The Importance of Trans-Spatial Economic and Social Networks in Household Strategies of Peasants in Rural Kenya

Master Thesis
submitted to the Faculty of Natural Sciences, University of Bern
by Karin Holdener
2007

Supervisor:
Prof. Dr. Urs Wiesmann
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Photographs: Karin Holdener; except pages 33, 38, 48 and 115: H.P. Liniger

Front cover:
Far left: Farmer in her field: peasants are the relevant actor group of this study (H.P. Liniger)
Left: Individual household: the unit of interest (K. Holdener)
Right: Being neighbour and friend: mutual help in social networks are an important pillar in peasants' livelihood strategies (K. Holdener)
Far right: “Watch-repairing”: off-farm activities are a viable economic alternative to farm income. (K. Holdener)
The Importance of Trans-Spatial Economic and Social Networks in Household Strategies of Peasants in Rural Kenya

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Preface

The present study about peasant household strategies in Laikipia District, Kenya was accomplished between November 2005 and October 2006. It is a tracer study in the sense that it is part of a long-term research project on livelihood strategies which is conducted by the Centre for Training and Research in ASAL (arid and semi-arid lands) Development (CETRAD) in Nanyuki, Kenya, under the lead of Prof. Dr. U. Wiesmann, Centre for Development and Environment (CDE), University of Berne. This study is based on and closely connected to two achievements that were rendered in the past:

the first basis constitutes of the large scale survey from 1992 and its analysis in respect to the question about ecological adaptation of peasant immigrants in the semi-arid Laikipia district and the repetition of the same survey in 1997 and its results. The second basis is the theoretical and methodological background which was developed and established by Prof. Dr. Wiesmann for the 1992 survey.

Given the allegations of a masters thesis, this study is a revalidation of former results within a narrowed frame, thus concentrating on aspects of the former studies and results only. The aim of this study is the analysis and assessment of previous results in comparison with new results, thus producing an interim position-fixing of aspects of peasant household strategies within the long-term project. Simultaneously, the study renders the possibility to detect and establish a deeper understanding of causes and reasons behind peasants' actions and strategies of actions. In order to gain the required data to this supplementary questions, a qualitative approach was chosen and the applied theoretical framework was expanded by the necessary elements.

It is my concern that personal experiences made in the course of this study regarding practical and methodological work, are incorporated as advocacies into the preparation and conduction of the last component of the survey-trilogy (1992, 1997 and 2007) which is planned to be undertaken in 2007.

The accomplishment of this study would not have been possible without the contributions and support of the following people and institutions:

first of all I want to thank the visited small scale farmers and their families in the two study areas. Their generous and wholehearted readiness to contribute not merely allowed the conduction of this study but truly impressed me in many ways.

I am particularly thankful to Prof. Dr. U. Wiesmann, who provided the idea for the thesis, supervised and inspired me. Further, the CETRAD institution in Nanyuki which offered professional, personnel and financial backup for the accomplishment of the field work. I would like to express my thanks in particular to the director of CETRAD, Mr. Boniface Kiteme, for his professional support and to the research assistant Grace Wambugu for her generous help with invaluable information and her full commitment to the successful conduction of this study; asante sana! Special thanks also go to Nicholas Githumbi for his genuine and enthusiastic contributions and efforts during the field work. I additionally wish to thank Silvia Künzler–Roth at CDE for the accurate map-compilation and Karin Lüdi who patiently helped with linguistic challenges. The comments of Bettina Fredrich helped to revise and improve the thesis. Not unmentioned shall be my dear friends and family who bore my up– and downs during the process of compilation and unwearyingly supported me. And last but not least, I want to thank Mats (*) for being the best friend and layouter in the world.

The study has been carried out with the best intentions only. Any shortcomings, interpretations and conclusions drawn are entirely my responsibility.

November 2006

Karin Holdener
Summary

Peasants in the semi-arid Laikipia District in Central Kenya are exposed to many different challenges within the attempt to ensure their livelihoods.

The area has a great variability in precipitation and generally low availability of water in combination with strong erodibility of the basically fertile soils. This limits the suitability of the areas’ natural resources for human use.

Regarding land use and socio-economic structures, Laikipia has undergone major transformations in the 20th century which caused fundamental changes:

as a consequence of colonial rule, pastoralists were marginalized and Laikipia was made into a production basket for export, run by white large-scale farmers and ranchers. After independence and the subsequent subdivision of former large-scale farms, Laikipia became an immigration area for small-scale farmers which lead to a rapidly growing population, trying to secure livelihood through subsistence farming. This, in turn, produced an increased pressure on water and other natural resources, thus making it difficult for peasants to ensure their surviving.

The ongoing expansion of settlements and newly forged farm-plots spreading into the vast plains towards north–west Laikipia, the growing population density paired with degradation of natural resources and the lack of adequately adapted land use systems, are facts that have to be dealt with by all concerned actors.

In terms of ensuring livelihood, peasants were and still are among the actors most affected by the problems and developments described above. Hence, peasant’s activities, their strategies and adjustments on the household level are a very important field of interest in research and development efforts. The approach to local development dynamics via peasants in the concrete rural context of Laikipia, can be seen as a contribution to an actor–oriented understanding of the dynamics and an attempt to adequately support solution–finding processes.

The described situation of peasants in Laikipia, basically was the starting point for a large scale investigation on peasants’ livelihood strategies in 1992 and the follow–up in 1997, which were both conducted by the Laikipia Research Programme LRP in Nanyuki (today CETRAD), under the lead of Prof. Dr. U. Wiesmann, Centre of Development and Environment CDE, University of Bern.

Those two former investigations conducted in the area, allowed a comparing glance back and therefore marked the basis for this master thesis. Hence, this study is a contribution to a long–term monitoring over a period of 15 years about overall household strategies of peasants in Laikipia, aiming to create a better understanding of the process–dynamics within the strategies of action over time. The present study was concentrating on two spheres of action of peasants which are not directly related to the use of natural resources within their immediate environment: the spheres ‘Off–Farm Labour and Remittances’ and ‘Social Networks and Ties’.

The study aimed to assess the status and changes in the two fields of action within peasant household strategies on an individual level and to examine their relevance within the broader context of the overall household strategy. Moreover, the view on dynamic conditions for decisions on strategies and their embedment in political, economical and social changes or trends in the local and national focus were other goals and points of interest.

The fieldwork took three months and started in late November 2005. It was carried out in the two differing agro–climatic study areas of the former surveys and included 30 interviews with peasant households of diverse characteristics. The samples were chosen out of the remaining 150 households of the survey in 1997.
One source of information was the data and information of the semi-quantitative interviews from 1992 and 1997. To obtain data for this study, the questions were partly repeated to the sample respondents which was consequently permitting a back-comparison within the eminent fields of action. The other source consisted of additional qualitative in-depth information, drawn from open questions that were integrated in the questionnaires. The combination of methods enabled a more detailed analysis of complex relations among the strategies of peasants and possible reasons behind particular behaviours.

The main results of the study are the following:

in the field of activity 'Social Networks and Ties', a general shift from trans-spatial to space-inherent ties is taking place with the increased settling time in Laikipia. That is to say that the nuclear family and neighbours have become more important than the clan, collateral relatives etc. in terms of support in material and non-material forms. However, dynamic conditions – such as access to natural resources – can substantially influence decisions regarding social networks and ties.

The activity field ‘Off-Farm Labour and Remittances’ generally seemed to have become stronger and more important for the investigated households over time. But the development of this field is highly dynamic and strongly influenced by individual perceptions, societal changes and particularly the conditions an individual household is exposed to. Naturally, the ecological potentials available play an important role.

The question about the relation of the two focal spheres to each other and their hypothetical significance within the overall household strategy, revealed the following:

a growing ‘temperateness’ towards economical viable alternatives to farming is detectable in respondents’ answers and behaviour. Though, this fact should not be misinterpreted as a mere wish to go for alternatives, but is in many cases the result of changing conditions and the resulting pressure to adapt. If plans and ideas for the households’ future are regarded, a great majority of respondents wish to invest in farming-related activities – among other, but less prominent fields of action.

There is no explicit abandoning of farming activities in favour of off-farm labour observable. In terms of economical support, the ‘Social Networks’ – particularly ‘Relatives’ – lose importance within the household strategies and ‘Off-Farm Activities’ generally gain it.

The study also reveals clear indicators for the theory of smallholder’s specialisation in a certain sphere of action, according to specific ‘Action Guiding Conditions’. This strongly underlines the issue of the highly dynamic nature of smallholder household strategies, postulated in Wiesmann (1998).

In the end, the study lists experiences made during field work and in the course of data processing. It additionally presents recommendations targeted as advocacies for the third and last survey of the long-term monitoring on household strategies to be followed in 2007.
1 Problem Statement and Goal of the Study

1.1 Why Household Strategies of Peasants? – A Problem Statement
   1.1.1 The Context
   1.1.2 The Focus

1.2 Goals and Objectives
   1.2.1 Overall Goal
   1.2.2 Objectives

1.3 Questions
   1.3.1 Research Questions

1.4 Structure and Realisation of the Study
This first chapter is introductory. The focus of this study in its specific context will be outlined in the two primary sections, followed by the goals the study attempts to reach in the third section. The research questions are thereby listed and elaborated, whereas the fourth and last section sheds light on the structuring of the thesis.

1.1 Why Household Strategies of Peasants? – A Problem Statement

1.1.1 The Context

The economic, social and political conditions, developments and trends in many Sub-Saharan African countries in the 1990ies indicated that a development crisis was taking place. Reactions by governments and development institutions to this crisis were various, but all had in common a certain radicalism concerning economic and social realities. This radicalism manifested itself mainly in three, rather extreme positions taken by developers: (1) development efforts were substituted by humanitarian aid, (2) support for development matters was concentrated at the grass-root level or (3) the level of governmental decision-making.

"This radicalism can be interpreted as an expression of a deep crisis in development policy and practise. The crisis in development policy and practise is also evidence of a crisis of understanding, with regard to both aims and the dynamics of development." (Wiesmann 1998: 31)

According to Wiesmann (1998), the following, rather simplified indicators mark the background and basis of the development crisis:

1. Economic structures in Sub-Saharan African countries are still very much dominated by agriculture. In fact, the number of people engaged in the first sector is increasing in absolute terms. There has been no increase in agricultural productivity as the production of staple food stagnates.

2. The lack (or the failure) of industrial policies for peripheral capitalistic structures and markets in the 70ies and 80ies triggered the dependence on imports of industrial goods, hence only the public sector significantly grew as a result.¹

3. The high rate of population growth which is currently 2.3% in Kenya², creates a great population density in rural areas, as well as increased migration to urban centres³.

4. The resulting increased impoverishment among rural (and also urban) population together with social changes and changing values lacking the corresponding economic development, create a very difficult and potentially unstable social and political situation.

¹ Structure of the economy of Kenya 1984-2004 in % of GDP

<table>
<thead>
<tr>
<th></th>
<th>1984</th>
<th>1994</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>33.9</td>
<td>33.3</td>
<td>15.8</td>
<td>15.7</td>
</tr>
<tr>
<td>Industry</td>
<td>18.9</td>
<td>17.2</td>
<td>19.6</td>
<td>19.7</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>11.9</td>
<td>10.7</td>
<td>13.6</td>
<td>13.7</td>
</tr>
<tr>
<td>Services</td>
<td>47.2</td>
<td>49.4</td>
<td>64.7</td>
<td>64.5</td>
</tr>
</tbody>
</table>

Source: http://devdata.worldbank.org/AAG/ken_aag.pdf, (03.08.06)

² http://devdata.worldbank.org/external/CPProfile.asp?PTYPE=CP&CCODE=KE (15.03.06)

³ Total rural population in 2005: 19'172'000; total urban population in 2005: 13'677'000. Total rural population in 1992: 17'762'000; total urban population in 1992: 5'823'000.
(http://faostat.fao.org/faostat/form?collection=Population.LTS&Domain=Population&url=servlet=1&hasbulk=0&version=ext&language=en (15.03.06))
Particularly one central point needs to be considered here:

“The root cause of the impoverishment (of the rural population) is the failure of agricultural production to increase at a rate that can keep pace with the high rate of population growth.” (Wiesmann 1998: 27)

Also stated is the problem of rural impoverishment, however – with its economic, social and ecological consequences – which cannot be examined without its wider context and can be outlined as follows:

Low prices of agricultural products on the world market are hindering African agriculture from innovation and increased production. But also – and maybe even more important – the governmental agricultural policy and their course of rural development is often built solely for their benefit and control over markets and prices, leading to exploitation of producers. The small scale producers’ reaction to this has two important elements: (1) through the difficulties to secure livelihoods from agricultural products (i.e. the lack of significant local markets), subsistence farming seemed the only way out. (2) Small scale farmers sought to abandon the unilateral dependence on primary production by migrating to urban centres in search of labour. The consequences for small scale farmers and the impact on rural areas from these reactions are manifold:

The results at the individual farm level are divided households by selective migration and parallel a lack of manpower, a negative producer/consumer ratio, and increased workloads for women.

At the regional level, especially two spatial aspect seems crucial in terms of the cause of rural impoverishment: firstly, through the increased number of small scale farmers, the land use became spatially concentrated without adjustments and innovations in land use systems. Secondly, the resulting pressure consequently caused subsistence systems to expand into areas with very different (primary) ecological conditions. This again has environmental consequences, of which I want to mention the most obvious:

Soil degradation occurs in areas of concentrated land use and in areas of maladjusted farming systems. The overuse of water resources can be a result of inadequate land use practices of peasants who moved into drier areas. Grazing areas are reduced due to the growing demand of cropland and at the same time the demand for fuel wood reduces vegetation cover and provokes soil degradation.

Through these consequences – which are aggravated by the development crisis – the problems of survival of rural populations in Sub-Saharan Africa are increasingly threatening the foundations, i.e. the natural resources on which improvement could be based in the future.

The brief outline of the development crisis, its causes and consequences provides the basis for the justification of the focus of this study, which will be discussed in the following chapter.

1.1.2 The Focus

The present study is focussing on peasants' household strategies in the sense of action and reaction to dynamic conditions over a certain period of time in two designated areas of the semi-arid Laikipia District in Central Kenya.

Peasants were and currently are the most affected and involved actors in the region’s development in terms of ensuring livelihood. Limited natural resources in the increasingly densely populated study areas, the growing pressure on and degradation of natural resources both have a severe impact on peasants' strategies to survive. Considering this, it becomes obvious that peasant activities, strategies

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4 Kohler (1987) revealed in his study about peasant’s livelihoods in Laikipia that 90% of the household–heads in questioned households have been engaged in off–farm labour (1987: 88).
and their adaptations on the household level have become an increasingly important field of interest in research, as well as in development efforts. The approach to challenges in development in the rural context via peasants as the key actors, can be seen as a contribution to a problem-oriented understanding of those dynamics.

To illustrate the focus, I will briefly describe the peasants' immediate environment in Laikipia District and address some factors which led to the current situation regarding development and environmental problems (A more detailed description of the study area, its ecology and historical background will be given in chapter 2).

Wiesmann (1998: 90–102) distinguished between the following two thematic headings:

1. Natural resources, ecological degradation and socio-economic transformation;
2. Dynamics of smallholder settlements and population dynamics.

(1) A great variability in precipitation and generally low availability of water in combination with strong erodibility of the basically fertile soil types impose limits to the suitability of natural resources for human use in the study area.

Regarding land use and socio-economic structures, Laikipia has undergone major transformations in the 20th century which caused fundamental changes:

As a consequence of colonial rule, pastoralists were marginalized and Laikipia was made into a production basket for export run by white large scale farmers and ranchers. After independence and the subsequent subdivision of former large scale farms, Laikipia became an immigration area for small scale farmers which lead to a rapidly growing population, trying to ensure livelihood through subsistence farming. This, in turn, produced an increased pressure on water and other natural resources, thus making it difficult for peasants to ensure their subsistence and triggering conflicts.

(2) For migrants from emigration areas which are usually high potential farming zones and are under population pressure, push factors such as limited resources seem to have played a dominant role over the pull factors of Laikipia. However, speaking of natural resources, the issue of cultural significance of land ownership has to be mentioned, which can be regarded as a pull factor. In addition to that, another pull factor is the availability of labour opportunities on ranches and in tourism. And an increasingly important potential at present is the availability of casual or permanent jobs found in the large scale horticulture farms in the area.

The total population and the population density is increasing in Laikipia, which indicates a constantly high population growth in the area. This development is most likely to continue in the future, putting even more severe pressure on resources, particularly water and posing a great challenge to smallholders regarding adaptation.

These two very curtly kept illustrations on the situation of smallholders in Laikipia were generally the starting point for the investigations in 1992 (and the follow-up in 1997). It will therefore remain the basis for the present study, which is exploring current developments within Laikipia smallholder communities on an individual level while allowing a comparing glance back to past investigations.

