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Journal of Human and Social Science Research
Vol. 3, No. 2 (2014), 67-79
webpage: http://www.oricpub.com/hssr-journal

Human and Social Science Research HSSR
ISSN: 2331-4974

Combining Ethnography and Case Study Research Designs In Studying Forestry Co-Management Approaches

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Keywords:
Ethnography
Research
Co-Management
Community Depended Forest

Received: 06-12-2014
Accepted: 07-07-2014

Abstract

The paper discusses how a combination of ethnographic and case study research designs can be appropriate in studying forestry co-management approaches and gives a step per step explanation of the methods that can be used for collecting data, ethical considerations, data analysis and selection of the interviewees in a combined ethnographic and case study research designs scenario to study forestry co-management approaches. It further shows how a researcher can take various decisions during field work when using the ethnographic and case study research designs scenarios to study forest co-management approaches in order to obtain as credible results as possible. It is concluded in the paper that a combination of ethnographic and case study research designs are suitable for studying forest co-management approaches. However, despite the widely acknowledged potential inherent in the ethnographic design, there is still hesitation in adopting and accepting ethnography as a mode of studying forest co-management approaches most properly because of the time required to study forestry co-management approaches.

INTRODUCTION

Millions of people in developing countries depend on forests, and the contribution of forest resources to their livelihoods (FAO/DFID, 2001). Co-management has been seen as a logical approach to solving resource management problems by partnership. Partnerships are often essential as local users alone struggle to manage natural resources in the complex contemporary world. Centralized management of local resources is problematic and even very centralized systems are dependent on the local level, for example, for the knowledge and skills of local users. Since many resource management systems are cross-scale, different management problems must be solved simultaneously at different levels (Carlsson & Berkes, 2005).

The study focused on the Arabuko-Sokoke Forest Reserve (ASFR) co-management in Kenya. The ASFR is surrounded by 50 villages with a population of about 104,000 people. It is the only forest in Kenya where the management has invited three partners to jointly manage the forest together with the communities. The implementation of the co-management approach has been taking place at the ASFR for nearly two decades, thus, the effect of the co-management approach on livelihoods are expected to have had sufficient time to be clearly evident.

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The inclusion of a set of villages that have not been part of the co-management arrangement in the study was expected to make its impacts discernible.

Ethnography and case study designs were adopted to enable the study to document the ASFR co-management in its richness and complexity. Data were collected from three communities piloting co-management in Kilifi district, Dida sub-location, and four non-piloting communities in Malindi district, Mongotini sub-location in Kenya. Before field work, the literature was reviewed and a modified sustainable framework was formulated to guide in providing indicators for formulating instruments for data collection and analysis. Primary data were gathered through participant observations, semi-structured interviews and detailed case studies, and secondary data were gathered through the review of documents. After the field work all the voice recorded data were transcribed and analyzed manually.

The paper discusses the reasons for choosing ethnographic and case study research designs in studying ASFR co-management approach, methods used for collecting data, ethical considerations, data analysis and selection of the interviewees, and explains why various methods had to be adopted during the field work.

COMBINING ETHNOGRAPHY AND CASE STUDY RESEARCH DESIGNS IN STUDYING FORESTRY CO-MANAGEMENT APPROACHES

The study employed a combination of ethnographic and case study research design. Ethnography usually involves the researcher participating, overtly or covertly in people's daily lives for an extended period of time watching what happens listening to what is said and/or asking questions through informal and formal interviews (Hammersley & Atkinson, 2007). The key features of an ethnographic study include: (1) focusing on the meanings people give to their cultural world;(2) taking an holistic attitude towards culture; (3) using the researcher as a data collection instrument participating in cultural activities; (4) a concentration on interaction, observation and speech; (5) searching for rich points; (6) a description of systems; and (7) lengthy periods spent in the field (Maggs-Rapport, 2001).The decision to use ethnographic design is strongly influenced by the characteristics of the population, the condition of the research setting and what the researcher needs to know (LeCompte & Schensul, 1999b).

A number of reasons led to the selection of ethnographic design for the study: (1) the ASFR co-management arrangement involves a number of sectors and complexities; (2) the study wanted to elicit information from the communities depended on the ASFR resources for their livelihoods in their own cultural context; and (3) the intension was to fully document the co-management institutional arrangement of ASFR and then understand whether these institutions have contributed to the livelihood outcomes of the forest-dependent communities (see LeCompte & Schensul, 1999b).

