers?
Why is the meter's red number not recorded/read?
Why would I get a bill from SFPC even when there is no electricity?
Is there any loan available for non-benefited customer?
Who will be responsible for payment of the roofpoles?
We ask SFPC to increase the number of poles in our village and in the village nearby.
We ask SFPC to think again concerning lowering the cost of connecting houses to the grid.

15 KOJANI

What are we going to do if a shock happens in a transformer?
What is a plug ("plag")?
Who is the best person for doing the fitting?
May a fuse explode due to increased consumption?
We advise SFPC to reduce the cost because our income is very low
When are we going to get LT and electricity?
I need elaboration concerning bill (last recorded number compared to present number)
We ask SFPC to reduce the cost due to our very low income.

We advise SFPC to find a good person who can help in case of a problem (shock) in the transformer.

16 MWAMBE

We are indeed very poor, what are we going to do to get electricity?
If a person joins electricity far away from his/her home, will there be any help from the company?
What will be the cost of the form (connection rate) for the mosque?
If a customer‘s meter becomes stolen; what measure should be taken?
What should I do if my meter increases?
When do Mwambe dwellers receive electricity?
We are very poor, we advice that SFPC increase the number of electrical poles
What measures should I take to have electricity provided in my shop?

17 MICHENZANI

Are there any freezers which use little electricity, as we were told during the speeches?
What is the tariff (contracts; mikataba) for mosques?
We have been told that 140,000/= is the fee below 15m, what would the payment be in case of an increase of 15m?
If electricity does not reach a part of the village which have many dwellers in need of electricity; who will be responsible for the transmission of electricity to this part?
There are many villages in Michenzani; which one is going to receive electricity?
How many electric poles do Michenzani receive from SFPC?

18 WAMBAA

How much does it cost for a single phase application form?
How much is the price of a single unit of electricity?
If the lower price for electricity connection is 140,000 for 5-8 meter, what will be the cost when the distance increases?
If customers pay 140,000 for joining electricity what he will pay when he opens a shop?
How much support does SFPC give to a customer who wants to join the electricity?

If a customer leaves the area, what will be the cost when he returns back for reconnection of electricity supply?
What procedures should I follow to obtain my bill?
Who will be responsible for the bill in school and mosques?

19 CHAMBANI

If a person climbs a coconut tree near the electrical wire, will there be any effects?
The total amount of 140.000, does it include the meter?
Do I get the electrical wire from the SFPC?
If there is a problem with the HT line, where should we go?
Is it necessary to install roof poles at a customer's house?
Who will be responsible for putting up poles in areas where poles have not been distributed?
We request that SFPC increases the number of poles in our village
We need SFPC to look at the distribution of poles in our village so that the mosque which people across the village depend on comes nearer to the poles.

20 UKUTINI

For what reasons do they wan to make villagers reduce the usage of electricity?
Does SFPC provide any guidance for the usage of electricity for the new customer?
What will SFPC do if an over voltage occurs in a house and causes destruction of various items?
Will Phase IV help customers pay their bills?
How would a customer know it if his/her meter is destroyed?
Why doesn't SFPC establish the prepaid meter system (TUKUZA) in Pemba?
When will the people of Ukutini benefit from electricity?
If there is a shortage of electricity because of lack of petrol, will the customer still pay 1680/= per month?
We ask SFPC and the Phase IV to reduce the cost of electricity

Questions asked, Unguja

1 MAKUNDUCHI

Does SFPC give an offer to anyone who has settled his/her bill for many years?
Which shoes are not suitable to wear when you are using the cooker?
Is it allowed to use normal tariff if you start a business at home?
How many years is the project?
When will the program start and what benefit is there going to be?
Is it true that customers are not allowed to use fluorescent light?
Why should a customer mention what he is going to use in the house at the time of connection?
If the customer is living very far from the grid, how will you help him getting connected?
Why should a person not give electricity to a neighbour if this one cannot afford it?
Why is SFPC sometimes late when reading meters?
Why is it that some parts of the village will not get connection while others do? (answer: the *kamati wa maendeleo* should start making an effort to make this happen)
Will the customer be refunded when he has paid for poles/lines? (No refund, all equipment belongs to SFPC once installed.)

2 KIKUNGWI

How could we collect money for the street light?

Thanks for explaining what is the meaning of the project and what is not free.

Why do the poles pass through areas where there are no houses (LT)? (answer: village consists of clusters of houses)

What should a customer do if the power is disconnected in his house despite him paying the bill? (answer: report to the people in charge, happens sometimes)

Why is it that some parts of the village will not get connection while others do?

What should the customer do to avoid problems if living on the other side of the road from the line? (He should have poles with proper length 9 meters)

Why did Phase IV provide only 23 poles while they had promised to give 44 poles? (answer: who promised? Not Phase IV)

3 UNGUJA UKUU

What is the "estimated bills" (if the customer is not at home)

How much is the customer going to pay if he only lives 9 meters from the grid/low tension?