The terms ‘peasants’ and ‘smallholders’ are used as synonyms in this study.

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5 See excursus ‘The Relationship of Kikuyu-People to Land’, Appendix 2
6 Wiesmann 1998: 93
1.2 Goals and Objectives of the Study

1.2.1 Overall Goal

This thesis is a contribution to a long term monitoring on household strategies of small holders in two agro–climatic zones in rural Kenya. A detailed empirical survey regarding household strategies was conducted in 1991/92\(^7\) by the Laikipia Research Program LRP (today CETRAD), repeated in 1997 and a third and last survey will be accomplished in 2007 by the same institution.

The primary goal of the “survey-trilogy” over a period of 15 years, is to establish a long-term monitoring about household strategies of peasants in the area and therewith creating a basis for a better understanding of the process–dynamics of the strategies of those actors. The analysis performs at the same time as a source of information for development endeavours in the region and also contributes to an improved allocation of resources and development support.

Comparable quantitative information of the surveys 1992 and 1997 is one part of the information source. The other part consists of qualitative in–depth information for a more detailed analysis of complex relations among the strategies within the different fields of activity of the peasants. Both sources of information contribute to a comprehensive view on the development and changes of the strategies, while it is an important attempt for me to detect peoples’ reasons behind a certain strategy.

In order to be able to assess the status and changes within particular actions and strategies of actions of peasants’ households, three spheres of activities can be distinguished:

- Production systems
- Local market system, community networks
- Off–farm labour and remittances, social networks and ties

The last mentioned sphere designate my area of interest and is subject to the present Master Thesis. This study is oriented on the overall goals of the trilogy and attempts to provide a contribution in achieving those goals. The focus is thereby laid on a sub–range of the above mentioned strategy–spheres which are further explained in the following section.

1.2.2 Objectives of the Study

The realm ‘Off–Farm Labour and Remittances’ and ‘Social Networks and Ties’ are peasants’ activity spheres which are not directly linked to the use of natural resources within their immediate environment.

But as the 1992 and 1997 surveys, as well as different studies in Kenya and other Sub–Saharan African countries have shown, those activity fields nevertheless have a strong impact on household strategies and their development\(^8\). The (main) objectives of the study are:

(A) to show up the current status of the strategies in the subjects ‘Off–Farm Labour’ and ‘Social Networks and Ties’ within the household economies and

(B) examining their relevance within the broader context of the overall household strategies.

\(^7\) In the following, the survey conducted from 1991 until 1992 is referred to as the 1992–survey or study.

A sharp distinction between the main topics is hardly possible, though, and it would not allow enough insight if only strictly off-farm employment and systems of social networks were considered. Therefore,

(C) the intertwined system of household strategies, especially regarding economic operations, has to be taken into account as far as possible.

Because the development of those strategies over the 13-years period (1992–2005) in the two zones plays the key role in the analysis,

(D) the embedding of those developments in political, economical and social changes and trends in the local and national focus is important eventually.

Regarding its role as one component of a long-term monitoring study, this thesis is not secluded independently. In view of comparable information, it is an important objective to

(E) incorporate relevant data from the two 90ies surveys by using exactly the same questions in the questioning of the present study. And in interviewing the same respondents, a contribution to more accurate and reliable information can be made.

Last but not least,

(F) the results and experiences of this work are to provide deeper understanding of developments within the non–natural resources related strategies in peasants households in rural Kenya over a certain period of time and

(G) shall be conducive to the design of the third part of the monitoring study in 2007.

1.3 Questions

1.3.1 Research Questions

My hypothesis is based on the findings and conclusions of the 1992 data analysis of smallholder strategies and ecological adaptation, stated as followed:

First of all, peasants secure a basic multi–strategy including a minimal involvement in all spheres of action. Further, there is an opportunity exploitation, by either expanding the overall strategy or specializing in a certain field of the strategies (Wiesmann 1998: 176).

As the hypothesis of the ecological adaptation of smallholders in Laikipia has not shown significant evidence, which means that peasants do not react to the limiting factor natural resource with a adapted production system, the study proceeds from a new principal:

Smallholders extend their strategies into those fields which are not directly related to the options on their own plots. Within the different spheres of action, (e.g. production systems (livestock, cropping, garden), farm development and home economics, community networks, off–farm labour, social networks and education (Wiesmann 1998: 113)), forces tend to be extended into the fields of non–natural resources related activities according to the results of the 1992 analysis.

Consequently, the new hypothesis that trans–spatial references within the field of activity ‘Off–Farm Labour and Remittances’, ‘Social Networks’ are an increasing important pillar within the multi–strategies of peasant households in the study area, is given.
The research questions are:

(1) To what extent has the field of activity ‘Social Networks and Ties’ within the context of support to the household gained or lost importance? Which particular actors and activities (were) are involved?

(2) Has the significance of the field of activity ‘Off-Farm Labour’ since the first survey quantitatively changed? Which particular members of the household and activities (were) are involved?

(3) Do smallholder households since 1992 generally tend to turn towards fields of activities which are not directly related to the use of natural resources on the plot within their overall household strategy? How is thereby the relation among the two focal spheres of action?

The focus of the analysis on bare figures of smallholder household strategies to ensure income and surviving within different spheres of action does only to a small extent consider the embedment of those actions and reactions. The duration of settling of the sample households since the last questioning has increased, and with it, a lot of changes in different domains of daily life had occurred. In order to elaborate the research questions comprehensively, some topics – or rather conditions which influence and effect peasants – are of particular relevance:

Natural environment: Water resources (precipitation, river-flows); other natural resources such as land, its degradation and the pressure posed on it etc.

Societal ‘level’: The spread of HIV/AIDS, the elements and signs of physical and cultural urbanisation, changing value-systems etc.

Political ‘level’: The role of the government change and its consequences, for example new strategies of law enforcement on different administrative levels; infrastructural enhancements etc.

These topics and conditions are subject to the supplementary qualitative and open questions within the questionnaire and are expected to provide answers to a broader and more comprehensive understanding and appreciation of peoples’ reasons to think and act the way they do.

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9 Estimation of HIV/AIDS cases: 5 to 10 % of adults between 15 and 49 years in 2003. (Source: http://whqlibdoc.who.int/scd/hq/2004/9241922811_Kenya.pdf (11.11.05))

1.4 Structure and Realisation of the Study

1.4.1 Structure

The present study is structured in 8 chapters, each of which is subdivided into several sub-chapters:

**Chapter 1 and 2 are introductory.** Chapter 1 describes goals of the study and gives a problem statement while highlighting the study’s particular position as part of long-term research project. Included in chapter 2 is the introduction to the study area, comprising of a general view on the district and more detailed descriptions in terms of physical, cultural and socio-economic features of the two areas of investigation. It shall serve as a general background information and give an impression about the conditions in which the study was carried out.

**Chapter 3 and 4 consider the theoretical framework** upon which the study is founded (chapter 3) and proceed with the methodological approaches used for the collecting and processing of data, and describe the criteria, means and processes for the selection of samples and the field work procedure (chapter 4).

**Chapter 5 to 7 contain the evaluations** and are all similarly structured: chapter 5 and 6 are dedicated to the judgement, analysis and the retrospective view of the 2006–status of the two relevant spheres of action ‘Social Networks and Ties’ and ‘Off-Farm Labour’. The last chapter 7 treats the question about the assessment and verification of the 1992 findings and the position of the two investigated spheres of action within smallholder household strategies. No conclusions are yet drawn here, they are gathered together and presented in chapter 8.

**Chapter 8 compiles the synthesis and outlook:** whereas the first part of chapter 8 summarises and evaluates findings on judgements and analysis in 2006 and the retrospective position in terms of changes between 1992–2006 for both focal spheres and answers the research questions 1 and 2. Further, conclusions about the relevance of the focus spheres of action within household strategies by answering research question 3 are drawn. The last part of chapter 8 presents some general conclusions and further gives an idea about experiences made the study and potential further research.

Textboxes are used to highlight important text-parts, such as crucial questions, groups of terms etc.

Grey–shaded text parts accentuate summarising remarks after each sub–chapter and facilitate recapitulation of the passages.

Texts quoting statements of interview partners and citing text passages, as well as captions are written in italics.

In order to highlight relevant and weighty terms within a text passage, words or sentences are written in bold letters.
1.4.2 Realisation

As both, a tracer-study and a source of information for the following survey in 2007, this study has been realized within the frame of the long-term monitoring of peasants’ household strategies in Laikipia. The study is based on rich data and results, as well as experiences from the previous surveys which were both conducted by Centre for Training and Research in ASAL Areas CETRAD in Nanyuki, Kenya. The fieldwork has been carried out between November 2005 and February 2006, using the CETRAD facilities and the support of its personnel. The research assistants Grace Wambugu and Nicholas Githumbi supported me as resource persons, translators and interview conductors which was necessary for the accurate compilation of data and information. They both have worked for one or two former surveys of the project and live (partly or permanently) in the area. Their good knowledge of the research areas, as well as their personal connection to most of the respondents, proved to be a great advantage in circumventing time consuming searches for both interviewees and places. Moreover, it contributed to make respondents comfortable within the interview processes. Grace’ and Nicholas’ position of a “bridge” (in cultural, psychological and practical aspects) between me as a foreign researcher and the interview partners, also contributed an important element to the successful compilation and accomplishment of the interviews.

The fieldwork was carried out in roughly four stages. Each stage included different working methods.

1) In the first two weeks the questionnaire was compiled and the sampling done in close cooperation and team-work with Grace Wambugu and further personnel support from CETRAD. One test-interview was accomplished and its results discussed and carefully considered for the interviews to follow.

2) Appointments for interview sessions in the first area to be visited were made and the interviews carried out. The second assistant Nicolas Githumbi joined the project after one third of the appointments.

3) In the second area to be visited, the procedure was the same and both assistants were present in all the interview sessions.

4) In the last stage of the fieldwork, more information was gathered on the two visited areas through an additional expert interview and data viewing regarding emerged issues from the interviews and physical characteristics.

The means to successfully conduct the fieldwork for this study were many: the support by CETRAD in terms of personnel, professional assistance and inspiration has been the main mean. Moreover, my previous experiences in Kenya and to it the personal motivation, are both supporting factors which enabled me to work towards the intended goals. Last but not least, the mainly by CETRAD and NCCR North–South funded financial means for transport to and within the study areas, the personnel and office costs etc., were also an important factor for the successful accomplishment of the fieldwork.
2 The Study Area

2.1 Laikipia: Fact Sheet
2.1.1 Physical Features
2.1.2 Population and Land Use Dynamics in Historical and Current Views

2.2 Study Areas
2.2.1 Natural Environment
2.2.2 Human Environment
In the course of chapter 2, an overview on the areas of investigation will be given. It lies in the nature of this study, that not only physical features of the surrounding of the focal actors this study is concerned with – peasant households – are of importance but to the same extent historical, socio-cultural and demographic developments. Maps shall allow for an additional contribution to a comprehending view on the area, its background and current developments.

### 2.1 Laikipia: Fact Sheet

The following descriptive features of the study area are all derived from and based on sources and publications available at Centre for Development and Environment CDE, Department of Geography, University of Berne and CETRAD, Nanyuki, Kenya, except if specifically marked. The most recent possible data sets were utilized.

*Map 1: Laikipia District with the two study areas south-west and north-east of Nanyuki town.*
2.1.1 Physical Features

The Laikipia District is situated on a high-plateau in the Rift Valley Province in central Kenya and has a total area of 9'723 km². It exhibits a considerable variation in relief with altitudes ranging between 1'500 m a.s.l. in the vicinity of the Ewaso Ng’iro river, to over 2600m a.s.l. in the Marmanet uplands. The Great Rift and its lakes border the Laikipia Plateau to the west, while the Ndarua Range (Aberdares) and Mount Kenya with its agricultural districts Nyeri and Nyandarua of Central Province form the southern boundary. To the north and east Laikipia grades into low-lying plains and the predominantly pastoralist district Samburu. Phonolithe Lava of Miocene age form the predominant geology, although the basement complex rocks of pre-Cambrian age outcrop in the east. The Mount Kenya landmass gives considerable climatic influence across the plateau and gives rise to several altitudes related agro-ecological zones that include sub-humid as well as semi-arid to arid habitats, whereby the latter make up the larger percentage of the total area.

Daily temperatures vary with altitude and season; mean temperatures generally range within 22–26°C and temperature Minima and Maximum are 6–14°C and 35°C respectively. Due to the districts leeward position north west of the Mt. Kenya massif, it is comparatively dry despite its location on the Equator. The spatial distribution and the temporal viability of rainfall though are strongly influenced by the Mt. Kenya and the Ndarua range (Aberdares). Along the foot zones of the massifs, the annual mean rainfall can go up to over 1100mm (Mt. Kenya forest), but is decreasing towards the central and northern areas with figures as low as 350mm (Doldol) per annum. Precipitations also vary greatly in terms of time and amounts along the same gradient. (Kohler 1987, Wiesmann 1998, Ledermann 2003)

The rains primarily fall in two seasons; the main wet season occurs during April–May, often accounting for 80% of total annual rainfall, while a second wet season occurs later in the year in October–November. There are exceptions to this, however, especially in the central and eastern sections extending as far as the Lolldaiga Hills, where three rainy seasons are experienced. (Berger 1989 and Gichuki et al. 1998, in: Lane (ed) 2005: 2) (See separate study areas under 2.2. for soils)

The agro-ecological zones are a direct consequence of the distribution and intensity of precipitation, and therefore they also reveal a constant dynamic regarding their boundaries. Due to a combination of climatic, geological and topographical conditions, however, surface water on the plateau is scarce and confined mainly to a few rivers. In particular, evapotranspiration is intense and moisture deficits are widely experienced in the majority of years.

Laikipia forms the upper catchment for the Ewaso Ng’iro river which is the main water source for the semi-arid and arid low lands in the north eastern part of the District and the bordering Samburu District. During the dry season, the only contributors are the perennial rivers flowing through Laikipia which are fed solely by the two elevations Mt. Kenya and Ndarua Range. Therefore, these rivers play a very important role within the water supply system in the catchment.

Modern vegetation varies substantially across the Laikipia Plateau, with a total of twelve identifiable categories of natural, semi-natural and humanly created vegetation types. (Taiti 1992, in: Lane (ed) 2005: 2) These range from agricultural and urban vegetation complexes at one extreme, through plantation forest and different categories of leafy bush land and grassland, to upland dry forest and various marshy wetlands. Vegetation patterns on the Laikipia Plateau generally reflect levels of effective precipitation, soils and the level of human modification.
2.1.2 Population and Land Use Dynamics in Historical and Current Views

The region had undergone dramatic changes in the last century in response to transitions brought about under colonial rule and post-independence administration. In this semi-arid district, the issue of land use and population dynamics are strongly intertwined, whereby two major caesuras are to be mentioned:

In pre-colonial times, most of Laikipia formed part of the territory of the semi-nomadic Massai pastoralists. Under colonial rule at the beginning of the 20th century, they were forced either towards the south west of the country or into the Mukogodo ‘native-reserve’ in the eastern part of Laikipia. The

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14 Pastoralists: a term used for people doing animal husbandry, containing a mobile element.
Laikipia plateau became a so-called ‘scheduled area’, reserved for European settlers. The "white highlands" were then subdivided into large ranches which mainly practised market-oriented livestock farming. Consequently, the population decreased by approximately 50%, from 60,000 to 30,000.

The second transformation came with Kenya’s independence 1963: large ranches and farms were taken over by the government or sold to private companies. They were then subdivided in small plots and redistributed to small scale farmers, willing to migrate into the area. The immigrants mostly came from the very densely populated high potential areas south west of Mt. Kenya, causing a heavy population increase within a relatively short time. Along with the immigration of small scale farmers, the process of growing regional centres continued to develop.\(^{15}\)

The land use systems in Laikipia are strongly reflected by these population dynamics: by now, approximately one third of the original large scale ranches has been subdivided\(^{16}\) but large parts of the district still consist of commercial ranches –some of them remained in white settler families’ ownership– which practice a mix of market oriented ranching and tourism. The pastoralists in the lowlands continue to use the former reserve areas, but due to population pressure and land degradation, conflicts over the limited resources are becoming more severe.\(^{17}\) Even though the population growth in Laikipia has not kept pace with forecasts in the mid-nineties (stated in Wiesmann 1998: 93)\(^{18}\), the dispersion of small scale farms and plots especially along roads, which act as the infrastructural backbone, but also into more marginal areas, continuously advances.