Notwithstanding the fact that ethnography was adopted in the study, it has some limitations. Ethnographic research takes time and is, therefore, relatively expensive compared to other research methods. The findings from ethnographic studies may not be readily encapsulated into a series of neat bullet points (Wllig & Stainton-Rogers, 2008). Wllig & Stainton-Rogers (2008), however, argue that the richness, diversity and complexity of human cultural life from the perspective of 'insiders' is likely to be reflected in good ethnographic research, and this can generate invaluable insights and contribution to knowledge that would not emerge using any other research method. While doing field work, I focused on understanding the culture of the residents of the study villages, participated in their activities, interacted with them, observed their daily undertakings and conversations, and linked their discussions with the common pool resources management theories.

LeCompte & Schensul (1999b) note that, early in the 20th century, ethnographers lived in a community for 2-3 years, learning aspects of community life as much as possible, but now ethnographers work for shorter periods of time in communities because, generally, they are focused on a particular aspect or dimension of culture and because it is simply no longer possible for most researchers to spend years in a single site. The latter is the approach adopted in the research and by the end of the period I felt there was little further relevant data coming forward. Unlike the lengthy field work tradition of ethnographic studies, I only took six months since the study was interested in only particular aspects of the ASFR co-management regime. I spent three months in each set of communities (piloting/non-piloting communities) by staying in one village and making it as a base to circulate among the other villages of the study communities.

In order to access information to address the research objectives, I used a case study design. Case studies enable: (1) grounding of observations about social action and social structures in a natural setting studied at close hand, and; (2) provides information from a number of sources permitting a more holistic study of complex social networks and complexes of social action and social meaning (Feagin, Orum, & Sjoberg, 1991). Case studies are as well theoretically exciting and rich in data (Cassell & Symon, 2004). The ASFR was chosen as the case study because it had sufficient size and complexity had multiple communities and had an established formal attempt at a co-management arrangement. This case seemed likely to provide useful insight into the theories and design principles of interest to this research.

Fifty villages have been identified by authorities as dependent on the forest for their livelihoods (Arabuko-Sokoke Forest Management Team, 2002). I chose to use two sets of the community case studies within the ASFR to address the research objectives. One set of cases comprised the three communities that have been involved in piloting the ASFR co-management, namely: Dida, Kahingoni and Kaftsoni. The second set of cases comprised four communities not-piloting co-management, namely: Kaliapapo A, Kaliapapo B, Shela and Mongotini). The three villages constitute the Dida sub-location in Kilifi district, and the four villages constitute the Mongotini sub-location in Malindi District.

DATA COLLECTION METHODS

When conducting research there are invariably trades-offs made between depth, breadth, reliability and robustness, and the resources available to the researcher (e.g. time, funds etc.). However, Savenye & Robinson (n.d) recommend that in order to make credible findings more likely, prolonged engagement, persistent observation, conformability and triangulation with multi-methods and various sources of data should be undertaken. Further, Benbasat et al. (1987) note that multiple data collection methods are typically employed in case study research .The goal is to obtain a rich set of data surrounding the specific research issue, as well as capturing the contextual complexity. They identify several sources of evidence that work well in case study research (ibid, p 374): (1) Documentation, which includes written material ranging from memoranda to newspaper clippings to formal reports (including archival records): organisation charts; service, personnel or financial records; (2) interviews, which may be open-ended or focused; (3) direct observation, which involves absorbing and noting details, actions, or subtleties of the field environment on unobtrusive measures and; (4) physical artefacts such as devices, outputs and tools.

However, ethnographers continue to debate whether or not ethnography includes quantitative research (LeCompte & Schensul, 1999a; Schensul & Schenslu, 1999). Many qualitative researchers consider it impossible to transform beliefs or behaviours into numbers, whereas others insist that only numerical data are amenable to so-called objective statistical analysis are scientifically valid and reliable (Schensul & Schenslu, 1999). However, LeCompte & Schensul (1999a) argue that some aspects such as income, infant

mortality rates and gross national products can be conveyed quantitatively (LeCompte & Schensul, 1999a). In the research both qualitative and quantitative data were collected using: documents, participant observation, interviews with key organizational and household informants operating in the co-management organizations, a survey of households and a small set of more detailed household interviews by including some questions that required households to give figures (e.g. the extent the co-management arrangement had improved the livelihood outcomes of the forest-dependent communities). These are described in more detail in the following sections.

Use of documents

The use of documents is a major source of data in social sciences (Sapsford & Jupp, 1996). Patton (2002) points out that documents provide the researcher with information about things that cannot otherwise be observed or about which the researcher was unaware. They may uncover events that took place before the research began and have endured across time. They can also provide evidence that confirms or supports data gathered from other sources, thus providing a key means of triangulation. The weaknesses with documents, however, are that they are snapshots of the time and context in which they were written and from the perspective of the author (s). The subtext of situations may not be represented and documents may, in fact, be quite misleading and have little bearing or information on what happened in reality, or on the major matters relevant to a given situation. If these limitations are kept in mind, however, they can provide valuable insights and information.