What is the distance from the HT to a house? (min 25 meters)

Mud houses, are they suited for electricity? (yes, provided good cement where the meter is fixed)

Why is it that some parts of the village will not get connection while others do?

Can the customers provide poles by themselves (yes).

The wire that crosses the road is not going to harm anything? What should the customer do if he bought poles himself when he want to connect electricity?

The work with the LT has gone on without Sheha knowing about it (complain). (Letter had been sent to District Officer, but he had not informed the Sheha further.)

If trees are going to be cut, will the company pay?

The distribution that has been done was not in accord with what the villagers wanted (complaint).

What does the company do if the customer wants to donate poles him/herself?

4 KITOGANI

If it is normal for the bills to be delayed in the villages, what can customers do when they want to pay it?

Should the customer buy a cut-out in the shop or from SFPC? (shop ok, in the shop it is cheap, more expensive at SFPC, sometimes SFPC does not have them either)

How could SFPC help the customer when the meter is stolen? (SFPC will compensate, it is responsible)

How does the customer know if the meter is running very fast? (have it checked by SFPC, or compare with the bill one month to the next)

May 20 houses be connected to electricity if there is only one pole? (possible)

Could project manager go again to Kitogani area to see the area which has not yet been equipped with poles? (Hija will possibly go later)

5 MUUNONI

What should SFPC pay to the customer whose house burns down due to electricity failure? (it depends, if it happened because of electricity, SFPC will pay)

How may villagers get electricity if living in an area without poles?

How can a customer make sure that he pays the minimum bill if the meter has not been read? (take the reading himself and bring to the SFPC)

What are the things which are the property of SFPC (meter, wire, cut-out, poles, transformers)

Why should the customer put the meter outside when there are thieves?

How does the customer know if the meter is running very fast?

What is the penalty if you give your neighbour electricity?

If my meter is suddenly speeding up, am I supposed to pay the extra amount? (no, then there seems to be something wrong, compensation)

What kind of system is used to get electricity for street light and organise the payment of consumption?

If electricity is passing this house, how much am I suppose to pay? (140 000)

How is SFPC going to help villagers to get the electrician to do the fitting and a good meter in order to avoid problems?

6 MUYUNI

Is it allowed for the customer to pay the workers so to avoid paying for electricity?

Mud houses, are they suited for electricity? (yes, provided good cement where the meter is fixed)

Is the connection fee the same if you live near or far away from the LT?

Is it possible for the customer to pay for a whole year in advance? (possible)

If a problem of electricity occurs, where should the customer go to get help for disconnection? (main switch)

Why does the iron use a lot of electricity?

7 MWERA KIONGONI

Why has electricity not reached Pongwe school?

Is there any possibility for electricity to reach Pongwe while poles are in some parts of the area Mwera Kiongoni? (Hija: yes)

Is it not a problem for a customer to use the same meter as his neighbour?

8 UZINI

Why should the SFPC not allow the customer to buy the meters themselves? (because they want to make sure that only updated meters are used)

How much is the customer going to pay if he only lives 9 meters from the grid/low tension?

Why is the meter reader not going to read the meter in Uzini area? (Faina did not go here, but the question was later passed on to him)

If the period between readings gets long, will the price per unit go up from 28 to 51 shillings a unit?

The whole Uzini village has erected poles, may we get some assistance for the rest of the equipment? (yes, Hija approved)

9 KIBELE

When will electricity be available in the village and also the houses? (end of the year)

Why should a customer pay as much as the minimum bill and not only, for example, for the 20 units used?

Why should the poles pass in certain other areas of Kibele only?

Why does SFPC not give a debit to those who cannot pay the full amount of connection fee? Pay back monthly afterwards?

In Tunguu there is a private connection/college, why do you not extend the line from here up to the mosque nearby?

Have no extra poles been reserved for the Kibele area? (possible to give them 4 extra poles in order to reach the dispensary)

May the SFPC allow the customer to choose the meter (tukuza or ordinary)? (No, tukuza not possible in the villages)

If the customer notices that his meter is running fast and registers the difference compared to an ordinary month, should he pay the meter reader or wait for the SFPC to come and check.

Why is the collage transformer not allowed to be used in the village when it is so near? (SFPC: considering to allow this)
What type of penalty will the SFPC give the customer for (unauthorised) reconnection?

10 UPENJA

How would a customer know it if his neighbour was stealing electricity from him?
How can SFPC help us obtain electricity in the sectors of education and mosques? (help because price of schools and mosques get domestic tariff)
What kind of punishment does SFPC give to workers who give the customers higher bills without following the rules?
Why doesn't SFPC pay in cash the 6000 refund for meter test when there is something wrong with the meter?
Why is it that some parts of the village will not get connection while others do? (answer: the kamati wa maendeleo should start making an effort to make this happen)
Should the customer find an electrician himself or use one of SFPCs staff? (free choice)
Will the customer get connected before or after inspection?