Partly as a consequence of this, 8.4% of the land is currently under cultivation, most of which is concentrated in West Laikipia and around the districts’ administrative and commercial centre Nanyuki, even though only 1.7% of the district is classified as having high agricultural potential.\(^{19}\)

Most immigrants moving to Laikipia are Kikuyu peasants\(^{20}\) from high potential regions in Central Province who continue their habitual systems of rain-fed mixed farming in their new home area.\(^{21}\) The main factors entailing people to buy land in ecologically marginal areas like Laikipia are stratification processes in the home area, population growth and also cultural aspects such as subdivision of plots due to inheritance and the lack of employment in the industry and service sector (Wacker 1996: 26). While the immigrants face problems in ensuring subsistence through the given limited natural resources and ecological confinements, the trend in turning towards alternative surviving activities and strategies can be seen as a ramification of the endangered livelihoods through the above mentioned constraints.

"The creation of diversified income resources for the growing population is a crucial necessity for the well-being of the people in Laikipia in the future." (Wacker 1996: 28)

Although Wacker (1996) draws a logical conclusion, it is rather obvious that mono-causal explanation patterns and simple „if – then“ action plans miss out numerous important factors that are influencing the peasants decisions on taking certain actions or not.

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\(^{15}\) Nanyuki is the districts’ administrative and economical centre. It consists of about 30,000 inhabitants. As a former border town to the northern frontier districts, the place shows a cultural and tribal mixture of people. Nanyuki also hosts three army bases, namely two units of the Kenya Armed Forces, and a British Army training camp and performs as the supply station for tourism industry around Mt. Kenya and the commercial ranches and farms in the district.

\(^{16}\) Lane 2005: 4

\(^{17}\) See TIME Europe Magazine Edition site for an article about land disputes in Laikipia in 2004 (http://www.time.com/time/europe/magazine/article/0,13005,901040927-699336,00.html)

\(^{18}\) Actual data on population figures on district level (Laikipia): 2005 = 396'338; 1999 = 322'187 (http://www.cbs.go.ke/ (20.05.06)).


\(^{20}\) The Kikuyu people are the largest of the 42 distinguished ethnic groups in Kenya with almost 25% of the total population (2005). They are traditionally farmers.

\(^{21}\) ‘Mixed farming’: a combination of crop-farming, vegetable growing and livestock keeping.
The next sub–chapter provides a more detailed picture on the immediate environment of the objects of investigation and the following main chapter (3.) identifies underlying theories for action–strategies of the actors in focus, in order to get a more thorough comprehension on their particular situation.

Map 3: Population density in Laikipia District
2.2 Study Areas North-East and South-West of Nanyuki

The study area consists of two settlement areas flanking Nanyuki town on the south west and north east, both stretching westwards into the Laikipia plains from the districts’ main road. As the precipitation map is showing, the study areas are each assigned to a different agro-climatic zone. Yet, in order to simplify the naming while proceeding, the term “I” for the semi-arid area south-west, and “II” for the sub-humid settlement area north-east of Nanyuki, will subsequently be used in the texts below.

Both areas are further divided into a number of sub-locations, whereby each sub-location consists of several villages. In order to make things easier, the names and borderlines of the sub-locations are derived from Wiesmann (1998), as both can slightly change over time or within different contexts and therefore complicate identification. The settlement area I south-west of Nanyuki is divided into the seven sub-locations Ichuga, Sweetwaters, Mburugutia, Burguret, Marura, Matanya and Weruini; the area II north-east of Nanyuki into Mia Moja, East Laikipia, Ngenia, Kalalu and Nyakairu.22

To be able to determine how the strategies of smallholder households in Laikipia to ensure their livelihoods can differentiate between the study areas, it is necessary to have a closer look at the two areas and their distinctions.23

In outlining some relevant distinctions – or similarities –, the ecological and the human environment in the two settlements will both be considered. The latter is done primarily with respect to the 170 smallholder households involved in the 1992 investigation in their past and current situation of exposure to more or less favourable conditions and their attempt to ensure livelihood.

The two settlement areas are comparable in many aspects but still reveal some differences which are eventually influencing the individual smallholder’s situation. I first consider the ecological conditions (climate, natural resources and access to resources) and then highlight conditions like backgrounds and migration histories of the questioned households. This is followed by characteristics such as land use, farming systems and settlement patterns.

2.2.1 Natural Environment

The maps above show the position of the study areas around Laikipia’s administrational centre Nanyuki and their relative vicinity to each other. As already stated in chapter 2.1.1 (Physical features of Laikipia), precipitation and evapotranspiration distribution in the area vary greatly, a fact which is reflected in an increasing water deficit through the distance to Mt. Kenya and also in the distribution pattern of the agro-climatic zones.

Together with the different lithologic units and soil attributes of the two areas, the water balance and temperatures (see chapter 2.1.1.) influence to a large part the vegetation cover.

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22 The names are based on former land owners, named after land buying companies or derived from old field names. The sub-locations Kalalu and Matanya were excluded in the present study and not visited.

23 Some of the following varieties and similarities are based on physical data derived from different studies in Laikipia; others are drawn from Wiesmann (1998), in which he has outlined a number of distinctions based on his findings. Even though Wiesmanns’ focus lies on the questions about the potential of ecological adaptation of the 170 immigrant smallholder households questioned, some distinctions are still useful in the context of the present study which is dealing with the changes in household strategies not directly related to natural resources in the two different agro-climatic areas.
Map 4: Typology and distribution of land cover in the two study areas
The soils in area I belong to the ‘Lower Mountain Slopes’-category in a semi-humid to semi-arid climatic zone according to a categorisation by Gichuki et al. (1998):24. These soils are deep and fertile with clay content and a high water storage capacity. They are very suitable for cropland –despite their erodibility– and provide good grazing land.

Area II shows a combination of Phaeozem and Luvisols in the ‘Flat/concave and convex plateau’-category. The deep dark soils with little clay content in this semi-arid zone are marginally suitable up to unsuitable for cropland. Fertility is higher in convex topography or elevations, as well as the soils’ suitability for grassland. According to a categorisation regarding the vegetation cover (Ledermann 2003, based on 1995 data), the two areas show significant differences (see map 4).

For example in area I: only rather narrow stretches along the rivers have ‘>50% crop and grass or trees’, ‘50%grass/50% trees’ or ‘>50% dense trees’. Large parts of the area show ‘>50% grass’.

In area II, ‘>50% crop and trees or ‘>crop50% and grass’ make out large parts of the area; parts with big tree contingents approximately balance those with large grass portions (>50%).25

2.2.2 Human Environment

After illuminating the environmental characteristics of the study areas, issues in political, historical and cultural contexts are addressed. Additionally, a look at production systems and eco-demographic developments is taken.

The subdivision and reselling of large scale farms and ranches formerly owned by whites, simultaneously occurred – around 1978–80 – in both areas26. The occupation of areas by smallholder households remained constant for almost a decade27, before a new settling wave at the beginning of the 90ies occurred, continuing along the ecological gradient into less favourable farming areas towards north–west (Rumuruti), north and north–east (Dol–Dol) of the areas of investigation. The exploration of the number of settlements and actually settled plots, will be subject for the investigation in 2007. The average size of a plot of the 30 households investigated (the term ‘plot’ refers to the total size of the holding, e.g. farmland plus the space for house/s is 6.7 acres for area I and 5.6 acres for area II).

If the issues of settlement period and ethnic background are include in the mosaic of distinctions between the two settlement areas, a similar view like the one outlined above, can be gained: 95.8 % of the people in area I had Kikuyu or Meru28 origins, and 97.0 % in area II, respectively. The settling time averaged at the time of investigation at 8.7 (I) and 8.5 (II) years. The motivation for migration into Laikipia was briefly touched in the introduction above (2.1.2) and even with a more thorough view, it seems that ‘push’ factors for migration have always dominated. For 83.2% of the migrants the following factors were clearly the most important ones:

1) lack of own land in the area of origin
2) no room on family land as a result of family and population growth
3) land disputes which led to forced migration
4) being former farm labourers in the white highlands without land of their own

25 Klingl (1996), examined two settlement schemes within Laikipia regarding their vegetation cover. The two schemes in the sub-locations Kalalu and Matanya are part of the focus areas of the present study but were not visited in the course of this study. They can be seen as representative for the two focus areas, though. In A (Kalalu): complex cropland and cropland with good tree cover predominant with almost 47% of the total area, whereby bush land, grassland and forest represent the rest to about equal parts. In B (Matanya): 74% of different bush–and grassland and only 14% of cropland shows the contrast to Kalalu).
26 Source: CETRAD Database
27 Kohler 1987
28 The ethnic group of the Meru people make out about 5% of the Kenyan population (personal conversation).
The ‘pull’ factor mentioned were:

1) availability of land at reasonable prizes
2) grazing areas
3) the hope for employment

The ‘push’ factors, rooted in the population pressure in the central highlands, are predominant. Moreover, 50% of the households questioned were not familiar with Laikipia and its natural conditions at the time they decided to migrate, which shows that the natural conditions at the time of land purchase were ignored. (Wiesmann 1998)

In terms of conditions such as the access to natural resources for the households, the two areas are “almost identical”, as Wiesmann (1998: 131) states. Even with respect to the average plot size and the availability of and access to water for irrigation, the areas remain comparable: the average plot size of an individual household was 4.4 acres (I) and 4.5 acres (II) respectively. However, regarding the land use types and patterns, significant differences exist between the two ecological zones: 1992, 52% of the land in area II was cropland, which was the case only for 9% in area I. This leads to the anticipated conclusion that smallholders adapt their farming system – and with it the land use – to ecological conditions, which for example in the semi–arid area I results in the ecologically better adapted livestock production on account of rain–fed agriculture and mixed farming. However, a closer look at the characteristics of settlement density and settlement pace in the two areas revealed that it was not primarily the ecological conditions that steered the production mix within the farming strategy, but the settlement structure and particularly the settlement density. The differences between the settlement densities of the two zones reflect a more than twice as rapid pace of settling in the semi–humid area compared to the semi–arid area. Hence, the varying pace of settlement can be seen as a particular form of adaptation: by evaluating the local suitability in the area, people are simply delaying the decision to migrate. Therefore, migration into the ecologically less attractive areas does not cease, but is just slower.

“It appears that smallholders clearly evaluate the locational suitability of their plots (...). In the first instance their response to this evaluation takes the form not of an adaptation of their land use practises and production system, but of delaying the decision to migrate. (...) this explains why migration into the less attractive areas does not cease, but simply occurs more slowly.” (Wiesmann 1998: 144)

This hypothesis is supported by a statement given to the author and the research team during an interview session in Burguret, semi–arid area I (sample 70, question 9.5,(11.01.06)):

"Those who are here have no other option!"

To round up the picture of the settlement areas, some developments on the political stage have to be mentioned in this context. The new government established in 2002, was trying to make chances to change things which was supposed to improve the situation of smallholders as the most vulnerable element in the chain. In general, a greater transparency was aspired which eventually led to an improvement in law enforcement on different administrational levels. It also had the effect of a certain ‘democratic thinking’ of the people, which was closely connected with the demonstration of actions by the government on a national level, enforced through the media. The result of government actions on the location and sub–location level are mentioned by people living in the two study areas as for example increased security (especially in area II, which is bordering pastoralist zones) and a generally increased awareness on political rights and high number of self–help organisations (See excursus ‘Self–Organisation of Peasants’, Appendix 1).

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29 In 1997, 4.4 acres (area I) and 5.9% (area II). In 1992, 7.6% (area I) and 6.7% (area II) of households practised irrigation.
I have described the two study areas with regard to some of their ecological and non ecological conditions and characteristics affecting and influencing our main actors, the smallholder households. The listing does not lay claim to completeness in any regard but should first of all serve as a basis for the understanding of the complex set of particular conditions to which smallholders in the two areas are exposed to and should, at the same time, facilitate the approach to the theoretical framework composed in chapter two and in which the present study is embedded in.
3  Theoretical framework

3.1  An Actor–Oriented Perspective on Regional Development
3.1.1  Arguments to Start from

3.2  The Key Actors: Peasants in Focus
3.2.1  A Concept of Peasants’ Theory of Action
3.2.2  Peasant Households and Societies
3.2.3  Peasants Rationale of Action
3.2.4  From a Set of Patterns to the Model: Actor–Oriented Model on Regional Development

3.3  Peasant Strategies in the Semi–Arid Laikipia District: An empirical approach
3.3.1  The Problem Oriented Analytical Model of Household Strategies
3.3.2  What Do Peasants Do: Spheres of Action
3.3.3  The Spheres of Influence: Action Guiding Conditions
3.3.4  Limitations and Potentials of the Model in the Light of the Present Study
This study is based on an actor– and problem–oriented perspective on regional development. This underlying perspective was used by Wiesmann (1998) to develop his conceptual framework and consequently the meta–theoretical models, which are incorporating and representing the different aspects and features of this perspective and are acting as a tools for an understanding– and solution– oriented approach.

Within this study, two of those models are found to be of relevance: the first one provides the possibility to assess the 'environmental influences' on actors and the rationale behind their actions on a general level. The second one assists in focussing on specific strategies and their influencing conditions within the entire households multi–strategy in the specific empirical context of Laikipia.

The actor–oriented approach will be outlined in the first part of the sub–chapter 3.1. It is followed by the more concrete application of the problem oriented analytical model. This model has a very important role in positioning and rating the empirically analysed peasants’ strategies and particularly in assessing the changes within these strategies and in the relation to each other.

As I have already mentioned in the preface, the concrete application – which is the problem–oriented analytical model – was expanded with elements targeting a qualitative approach. This was a necessary step for the validation of the empirically evaluated qualitative parts of the analysis.

3.1 An Actor– and Problem–Oriented Perspective on Regional Development

3.1.1 Arguments to Start from

In the light of development and environmental problems highlighted in the introduction, the study proceeds from the hypothesis postulated in Wiesmann (1998) that a regional focus with an actor–oriented perspective can deepen the understanding of impacts and dynamics of problems in rural peripheral areas of Africa. At the same time it provides the possibility for the search of solutions to these problems.

The following three levels of arguments provide the basis for this hypothesis:

1) Impact–assessment of the development crisis

The crisis affects specific populations who deal with and react to these impacts in specific ways. In rural areas those populations are still closely related to specific spatial and ecological contexts. One has to keep in mind that ecological effects are closely related to particular population categories and their spatially specific land use systems. Any assessment of effects of a crisis make therefore only sense in a concrete spatial and ecological context with clear reference to actors who are affected by and try to deal with those effects.

2) External and indigenous influences on development

A regional focus of development dynamics has a bridge–building effect between macro– and micro–level discussions and positions. Particularly with regard to understanding the interplay between external dynamics as part of macro–level perspective (e.g. market conditions, national hierarchies,

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30 ‘Macro–level’ is associated with debates on dependency and modernist theories, whereas ‘micro–level’ represents the focus on development potentials of local societies and local actors.
governmental and environmental regulations) and local dynamics (e.g. existing economic, social and ecological conditions and structures, the actors exposure to regional development conditions and to economical/social hierarchies and networks). However, a regional focus would not replace explanations offered by macro-level perspectives; it represents an attempt to integrate external and local dynamics by considering macro-level effects in a concrete actor-specific form and by relating local actors to their supra-local exposures.

3) Problem solving approaches

In the discussion about possible solutions to a development crisis, the two “corner-positions” – macro and micro-level perspectives – have both to be taken into account. The focusing on the evaluation of impacts of the development crisis needs the clarification of both external and internal influences on the dynamics of development; it needs the weighing and combining of the two perspectives in the strategies for regional development.

The regional focus on development and environmental problems in rural peripheral areas is broader than a purely local approach. This means that categorisations are not only made on a spatial basis, but incorporate relevant topical dimensions in a concrete and differentiated fashion. This position stands in contrast to classical postulations in the field of geography which try to define spatial terms such as ‘region’ in an absolute way, without considering the formative social conditions or problems.

In the present approach, a topical category takes precedence over spatial categories: this means that region or area in this context is understood as a spatial framework, characterised by certain problems and specific conditions. This, in return, leads to the consequence that the conditions and problems will determine the spatial dimension.

In the present context and according to Wiesmann (1998), ‘regions’ are split in:

- The region of action of rural population (in terms of economic, living and utilisation areas),
- the region of economic and social influence (market conditions, technology, social norms),
- the administrative and political regions (government regulations and actions) and
- the region of ecological potential and processes (land use in relation to economic, social and ecological systems).

These four regions have a topical, as well as a spatial dimension and incorporate important aspects of development and environmental problems in rural peripheral Africa.

The core of the regional focus here appears to be the problems in the region of action of rural populations, as was stated above that the development crisis is influenced by concrete actions and reactions of the actors, e.g. the local population. In the case of this study they are the peasants.

3.2 The Key Actors: Peasant Households in Focus

With regard to the relationship between external and local influences on development, the concerned actors have to be put into the centre of the focus. Due to the actor-oriented perspective, the actions and reactions of the concerned population become crucial as they shape concrete impacts of general developments. A close observation and understanding of those actors, their activities and options open to them, is required in postulating and using an actor-oriented perspective.