Documents drawn on in this research include official documents such as the Arabuko-Sokoke strategic forest management plan, the Arabuko-Sokoke forest co-management guidelines, memoranda from the organizations participating in the co-management approach and relevant reports to the study derived from libraries and files. Admission was sought from the relevant authorities before accessing the libraries and files.

Semi-structured interviews

Semi-structured interviews were chosen for all three surveys: the key informants, the general household survey and the in depth survey undertaken with a smaller set of householders. This method offers participants the opportunity to explore issues they feel are significant. The interviewer does not keep a tight rein on the interview but instead allows the interviewee, through the use of open-ended questions, to explore the subject in as much depth and from as many angles as they please (Longhurst, 2009).

Other methods, such as observation, closed questionnaires and structured interviews, do not allow for as much discovery or probing. In-depth, semi-structured interviews, however, offer interviewers and interviewees' time and space to explore issues thoroughly. The method is useful for collecting a range of opinions on a topic. Second, semi-structured, in-depth interviews were considered appropriate as they can prove particularly useful for investigating personal, sensitive, or confidential issues, which informants might find difficult to disclose and discuss in a group interview or focus group. For instance, the evaluative framework for the research required information on monitoring and graduated sanctions and their enforcement. It was anticipated that there might be some sensitivity around such issues. Such issues are difficult, if not impossible, to include in a questionnaire as they may be situation-specific or relate to things that might not be anticipated in a structured questionnaire design.

I chose to use semi-structured interviews when carrying out all interviews in order to allow the interviewees a degree of freedom to explain their thoughts and to highlight areas of particular interest and expertise that they felt they had, as well as to enable certain responses and sensitive issues to be questioned in greater

depth.

As Longhurst (2009) also notes, one of the weaknesses of semi-structured interviewing is that it tends to be very time consuming and she reports that interviews tend to last, on average, one hour (but this can vary enormously). For example, formulating a schedule of questions and/or prompts, recruiting participants, organizing times and spaces in which to conduct interviews, and transcribing and analyzing interviews all add up to many hours of additional labour. I experienced all these during the research, and the duration of the interviews varied between 30 and 90 minutes. The reasons that contributed to time variance is that some of the interviewees, were brief and to the point in answering their questions, providing little elaboration or expansion on their answers, even when probed, whereas others were quite prepared to go into more detail. There was no particular pattern in relation to these behaviours with people of the same status and from similar organisations being quite different in the way they responded. There was no attempt to 'rush through' the interviews and each interviewee was given sufficient time to respond as fully as they wished.

The semi-structured questions on the households, detailed household case studies and key informants contained both closed and open-ended questions that were designed before going to the field. The design of the questions was informed by extensive reading of materials on the study subject area and linking this to the theoretical framework intended for data analysis.

Consequently the questionnaires were thematic in nature. For instance, all the questions that were used to interview households on institutional arrangements were grouped together. The same was done to those questions that sought information on the evaluation of the ASFR institutional arrangements in achieving sustainable livelihoods for the forest-dependent communities. The questions were intended to follow a logical sequence to facilitate household responses. This arrangement of the questions worked well in the field as the respondents seemed at ease in answering the questions because of the connectedness of research themes. The closed questions sought to elicit factual information such as the extent the livelihood of the forest-dependent communities had increased, whereas the other questions sought more descriptive responses.

All the household interviews and detailed household case studies were conducted at the homes of the householders. Detailed household interviews were undertaken subsequent to the initial household survey. The choice of households for this more in-depth process was based on information gained in the household survey. Each household interview and each detailed household interview was conducted separately in a secluded room or open space far from other household members within the compound, to avoid being overheard and to allow them to answer the questions freely.

The key informant's semi-structured interviews were of two types. The first type was, for the heads of organizations participating in co-management and the second, for the key household informants involved in heading various sections of the co-management at community level. Interviews with heads of organizations participating in co-management were conducted following appointments in their offices whereas; interviews with key household informants were conducted, at their homes following appointments. In both cases the interviews were done in a separated place to facilitate free response to questions.

Participant observation

Although household survey and interview data were considered necessary for the reasons given above, some researchers have recommended that participant observation be used in ethnographic studies because it aims to generate practical and theoretical truths about human life grounded in realities of daily existence

(Jorgensen, 1989). For instance, the data from observations consist of detailed descriptions of people's activities, behaviours, actions, and the full range of interpersonal interactions and organizational processes that are part of observable human experience (Patton (2005).