11 KIBENI

When does the customer know that he needs to change the fitting in his house? (depends)
Does the customer provide the wire for connection himself or does he obtain this through SFPC?

12 KINYASINI (KIONGONI)

What may cause the customer's bill to get too high, i.e. as a mistake?
How does the customer know if his bill is correct or not?
Are there any other means to cut off the current, apart from using the main switch, if there is a problem?
If there is a problem with the fuse, who is responsible for replacing it; the customer or the SFPC? (SFPC)
If the customer has a shop connected to his house, and the shop is closed, may he use electricity for domestic purposes instead? (yes, and get domestic tariff. If shop and domestic use simultaneously; use two meters)
What is the distance from the LT when the customer pays 140 000 (5-8-10 meters)
Does the SFPC provide meters or does the customer provide this himself?
Why does the meter become the property of the SFPC when the customer has paid for it? (SFPC is responsible for replacing the meter if any problem happens)
If there is a problem with the meter, does SFPC refund the expenses?
What is the price from one pole to the next, i.e. pole + wiring (should ask the surveyor who will give a price, depends on 3 phase or 1 phase, depend on the customer's uses; if machines: 3 phase, domestic only 1 phase)
Is the LT possible to use for motors?

13 MUANGE

Why is it that poles are placed in some places in Muange and not in other places?
If the customers have poles but need other equipment like wires, will they get support for this? (Hija: yes, we will help)
Does the project give compensation when people loose their trees because of electricity?
If a person uses an electric cooker, what can she do to avoid getting the appliance in touch with water? (jag to fill water, not put the *dishi* in water)
Is it possible to get Tukuza meters in the villages?
If the grid passes on the property of a customer who is not connected and there is a problem caused by electricity; will the owner of the house get compensation? (yes)

When will electricity reach Muange?

Who is responsible for replacing a meter if the meter gets stolen? (SFPC)

How do we get in touch with a surveyor if we want extra poles and wires? (go to SFPC or the office Phase IV)

14 PWANI MCHANGANI

After phase IV has completed its work in some parts of Pwani Mchangani who will complete the remaining parts?

How many categories of customers does SFPC have?

How may SFPC help one particular village where the residents have already put up electricity (covered expenses themselves)?

Why does SFPC keep a minimum bills rate instead of allowing people to pay the units used for, e.g 20 units in that particular month?

Why doesn't SFPC give a three-month offer to customers who have an unusually high amount of costs in putting up service lines to their houses?

Why did Pwani Mchangani customers receive a big bill while their transformer was out of order within a period of one week?

We worry that estimated bills are still practiced by SFPC because we received a big bill at school during that week of break down.

Why doesn't SFPC allow customers to give electricity to their neighbours?

15 MATEMWE

Is it possible to use a hot dish for boiling water (on a cooking plate)?

When a problem of electricity occurs, what kind of precautions should the customer take?

Is it possible for the customer to transfer electricity equipment from one of his houses to another house (e.g. meter)?

Does SFPC give a debit to those who cannot pay the full connection fee?

Why does the customer properties e.g. meter become the property of the S.F.P.C when the customer has paid for it?

What should people do to bring electricity nearby their village?

Why may the bill become high when the customer expects it to be on a minimum charge level?

How can a customer know whether his meter is running slowly or fast?

16 UZI

Who will be responsible of installation of L/T supply in UZI?

How much does one unit cost?

Why do all materials bought for the service line by the customer himself become the property of SFPC?

How long will it take to put electricity in UZI?

Which type of meters will be used in Uzi (Pre-paid or convection)?

17 MICHAMVI

What is the distance from H/T to a house?

How does the customer know when a problem appears in his electricity properties?

Does a new customer need to compensate his neighbour who had electricity before?

Why are poles placed in some parts of Michamvi and not in other?

Why doesn't SFPC install Tukuza meters in Michamvi to avoid meter thefts?

When there is something wrong with the meter, does SFPC refund money to the paying customer?

Why doesn’t S.F.P.C pay in cash the 6000 refund for meter test when there is something wrong with the meter?

Is a customer allowed to connect electricity to his or her extended kitchen outside his/her house?
Will SFPC reduce the connection fee for customers who have made donations for the service?
Why doesn't SFPC give a debit to those who cannot pay the full amount of connection fee?