Wiesmann (1998) has based this perspective on a theory of action to consider the different activities and relations between activities of individual actors and to examine external and local dynamics in a
multi-dimensional way. This theory of action provides the first step in a closer examination of the key actors of this study. A definitional framework to the term ‘peasant’ and ‘peasant societies’ will be given in a second step. The third component is a theoretical approach to their rationale of action. The last part of this chapter combines the different components of the developed structure to an actor- and problem-oriented model on regional development in the localised context of the present study.

3.2.1 A Concept of Peasants' Theory of Action

The theory of action allows a consideration of the relations between different activities of individual actors and an examination of relations between local and external dynamics. The theory is based on the assumption that human action is not ascribed to single influences or motives. Four theoretical components are identified within this theory of action and four characteristics formulated accordingly:

**Action on the individual level:**
1) ‘Action’ as a combination of activity and meaning
2) ‘Strategy of action’ as a combination of actions

**Action as a function of environment and embedment:**
3) Activities exposed to dynamic conditions of action
4) Meanings embedded in value systems and norms

Each of those components helps to understand the interrelation of different levels of aggregates and their features. The actors' individual or interpersonal level and its two components are considered as the lower of the aggregate levels and put first:

1) ‘Action’ as a combination of activity and meaning
   It is not a mono-causal relation between activity and meaning – which is the goal of the activity – but both change as a part of an ongoing process of mutual adaptation. The activities of an individual actor are considered rationale and the activity is meaningful.

2) Strategy of action as a combination of actions
   The different activities share the resources at disposal and form a network of activities which optimise resource use. Different aims taken together constitute a structure of meanings (or goals) and there is a dynamic link between the network of activities and the structure of meanings: resource use is optimised within network of activities in relation to the needs and wishes expressed in the structure of meanings. The structure of meaning is thus modified through the outcome of the activities. The total of actions including the dynamic relationship between activity-network and structure of meanings is the strategy of action pursued by the actor.

Component three and four are on the second level of aggregates, in which the strategies of action are seen as a function of their environment and social embedment in two different ways: firstly by their exposure to dynamic conditions within the proximate environment or on a supra-regional level and secondly, by the embedment of the actors' meaning of action in certain value systems and norms.

3) Activities exposed to dynamic conditions of action
   Individual activities are also a function of factors in the actors environment (market conditions, social controls, legal regulations, productivity of land etc.) and can be designated as conditions of actions. They relate to activities in two ways: on one hand, actors perceive them in structural terms like a weighing in relation to each other and interpret them in terms of their potentials or limitations they
offer. On the other hand, the structure of meanings defines the framework of decision making and thus constitutes activities. Conditions can also have a direct effect on the results of activities:

“Although conditions can directly influence the outcome of activities, these considerations imply that perceptions, valuation, interpretation of dynamic conditions of actions play a central role in any attempt to understand actors activities or changes in these activities, they can’t be understood at individual level only. On the contrary, they are strongly influenced by the particular socio-cultural embedment of the actors.” (Wiesmann 1998: 42)

4) Meanings embedded in value systems and norms

Not only the activity itself but also the aspect of meaning of the action is rooted in and dependent on aspects of the environment of actors. Patterns and processes of perceptions of actors, their valuations and interpretations of conditions of actions are shaped by the embedment in their societal context and as a result of this, the activities themselves become a function of this embedment.

Considering the two aggregate levels and its four components, it can be concluded, that although actions and strategies of actions are dependent on dynamic conditions of action and on social values and norms, the actors themselves do not react only to these influences. But it is their embedment in social contexts and their exposure to dynamic conditions of action which defines the degrees of freedom within which the actors continuously optimise their specific strategies of action. This can be understood as a creative act, characterised by the interplay of action and reaction, which relates to the component activity and also to the component meaning of action.

On the basis of the above discussed regional, actor-oriented focus on a conceptual and theoretical level (Wiesmann 1998), there are eventually three core problem areas identified which are of particular importance to the line of argumentation eventually leading to an application to a concrete context:

1) The strategies of action used by relevant actors in a particular context
2) The embedment of the strategies in the socio-cultural context
3) The dynamics of conditions of action and the way in which actors influence and interpret these conditions

From these three derived problem areas in a very general and broad context, I will, in the course of this paper, gradually turn to a more concrete application in rural Kenya, which is defined through the focus of this study. In a next step, key actors as the core of further consideration are defined.

3.2.2 Peasant Households and Societies

The rural population of sub-Saharan Africa still consists primarily of small-scale producers, whose numbers continue to increase also in the case of Kenya31.

Disregarding arid areas, small-scale producers consist primarily of small-scale farmers. This makes them key-actors in any consideration of development and potential environmental problems in rural Africa. ‘Peasant household’ is a broad characteristic based on the concept ‘peasantry’ which in fact confines not only African small scale farmers. This concept distinguishes features from the interplay between local agrarian culture, economic structure, national and global structures and developments.

The following characteristics distinguished by Wiesmann (1998) can be taken as central features of a peasant household

1. Livelihoods are primarily, but not exclusively derived from farming, which is usually a combination of crop-farming and livestock production. 
2. Households own their own mean of production (land), or at least have rights to access land. 
3. Agricultural production is based primarily, but not exclusively on household labour. 
4. Household activities are balanced between production and consumption, with inputs reflecting aspects of both production and consumption. 
5. Production reflects varying levels of subsistence.

The features which characterise peasant societies, can also be applied to peasant households and summarised as follows:

1. Peasant societies must be considered as subordinate societies in that they are part of a larger, dominating social system. 
2. Accordingly, peasant societies are in a continuous state of transition resulting from the constant need to adapt to changing external conditions. 
3. Peasant societies and households are dependent on markets that exhibit a high degree of imperfection and subject the peasants to exploitation. 
4. A kind of parallel economy can be found in peasant societies which has been described as a ‘moral economy’ whereby reciprocal trading and support channels are established as part of a social network. 
5. Peasant societies exhibit varying degrees of internal social and economic differentiation and stratification.

Livestock plays an important role in peasant household economies but additionally has weighty socio-culturally defined aspects.

To give an overview of peasant societies in general, is not the aim of this section. It would go beyond the frame of this study and provide little to deepen the understanding of the line of argumentation. However, I will consider some additional features within African smallholder societies which are important regarding the purpose of the study and are applicable in our context. As peasant societies are shaped by their particular history and are influenced by their political, socio-economic and ecological environment, an adequate understanding of smallholder strategies cannot be developed without their embedment and linkages within social structures, rules and values.

Within the following characterisation of some aspects of peasant societies, two aspects of smallholder organisation are important:

1) Land use system:

Beside individual efforts to minimise risk and maximise utility, land use systems are socially constituted to include a subsistence-oriented guarantee of livelihood for all members including the spreading and distribution of risks. They are extremely complex in terms of technologies and production and therefore require a high degree of persistence. This combination allows a flexible reaction to dynamic conditions of actions.

2) Socio-cultural and socio-structural systems:

The elements of social organisation in African smallholder societies consist of kinship systems in terms of clans and lineages within ethnic groups. Families are in general complex and may be spatially spread but are ascribed to a lineage and a clan/ethnic group. A second social classification are the social classes based on age and gender.

**Strategies of action and land use systems in peasant societies**

If a link between the social and cultural systems with smallholder strategies of action and the complex subsistence-based land use systems is established, it is obvious that a certain harmonisation and optimisation must be guaranteed by the social and cultural system, whereas guarantees in the following four areas have to be provided (Wiesmann 1998):

**Ensuring access to resources:**

The access to natural resources (land, water, flora, fauna) is crucial in a primarily subsistence production based land use system and as a result, ownership and user rights become central questions. Those concepts are usually complex, varied and are subject to frequent changes.

**Optimising consumer-producer ratio:**

If the labour market is narrow and the technology level in a society is low, the consumer-producer ratio in a subsistence economy basically controls the welfare of a household. In order to flatten cyclical variations and optimise the consumer-producer ration, a specific social organisation and complex household structures are ascertained in such societies.

**Ensuring risk-reactive measures:**

Strategies to react to risks is a primary concern in smallholder societies and comprise of complex types of reciprocal exchange of goods and services between households. On the individual level, it can be called ‘investment in social capital’; on a societal level, further reaching measures of population control and changes of components in land use system are of decisive importance.

**Safeguarding indigenous knowledge:**

On one hand, a system of societal advise, control and sanctions guarantee that members of a smallholder society focus on existing indigenous knowledge and respective rules and regulations. Through gender and seniority systems in the lineage production modes, specific fields of knowledge and information are maintained on the other hand. Those two approaches seek to safeguard indigenous knowledge in regard to the complex nature – in terms of flexibility – of land use systems.

The first significant feature that can be derived from the described relationship between the socio-economic, socio-cultural and land use system is concerned with peasants strategies:

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33 See ‘Peasant Households’ Rationale of Action’ Chapter 3.2.3.
Many rules and norms related to linkages between the social and land use system continue to guide peasants. One reason is a certain enduring capacity of rules, another is the importance they pose to peasants in regard of their exposure: the framework of cultural identity counterbalances the changing risks in market–economy and politics. The described aspects have therefore persisting effects in peasant strategies of action. The second feature addresses the role of dynamic conditions of action: components of the above outlined systems (for example access to natural resources) could be affected by certain dynamics, which in turn will be reflected in the overall logic of peasant systems.

In order to further investigate this connection, the last section of this sub–chapter deals with the dominant dynamic conditions of action.

The influence of dynamic conditions of action on peasant societies

Actors do not take action on the basis of global origins and developments, such as global and national interactions or historical developments but rather on the basis of concrete manifestations of dynamic conditions of action which are relevant to them. If the actors point of view is considered, the importance of certain conditions remains hypothetical. However, with the actor–oriented perspective of this study, indigenous options for actions in a dynamic environment represent definitely a more realistic point of view.

Wiesmann (1998) has identified nine potential areas of influence which should be considered when selecting the dynamic aspects of economic, social, political and spatial–ecological conditions which are potentially relevant in this regard. Changes that occur in these areas can describe modifications and transformations in peasant strategies as well as the characteristics of peasant societies (Wiesmann 1998: 63).

Areas of influence to dynamic conditions:

- The degree of practise of multi–faceted strategies as an expression of the rationale of peasant action.
- Priorities within spheres of action of multi–strategies, diversification and specialisation in these strategies.
- Composition and level of household income.
- The labour potential, producer–consumer ratio and the distribution of responsibilities for different spheres of action.
- The valuation and relation to natural resources and the degree of access.
- The amount of mutual assistance within peasant societies.
- Persistence and change in socio–structural and socio–cultural characteristics of smallholder societies; the degree of importance and binding force of these aspects for the constitution of the social relations and networks of peasants.
- Composition of land use system, its complexity, persistence and flexibility; the ratio of productive to reproductive inputs.
- Ways of transmitting knowledge systems and systems of social norms and their changes.

Regarding the question about the influence of dynamic conditions of action, the nine areas provide a framework, from which a problem–oriented selection of dynamic factors and their potential influence as dynamic conditions of action can be made. They can then be grouped under the following classification and thematic headings, according to the potential impact these conditions of action have on previously discussed characteristics of peasants and peasant societies:

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34 See ‘Peasant Households as Key Actors’, under 3.2.
**Dynamic conditions of action:**

- Changes in demography
- Market conditions
- Political frame conditions
- Natural resources
- Large-scale socio-cultural dynamics

These dynamic conditions of action and potential areas of influence make up a generalised set of hypotheses on the dynamics of peasants’ environment and the process of transformation in peasant societies.

With the strategies and transformations of peasant societies as the last element, I have outlined and discussed the foundations and relevant characteristics of an actor- and problem-oriented perspective on regional development. The discussion on peasant rationale and strategies of action was combined with the way these strategies are absorbed into the immediate social and cultural environment and with the significance of dynamic conditions of action. The graphic illustration of the ‘Actor- and Problem-Oriented Model on Regional Development’ in chapter 3.2.4. will allow a review on the discussed spheres and perspectives.

### 3.2.3 Peasant Households’ Rationale of Action

As the key focus in the present study is on the actions, reactions and strategies of certain actors in focus. Hence, the question emerges, whether the peasants’ rationale of action describes basic guidelines or principles involved in the process of optimising their strategies. Two theoretical schools are suggested by Wiesmann (1998: 50 et seq.), both of them concentrating on the economic variants, by illustrating the principles of household resource allocation.

The first, neo-classical economic theory assumes that the ‘profit maximising peasant’ is efficient in the sense that no change in either input or output would have an additional positive effect on his income. There is though a need to differentiate between allocative efficiency and a technical efficiency. It was empirically demonstrated that peasants are only efficient in allocative and not in technical terms.

The second theory about the ‘risk-averse peasant’ postulates that peasant households make decisions and take actions in economic rationale terms, while they are not efficient in profit maximisation. As peasant households face a broad range of risks, the allocation of household resources is therefore based on the principle of “safety first”. Risks – a subjective evaluation of probabilities – are minimised, and the expected utility maximised on balance over a longer period of time.

The two hypothesis about ‘economic efficiency’ and ‘risk minimisation’ presents peasant actions in a way that is compatible with the principles of the action theory position in 3.2.1. Both theories offer possibilities to explain aspects of peasants strategies of action whereby the risk aversion theory is allowing an interpretation of the multi-strategies of peasants.

The present study takes a position that accepts the basic hypothesis of both theories by combining them and allowing a process of ‘utility optimisation’.

“The basis of peasant strategies of action is multi-strategies which balance action according to the principle of minimising risk. Beyond this basis, peasants seek to optimise utility by taking opportunities which are eventually offered in certain spheres of action in their multi-strategies.”

(Wiesmann 1998: 53)
The concept of utility optimisation which combines risk minimisation and profit maximisation, is a framework for interpreting the principles of deciding about actions and has potential to explain and interpret observed activities, combinations of activity and changes in activity. However, it has to be stated that the theoretical concept explained above has a deficiency: a peasant household should not be seen – which is the case in the concept of utility optimisation – as a single unit but it is embedded in value systems, rules and practices of peasant societies which have not been taken into consideration in relation to peasant households so far. Only within this context, peasant strategies of action can be interpreted.

Considerations that have to be made here in order to make a comprehensive characterisation of smallholders in rural Africa should not only consider and include the societal context of peasants, but also environmental concerns. Peasant strategies cannot be understood without considering the regulating and determining aspects of the systems in which they are embedded.

3.2.4 An Actor-Oriented Model on Regional Development


In the sense of Rapaport, I have now outlined the patterns of the 'conceptual framework' for a regional and actor-oriented approach on livelihood dynamics in the ongoing chapter. The elements and features described and discussed above are all parts of the patterns (basically adopted from Wiesmann 1998), and eventually leading to the entire 'actor-oriented model on regional development'. Thus, the model below should be seen as the graphical summary of the outlined actor-oriented perspectives by combining all the mentioned relevant aspects of the pattern.

The key actors are at the centre of the model; they are exposed to a dynamic environment characterised by different opposing forces. This system ranges from the characteristics and transformations of peasant societal systems to various dynamic conditions of action. Hence, the three main features of the model are the following:

The (1) values and norms of smallholder systems, their representation and expression in both social relationships and forms of social organisation define a framework of meaning (trapezes). This integral part of peasant actions is transformed particularly through the integration and subordination of the societies in a social and political context. Within there, a tension emerges between traditional local values and modern supra-regional values – for example dynamics of cultural globalisation – in terms of individual actors. This in return may be reflected in more intense social stratifications and more individualised actions and utility within smallholder societies.

The exposure of peasants to (2) dynamic conditions of action (rectangles) can be perceived as possible potentials but also limitations for activities of peasants. Spatial and ecological conditions are given particular space in the model in relation to land use systems and potential resulting environmental problems. (Again, it must be stated that aspects regarding the environment are only one component within the whole range of relevant dynamic conditions). The relevance of those conditions to individual household strategies of action is a function of their patterns of interpretation and structures of meaning.
Peasant actors develop their strategies to secure livelihood in a (3) **changing embedment and exposure**. This performance can be interpreted as a creative act (as seen in 3.2.1., ‘Meanings Embedded in Value Systems and Norms’). To achieve the goal of a secure livelihood, social and material resources and a certain social position is aspired. The way to reach the goal goes via the development of multi-faceted strategies with a wide range of possible actions within certain spheres of action. The concept of the multi-strategy thereby provides the possibility to minimise risk and also the opportunity of utility maximisation.