Nevertheless, participant observation has been criticized, as a research technique even though it has been adopted in this study for data collection. Participant observation cannot be presented as a series of highly mechanical steps that when followed by anyone will result without exception in competent observational research (Jorgensen (1989). Furthermore, Tellis, (1997) has identified that participant observation is costly and time-consuming and involves selectivity (thus the researcher might miss facts). But, regardless of these criticisms, participant observation is seen as very special strategy and method of gaining access to the interior, seemingly subjective aspects of human existence (Jorgensen (1989). Further it makes it possible to check descriptions against facts while noting discrepancies and helps researchers to become aware of systematic distortions made by the participants understudy (such distortions are less likely to be discovered by interviewing alone) (Holstein & Gubrium, 2003; Sapsford & Jupp, 1996). It is also important because, irrespective of the topic or principal methods that one uses in doing social scientific studies, it enhances the quality and interpretation of the data obtained from the field, whether those data were collected through participant observation or other methods (Dewalt & Dewalt, 2002).

Thus, the reasons for adoption of participant observation research technique for this study. The relationship between the participant as an observer, people in the field setting and the larger context of human interaction, is the key component of ethnographic method. The character of field relationships heavily influences the researchers' ability to collect accurate truthful information. As a participant, the researcher must sustain access once it has been granted and maintain relationships with people in the field (Jorgensen (1989).

To gain entry into the field, I contacted the village administration, explained the nature of the research, gave them the information sheet, consent form and research permit and they granted me permission to collect data in the villages. To establish and maintain relationships with the villagers I stayed in the study area when collecting data, thus I was known by the communities' residents and was, able to interact with them freely having made friendships with them. I, therefore, took opportunities to talk with the community members to get more detailed explanations and discussions of issues that I saw or heard them talk about that could support the objectives of the study. All the information from participant observation was recorded through note taking and used to support the research objectives. I took photographs of the scenes and physical artefacts (e.g. bee hives) that had relevant information to support the research objectives. This enabled later repeat examination and provided prompts during transcription and analysis procedures.

HUMAN ETHICS

Since the methods involved interviews and participant observation certain ethical issues needed to be addressed. All researchers must be concerned with preventing subjects from being harmed, protecting their anonymity and privacy and not deceiving them if at all practicable (Erlandson, Harris, Skipper, & Allen, 1993; Punch, 1994). Lincoln University were I did the study from has a nationally recognized Human Ethics Committee (LUHEC) that approved the methods used in this research. This was reflected in the field procedures followed. For instance, no one was interviewed before reading the information sheet and signing the consent form. Erlandson et al. (1993) and Punch (1994) argue that, securing participants' informed consent to the research should create trust that facilitates the current and future research. After subjecting the research instruments through LUHEC a similar process was undertaken with the National Council for

Science and Technology in Kenya, which allowed the researcher to access a permit to conduct the study in accordance with the research requirements of the Government of Kenya.

DATA ANALYSIS

Many research designs relegate analysis and interpretation to the final stages of the research process. Data are first collected and when data collection is complete analysis begins, sometimes long after the researcher has left the field or laboratory. However, ethnographers begin the analysis of data almost as soon as they enter the field site, they continue with the process of analysis, hypothesis creation and testing and interpretation throughout the process of collecting data until the final page of the report is complete (LeCompte & Schensul, 1999a). The analytical processes ethnographers use in the initial stages of field work are inscription, description and transcription. LeCompte & Schensul, (1999a) have identified the steps to follow when analyzing ethnographic data as: (1) analysis to create less data, (2) interpretation of data to figure out what the 'crunched' data means, (3) tidying up to seriously keep the researcher's house clean (this happens immediately the researcher has left the field); (4) coding the data to give codes and symbols to represent a group of similar important ideas or phenomena that the researcher has noticed in his or her research; (5) data management and analysis to organize the data until it becomes results. During field work, I listened to each voice recording to ensure that it was adequately recorded and audible enough to generate data to answer the research objectives. None of the voice recordings was defective. Immediately after the field work I again listened to all the voice recordings and transcribed them. Once the transcription process was over the precision of the transcriptions was verified by re-listening to them alongside each transcript. All the transcripts were then coded manually (1) from the first to last.

Table 1 Codes used for the various respondents

Interviewee class	Code
Households Case Study1(Communities piloting co-management)	HC1
Households Case Study 2 (Communities not piloting co-management)	HC2
Detailed Household Case Study 1 (Communities piloting co-management)	DHC1
Detailed Household Case Study 2 (Communities not piloting co-management)	DHC2
Key Household Informants	KHI
Key Organizational Informants	KOI

In the case of households piloting co-management the code was coined from *Household Case 1*(HC1), and then the numbering of each transcript was based on this code. For instance, the first transcript was labelled (HC101), the second transcript was labelled (HC102)…, the tenth transcript was labelled (HC110) …, and the last transcript in this category of interviews was labelled (HC138) because there were 38 interviewees in this category. In the households not piloting co-management, the code was coined from the *Households Case Study 2* (HC2). The procedure was then repeated in coding transcripts from households not piloting co-management. That is, the first transcript was labelled (HC201), the second (HC202)… and the last transcript (HC241) because there were 41 interviewees in this category. The coding was undertaken to differentiate interviews between piloting and non-piloting communities' responses to various questions and for keeping the anonymity of the research participants.