18 UKONGORONI

If water falls on an electric cooker in use, is there any danger?
If a customer uses a low voltage bulb is he going to receive a small bill?
Who is going to pay for a stolen meter?
If something wrong happens to the service line, who is going to pay for the repair charges?
Is a customer allowed to pass his service line through a neighbouring house?
If a service line requires a pole, who is supposed to pay for it? (S.F.P.C or customer?)
Does allow customers to use electricity by showing TV programs away from his house (Temporary supply)

19 MCHANGANI

Can you use a big cooking pot on a cooker?
Why do electricity bills vary?
How long do electric appliances take before they get bad?
In case of a problem in the house, which item should be used to switch off power?
Does SFPC supply meter and circuit breaker to the customers?
Will SFPC compensate a customer in case of burning of properties due to voltage problem?
If meter theft happens, who is supposed to pay for the loss?
Why is it that a house located under the H/T line cannot be connected to power supply?
Can SFPC grant a loan to a new customer?
Is there any special kind of meter board?
If somebody wants to obtain supply, will SFPC charge them for pole or wires?
How much does SFPC charge for one pole?
Why does the distribution of poles not cover the whole village?
What is pre-paid meter and conventional meter?
Request: Mchangani villagers ask SFPC to donate poles so that power can be brought to their mosque.
Who is supposed to pay for connection/supply to mosque, school, hospital and water pumps?
What kind of precautions does SFPC make so that a customer doesn't pay to the wrong person?

Appendix 5 Agenda for village meetings

INFORMATION PROJECT
ZANZIBAR RURAL ELECTRIFICATION, PHASE IV

Agenda for village meetings, June – August 2005

1. Material: Flip over (some sheets pre-written, some possible to use ad hoc), pens. Posters showing the grid/maps of Unguja/Pemba and example of a bill. Demonstration table, electrical appliances, generator and other equipment.
2. Each team member: note-book (for remembering what to say, good to keep it in clue words and not to "read" the text).
3. One secretary in each group responsible for taking notes. Use the form for such purposes.
4. Distribute two pamphlets in each village (to Sheha/Development Committee).

During the meetings it is important that people feel invited to ask questions. Try to make the atmosphere as "free" as possible. After the general session men and women should be split into different groups to stimulate discussions of a more informal kind (women are often in hurry and inviting them to watch the demonstration first might encourage them to ask questions).

1) Introduction (Team leader)

(FLIP OVER 1)

Why we are here, what we want to inform you about. Explain the objectives of Phase IV and what is included (and what is not!). You probably know a lot of what electricity can be used for. We wish to demonstrate some common appliances and explain how they work, how much they cost and so on. We also find it important to explain how the electricity system functions and what it implies to become a customer. Since your village is about to become electrified we think this is a good opportunity to tell you a little bit about the possibilities and commitments electricity bring. Please feel free to ask questions. And don't hesitate to contact us afterwards. Our names are in the back of the pamphlet. Present the team.

2) Facts about the plans for electrification of the village

When is electricity coming to the village and where is the gear planned to be put up?

Transformers
Water pumps
Dispensary (light, cooling)
Schools (light, fans)?
Mosques? Street lights?

Who pays for the use of electricity for collective purposes?
Tell what is paid by the government and what must be covered by each institution.
Water, dispensary: Government pays. Schools/nursery schools, mosques etc: the village has to pay.
What have you planned so far? **(FLIP-OVER 2)**

Does the village have a person in charge of organising the work?
If not, it could be an idea to ask one person to coordinate communication with us.

Institutions which have to cover the expenses for electricity themselves should start planning how to do this. (Come back to this in the end)

3) How can electricity be used in ordinary households? (Phase IV female member of team)
(FLIP OVER 3)
Many of the items will later be demonstrated outside. The women are invited to have a look (and a try) first and the men afterwards.

- Light: easy, clean (no smoke), good atmosphere. Possibilities for reading and working after darkness. Substitutes kerosene. In use: cheaper than kerosene (but the cost of the service line is high, we return to this). Bulbs are used by some for chicken breeding; to keep the young animals warm at night.
- Fluorescent light: to purchase, this is more costly than an ordinary bulb. However, in use it is less expensive and brings less heat to the room. Gives a brighter light/environment.
- Radios: can be used by the use of a cable (substitutes batteries).
- TV sets. Requires antenna.
- Freezers/fridges: Used for storing fish and other types of food, to make ice cubes (*malai*) for business and cooling water. Some freezers are made for making ice and others not. (In Eastern Unguja, a *friza* is taken to be the appliance lying horizontally while a *friji* is standing vertically, independent on their capacity to produce ice).
- Fans: Some people keep these by their beds during the hot season. The more a house becomes concealed (to protect equipment from rain, for instance), the hotter it becomes inside. As mentioned, ordinary bulbs contribute with heat in the room.
- Irons (replacing irons used with coal)
- Blenders: for grinding rice, juice, etc (replacing many functions of the traditional mortars)
- Water kettles: boiling water.
- Electric cookers: boiling water, preparing soups (*mchuzi*), beans etc. Advantage: quicker than firewood and can cook different things at the same time. Taste: open for discussion!
- There are different types: the coil element (*ringi*) and the 1- and 2-plate cooker. Disadvantage coil element (ringi): cannot regulate the temperature. Plati moja/plati mbili: easy to regulate. (Say more about possible dangers with electricity and cookers afterwards.)