![Diagram](image)

*Figure 1: Actor-Oriented model on Regional Development. (Source: Wiesmann 1998: 73)*

The presented actor-oriented structural model is now performing as the foundation for a more thorough and concrete approach to the present regional case study in the context of Laikipia.
3.3 Peasant Strategies in the Semi–Arid Laikipia District: the Empirical Approach

The Laikipia District has been marked by heavy in–migration of smallholders and corresponding transformations in land use since the 1970ies.35 Those persisting changes in land use together with large scale socio–economic changes within this area of limited natural resources endangers the insurance of smallholder livelihoods and threatens the ecological equilibrium in the area. Smallholders are and will be simultaneously involved in and affected by Laikipias’ development, since the problems of natural resource preservation and livelihood security raises the question of the possibilities for regional development that is sustainable in ecological, economic and social terms. Considering this, the issue of smallholder activities and particularly the changes of activity has become a question of great practical importance. Therefore, smallholders activities also have a decisive influence on the choice and type of regional and trans–regional development approaches and activities.

The Laikipia District and its smallholder immigrants was chosen as subject for an investigation 1992, because it posed a favourable situation for an empirical survey on indigenous development potential in terms of the following issues:

modifications and changes in smallholders strategies over a certain period of time can be interpreted as action and reaction in response to conditions encountered in the area and will therefore allow to make conclusions on the adaptive and innovative potential of the actors concerned. The situation in Laikipia was particularly ‘favourable’36 to investigate the degree of adaptation to limiting natural resources, which was the focus of the investigation in 1992. Given the importance of the changes in and modifications of smallholder household strategies, I now turn to questions of empirical measurement and assessment. The approach via the problem–oriented analytical model of smallholder household strategies (developed in Wiesmann 1998), described in the following section, was taken as the basis for my empirical approach. It administrates its function for the purpose of this study; but in order to be entirely suitable to answer the research questions, some modifications have to be made.

3.3.1 Problem–Oriented Analytical Model of Household Strategies

The above discussed actor–oriented perspective which is based on an action theory position, has postulated the following theorem:

Particular actions can only be understood by considering how they are part of an overall strategy of action for an individual actor and what significance they have as part of this strategy.

But at the same time, the network of strategies is embedded in hierarchies of social values, norms and relations and exposed to dynamic conditions of actions. As this fundamental position implies the extension of the focus beyond the resource–related actions of smallholders, the choice of smallholder actions becomes almost unlimited. A necessary and meaningful limitation was achieved by Wiesmann (1998) through hypothetically assessing the significance of particular actions which lead to the identification of spheres of action, potentially interrelated clusters of peasant activities and practises.

35 Kohler 1987, Wiesmann 1998, also see introduction, chapter 1.2. of this study.
36 For an explanation of the term ‘favourable’ in this context see sub–chapter 1.1.2.
The examination of interactions between the spheres of action allows to make a problem-oriented assessment of modifications in peasants strategies. The conditions and circumstances which hinder or promote changes can then be designated as action-guiding conditions. Thus the actor-oriented perspective in this study implies that structuring and categorising spheres of action and **action guiding conditions** are the foundation of an empirical approach to the problem-oriented question of changes in smallholder strategies.

Wiesmann (1998) elaborated a problem oriented analytical model which is specifically adapted to the situation in Laikipia and based on the above outlined theoretical foundations and problem orientation. It incorporates existing knowledge of migrant smallholder households and represents the following requirements (Wiesmann 1998: 112):

- Smallholder are considered to be the relevant analytical unit.
- The central focus of the analysis is on spheres of action and action-guiding conditions of smallholder households. The model has to analytically structure these spheres and conditions.
- As changes in smallholder activities are the empirical key indicators of the study, spheres of action must primarily be structured and categorised according to these activities and not according to hypothetically assumed structures of meaning.
- Action-guiding conditions must be categorised and expressed as indicators in such a way that their concrete values differ for the different smallholder households. However, the action guiding conditions for the present study were emphasised with two conditions which do not significantly vary among smallholders in Laikipia, but proved to be of importance regarding the scope of the study and the research questions respectively.

In the following, the different components of the model will be described and discussed. Necessary retrenchments in line with the scope of the present study will be briefly touched and more thoroughly implemented in the evaluation, chapters 5–7 of this study.
3.3.2 Spheres of Action

The analytical model distinguishes between three spheres of action which are directly related to the use of natural resources and four spheres which are not tied to the use of natural resources, but contribute to the livelihood of households with the use of labour, economic and social resources. It is based on the assumption that by considering the seven spheres of action, as well as the impacts they have on each other and the ways they complement each other, one will gain problem–oriented understanding of actions, strategies and changes of action in smallholder households. To elaborate a better comprehension of the meaning of each sphere of action and their complex role in the model, I will thoroughly describe the natural resources related spheres of action before turning to the focal point of the study, the non–natural resources related spheres of action.
Natural resources related spheres of action

a) Agriculture and agricultural production:
This sphere includes activities related to cropland and cultivation of crops, home gardens and garden production, the cultivation and the use of fruit trees and other trees. It can be seen as a major sphere of action as its potential to contribute to subsistence or market production is important in relation to the significance within the household strategies.

b) Livestock keeping and production:
Small and large stock related activities (meat and milk production, husbandry etc.) are included in this sphere of action. The livestock related activities play a similar role like the agricultural production in promoting and supporting subsistence and market production of smallholders.

c) Home economics and farm development:
This sphere of action compromises of other household activities related to natural resources like water or fuel wood for household purpose. Further, the development of the homestead and farm infrastructure is proposed to be included here as the use of natural, but also labour and economic resources of the household are involved.

Hypothetically important non–natural resources related spheres of action include, according to the model, four spheres which contribute to the household without the use of natural, but labour, economic and social resources:

Non–natural resources related spheres of action

d) Off–farm employment:
To ensure the livelihood of smallholder immigrants, off–farm employment has proved to be of vital importance. Questions of noticeable impacts on the spheres involving the direct use of natural resources by off–farm employment of smallholder household members arise. The off–farm activities are of particular interest especially in terms of availability, location, type and degree of off–farm activities in this context.

e) Family networking:
Reciprocity in labour, commodities and services is hypothetically of great importance in social networks of African smallholder societies. But those networks have to be maintained and investments made in order to keep up a proper risk–management and retain the networks as a significant sphere of action. Questions regarding the investment in social and family networks and the investments impact on other spheres of action are of importance here.

f) Educational activities:
Formal education is a burden to the economy of households in two ways: first, the costs are high and secondly, with children being absent, a traditional labour force is no longer available and might create a bottleneck on the farm. The adjustment and re–weighting of other activities as a reaction to this is an emerging question. Furthermore the potential of education is a long–term objective within the strategy of action of smallholders. It could help the next generation to become less dependent on natural resources by diverting their strategies from farming and is thus another important point to consider within this sphere of action.

See Kohler 1987, Wiesmann 1989
g) Community networking:

The social environment of migrants is disrupted and with it, the traditional family networks. The fact of migration affects those networks as well as the efforts in the area of settlement where new communities have to build up. The question is here, whether the efforts requested to constitute a new community can be seen as a relevant sphere of household action, involving risk management and balancing. A further question regarding the social support networks within the area concerns their impact on other spheres of action: do these impacts affect or modify other spheres?

The model is based on the assumption that by considering the seven described spheres of action above, as well as the impacts they have on each other and the ways they complement each other, one will gain a problem-oriented understanding of actions, strategies and changes of action in smallholder households. Even though the focus of the study lies on the non-natural resources related spheres of action in the relevant model, it is not possible to completely disconnect them from the other spheres, as mentioned above.38

3.3.3 Action Guiding Conditions

The next field to consider in the model is the complementing ‘Action guiding conditions’, which include the embedment of action in hierarchies of social values, norms and relationships and also the exposure to dynamic conditions of actions. Internal household structures, household decision-making processes and the resources available to the household are other relevant factors. As the object of empirical investigation in this study are 30 smallholder households spread within two different agro-climatic areas of Laikipia, the conditions vary greatly among the households according to their different backgrounds and also their individual household structures and resources. These variations among the 170 households were essential to assess the question about ecological adaptation in 1992.

Peasants' options to ameliorate farming activities are subject to the availability of and access to resources.

By keeping the focus on non-natural resource related spheres of action only, examining a much smaller sample and applying a qualitative approach on people’s rationale on decisions within household strategies, the similar conditions for the whole sample have to be included. According to

38 A more thorough view on this point will be given in the analysis, chapter 6: for example ‘Income from livestock’.
frequently stated issues from the qualitative analysis of open questions in the interviews, I concretely incorporated palpable elements of political and socio-cultural conditions in the model.

For one, the analytical model for smallholder households holds five categories of conditions of actions and distinguishes among five groups of indicators different to every household. Secondly, it holds two categories of conditions similar for or equal to all 30 households, which are condition e) and f) below:

a) Resources and Access to resources

Analysis of smallholder household activities and spheres of action must take into account the different possibilities and potentials for using natural resources: size and characteristics of household plots as well as rules and regulations that govern access to further resources such as water, timber, pasture etc. As described under 1.1., natural resources exhibit a great variation within Laikipia and the two study areas which leads to the conclusion that smallholder households have very different conditions in terms of potentials and access to natural resources and it can consequently be said that the spatial location of a settlement can be an appropriate indicator of the variation in the action-guiding conditions related to natural resources.

b) Economic status

The economic level of a smallholder household is basically derived from the availability of means of production and the possibilities to take risks. These two aspects are closely related to the economic resources of households which again show great variation in the study area. The economic level therefore is an indicator for these particular aspects of action guiding conditions.

c) Areas of origin and background

Based on the hypothesis that migrants’ backgrounds reflect specific norms, values and experiences, we can state that geographical, social and economic conditions in the migrants’ areas of origin can be used as an indicator for the diversity – or uniformity – of embedment of smallholders in systems of social values and norms. Considering the migration history, we can hypothesise that the length of time during which experience is gained, resulting in specific activities in the new environment, can be taken as a meaningful indicator of modifications of the way the meaning – or aim – of the action is embedded in systems of social values and norm, as well as in knowledge- and experience systems. The duration of settlement brought into relation with spheres of action therefore allows conclusions about modifications in these systems.

d) The socio-demographic structure of the household

Wiesmann (1998) argued that labour force is one of the most important limiting factors in the development of household actions. Furthermore, there are the two crucial questions: who does what work and how are decisions taken? And in relation to this the additional factors like gender relations, age categories, traditional and formal education which all play an important role in a household, have to be considered. On account of these considerations, we can use the socio-demographic structure of households as an indicator of the potential household labour force and of responsibility for spheres of action. This indicator allows to take conclusions about limitations and potential of spheres of action as a function of availability of labour, traditional and “modern” knowledge systems and household decision-making processes.

e) Socio-cultural conditions

Smallholders’ professional and social lives are not embedded in a closed and independent societal system. On the contrary, they are very much exposed to various dynamics on societal and technological levels: among other things, the smallholders opportunities (and limitations) in their visions of life are increasingly guided through attributes of a cultural globalisation, e.g. the access to tools like the worldwide web or media which brings the world into the home. Mobile technology which is enhancing and simplifying communication also allows the transfer of values, knowledge and views on a broad scale. Considering changes within these topics provides a broader understanding of modifications within household strategies.
f) Political conditions
Since January 2002, Kenya has a new government (The opposition coalition won against the for 25 years ruling party). Although a lot of grand promises were not kept until present, the political shifts had some positive effects on the situation of smallholders as a vulnerable element in the chain: an enhanced transparency led to improvements in law enforcement and controls on different administrational levels. Concrete actions triggered a higher credibility and confidence among the public. An improved security situation in the district, primarily in terms of livestock theft, was one consequence resulting from the political situation/circumstances.

3.3.4 Limitations and Potentials of the Model in the Light of the Present Study

This problem–oriented analytical model was developed to assess household strategies of smallholders in Laikipia in order to understand and evaluate the degree of interdependence and complementarity of certain spheres of action. It allows to outline household strategies in view of securing livelihood, resource use strategies and ecological adaptation.

The action guiding conditions influence and constitute the significance of different spheres of action and their relations and therefore have practical benefits as the causality of changes can be directly followed. This last mentioned fact is of particular importance in the present study.

Although the study is designed as a follow–up study, it only partly derives its results from the very same questions of the last two surveys, while focusing on solely two particular spheres of action which are not related to natural resources.

Two limitations regarding the use of the analytical model has to be stated here: (1) the model uses simplified indicators –origin, duration of settlement, household structures etc.– to put in relation with the embedment of actors in hierarchies of social values, norms, relationships and those conditions which are associated with the structure of meanings. Therefore conclusions about meanings (goals of actions) and the role of social embedment are largely hypothetical. (2) The model primarily takes those action guiding conditions into account which vary among households. Significant dynamic conditions of actions similar to all households, such as market or political conditions are only partly included in the explicit analysis. In order to gain a broader and more comprehensive view on the ideas, rationales and reasons behind certain decisions, more such conditions would have to be included in the model.

Nevertheless, the model’s potential lies in the fact that it allows to make empirical examination of household actions and particularly changes of those actions in the realm of the main questions of the present study, using an approach at two different levels:

(1.) The first level concentrates on the analysis of action within certain spheres of action and their relation,
(2.) while the second level observes the impact of action guiding conditions on the former.

It will be shown in chapter 4 (concerned with methodological aspects), that the action guiding conditions which differ among the households were enhanced with conditions mentioned frequently by respondents and which proved to be similar to all households; or at least all households in a particular area. The empirical contributions were thereby mainly derived from statements in open questions. Hence, the quantitative and descriptive examination of smallholder’s actions (through diagrams etc.) is supported or contrasted through the influencing conditions which are stated and named in more open and in-depths questions.

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39 See also excursus ‘Security Issue’, Appendix 3
40 See the socio-cultural and political conditions in the model figure 2, page 46
4 Methodology

4.1 Mixed methodology Approach
4.1.1 Methods Applied

4.2 Selection of the Study Area and Sampling
4.2.1 Study Area
4.2.2 Sampling

4.3 Data Analysis
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4.3.3 Data Processing and Practical Procedures

4.4 Experience
4.4.1 Interviewing the Peasants
4.4.2 Working with Translators and as an International Team
The methodological approaches and methods used in this study were chosen in close connection with
the objectives outlined in chapter 1.2. The aim concerning the methodological approach, is the
collection of quantifiable and qualitative data regarding smallholders household strategies in specific
spheres of action, with focus on the changes of those strategies. In order to derive data on changes,
the study is to one part based on comparisons. The application of the same semi-quantitative methods
used in the previous two investigations to assess changes over time therefore marks a necessity to
ensure comparability. A second, complementary part of the study is concerned with the smallholders
reasons and considerations for particular strategies and actions. This requires an approach with
corresponding tools which facilitate the gathering of peasants diverse and personal views and
opinions. To get hold of this kind of in-depth information, a qualitative approach was seen to be
appropriate to assess the decisions behind peasants actions. Based on these considerations, the study
obtains its findings by using a two fold methodology, comprising of both quantitative and qualitative
elements.

4.1 Mixed Methodology Approach

I introduce this chapter with a citation from Bryman (2001), which lies the foundation for further
considerations about the methodologies applied in this study:

"Mixed methodology research entails the application of two or more sources of data or research
methods to the investigation of a research question or to different but highly linked research

The rationale of mixed-method research is underpinned by the principle of triangulation\(^{41}\). This
implies that in order not to be over reliant on a single research method and strategy of validation, one
should instead employ more than one measurement procedure while investigating a research problem.
When quantitative and qualitative research are combined, it can be argued that it is rather a multi-
strategy research than a multi-method, since both, quantitative and qualitative approaches are
contrasted and each is associated with certain research methods and designs. An example is given by
Bryman (2001) which approximates the procedure applied in this study:

"A survey is conducted and certain individuals are selected on the basis of characteristics highlighted in
the survey, then further and more intense study is done using a qualitative method." (Bryman 2001,

Bryman further argues that one of the most frequent cited rationale for multi-strategy research is that
of seeking to establish a convergent validity of findings. If quantitative findings can be confirmed with
qualitative evidence (and vice versa), the credibility of the research is enhanced. Such a notion is not
without problems though and it depends a great deal where, in which contexts, with which background
of values and through whom research is done.

The starting-position and circumstances of the approach in the present study are distinct from the
above described perspective, in the sense that the quantitative/qualitative-strategy is not used
independently and one after the other in a row. But they are used in a parallel manner, employing both
at the same time and relating one to the other\(^{42}\), as a 'between-method'-triangulation (further
explanation to this subject is given in the next chapter 4.1.1.).

\(^{41}\) For a definition see Flick 1999: 250.

\(^{42}\) Diekmann (1996: 454/5): „Im Unterschied zur Triangulation werden die einzelnen Methoden in diesem Fall [multi-methods] nicht
nur „additiv“ kombiniert, sondern aufeinander bezogen.“
Regarding the balance in the research subject, the weight of the research questions is not only laid on the “IF”-, “WHAT”- and “WHO”-questions but to a significant part also on the “HOW”- and especially “WHY”-questions regarding spheres of action within household strategies. A solely quantitative approach would in this case certainly not have been adequate to assess the rationale behind peoples actions in the sphere ‘Social Networks and Ties’ and ‘Off-Farm Labour and Remittances’ in an investigation on a rather small scale.