This procedure was also used in the detailed household interviews in the piloting communities (*Detailed Household Case Study 1-DHC101, DHC102….etc.*); and detailed household interviews in non-piloting communities (*Detailed Household Case Study 2-DHC201, DHC202...etc.*). In the case of the key household and organizational informants' interviews, as only one set of interviews was done in each group there was

no need to follow a similar process. Each quote used in the study was accompanied by the code of the transcript it came from (Box 1). For instance, a quote with code (KHI02) came from *Key Household Informant* transcript number 2; a quote with code (KOI01) its quote came from *Key Organizational Informant* transcript 1, etc. (Box 1).

Box 1 An illustration of how the transcripts and quotes were coded for the study
Households Case Study1 (Communities piloting co-management) (HC101):
M: Do you have to obtain a permit to access each of the resources you use from the forest? If 'yes', how? If 'not', why not?
A: Yes, for example like us who rear the butterflies, if you want a product or the butterflies, from the forest, there are cards that we are issued with, so when you enter into the forest you should have all that tools, then you enter into the forest and collect what you want (HC101)
Households Case Study 2 (Communities not piloting co-management) (HC201):
M: Is there any other way that the community here participates with the other stakeholders in the management of the forest
A: No, no we haven't (M: eeh) no, we have not reached that stage, no, I cannot cheat you (HC201).
Detailed Household Case Study 1 (Communities piloting co-management) (DHC101):
M: Now, what about the butterfly farming, how long do you stay before selling them?
F: We take the butterflies at the Museum on Monday and Thursday (M: okay) (DHC101)
Detailed Household Case Study 2 (Communities not piloting co-management) (DHC201):
M: What is your main source of livelihoods?
D: I do farming, like personally here I do banana farming, but I am not the one who started it, it was started by my father, I used to work but when he died I left working and continued with the farming?(DHC201)
Key Household Informants (KHI01):
M: What quality of this product(s) are you allowed to collect from the forest?
A: The rule allows that you collect those fuel woods that have fallen down; they are not even allowed to enter with an axe into the forest, cutting a tree that is standing; you have to collect those trees that have fallen down only (KHI01).
Key Organizational Informants (KOI01):
M: So, do these rules have clearly defined boundaries on what kind of resources can be collected from this area, or that area etc.
F: Yeah, they have been zoned out, yeah the area for fuel wood (M: fuel woods) areas for poles cutting, areas for complete conservations (M: mm) those are the areas that, there is no extraction (M: mm) yeah (KOI01).

The decision to use manual coding and analysis was informed by (Webb, 1999, p. 329) who points out that:

> *I have examined experiences of different approaches of qualitative data analysis by some of my former Ph.D students. What has emerged is that the process of coding qualitative data can be immensely time consuming if there is a large volume of data and that the use of computer-assisted qualitative data analysis software (CAQDAS) can speed this up considerably. However, when the data is not large and this is probably with most Ph.D students, the additional work of data management is not necessary.*

Webb (1999) further argues that the intellectual work of actually conceptualising can only be done by the brain of the researcher. The computer may be able to help, but there is a risk of becoming so concerned with technical aspects that it interferes with the 'artistic' aspects. Further, St John & Johnson (2002) argue that researchers have expressed concern that using QDAS (Qualitative Data Analysis Software) packages may result in: a focus on quantity instead of meaning, homogenisation of qualitative data analysis approaches, a privileging of coding and retrieval methods, distancing of the researcher from the data, inappropriate use of technology, time consumed in learning to use computer packages, pressures or expectations that all qualitative researchers will use them, and increased commercialism.

For these reasons computer assisted coding and analysis methods were not used in this research. After coding, I identified the data that were directly relevant to the objectives of the study and put them together in

similar themes and meaning while considering the research objectives and questions, counted them and used the counts to assist in answering the research objectives. No QDAS was used as the data I collected were not large and I wanted to have a personal grip of the data. Cutting and pasting was used when grouping similar themes together. I then reflected on, and interpreted; these data to understand what it meant and organized it to answer the research questions. There were no new themes that emerged that were not originally conceptualized in the formation of the questionnaires as the research was about a particular aspect of the co-management. I was very careful as much as possible not to leave any information out that could assist to address the research objectives. For the research to articulate the results some qualitative information was converted into a quantitative format. For instance the number of respondents who supported a similar theme were counted, tallied and the numbers were used to support the explanations of the results (e.g. if households were asked to explain whether they were able to monitor the behaviour of users of the forest resources in the villages, those households who reported that they will monitor the behaviours were grouped together and those who reported that they will not monitor the behaviours were grouped together and then these numbers were used to support the reasons for each case).