Many other machines work with electricity. Re-charging of cellular phones is a business idea.

4) The costs of purchasing and using various appliances
(FLIP OVER 4)

Item/appliance	Cost of purchasing (TSH)	How much el they use	Expensive or cheap in "normal" use
Bulb	250/-	60W, 80W, 100W	Expensive
Fluorescent	2,000/- , 3,800/-	7W, 11W, 20W, 40W	Cheap
Radio	1,000/- and upwards	16W	Cheap
Tape recorder	15,000/-	70W	Moderate
Tape recorder	150,000/- 380,000/-	300W	Expensive
TV	180,000/- 250,000/-	35W	Cheap
Video	50,000/- 100,000/-	50W	Cheap
Antenna	16,000/-		
Freezer (small)	80,000/- 240,000/-	110W	Expensive
Freezer (medium size)	120,000/- 350,000/-	500W	Expensive
Freezer (big)	200,000/- 500,000/-	1500W	Expensive
Fan	20,000/- , 40,000/-	150W	Moderate
Iron	7,000/-, 11,000/-	1000W	Moderate
Water kettle	10,000/-, 15,000/-	1400W	Expensive
Cooker – coil element	10,000/-	1500W	Expensive
Cooker – 1 or 2 plates	70,000/-	1500 – 2500W	Expensive
Blender	42,000/-	450W	Moderate
Sewing machine	75,000/-	300W	Moderate
Air condition	200,000/- 400,000/-	1,500W – 3,000W	Expensive

We see that the Watt-size (power) is linked with how expensive the item is in use. But note that the amount of time each appliance is used also determines the cost.

(FLIP-OVER 5)
Example 1) One bulb (**60 W)** burning for 5 hours every day during a month: 60W x 5h x 30days = 9 kWh (units)
Example 2) One fluorescent light (**7 W)** burning for 5 hours every day during a month: 7W x 5h x 30days= 1 unit
Example 3) A freezer (**1500W**) running for 5 hours every day during a month: 1500W x 5h x 30days = 225 units

Price one unit TSH 28/= (units and tariffs to be more thoroughly explained later)

It might be worth considering the time saved on using appliances such as cookers. Cooking by electricity also has the environmental benefit that fewer trees would have to be cut down. If a woman has a possibility for earning money, she might find it economically profiting to spend less time collecting firewood and cooking with fire. In some villages, women have seen such an opportunity and now share the electricity bill with their husband. (Introduce female member of the team (preferably from village) with experiences with electric cooking.)

5) Is electricity an issue that concerns only men? (female member of the team answers and explains)
No of course, women become customers and users of electricity too. But in Zanzibar, houses most commonly belong to men. And therefore it has become common that the man is in charge of the connection, decides what appliances to obtain and also that he pays the bill. However, recently,

some village women, who have a relatively good income, decided that they want to buy electric cookers. Cookers use quite a lot of electricity and they are very different from radios in this respect. What would their husbands say to the increases in electricity bills? What these women suggested for their husbands was to split the bill in two so that both would contribute with payment. They also learned how to regulate their usage so that it would not be too expensive. They continue to use firewood, but when they are in a hurry, they boil water for tea or soup on these cookers. One of these women said that it is easier to regulate the heat on the plate type compared to firewood. The coil element by contrast, only has full power or none, and is therefore difficult to regulate. We shall demonstrate both types afterwards.
Many people say, however, that electricity is dangerous. Is it?

6) Is electricity dangerous?
(FLIP-OVER 6)
Yes and no: If installation is done properly and the equipment is good, there should be no problems using the various appliances. Important: do not put fingers or other items inside the contact in the wall. This is a bit like the fireplace: make sure the children do not touch these parts on the inside. What can happen? Electric shock; not pleasant but is in most cases not fatal.

Electric parts are covered with insulation to ensure that nothing comes in touch with the current running inside. It is recommended to keep an eye to various parts (plugs, wires etc) to check that they are in a good shape. Things that become torn or broken should be replaced. For high voltage lines and transformers: these must never be touched. This may have fatal consequences. Children must never climb on top of transformers and nobody should come near this or high voltage lines.

Many people think that lamps, fans, TVs, radios etc are not dangerous to use - but they fear the cooker. If the contact and the other parts of the appliance are in order, cookers are not dangerous. Some women make the following precautions:

- Use wooden spoons for stirring
- Wear shoes made of rubber

We advice that the cooker is placed on a table and out of reach to small children.

WHAT IS MOST IMPORTANT IS THAT THE CONTACT OF COOKERS OR ANY ELECTRIC APPLIANCE DOES NOT COME IN TOUCH WITH WATER.

Electrical equipment do not like water. The risk is that various parts become broken, produce short circuits, shocks or fire. This is why electricity should only be installed in houses that are properly concealed. Palm roof is not recommended. Nicely maintained iron sheets (*mabati*) and tiles are the best suited kinds of roofs.