Diekmann (1996), as another advocate of the combination of methods in social research, concludes that

“[…] die Vorzüge qualitativer Erhebungs- und quantitativer Analysemethoden lassen sich mithin durchaus verbinden.” (Diekmann 1996: 454)

4.1.1 Methods Applied

With the total sample of 30 smallholder households – 15 in each agro-climatic area –, interviews of about two and a half to four hours were undertaken and possibly covering all topics without gaps (topics see below). The different lengths of the interview sessions were due to diverse conversation styles especially in regard to the open questions. The talking before and after the actual interview questions was an important part of the procedure and not always to distinguish from answering questions.

Only 10 out of 30 interviews conducted were accompanied by the author, the remaining 20 were accomplished by the assistant-team. All interviews except for one (it was in English) were held in Kikuyu, the primary language used by the Kikuyu people. The answers were written down in English during the questioning by one of the two assistants.

Quantitative approach

Quantitative research aims to isolate cause and effect by measuring and quantifying the subject by a set of universally applicable laws. The quantitative method applied to the collection of the comparable and to a certain extent quantifiable data was the questionnaire. Objectivity, reliability and validity are claims which the instrument questionnaire should satisfy or at least give consideration to, according to Diekmann (1996). The standardisation has its price, e.g. closed questions and pre–designed categories of answer do not allow information beyond the spectrum.

The structured and standardised procedure hereby used was based on the former questionnaire which was developed for the survey in 1992 and utilised again in a slightly adapted version in 1997. For the purpose of this study, the questionnaire was re–dimensioned and adopted according to the research questions regarding the relevant spheres of actions ‘Social Networks and Ties’ and Off–Farm Labour and Remittances’. The process of data compilation took place in two steps: in course of the field preparation, I thoroughly studied the former questionnaire (and legend) and accomplished a rough selection of relevant parts. The adequate and definite selecting of questions and pertinent answer categories – and codes – was realised in close cooperation with the assigned research assistant in the field and through discussions with the knowledgeable, subject–familiar supervisors.

43 Most Kikuyu smallholders migrated into Laikipia from their ancestral places in the central highlands of Kenya.
The following nine topics or question groups were taken up in the interviews:

1. **General Information of the household**: Sample information like plot number and the respondent’s profile.

2. **Family Tree**: A drawing that includes all members of the household according to respondent’s distinction, including their age, education, activity, income, place of living and degree of living on the plot.

3. **Sub–Group 1 from General Information: Persons** (derived from family tree)

4. **Sub–Group 2–3 from General Information: 2. Homestead; 3. Farming**
   - Homestead: age of settlement and relation between owner and settler
   - Farming: Size of holding and cropland, crop and harvest information, number of livestock, income from crops, livestock, changes regarding farming.

5. **Networks**: Areas of origin of respondent and spouse. Degree and direction of assistance, form of assistance, change of ties for the following person groups: relatives in home area, relatives living nearby, other relatives, neighbours, sub–households. Importance and judgement of assistance from relatives, collaboration within estate and selection of the most important ties for the household and brief migration history.

6. **Off–farm labour**: For each person working off–farm: position in HH–tree, place and type of work, duration of employment, what for and how much does the person remit, the attachment of the person to the household. Generally: highest remitter, the most/least committed person, judgement of the 2005 reared income compared to average, coverage of expenditures through off–labour.
   - Judgement of importance of remittances: off–labour/networks, priority off–/on–farm activities, changes related to off–farm employment and income.

7. **Education**: Yearly expenses for education of children.

8. **Sub–Group 4 from General Information: Income and Expenses**: The overall production of the farm in normal, good and bad years; means to cover months with insufficient food, ranking of the three spheres education, investment and daily expenditures. Priority of income: from holding or outside.

9. **Sub–Group 5 from General Information: Future**: Future plans for the holding, farming activities, investments and off–farm employment. If and why neighbours have left the settlement.

10. **Information to be observed on the plots by interview team**: Number, construction material and condition of houses, type of fence.

(Questionnaire and legend see Appendices 5 and 6)

In order to ensure a logical flow of the interview process, it was decided that the sequencing should not distinguish between the quantitative comparable and qualitative in–depths questions.

**Qualitative approach**

The main characteristics of the qualitative approaches are according to Flick (1999: 14 et seq.): the adequateness of the relationship between theory and methods, the consideration of the analysis from different perspectives, as well as the researcher’s reflection upon the research as part of the finding. The qualitative method has to correspond to the subject’s complexity, which is investigated in its entity and contexts and to correspond to the complexity of the subjects views. It is also characterised by openness towards its subject.

With this in mind, elements of the semi–structured guided interview were chosen to complement the standardised, above described quantitative approach. It is an approach which provides a mixture between the structured interview and the very open explorative conversation. While this procedure of a combined interview has the advantage of not disrupting the logic string of topics during questioning,
this rudiment is also giving way to include "WHY"- questions, which are taking people’s opinions and views into account within the process of the standardised question-and-answer-procedure through the questionnaire44.

It also accounts for a certain respect towards the subject of investigation which is reflected in statements in Flick (1999) Within this approach,

“ [...] Der Interviewpartner verfügt über einen komplexen Wissensbestand zum Thema der Untersuchung.”

Furthermore: [...] Es werden theoriegeleitete, hypothesesgerichtete Fragen gestellt, die [...] auf den Vorannahmen des Forschers beruhen. [...] Die formulierten Annahmen sollen dem Interviewpartner gegenüber als Angebote formuliert werden, die er aufgreifen oder ablehnen kann.“ (Flick 1999: 99/101)

Hence, the questions in the interview process were defined through the specification in respect to the domain of content and their specific formulation along the hypothesis.

Observation and informal conversations

Observation can be seen as an important aspect of the research, because behaviours outlined in the interviews can be compared with the observed and complemented as a consequence. Flick (1999: 152) states that “with observation, one claims to know what is really happening or how something is functioning." Interviews on the other side are a mixture of how something is and how something should be, while this has to be disentangled as a consequence of observation.

Informal conversations take place spontaneously on the spot; anywhere, e.g. on the street, in the shop, in a coffee place. In contrast to formal interviewing, casual conversations can reveal background information known by the conversation partner and be transmitted to the researcher in a mostly relaxed and at ease environment. An advantage in gaining information in this manner can be the anonymity of the researcher in terms of his identity and intention in a conversation which is contrasting the case of conducting formal interviews. Then, the researcher and his/her intentions are previously introduced and the respondent’s consent asked.

In terms of the present study, observations and informal conversations both played a role. Because I accompanied only 10 out of 30 interviews though, observation only happened in the context of those 10. But because 29 interviews had to be held in Kikuyu, a language not known to me, the time during the questioning process could be used to observe and explore coherences and interrelations between people’s answers and their environment. There also were certain behaviour patterns of the respondents observed by the team and connected to own experiences in the specific cultural contexts. This in turn influenced the validation of certain answers given. Illegal (farm) activities for example are not mentioned to people from “outside” and sometimes a tendency to negatify facts about yields, income or the like is discernable.

In the frame of this study, personal informal conversations primarily took place within the research team. Through the asset that the two assistants have worked as interviewers in at least one of the former surveys and are habitants of the same area, information about individual households and developments in the designated areas, as well as political backgrounds on district and national level were generously given to me and discussed within the team. Last but not least, cultural roots of different perceptions on results could be discussed in a informal and very open way. As mentioned above, the research assistants usually spoke to the respondents – and occasionally other household members – before and after the formal interview in an informal way. Analogies like belonging to the

44 "WHY"- questions are referred to as “hypothesis-guided questions” in Flick 1999: 101.
same tribe, having the same mother tongue, living in the same area, possibly attending the same church proved to be major tools in avoiding obstacles on the way to reliable and confidential information.

4.2 Selection of the Study Area and Sampling

4.2.1 Study Area

In dependence on the close connection of the present study to the former surveys and its role as part of a long-term research, the spatial dimension of the areas of investigation remains the same. Despite the vicinity of the two areas to each other, they both represent a different agro-climatic zone which is primarily defined through the distance to Mt. Kenya (see chapter 2.1). The samples for the investigation were drawn from the 14 settlement sub-locations mentioned in chapter 2.2. The samples in each location were firstly chosen according to their performance in other surveys conducted in the area, as the whole of East Laikipia has been subject to more or less constant research since the early 80ies which can lead to a potential "questioning-overdose" in certain areas. Secondly, criteria like the general "attitude" towards research visitors – especially white ones – or previous experiences of CETRAD researchers were taken into account. A third point was the desirable spatial distribution of samples in the sub-locations regarding the better or less favourable availability of natural resources such as river water or communal pasture and the vicinity to infrastructure like roads, shops, public transport. This in turn allowed an inference to the accessibility of casual or permanent labour-opportunities like large scale horticulture farms (see map 1, page 22).

4.2.2 Sampling

In order to reach the appropriate 15 households to be investigated in each of the two areas, the sampling was considered necessary to be done in several steps. Like this, it was possible to narrow down the available households to the required number of totally 30 households, according to a ranked set of characteristics. Certain limitations regarding the free choice of samples during the sampling process though, especially in the second stage, had to be incorporated and accepted.

The first selection process was done before travelling to the field, e.g. the samples lost between the 1992 and the 1997 survey were distinguished and excluded. The second step concerned one focus sphere of action within the household strategies, the sphere ‘Off-Farm Labour’. This sphere was primarily chosen because it is holding a crucial position in terms of the focus and research questions of the thesis, relating to changes in household strategies as it is likely to show changes in the past 14 years. Furthermore, the question group ‘Off-Farm Labour’ in the questionnaire of the last survey could be left with little adaptations only which allows good comparable data. The topic included questions of a both quantitative and qualitative kind. The intended selection was to include a balanced number of households in both areas, engaged and not engaged in off-farm labour of any kind. More thorough categorisations of the off-farm levels of each household were then conducted, resulting in the five

45 Research targeting social phenomena or realities does affect the people living in the areas to be investigated to a much greater extent than physical research does, as social science always involves people and requires their contributions.
colour categories: 1 (red) 'Nobody in Off-Farm', 2 (blue) 'Off-Farm', 3 (yellow) 'Off-Farm considered important', 4 (orange) 'Unsure', 5 (beige) 'Off-Farm but no Remittances'.

Map 5: Visited plots in study area I (above) and study area II (below)
The spatial distribution of the holdings as a next step was specified in the field together with the research team according to experiences made with individual households in former surveys. These experiences represented basically the level of cooperation of the interviewees and their families during the visits. Here, also the anticipated willingness of the respondents to contribute to the next investigation in 2007 was included, as a “survey-overdose” of cooperative households was to be avoided in any case.

The distance between single holdings and their vicinity to rivers and infrastructure was chosen as another criteria. The topic ‘availability’ had then to be included as a last section in the sampling process. A number of selected samples has to be put under this heading that were lost due to death, old age, not being cooperative or simply denying having the time to take part in the investigation.

The direct consequences of these occurrences were the following two:

1. a constant adjustment of the samples by choosing new ones, which was also leading to repeated and therefore time consuming appointment trips.

2. the categorisation according to the level of off-farm engagement was gradually taking a back seat, as the previous balance regarding the off-farm labour levels– even though a symmetrical distribution was intended – could not be kept.

<table>
<thead>
<tr>
<th>(1) Prior to field:</th>
<th>(2) In the field:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exclusion of ‘lost’ samples between 1992 and 1997</td>
<td>Inclusion of experiences from former surveys; (for example level of cooperation)</td>
</tr>
<tr>
<td>Investigation of the sphere ‘Off–Farm Labour’ → symmetrical distribution of different ‘Off–Farm’– levels</td>
<td>Spatial distribution of samples chosen by distance between the holdings and access to resources.</td>
</tr>
<tr>
<td>Categorisation of 1997–samples in different levels of ‘Off–Farm’.</td>
<td>Advertence of Availability: → constant adjustment.</td>
</tr>
</tbody>
</table>

Table 1: Sampling process

Thus, the resulting final set of samples which was eventually investigated in this study, represents the intended spatial and attribute distribution pattern and a dynamic sampling process (see map 5, page 57 and ‘Final compilation of sample households visited’ and additional information in Appendix 4).

4.3 Data Analysis

When I talked in 4.1. and 4.2 about the methods applied, it became clear that the approach in the present study is not based on one, but on different methodological grounds. A main reason is that the basis of this study approach – including the semi–quantitative method – are previous surveys which were different, both in scale and focus. In the context of data gathering in the present study, there was another method added in order to gain necessary and useful answers to our main questions. In the analysis however, things become even more complicated because different methods were mixed and it is therefore sometimes necessary to make rather artificial distinctions to bring light onto theoretical foundations and backgrounds.

The quantitative approach was applied in a first step and flattened the field for further qualitative analysis with regard to content of the open questions. The less structured, open questions were
analysed in a second step in terms of their relevance to the results of the quantitative measurements. They were also analysed regarding discovered and frequently quoted phenomena which did not appear in the quantitative approach.

The distinction between the two study areas was made where it made sense, i.e. when significant differences were obviously detachable.

### 4.3.1 Quantitative Analysis

Regarding the quantitative part of the data analysis, the evaluation was mostly restricted to the 2006 investigation where a high-quality data set was available, and further extended with the 1992 data in the comparison section. The 1997 data set proved to be very incomplete which made an inclusion in comparisons very difficult and even impossible in some cases. Hence, it could only be taken into consideration and incorporated where enough data from the chosen samples was available.

The analysis was mostly limited to uni-variate analysis, in particular the histogram, an empirical frequency distribution. In two cases in the comparison section, a multivariate cross-tabulating was applied in order to bring two variables into relation to each other.

In the whole process of quantitative measuring it has to be kept in mind that the frequency of occurrences in a sample of 30 only provides development tendencies and should in no way be seen as an absolute, in a broader context applicable developments.

### 4.3.2 Qualitative Analysis

The qualitative evaluation of questions in the 2006 data set is basically established on the fundament of the quantitative measurements. It refers to particularly three selected open questions which were considered crucial in terms of the main research questions and which at the same time are providing a good amount of text. The procedure is a ‘selective coding’ as we are looking at one phenomena and a certain amount of core categories (action guiding conditions) and corresponding sub-categories relating to the core phenomena in each question only. Relevant passages in the texts are chosen belonging to the categories. The analysis then followed two possible procedures:

1. Different statements of the respondents are assigned to a relevant main phenomenon or topic given by the sort of question itself and then categorised under a number of sub–phenomenon and consequent categories, connected with the conditions in the theoretical model according to findings of the quantitative results.

   Question 6.37: ‘Tell about changes relating to off-farm employment and income in this household in the last years’

   **Main phenomenon:** changes occurred. **Three sub–phenomena:** Importance of off–farm labour increased/ Importance of off–farm labour the same/ Importance of off–farm labour decreased.

   **Categories:** Action guiding conditions in the analytical model

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46 See Diekmann 1996
47 See Schnell/Hill/Esser 1999
48 See Flick 1999: 202
A rather oppositional procedure was the discovery of a topic often quoted and mentioned in the statements but which is not obvious to find and distinguish in the quantitative findings. The statements or text passages could then be assigned to and divided into sub-ordinate categories relating to the phenomena. In this way discovered topics were attached as action guiding conditions to the existing conditions in the analytical model. (In the first procedure, ‘action guiding conditions’ already displayed in the analytical model were employed; in the second procedure, two newly established ‘action guiding conditions’ were added on top.)

**Question 5.25: ‘Did the ties to the above mentioned groups change in their intensity and form, over the last years?’**

**Main phenomenon:** Ties changed. **Two sub-phenomena:** ties increased; ties decreased.

**Categories:** Action guiding conditions in the analytical model.

**Question 4.2.21: ‘How has the farming (cropping, garden) and the livestock keeping developed?’**

**Main phenomenon:** The farming developed. **Four sub-phenomena:** farming activities increased/decreased; livestock keeping increased/decreased.

**Categories:** Action guiding conditions in the analytical model.

### 4.3.3 Data Processing

In order to get the primary data clearly arranged, all interviews were entered into designated Excel sheets in three different units immediately after the visits in the field: the first unit included responses according to questionnaire, including the author’s or/and the research assistants’ remarks, the second unit consisted of the two extensive and less structured questions separately and the third unit is the household tree.

Primary to the transcription, extensive clarifications and discussions on the questionnaires within the research team were essential, as almost every interview was conducted in Kikuyu but answers noted in English in order to facilitate the further use of the data. However, the information needed to be transferred as ‘fresh’ as possible in order not to lose important –particularly informal– information on the sample. The process of measuring data started with the current state and the importance of the non–natural resource related household strategies within the overall household strategy in 2006 in regard to the aim of the study and the research questions. Frequency distributions were chosen as the way to reach the current state in both areas; this was followed by the selection of relevant results contributing to the analysis of how this state was achieved. As a last step, a back comparison to results of the same households questioned in 1992 and 1997 was conducted, again through frequency distribution and cross–tabling. The whole process of measuring was a constant narrowing down of a broad variety of data contributing to answering the research questions into including very significant results in the line of argumentation only.