Some of the qualitative data collected produced figures that needed to be interpreted. For instance the study wanted to evaluate the extent to which the current institutions of ASFR governance have managed to strengthen the livelihood outcomes to the poor, forest-dependent communities. The number of times households mentioned the extent a livelihood outcome had improved was counted and tallies were made.

Then similar themes were grouped together and percentages calculated. These percentages were used in the presentation of the study results by using histograms. To understand how household's livelihood assets had improved a similar process was applied. For instance, the number of times a household mentioned a theme was counted (e.g. type of livelihood asset, "goat", was counted under capital assets to see how many times it was mentioned by the interviewees and tallies were made, etc.) then similar themes were grouped together and comparisons made to understand whether the livelihood assets have improved as a result of the co-management arrangement in the piloting communities or forest related activities in the non-piloting communities.

Content analysis (see Ritchie & Lewis, 2003) was used for analysis of all the documents that were collected from the field. The approach was similar to that which was used for the transcripts of interviews, but the context in which the documents were written had to be interpreted from information available about their histories or through information provided by interviewees. Bryman, (2008) argues that documents should be examined in terms of, on the one hand, the context which they are produced, and, on the other hand, their implied readership. After accessing the documents, I examined the content of the documents contained and what it implied for the study. The reason for doing this was to ensure that the information from the documents was relevant to the objectives of the study.

SELECTION OF INTERVIEWEES

Purposeful sampling was used in choosing all the participants of this study. Purposeful sampling is considered advantageous to study subjects who have specific experiences or subjects with special expertise (Marshall, 1996b). The current research sought people with experience of and those with no experience of, co-management and also sought information from those with particular special knowledge and roles in the co-management of the ASFR.

Interviewees were initially identified on the basis of their positions in organizations involved in the co-management arrangement based on documentary evidence. They were asked if they may be able to recommend useful potential candidates for study (a form of snowball sampling (Marshall, 1996b). Care was taken in identifying potential interviewees from opposing camps, to avoid falling into the trap of only interviewing people who had similar views (to the first people interviewed).

As noted previously, two sets of case studies were selected in the ASFR. One set of cases is piloting co-management and another has not been involved in piloting co-management. The purpose for doing this was to see if there are differences in views and experience about co-management to better assess its effectiveness in the delivery of sustainable livelihood outcomes. The information for selection of the villages originated from participant observations, informal discussions with the communities and documents available on ASFR co-management. This yielded a large number of potential villages that were not in co-management that could have been chosen for survey. Following Benbasat et al., (1987, p.373) two criteria were used to decide the final set of villages: those communities were expected to have similar sustainable livelihood outcomes had co-management not been implemented, and secondly, that were expected to have different outcomes as a result of being same villages having been part of the co-management regime while the others had not.

The villages thus were therefore, from the same tribal group, had approximately similar population characteristics and similar resource base and activity relationship with the forest. A total of 109 interviewees were selected from the two sets of case studies. Despite the choice of two comparable sets of villages, from the outset it was not intended to undertake sampling based on collecting sufficient data to undertake probability statistical analysis. It was felt that the level of knowledge of the ASFR co-management arrangement and the relationship of the villages to the forest was not sufficiently understood to enable a robust survey instrument or sampling. Consequently, non-probability sampling and semi-structured interviews appeared potentially most useful. As Ritchie & Lewis, (2003) note, it is common for qualitative research to use a non-probability sample for selecting the population for study.

Patton (2005) further points out that the logic and power of purposeful sampling lies in selecting information-rich cases for study in depth. Information-rich cases are those from which one can learn a great deal about issues of central importance to the purpose of the inquiry. In a non-probability sample units are deliberately selected to reflect particular features of, or groups within, the sample population. Characteristics of the population are used as a basis for selection. Therefore, the decision to interview 109 interviewees was arrived based on the characteristic of the population under study. From each of the population identified for interview a number of interviewees were selected.

Details on how each sample size was arrived at per population thus leading to the total of 109 are well captured by the descriptions of the various population sample types used for the study. First, 38 households piloting co-management and 41 non-piloting households were selected to allow information from across the community members. The decision to stop at 38 and 41 respondents' interviewees was made by the researcher in the field after discovering that no new themes were emerging, indicating saturation of the data. Such a decision is common in qualitative research (Grady, 1998; Marshall, 1996b). Marshall (1996b) further indicates that an appropriate sample size for a qualitative study is one that adequately answers the research question (s). This point appeared to have been reached.