7) How do you obtain electricity in your house?
(FLIP OVER 7)

- Get in touch with SFPC, fill in the form “New customer registration” (Form:01) to order electricity. Pay a fee of 8000 TSH for a one-phase connection, 12 000 if you need a three-

phase connection. You will be asked to state what you intend to use electricity for. IT IS IMPORTANT that you carefully consider this question. If you say you only want to use light and radio/TV but later decide to buy a freezer, you might experience problems. This is so because the equipment will not be dimensioned properly. With bulbs and radio/TV only, you need not more than a 10 Amps fuse. But if you are going to use heavy appliances like a freezer or iron, it is necessary to obtain fuses of 15 Amps or even bigger. Cookers need fuses of 30 Amps. One person who had not informed SFPC about her freezer ended up paying much more than needed because the meter became out of order. With a meter and fuse dimensioned for 15 Amps she would not have been in this kind of trouble. This also means that if you start with light and radio/TV and later decide to add a freezer or cooker, you should report your request to SFPC.

- A person (surveyor) from SFPC comes to check the house, distances etc. The costs depend on the distance from your house to the existing grid.
- SFPC offers a meter, the tee of (connection to the grid) and the labour for a minimum of 140 000 TSH but longer distances may make the sum larger. You also need wire, cut out and main switch. In sum, the total cost of the service line is from 180 000 – 250 000 TSH. In addition, you need to have the fitting done (inside your house).
- SFPC will check the fitting inside before connection.
- Switch on the light, enjoy… and pay the monthly bill.

8) How is electricity consumption measured?

(Demonstrate the meter, fuse and main switch; bring in the board with these items fixed onto it).

Consumption is measured in units (*uniti*). When the usage of electricity is high you will see the wheel going around quickly. If you do not use anything, the wheel will stop. A freezer uses ("eats") many units. A bulb uses few units if turned off at daytime, in rooms that are not in use and after going to bed. It is good to know how much one has used by checking this figure regularly (for instance, by keeping a written record).

HOW DO YOU READ YOUR METER?

(FLIP OVER 8)

Example:

The meter reader comes to read your meter on the **22 06-2005** and registers the following number:

0	**7**	***3***	***5***	**1**	*5*
10, 000	1,000	100	10	1	0,1 (written in red)

The reading is **7351 units**. The last digit (5), which is in red or placed below the figure 1\10 or 0.1, is irrelevant.

Then the meter reader comes again on the **21 07-2005** to read your meter and registers the following number

0	**7**	***3***	**9**	**1**	*2*
10, 000	1,000	100	10	1	0,1 (written in red)

The new reading is **7391 units**.

Your consumption of units from the 22\06-2005 and up to 21\07-2005 is:

7391
\- 7351
= 40 units

SFPC is coming every month to read consumption. By learning how to read the meter, you may check for yourself that the reading is correct. As long as the number of units is under 50 units per month, one pays the same amount of money. This is called the minimum bill tariff, the charge used by most people in rural areas. The minimum bill will be explained further later.

The meter should be placed outside the entrance on a suited spot. It must be shielded from rain. One of the advantages of having it outside is that you do not have to be at home or have the door unlocked when the meter reader comes. If the door is locked you will not receive a bill that month. Thus the second advantage is that you will get one small bill every month instead of accumulating a large debt. Thirdly, you do not have to receive visitors from SFPC inside your home. The disadvantage of having meters outside is said to be that some might want to steal the meter, fuse or switch, but this is not a problem in other, electrified villages.

9) How do you pay for your use of electricity?
(FLIP-OVER 9A: Tariffs)
Once a month, after the meter reader has checked every meter in the village, he or she will bring you the bill. If you are not at home, he might give it to a neighbour or one of your children. For your own sake it is important that you receive the bill in time for payment. If not (or if you have a meter inside and nobody was at home at the time of the reading), your debt will increase/be the double the next month. Paying in due time also simplifies your own control of consumption and that the charging is correct.

Payment is either done at SFPC's closest office or they come to your village to collect the money. If you are in doubt or have any kind of question related to electricity, this is a good time to ask for advice. The dates for payment are always announced on the radio some days ahead. You will receive a receipt which is good to keep until you get the next bill. Here you can check that the registered amount is identical to what you paid.

Most domestic customers are charged according to the MINIMUM BILL SYSTEM and this is important to understand. As long as you use less than 50 units in 30 days you will be charged the same amount no matter how much you actually use. Since one unit is 28 TSH for the time being, the minimum bill is 28 x 50=1400 shillings. In addition comes 20% VAT, thus 1680 in total per month. **(FLIP-OVER 9B).**

To understand the bill properly, it is important to know that the reference for calculating the minimum bill is 30 DAYS. So if the meter reader is delayed and the number of days since the last recording is 40 days, the minimum bill will become higher (2240 shillings). It does NOT imply that you have been using more than earlier or that you are wrongly charged. The way to calculate the minimum bill is

$\frac{\text{Number of days since last reading}}{30}$ x **1680** = minimum bill this month (including VAT)

(SHOW THE POSTER OF A TYPICAL BILL AND EXPLAIN EACH PART)

Comparison of expenses, electricity versus conventional lighting and radio use:
(FLIP-OVER 9c)

Example:

Kerosene for lighting (4 lamps):	3000 a month
Batteries for radio:	2000
SUM:	5000
Electricity bill (light and radio):	1680
Difference per month:	3320 is what you "save" by using electricity.