The amount of qualitative data was considered too small to approach it by using supportive computer software. The coding was conducted “by hand” into text files while using drag–and–drop functions. The following two graphical outlines provide an overview of the process of data analysis which was applied on the action spheres ‘Social Networks and Ties’ and ‘Off–Farm Labour and Remittances’:

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Figure 3: Procedure of analysis for both focal spheres

**Status of ‘Social Networks and Ties’ 2006 chapter 5.1**

**Judgement**

- Ranking of ties [Area I ↔ Area II]
- Importance of assistance from relatives [Area I ↔ Area II]

**Open questions**

- Increase/decrease of ties to ‘Neighbours’, ‘Sub-households’ and ‘Relatives.’

**Analysis**

- Space–inherent ties
  - Neighbours
  - Sub-HH
  - Degree/direction of assistance
  - Change of ties (short-term)

- Trans–spatial ties
  - Home area
  - Other relatives
  - [Area I ↔ Area II]

**Status of ‘Off–Farm Labour 2006 chapter 6.1**

**Judgement**

- Priority of Off-/On-farm activities [Area I ↔ Area II]
- Coverage of expenditures through off-farm labour [Area I ↔ Area II]

**Open question**

- Changes relating to off-farm employment and income since 1997.

**Analysis**

- Who works off-farm
- Who works where
- Type of work

**Retrospective on ‘Social Networks and Ties’ 1992 – 2006 chapter 5.2**

**Judgement**

- Importance of assistance from relatives [1992 ↔1997 ↔ 2006]

**Analysis**

- Space–inherent ties
  - Neighbours
  - Sub-HH
  - Degree/direction of assistance
  - [Area I ↔ Area II]

- Trans–spatial ties
  - Home area
  - Other relatives
  - [1992 ↔1997 ↔ 2006]


**Judgement**

- Coverage of expenditures through off-farm labour [1992 ↔1997 ↔ 2006]

**Analysis**

- Who works off-farm
- Who works where
- Type of work

**Legend:**

- Sphere of Action ‘Social Network and Ties’
- Sphere of Action ‘Off–Farm Labour and Remittances’

HH = Household

↔ = Comparison
4.4 Experiences

4.4.1 Interviewing the Peasants

The aim of collecting data on the change of non-natural resources related household strategies of smallholders was reached by the application of the above-explained interview methods.

Except for one (which was undertaken at the CETRAD localities), all interviews took place in the smallholders homestead, i.e. in their huts, houses or outside in the compound. The potential problems posed by my foreignness and being white during visits and interviews were minimised or avoided by my position as a "trainee in CETRAD" which was decided to be communicated to the respondents through the assistants.

The ambience in the interview situations was diverse, but in most cases good; the respondents and other family members were very welcoming and hospitable, tea or even lunch was often served. The appointment trip was a helpful way of getting in touch with people, explaining the procedure and aim of the questioning and at the same time getting a first impression for the team on what to expect. Sometimes though, respondents were suspicious and in few cases even querulous and stubborn. This made the questioning very complex as it was difficult to place the answers and detect their reliability. The most sensitive topics thereby involved finances, e.g. questions on income and expenses of the household and its members. In those cases, the assistants' experience and knowledge of local conditions and cultural realities were essential in cross-checking answers regarding their reliability and exaggeration or underestimation. But it was not always possible to find out the "whole truth". The reliability of the statements thus have to be taken into consideration when interpreting the data.

Through the above described sampling process (4.2.2.), 22 out of the 30 respondents were women. However, this fact can not be equated with female-headed as in most cases the household head did either not want to answer, was not available or the woman already answered in 1997 and/or 1992. It can be said that in general, the female respondents were slightly more talkative and collaborative than the male respondents and had a good knowledge and commemoration of family background, data etc.
This can partly be ascribed to the women's traditional role in the household and family and as “the one who keeps the fire burning”.

A controversial and often discussed topic in social research – especially in third world contexts – was touched through the field work of the present study and therefore seen appropriate to be mentioned: the question of paying for information in research.

Social research of different scales and goals is an important tool to investigate and detect potentials for support to people in particular contexts in a short or long-term view. But at the same time it does not at all contribute to the immediate amelioration of living conditions or livelihoods. Especially in long-term research it is therefore often argued that people get “spoiled” through incentives like food or money in return for information and collaboration.

The investigation for this thesis took place in a context where people usually have to work hard to survive. By using at least half a working-day for the questioning and being served tea and/or food, researchers should therefore be aware of the difference between the payment for the provision of a service and a sign of respect for a provided service in carrying a present like a kilo of sugar for example.

4.4.2 Working with Translators and as an International Team

All the interviews in this thesis were conducted with the help of assistants who also translated the questionnaire into the native language and the answers back into English during the process of the conversation. It was not a conventional 'working with translators', though. With the talking, questioning and answering – in particular the open questions – in Kikuyu, there was a virtual impossibility for me to interfere in the flow and it was not possible to dig deeper and ask further questions of understanding during questioning.

Each translation is always an interpretation. And the more open the questions, the bigger the spectrum of interpretation. But in this case, it is not only the interpretation alone but the assistants’ assumptions which are guided through cultural perception and backgrounds and therefore disregard or neglect my necessity to ask questions in order to comprehend essential connections and origins behind respondents rationale of action. Through this methodology, the assistants put their own weight on questions, which is not necessarily congruent with mine.

With this perspective, the assistants work on former surveys can be seen as a disadvantage, as the present study is in dependence on the other surveys but completely different in aim, style and scale. Here, their role incorporates a much greater amount of responsibility and also sensitivity in gaining the required information and each step to acquire information should be cross-checked with the author.

With the applied methodology, a second visit would have been necessary in a lot of cases, in order to get clearer answers in regard to rationales and reasons behind actions. But this was not possible due to the lack of time, as well as in respect to the respondent’s time and attendance or readiness.

The embedment and close link of the present study to former and following investigations proved to be a challenge for the design and accomplishment of the research to this study from the beginning. While the former studies provided the foundation in form of a close-knit framework of experiences, results and findings, the whole research process of this research was formed and strongly influenced through this framework. Nevertheless, some steps in the process were simplified and in a practical way made easier through this. Namely the work in a established institution like CETRAD had effects on the research work in providing a lot of infrastructure: the central location of the institution in town with office-space, electricity and computers. Furthermore available vehicles and good drivers in terms of being familiar with the district. The institution is known in the communities as they had worked in the
area since quite some time, formerly known as Laikipia Research Program LRP. This helped in explaining to people the ‘What’ and ‘Why’ of the research work that had to be done for the present study and will help in providing access for the following survey.

On the other hand, it was exactly the disguise of “doing another CETRAD-survey” that somehow blocked access to a different kind of research: it left little way to change the interview style and the research schedule or make adjustments, such as for example a second visit for follow-up questions in a household when it proved to be necessary for the unmitigated understanding of given answers.

The next four chapters explore the importance and significance of the two spheres of action ‘Social Networks and Ties’ and ‘Off-Farm Labour and Remittances’ within household strategies of the investigated smallholder households in 2006. On one hand, the importance – or the weight – individual households attribute to these spheres, is closely linked with the benefits such as the level of remittances and the income triggered through concrete actions within those spheres. However, it will be shown, that the term ‘benefit’ is thereby not only attributed to economic gain, but can mean a lot of different things households label it with. On the other hand, the accomplished significance of single actions or whole spheres of action, unveil the link to specific action guiding conditions, the households are exposed and react to, or have to deal with.

The following chapters of data evaluation are also concerned with the examination of dynamics and possible changes that occurred in the role these two specific action–spheres play in the context of securing livelihood in the group of smallholders investigated between 1992 and 2006. The comparison of congruent questions from the 1992 and the 2006 investigations (the 1997 results are partly included) thereby allows to explore the quantitative changes which occurred within the households regarding the degree of importance of ties, the ways and channels of assistance and the remittances on one side. On the other side, the number and characteristics of persons engaged in different activities off-plot and their remittance–behaviour can be disclosed. Beside that, the respondent’s perception of changes within the strategies and their judgement of different activities plays a very important role, as it enables to draw direct comparisons of the reasons behind the bare figures shown in both investigations.

In order to appropriately approach the analysis, a three-fold analysis procedure is considered useful and will be applied for both action–spheres:50

1. The first step is an overall ‘Judgement’ regarding the importance of the sphere by exploring questions on individual opinions and views of the respondents. This positioning of each household on a scale is a process guided and shaped through the respondents very individual immediate personal and family situation and history, their economic status and the access to resources.51

2. The ‘Analysis of the reasons’ of the households which leads to or is linked to the specific judgment and positioning under 1.


At the end of each sub–chapter, a brief summary of the most important results and observations will be listed and referred to as ‘Recapitulations’. Those lists perform as the basis for the conclusions and synthesis performing in chapter 8.

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50 See also figure 3, page 61: ‘Procedure of analysis for both focal spheres’
51 Which are at the same time the ‘Action Guiding Conditions’ of the model figure 2, page 46
5 Evaluation of the Non-Natural Resources Related Sphere of Action ‘Social Networks and Ties’

5.1 Status of the Sphere of Action ‘Social Networks and Ties’ in 2006

5.1.1 Households’ Judgement of Different Ties
   Who is Most Important?
   Receiving from Relatives: Crucial or Marginal?
   Change of the Intensity of Ties and Networks: Statements from Open Question

5.1.2 Going deeper: Assessment of Actions within Networks
   Space-Inherent Networks
   Trans-Spatial Networks

5.2 Retrospective on the Sphere of Action ‘Social Networks and Ties’ 1992–2006

5.2.1 Households’ Judgement of Different Ties
   Who is Most Important?
   Receiving from Relatives: Crucial or Marginal?

5.2.2 Going Deeper and Back in Time: Assessment of Actions within Networks
   Space–Inherent Networks
   Trans–Spatial Networks
Findings of a number of studies that deal with the diversification and extension of the resource base of peasant households and thereby focus on the aspect of ‘Social Networks and Ties’ of peasant livelihoods all yield similar conclusions: the networks are considered relevant, but fundamental changes within this aspect of strategies to ensure livelihood have taken place and still are.

„Als Absicherung treten traditionelle Solidarität und Reziprozität im heutigen Umfeld gewiss nicht mehr in generalisierter Form auf. (...) Austauschphänomene unter Verwandten und Personen, die sich sozial nahe stehen, bilden indessen im alltagspraktischen Handeln nach wie vor eine nicht zu unterschätzende Dimension.“ (Sottas/Wiesmann 1993, in: Anthropos 1993: 377)

I start from the premises that the benefits from social networks, specifically in terms of their contribution to manage hardships or emergencies in the smallholders attempt to secure their livelihoods, are as substantial as wage labour. Together with income from off-farm activities, they help to buffer insecurity and scarcity. Therefore, social ties to the larger family and within the community or neighbourhood are particularly important in a hazardous environment such as the two study areas investigated. The (basically mutual) exchange practised, ranges from assistance such as labour, construction material, food and articles of daily use to financial assistance to cover hospital bills or school fees for example.

The Kikuyu social system for instance, with its traditionally strong ties within the same lineage, constituted a well-operated web big enough to cope with necessary exchanges and emergencies without burdening single individuals or households. However, the only really meaningful remaining social cognate structure nowadays is the family, which is restricted to either the close patri- or matriline. According to Künzi et al. (1998), the lineage has almost completely lost its relevance as a social aggregate in everyday practice. Thus, the previously existing and far-reaching networks have dissolved. Although the extended family still remains to some degree a meaningful higher social aggregate for certain occasions or functions, the networks do not seem to include it anymore. The consequences of this development can be manifold and the following section attempts to detect facts that shed light on the status of this particular sphere of action and the potential reasons leading to this status through the examination of the following indicators:

- Ranking of ties (question 5.23)
- Importance of assistance from networks (question 5.20)
- Development of Intensity and form of ties: (open question 5.25)

Some information on terms used have to be mentioned while approaching the analysis part in order to make comprehension easier:

** Areas**: Because it is a goal of this study to reveal differences between the sub-humid and semi-arid areas of investigation, the areas are therefore analysed separately and its differences considered where possible and considered meaningful.

** Categories of ties**: In order to make a useful distinction between the relevant groups or ties considered relevant for the individual households and applied in the questionnaire, two dimensions were created:

- **trans-spatial**: consisting of people in the ‘Home Area’ and ‘Other Relatives’; these categories include relatives who live rather distant from the questioned household, e.g. farther than in a neighbouring estate.
- **space–inherent**: ‘Sub–Households’, ‘Neighbours’ and ‘Relatives Nearby’ (where applicable); these categories include people of relevance to the household living nearby, e.g. within the same estate.

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52 29 out of 30 investigated households belong to the ethnic group of the Kikuyu
**Degree and Direction of assistance.** A three-fold distinction between both the degree (1. regular, 2. bound to specific expenses and 3. limited to emergency) and the direction (1. both-sided, 2. receiving and 3. giving) was found appropriate regarding the given answers.

**Change of ties.** The change of ties was split into a 5-point scale ranging from a high increase to a high decrease.

5.1 Status of the Sphere of Action ‘Social Networks and Ties’ in 2006

In attempting to explore the results in the sphere of action ‘Social Networks and Ties’, the proceeding is done according to the figure 3, page 61 in the following way:

The first step (sub-chapter 5.1.1) gives a judgement on ties in rather general terms, including a ranking of ties, the judgement of the assistance from relatives and categorised statements regarding the open question about changes within ties and relationships in individual households.

5.1.1 Households’ Judgement of Different Ties

Who Is Most Important?

[Ranking of Ties, all mentioned]

Area I: the picture is almost balanced; space–inherent ties are only slightly higher than the trans–spatial ties, whereby the neighbours were mentioned more frequently (27%) than the separate ‘Sub–households’ (25%). The ties to ‘Home Area’ and those to ‘Other Relatives’ hold the same percentage position in terms of importance: 24% each.

Area II: the “Sub–Households” mark the peak with 33, closely followed by the ‘Neighbours’ with 30 and the ‘Other relatives’ with 26%. The ‘Relatives within the estate from the man’s side’ are mentioned with 2% only and can be neglected.

Generally: Trans–spatial ties are considered to be of lower importance compared to space–inherent ties in both areas.

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Appendix 5, question 5.23.: “Which of all the named ties are the most important for the household?”
If the first mentioned ties are considered only, the performance of ties in the space-inherent dimension are pre- eminent: both zones show the considerable majority of the primary ties within the groups ‘neighbours’, followed by the separate ‘sub- households’. Area I is thereby less explicit than area II: two household mentioned either the ‘Relatives Home Area’ or ‘Other Relatives’ as the most important, i.e. first priority-ties.

Receiving From Relatives: Crucial or marginal?

If respondents have to value and weight the assistance that comes FROM the side of relatives – regardless of their degree of relation and distance – , the emergency case is the most frequently mentioned one. 11 out of 19 nominations in area I (10 in area II) consider the assistance from relatives in general ‘Important’, because this form of bonds is supporting the household in times of emergency or is considered ‘Not Very Important’, because of the same reason. Only four households in each area are considering the assistance from relatives ‘Important’ and one ‘Very Important’. In percentage, it is not even 25% of the households for which the assistance from the relatives-networks are accounted as important or very important.

Figure 5: Ranking of ties 2006, first mentioned quotations only

Figure 6: Judgement on the importance of assistance FROM relatives

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54 Appendix 5, question 5.20: “How important is the assistance FROM relatives for the HH?”
Change of the Intensity of Networks and Ties:
Statements from Open Question

If the respondent’s statements in the open question\textsuperscript{55} regarding the development of intensity and form of ties are explored, a categorisation and concentration of the given information has to be made: ‘Neighbours’, ‘Sub-households’ and to a small part ‘Other Relatives’ or ‘Relatives in General’ were mentioned. Therefore answer-statements concerning these groups can be distinguished and re-grouped.

Within four main phenomena, a number of categories emerged, which can at the same time be seen as reasons for the particular statements in the answers. These categories of reasons are drawn from the ‘Analytical Model of Smallholder Household Strategies in Laikipia’ (figure 2, page 46) where they act as the action guiding conditions\textsuperscript{56}.