Nine detailed household case studies were carried out in the set of cases piloting co-management, and six detailed case studies in the set of cases not piloting co-management. The selection of these household case

studies was informed by the ability of the interviewees to give clear and detailed answers to questions asked, willingness to provide additional information in a second round and the variation of the activities in which they were involved. For instance, the households involved in the co-management, were selected based on the forest-related activities they are involved in as a source of their livelihood. For the set of the cases where the households are not involved in the co-management regime the selection was based on the activities they use to earn their livelihoods. The purpose of this kind of selection was to understand the differences in livelihood strategies and, consequently, outcomes between the households piloting co-management and those not piloting co-management. Further, the study wanted to establish the levels to which co-management institutions can deliver livelihood outcomes vis-à-vis non-co-management institutions. For those households that could not be interviewed on a first visit, appointments were made at their convenience and follow-up visits were made. All the second appointments were honoured.

A key informant is someone considered an expert source of information. The key informant technique is an ethnographic research method which was originally used in the field of cultural anthropology and is now being used more widely in other branches of social science investigation (Marshall, 1996a). Further, Marshall (1996a) argues that key informants, as a result of their personal skills, or position within a society, are able to provide more information and a deeper insight into what is going on around them. Kumar et al., (1993) explain that, researchers do not select informants to be representative of the members of a studied organization in any statistical sense. Rather, they are chosen because they are supposedly knowledgeable about the issues being researched and able and willing to communicate about them. Tremblay (1957) points out that, the key informant technique is pre-eminently suited to the gathering of the kind of qualitative and descriptive data that are difficult or time consuming to unearth through structured data gathering techniques such as a questionnaire survey.

Eight household key informants and seven key informants from the organizations operating in the co-management arrangement were interviewed for information specifically on the operation of the regime. In both the key household and key organizational informants, I selected one set of interviewees who had the knowledge about ASFR co-management and who were able to provide more information and a deeper insight into the ASFR co-management piloting communities and non-piloting communities. Individuals in both of these sets of key informant interviewees were selected during the course of the interview exercise using snowball sampling. Through conversations, the interviewees kept mentioning the names of these key informants as being more able to respond to the research question. I obtained their telephone numbers from these interviewees, called them, introduced myself to them and booked appointments. In some cases, the key organizational informants were busy at the initial appointment time and I had to re-book interviews more than once. Also, one organizational informant from a government agency declined to be interviewed, even after several attempts without giving any reason. Unfortunately, this individual had particularly significant responsibilities within the co-management projects; however, I am confident that the information gleaned from other sources has enabled an accurate picture of the arrangement and its operation to emerge.

CONCLUSION

When studying forest co-management approaches where communities depend on forests for their livelihoods, the question that one thinks about is, what design can one use to collect data to answer his or her research objectives? There is propensity in most cases for researchers going to the field and administer research instruments and collect data without interacting with the subjects understudy in order to clearly unearth the issues clearly and in detail. However, using ethnographic design in studying forest co-management approaches presents many possibilities for in-depth understandings of the population understudy where the

arrangement involves: (1) a number of sectors and complexities; (2) wants to elicit information from the communities depended on the forest resources for their livelihoods in their own cultural context and; (3) wants to fully document the co-management institutional arrangement of the forest-dependent communities.

Furthermore ethnographic studies much well with cases studies. Case studies enable, grounding of observations about social action and social structures in a natural setting studied at close hand, and it provides information from a number of sources thus permitting a more holistic study of complex social networks and complexes of social action and social meaning. They are as well theoretically exciting and rich in data.

An ethnographic design further allows the use of both qualitative and quantitative research approaches, even though many qualitative researchers consider it impossible to transform beliefs or behaviours into numbers, whereas others insist that only numerical data are amenable to so-called objective statistical analysis and are scientifically valid and reliable. However, some aspects such as income, infant mortality rates and gross national products can be conveyed quantitatively.

It is important also to understand that ethnography does not deny the importance of other designs in studying forest co-management approaches but rather it has confirmed that ethnographic research design is suitable for studying forest co-management approaches alongside other designs that the researcher should adopt. It all depends on the researchers' judgment and the situation that the researcher will find on the ground during the research process. In doing so, the researcher should be able to draw on common wisdom, instinct and reasonable understandings or emotions of the communities understudy when deciding the design to use in conducting a study.

The implication of the foregoing discussion is that ethnographic design provides a holistic way to researching forest co-management arrangements where there are several actors and the intention of the researcher is to document the complex issues emanating from the co-management arrangement because of its flexibility to blend with other study methods and it allows researchers to stay with the communities involved in the co-management approaches for some time thus learning the aspects of community life as much as possible. However, despite the widely acknowledged potential inherent in the ethnographic design, there is still hesitation in adopting and accepting it as a mode of studying forest co-management approaches most properly because of the time required to conduct forest co-management researches.