After 12 months you "save" 12 x 3320 = 39 840 TSH by using electricity.

However, to make the calculation proper, we have to include the costs of the service line and the fitting. Assuming that service line costs 220 000 and fitting costs 140 000 (in the case of 10 lamps), we have the following calculation:

$\frac{\text{Service line + fitting cost}}{\text{Amount saved per year}} = \frac{220\,000 + 140\,000}{39\,840} =$ 9 years payback time

This means that after 9 years you will start saving 39 840 TSH in real terms per year by using electricity. In addition, there are of course the expenses for appliances, which have not been included in the calculation.

When you consider installing electricity in your house, try to figure out how much you spend on kerosene and batteries each month. Then, by following the example provided, you can start calculating the cost of electricity compared to other energy sources.

In sum, electricity can make you save some expenses but also produces others. If you see possibilities for making money by the use of electricity, this is of course a benefit.

IT IS IMPORTANT TO REMEMBER THAT THE COSTS FOR ELECTRICITY ARE NOT PAID ONCE AND FOR ALL WHEN THE WORKS ARE DONE AND THE LIGHTS ARE TURNED ON. YOU WILL BE ASKED TO PAY FOR WHAT YOU HAVE USED EVERY MONTH.

10) What to do if you are not able to pay the bill?

Some customers have problems paying their bill. But even if you stop using electricity you will still be charged the minimum tariff if you do not inform the company. It could also be that you are moving somewhere for a period of time and closing the house. SFPC will continue to charge you

every month! But there is something you can do. You can go and see the closest SFPC office (bring your meter number with you) and ask them to temporarily cut off your supply. Fill in the form "Disconnection/reconnection" (Form 2). If you settle your whole debt at this point there are no fees to pay. When you are ready to become reconnected, contact SFPC again.

Customers who accumulate a large debt and are unable to pay what they have used will be cut off from supply. SFPC depends on getting a regular income to be able to provide other customers with their services. To get reconnected, you will have to pay a fee of 7 200 TSH. If you settle your debt in full, however, you are not supposed to pay anything.

If you for some reason have obtained a large debt, there is a possibility to sign a contract (*mkataba*) with SFPC (FORM: CONTRACT AGREEMENT FOR OUTSTANDING DEBT). Here, you agree with the company that in addition to paying the ordinary amount, you will also pay back a certain proportion of your debt every month. For obtaining this contract you have to pay 6 000 TSH and half of your debt.

According to SFPC's regulation, each house should have its own meter, main switch, fuse and cut out. It is not accepted to connect two houses to one another. The penalty for connections of this type is 60 000 TSH. And worse, if a customer is caught stealing (bypassing meter), the fine is 120 000. We hope you agree with us that these kinds of illegal connections have negative consequences not only for the SFPC itself. Ultimately, it will be the paying customers who will have to cover for their neighbours who steal. This is so because the charges for all will have to be raised to cover the costs of the company. If you discover that somebody is stealing electricity, SFPC will pay you 10 000 TSH as a gratitude. We request every new customer to follow our prescriptions. In return, we wish to provide our customers with the best service possible.

What we would like to stress today is that electricity brings a lot of advantages. But it is also a strong commitment to become a customer. What is quite extraordinary with electricity is that you use it first, and then pay for it. This is not what we do when we buy a kilo of rice or a new kanga. With electricity you are continuously in debt. So in order to avoid problems it is important to think through the consequences in advance. Can I handle to pay 1680 every month? What happens to my electricity consumption if I obtain a freezer?

11) What to do if you discover that something is wrong with the meter or the bill?

If your bill seems wrong or the meter appears to be working badly, ask the meter reader for his opinion. If you still think there is something wrong, go to the head office. Here, you may ask to have the meter checked. You will have to pay 6000 TSH. An employee will come to check the meter. If it is in disorder, you will obtain a new meter and have the 6000 refunded. If there is nothing wrong, you do not get the money back.

We would like to stress that the more you understand the billing system, the better you will be able to control that everything is in order. If you want to contact staff in town, please do so. We have included information of how to get in touch with us in the information pamphlet.