REFERENCES

[1] Arabuko-Sokoke Forest Management Team. (2002). Arabuko-Sokoke strategic forest management plan 2002-2027. Nairobi, Kenya: Kenya Forest Services.

[2] Benbasat, I., Goldstein, D., K, & Mead, M. (1987). The case research strategy in studies of information systems. MIS Quarterly, 11(3), 369-386.

[3] Bryman, A. (2008). Social research methods (3 ed.). New York: Oxford University press.

[4] Cassell, C., & Symon, G. (2004). Essentials guide to qualitative methods in organizational research London: Thousand Oaks: New Delhi: Sage Publications.

[5] Carlsson, L., & Berkes, F. (2005). Co-management: Concepts and methodological implications. Journal of Environmental Management, 75(1), 65-76.

[6] Dewalt, M. K., & Dewalt, R. D. (2002). Participant observation: A guide to field workers. Walnut Creek, Calif: Altamira Press.

[7] Erlandson, D. A., Harris, E. L., Skipper, B. L., & Allen, S. D. (1993). Doing naturalistic inquiry: A guide to methods. Newbury Park, CA: Sage.

[8] FAO/DFID. (2001). How Forests Can Reduce Poverty Retrieved 30/9/2011 from http://www.fao.org/DOCREP/006/Y2172E/Y2172E00.HTM.

[9] Feagin, J. R., Orum, A. M., & Sjoberg, G. (1991). A case for the case study: The University of North Carolina Press.
[10] Grady, P., M. (1998). Qualitative and action research: A practitioner handbook. Bloomington Indiana: Phi Delta Education Foundation.
[11] Hammersley, M., & Atkinson, P. (2007). Ethnography: Principles in practice. London; New York: Routledge: Taylor & Francis.
[12] Holstein, A., H., & Gubrium, J., F. (Eds.). (2003). Inside interviewing: New lenses, new concerns. London: Sage Publications.
[13] Jorgensen, D. L. (1989). Participant observation: A methodology for human studies. Newbury Park, CA: Sage Publications.
[14] Kumar, N., Stern, W., L., & Anderson, J., M. (1993). Conducting interorganizational research using key informants. Academy of Management Journal, 36(6), 1633-1651.
[15] LeCompte, M. D., & Schensul, J. J. (1999a). Analyzing & interpreting ethnographic data. Walnut Creek,Calif: Altamira Press.
[16] LeCompte, M. D., & Schensul, J. J. (1999b). Designing and conducting ethnographic research.Walnut Creek, Calif: Altamira Press.
[17] Longhurst, R. (2009). Interviews: In-depth, semi-structured. International Encyclopedia of Human Geography, 580-584.
[18] Maggs-Rapport, F. (2001). 'Best research practice': In pursuit of methodological rigour. Journal of Advanced Nursing, 35(3), 373-383.
[19] Patton, M. (2002). Qualitative evaluation and research methods (3rd ed.). Newbury Park: CA: Sage.
[20] Marshall, M. N. (1996a). The key informant technique. Family Practice, 13(1), 92.
[21] Marshall, M. N. (1996b). Sampling for qualitative research Family Practice 13(6), 522-525.
[22] Patton, M. (2005). Qualitative Research. Retrieved 6/8/2011 from http://dx.doi.org/10.1002/0470013192.bsa514
[23] Punch, M. (1994). Politics and ethics in qualitative research. In N.K.Denzin & Y.S. Lincoln (Eds.), Handbook of qualitative research (pp. 83-97). Thousand Oaks: CA: Sage Publication.
[24] Ritchie, J., & Lewis, J. (2003). Qualitative research practice: A guide for social sciences students and researchers. London: Sage Publications.
[25] Sapsford, R., & Jupp, V. (Eds.). (1996). Data collection and analysis. London: Sage Publications.
[26] Savenye, W., S., & Robinson, R., S. (n.d). Qualitative research issues and methods: An introduction for educational technologists. Retrieved 03/11/2012, from http://www.aect.org/edtech/39.pdf
[27] Schensul, S. L., & Schenslu, J., J. (1999). Essential ethnographic methods: Observations, interviews and questionnaires Walnut Creek, Calif: Altamira press.
[28] Tellis, W. (1997). Application of a case study methodology [81 paragraphs]. The Qualitative Report [On-line serial], 3(3).
[29] Tremblay, M. A. (1957). The key informant technique: A nonethnographic application. American Anthropologist, 59(4), 688-701.
[30] Webb, C. (1999). Analysing qualitative data: Computerised and other approaches. Journal of Advanced Nursing, 29(2), 323-330.
[31] Wllig, C., & Stainton-Rogers, W. (Eds.). (2008). The Sage handbook of qualitative research in psychology. London: Sage Publications.