12) Open discussion of where to go from here

- **Does the village have other needs for electricity than what has already being planned? What are the experiences from other villages?**
  Team members from rural areas explain. Team A: Makame explains how the works and administration of street lights is organised and shares his experiences from the time the village was electrified. Other examples: mosques, schools, nursery schools, branch offices. How have they obtained electricity and how do they manage to pay the bills.
- **How can electricity contribute to further development in this village?**
- **How may you as a village start planning for electricity to obtain this in people's homes as quickly and an efficient way?**
- **Questions and comments**
- **How and where to get in touch with us**

13) Demonstration of appliances

REGISTRATION FORM USED IN THE VILLAGES – English translation

TEAM …… (A: Unguja, B: Pemba)

Kijiji/Village……. Sheha/Name village leader……..... Simu/Tel no.....

Anuani/Address ……..…...….

Tarehe/Date……. Tangu saa/From hrs …….. To hrs ……...….

Mahudhurio/Attendence: Wanawake/Women ……. Wanaume/Men……..…

Maswali yalioulizwa/Questions asked:

1. ……

2. ……

3. ……

4. ……

5. ……

6. ……

Majibu ya Maswala/Our answers to the questions

1. Ok ……

2. Inahitaji ufatiliaji/Need follow-up …… Swali No./Question nos.……..…

Utekelezaji umefanikiwa/Meeting program fulfilled…….
Maonyesho yamefanikiwa/Demonstration fulfilled…..…

AFTER THE MEETING:
Utekelezaji wa masuala yaliokuwa yanahitaji ufatiliaji ……..…..
Have the questions to follow up been solved satisfactorily?

Tarehe/Date ……. Mtendaji/Persom in charge……

Appendix 6 Final report from information teams

FINAL INFORMATION PROJECT REPORT AUGUST 2005

INTRODUCTION:

On 23rd May 2005 we welcomed the Project trainer Mrs. Tanja thereafter we initiated our working teams which would work on the Rural Electrification Project (ie giving people guidance to villagers and answering their many questions on how to use electricity in villages) the team included SFPC staffs and four villagers, two villagers from Uroa in Unguja Island and two villagers from Pujini and Ole in Pemba Island, respectively.

IMPLEMENTATION

The training instructions on how to use electricity in the village were delivered to 19 villages and 21 villages of Unguja and Pemba Island respectively.
The following equipments were used to facilitate training:-

- **KWh – meter**
  Villagers were instructed on how the meter works, how it records/read the electricity consumption and what to do in case of problems associated with the meter.

- **Mainswitch**
  Villagers were instructed to rush to the mainswitch and switch it off incase of emergency ie when electricity shock happened in their houses.

- **Bulb/fluorescent**
  The villagers were instructed on how bulb/fluorescent work and their differences in electricity consumption

  WELLCOME, ELECTRICITY!

- **Electric Iron, Blender, T.V cooker and other equipment**

  The villagers were instructed on how the above equipments works including the power and usage in electric consumption.

  Together with this training to the villagers, the film maker from Norway Mr. Terje was together with the teams within two weeks time.

- **SUCCESSES.**
  The information Project has been well succeeded at large, the clear and evidence is about the several questions that have been asked by each village about the connection and uses of electric power.
  Not only the question but also good attendance/response of the villagers attending to the meeting.

  The schedule of visiting different areas/villages and the attendance have been attached at the end of this report.

- **RECCOMENDATION.**
  According to the big achievement obtained, we shall request the SFPC through REPP (4) there will be follow up visit as schedule attached to the end of this report.

  Follow up visit will be 8 villages for Unguja Island and 9 villages for Pemba Island which evaluate the number of customer connect electricity and equipment used to their houses.

  Also we shall aspect our trainer Mrs. Tanja to be together for one week because of expection of gaining new knowledge from her.

  It is better for SFPC to continue with the project in order to Educate villagers and even electric users in generally for the better consumers and the corporation in general.

  Lastly to make sure the SFPC provides plently of electrical equipments of service line, such as electric poles, KWH meter, cut outs, wires, connectors, etc.

CONCLUSION.

We would like to thank SFPC management through REPP 4 giving us opportunity to participate in the project.

We would like to also extend our sincerely and special thanks to Mrs. Tanja for her efforts and initiatives which have lead to success of the project, also extended

thanks to all who in one way or the other participated in the accomplishment of the project, to mention are Shehas administrators, SFPC staffs, villagers and other.

Lastly we would like request the REPP4 to consider and incorporate all that we have explained earlier and take proper measures such as increasing of electric poles in various villages in Unguja and Pemba Island.

Thanks

.....	.....
ALI ABEID HAJI	ABEID S. MAKAME
TEAM LEADER UNGUJA	TEAM LEADER PEMBA

References

SFPC July 2001: “Rural electrification project, Phase IV, Project Document”

Winther, Tanja (forthcoming) “Current Styles: Introducing electricity in a Zanzibari village”. Phd dissertation submitted to the partial fulfilment of the degree Dr. Polit. in social anthropology, University of Oslo, Norway.

Winther, Tanja (2004): “Plan for information project regarding electricity use in rural Zanzibar”