Hence, the range of categories that are needed in order to be able to make subsidiary conclusions from the judgement of ties and assistance from networks, disclose the following pattern:

<table>
<thead>
<tr>
<th>Phenomena</th>
<th>Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>1\textsuperscript{st} phenomenon: Ties with neighbours increased</td>
<td>- Socio-demographic household structure</td>
</tr>
<tr>
<td>2\textsuperscript{nd} phenomenon: Ties with sub-households increased</td>
<td>- Economic status of household</td>
</tr>
<tr>
<td>3\textsuperscript{rd} phenomenon: Ties with sub-HH decreased</td>
<td>- Socio-Cultural conditions</td>
</tr>
<tr>
<td>4\textsuperscript{th} phenomenon: Ties with relatives decreased</td>
<td></td>
</tr>
</tbody>
</table>

Each phenomenon (box left) incorporates a number of statements to the question 5.25, the statements are then subdivided and distributed to the three categories (box right) whereby multiple citing is possible. Within the first two phenomena (ties with neighbours and sub-households increased), the categories ‘socio-demographic household structure’ and ‘economic status of household’ are found. In the 3\textsuperscript{rd} phenomenon (ties to sub-households decreased), only the reasons concerning the ‘economic status of the household’ were mentioned and the 4\textsuperscript{th} phenomenon (ties with relatives decreased) exposes all three categories.

\textsuperscript{55} Appendix 5: Question 5.25: “Did the ties to the above mentioned groups change in their intensity and form, over the last years (since 1997)?”

\textsuperscript{56} From the model figure 2, page 46: the complementing ‘Action guiding conditions’ include the embedment of action of peasants in hierarchies of social values, norms and relationships and also the exposure to dynamic conditions of actions.
1st Phenomenon: Ties with Neighbours Increased (27 text-fragments):

Categories (Reasons e.g. Action Guiding Conditions):
- Socio-demographic household structure
- Economic status of household

The increased ties to ‘Neighbours’ were mentioned 27 times by the respondents when encouraged to talk freely about changes in their ties and relationships. Reasons for this 1st phenomenon are for one concerning the category ‘socio-demographic household structure’ and were with three exceptions mentioned from respondents in the area I. The reasons given were the following: the settling–time period is the foundation of a relatively long interaction between individual, unrelated households in the same settlement scheme, resulting in closer ties with time. People living nearby under the same conditions and exposed to similar constraints are naturally becoming “fellow sufferers”. Attending the same church, sending children to the same schools, belonging to the same associations and unions and even intermarriages cause a sense of belonging and solidarity. At the same time, relatives are considered being far in comparison to the people who are “always there”.

Area II, sample 5: “As the settlers interact and know each other, the ties in the neighbourhood intensify”.

Area II, sample 18: “Even if abandoned by relatives, neighbours will help me”.

Area I, sample 126: “Relatives are far and hence it is good to establish good links with neighbours”.

Neighbours are felt very important also in terms of “increased problems”, which were in most cases referred to as occurrences like death, which always means high expenses and sacrifices for the household in cash, labour and goods. Moreover a general increase in problems the single households feel exposed to (but are not further specified) was also quoted:

Area II, sample 31: “Ties with neighbours increased as life becomes more difficult and more [people] feel the need to collaborate with neighbours”.

Area I, sample 58: “The modern live has more problems than it used to have in older days, so one has to collaborate with neighbours to enable to cope”.

A big number of statements in both areas referred to the need of a household to get organised with the neighbours and within the estate, a fact that can be assigned to the category ‘economic status of household’. The need for an organisation within the settlement scheme has primarily two reasons:

one reason is the (increased) burden on the household at funerals of close family members, but also education expenditures, hospital bills and up to a certain extent (social) events like weddings, birth or graduation. The cooperation between households or individuals is always done via a welfare group57, while in almost all cases the collection of money from members in monthly or half-monthly turns is involved. But benefits for members of a welfare group are not only given and taken in money but also in labour force and goods like food, fire wood, water etc.

Area I, sample 137: “Started welfare group in 1996 through which we help each other in times of needs e.g. funeral, sickness of members.”

Area I, sample 70: “Formed a welfare group which help members during funerals. Have smaller group but have formed umbrella group involving all neighbouring estates (villages).”

Area I, sample 73: “Neighbours have learnt that those people who do not belong to the welfare group have difficulties handling their problems”.

A second reason for the need of organisation is the facilitation of acquiring goods or making of investments within the household and the farm through self-help groups. The systems do not vary

57 See excursus “Self-Organisation of Peasants” in Appendix 1
substantially from the welfare groups and include the periodical collection of money to be re-contributed to the members according to needs and agreements.

Area II, sample 20: “Neighbours self help group: – we started a poultry project”

Area I, sample 225: “Ties to neighbours seem to increase in diversity by forming strong groups whereby they give each other money to buy tanks, iron sheets, livestock etc. That didn’t exist before.”

The expression of the wish for inner-farm development like starting irrigation-practices or concrete developments on community level such as electrification, bridge building, road repair etc. is standing in the line with the reason above, the need to get organised.

Area II, sample 92: “We have formed welfare group and church organisation which facilitate community work such as road repairs and general neighbourhood development, e.g. electrification and water projects.”

Area II, sample 27: “Ties with neighbours have increased due to the wish of neighbours to develop the area and help each other in times of needs, which can definitely be done better in collaboration.”

Also a strong tendency of women-only groups is thereby noticeable. This does not apply to women headed households only but is incorporating female members from households of all social-economic backgrounds. A quoted asset was the facilitated and encouraged sharing of ideas, the notion that one is not alone and can be effectively supported by a group based on high-level solidarity.

Area II, sample 81: “We also have a women group which we registered last year to make it more official – it brings women together to share ideas. (We bought utensils which we use during functions in members home, e.g. plates etc.).”

A general trend or in other words an “undertone” in the statements about welfare and self-help groups is identifiable: beside the necessary practical benefits this form of organisation bears, it has the advantage and gain of leading to a strong cohesion amongst the individual households within a settlement scheme, within a village or neighbourhood. From the respondents, this is often felt as important as the actual benefits in cash and kind.

Area II, sample 79: “Neighbours: ties have increased, have formed welfare groups to help each other in case of problems. This helps to keep groups active and to maintain strong ties.”

Area II, sample 81: “It [the group] helps one to learn from others, to understand each other and helps one to fit in the society. You can’t if you always stay alone.”

2nd phenomenon: Ties with Sub-Households Increased (7 text-fragments):

Categories (Reasons e.g. Action Guiding Conditions):
- Socio-demographic household structure
- Economic status of household

The 2nd phenomenon ‘Ties with sub-households increased’ contains the two categories ‘Socio-demographic household structure (i.e. age structures etc.) and ‘Economic status of household’. There are no significant differences between the areas detectable and the reasons given concerning the ‘socio-demographic household structures’ dominate. Reasons mentioned within this category comprise socio-demographic changes within the households e.g. the aging parents who need stronger support from the children nowadays and changes in household structures caused by death of a

58 Mostly the wife of the household head, which in all cases is the ‘manager’ of the household.

59 See also excursus “Self-Organisation of Peasants” in Appendix 1.
household member, such as the grandchildren remaining with their grandparents. Another direct result from the socio-demographic changes together with the age of settlement, e.g. the advanced age of the respondents, is corresponding with a given reason: the children are developing their own households and therefore either rely on the support from parents’ household, or on the contrary, that parents are now in need of support, because children are gradually leaving their former home.

Area I, sample 227: “[…] but ties to separate sub-household have increased as my children have developed their own homes.”

There is one reason given within the category ‘economic status of household’: the children of respondents are in employment or at least in wage labour and therefore able to support the respondents, e.g. their parents.

Area I, sample 119: “Ties [Remark Grace: respondent meant mainly in terms of money] increased since children are all employed and have stopped being dependent on their parents.”

This again goes in line with other progresses like the starting of a family by the children and does not solely happen on a financial basis but a certain reciprocity in different possible ways is safeguarded here.

Area I, sample 137: “Ties with daughter increased since she got job as nursery school teacher, she leaves kid with her mother and in return supports her with labour, costs, and sometimes buying daily needs for the home.”

3rd phenomenon: Ties with Sub-households Decreased (2 text-fragments)

Categories (Reasons e.g. Action Guiding Conditions):

- Economic status of household (producer–consumer ratio)

The 3rd phenomenon ‘Ties with sub-HH decreased’ is only marginally represented in the open statements from respondents and they can be put under one category, ‘economic status of household’ and were given by households in area I only. They are referring to the financial dimension of support only when talking about decreased ties. The lack of jobs which bring sufficient income to co-support parents is one reason mentioned.

Area I, sample 225: “Ties especially to sub-households seem to decrease mainly in form of assistance, due to lack of good jobs for the children. This means low and unreliable incomes.”

4th phenomenon: Ties with Relatives Decreased (9 text-fragments)

Categories (Reasons, e.g. Action Guiding Conditions):

- Economic status of household
- Socio-demographic household structure
- Socio-cultural conditions

The 4th and more general phenomenon ‘Ties with relatives decreased’ in the statements, reveals three categories, including a new one. The areas are represented with six text fragments in area I and three in area II, respectively.

Within the category ‘economic status of household’, the general low wealth (or low income) of the own and relatives’ household and therefore the lack of communication possibilities are given as indicators for the decreased ties with relatives. By communication, either personal visits both-sided or conversation via telephone is meant. Even the remark about the distance to relatives can be put under the same indicator –lack of communication possibilities.
Area I, sample 58: “[…] have low wealth hence they can’t communicate often.”

The category ‘socio-demographic household structure’ gives other indicators for the phenomenon. An occurrence mentioned in the 2nd phenomenon – establishment of an own household by children of a respondent – can lead to a different notion, e.g. that the ties to relatives decrease because of that. Here, the ability to support the respondents’ household has become less through the engagement in other matters, like educating the children. The reasons primarily address finances, when mentioning “support”.

Area II, sample 95: “[…] they no longer have family gatherings (eastern) like they used to have; they no longer meet due to commitment in other matters.”

Area I, sample 137: “Ties in home area seem to decrease because the household got engaged in educating their children, hence it is hard to support their parents like before.”

The 3rd and last category is not easy to distinguish from others as it is a condition which was latently present in the conversations with respondents, but somehow hard to capture. These ‘socio-cultural conditions’ are therefore represented by few statements only, which at the same time leave the detachable and concrete reasons behind them still rather foggy.

Area 2, sample 7: “Ties to other relatives remained roughly the same – the visits are restricted to emergency only, otherwise one minds his/her own business”

People talk about a tendency to see the commitment to relatives as a cumbersome duty and mention the changing habits regarding the sense of solidarity among relatives. Although few respondents give clear and open evidence like the statements quoted, a common tenor towards a weaker commitment to relatives is detachable. Due to constraints already mentioned in the methodology chapter, it was not possible for the research team to further safeguard or more thoroughly explore the thematic statements.

Area II, sample 95: “Ties to B’s home area are fading due to […] lack of interest. This also applies to other relatives.”

Area I, sample 212: “Ties have decreased maybe due to […] everybody for himself.”

Recapitulations to Change of the Intensity of Networks and Ties: Statements from Open Question

Increased ties with ‘Neighbours’:
- ‘Socio-demographic household structures’ is the most frequent mentioned category: the settling-time period is the foundation of a relatively long interaction between individual, unrelated households in the same settlement scheme, resulting in their closer ties with time and a strong sense of belonging and solidarity.

- Neighbours are felt very important in terms of increased problems of mostly financial distress (emergencies and investments), which leads to statements within the category ‘economic status of household’: in both areas, it was referred to the need of a household to get organised with neighbours and within the estate. A strong cohesion among people close by (social assistance, sharing ideas) is often felt as important as materialistic support.

Increased ties with ‘Separate Sub-Households’:
- The aging parents now need stronger support from the children and changes in household structures caused by death of a household member, such as the grandchildren remaining with their grandparents, are mentioned as reasons in the category ‘socio-demographic household structures’. Additionally children develop own households and therefore either rely on the support from parents’ household, or on the contrary, that parents are now in need of support, because children are gradually leaving their former home. (Continuation on page 74)
5.1.2 Going Deeper: Assessment of Actions within Networks and Ties

The next step in the model of argumentation is the analysis of the above discussed status of networks and ties within peasants’ household strategies and the more thorough analysis of concrete actions. The ties are grouped in the two category-pairs already mentioned above in 5.1.1, which are ‘Neighbours’ and ‘Sub–households’ in the space-inherent dimension and relatives in the ‘Home Area’ and ‘Other Relatives’ in the trans-spatial dimension. Moreover, the two specific questions about the ‘Degree and Direction of Assistance’ and the ‘Change of Ties’ within the two dimensions and four categories, are quantitatively explored.

**Space–Inherent Networks**

*Figure 760: Neighbours: degree and direction of assistance*

**Degree and direction of assistance:** It is obvious that practically all households consider the rather important interaction with neighbours as a both–sided emergency support only, even though it seems to be much more than that as seen in the open statements in 1.1. It seems that respondents consider the self-help and particularly the welfare groups as a kind of security-network for “hard” cases when a household is very much in need. I suspect that no exact distinction was made by respondents between regular assistance and assistance for investments, which would represent the picture given in 1.1. (that neighbours have become quite important) much better. The areas are almost identical in their statements.

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60 Appendix 5, question 5.17.: “Ties to neighbours: Degree and Direction of assistance.”
Change of ties to neighbours: An obvious tendency with regard to ties with neighbours as still increasing is observable; area II has a higher selection of the 'Equal'–code than area I and even one household with decreasing ties to neighbours. Area I also has households with the attributed codes ‘Ties increased very much’, which could indicate the higher position strong ties to neighbours have in the semi–arid zones and linked to that is their higher vulnerability to hazardous situations in terms of the possibility to react to them which, in turn, influences their relations to neighbours.

Degree and direction of assistance with sub–households: There is an obvious difference between the areas: 55% of households in the area I keep regular mutual assistance. ‘Emergency’ and ‘Assistance to sub–households’ have each almost 20% of the statements; ‘No assistance at all and ‘Assistance FROM sub–households’ are rare (7% and 3% respectively).

Area II, however gives a more balanced view: regular exchange and ‘Assistance TO’ sub–households both show the highest percentage, almost 30%. They are followed by ‘Exchange in emergency’ and ‘Receiving FROM’ sub–households. The lowest quotations were given in ‘Investment–exchange’ and ‘No assistance at all’ (9% and 3% respectively).

Area I: it seems that for these households, regular assistance and exchange are predominant and of higher importance; they have less opportunities and freedom of action in other spheres and are therefore more reliant on regular exchange. ‘Assistance for investments’ seems out of question. The first priorities do not lie within investments (in the farm). In other words, there are most probably not enough resources to do so.

Appendix 5, question 5.11.: “Ties to separated sub–households: Degree and direction of assistance?”
Change of ties: Within the area II, there are big changes (ties the same = ~60%) in the last years, but still 25% of the responses quoted that ties have increased. 16% said that ties to sub-households have decreased.

Area I shows a more balanced picture: increased ties were mentioned in the same number of households like ties that have remained equal (~30%). Increased ties thereby mostly refer to parents or children, e.g. the close nuclear family, whereas assistance regarding children is involved in most cases, or the parent’s age require more support from the household.

11% judge their ties with sub-households decreasing, almost 20% even decreasing very much. The reasons behind the statements of those ~30% were either the death of children and resulting lack of assistance to the household or simply the lack of income within separate sub-households which makes assistance in any form very difficult.

Recapitulations on the Space–Inherent Dimension:

**Neighbours:**
- Ties with ‘Neighbours’ have definitely gained importance. But after the judgments of ties, a surprisingly clear picture shows that people perceive the degree and direction of neighbourhood assistance as limited to emergency only. (At the bottom of this inconsistency probably lies a problem of communication while asking the questions in the interview or while allotting the codes). There are no significant distinctions between the areas.

**Sub-households:**
- Ties with ‘Sub-households’ have mostly remained the same in area II and show a rather balanced distribution of degree and direction of assistance where no significant polarisation is detectable. In area I, ties have increased in a higher number than decreased; regular mutual exchange is thereby clearly predominant.

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62 Appendix 5, question 5.13: “Did the ties (assistance) to the sub-households change during the last years?”
Trans-Spatial Networks

![Figure 11: Relatives in the home area: degree and direction of assistance](image)

**Degree and direction of assistance with Home Area:** Statements regarding the ties with relatives in the home area for the household-head and wife taken together, reveal that area II mostly exchanges assistance in emergency situations. ‘Exchanges for investments’ take place in three households and ‘Regular exchange’ was mentioned by one only. Giving ‘Assistance to the home area’ only, though, is done by four households in the area II, which is in all four households giving ‘Assistance TO’ the home area in case of an emergency. Notable is the relatively high number of not applicable answers (seven). They are based on the fact that no more close relatives are living in the home area, e.g. in most cases the parents are deceased.

Area I is more diverse whereas more than a quarter of the households (eight) practise regular mutual assistance with the home area, and an equal share limits the exchange to emergencies. Five times, assistance is given to the home area, whereby two of these cases limit their support to emergencies, three of them assist with investments. A fifth of the statements mentions ‘No exchange of assistance’, which has different reasons, such as relatives who have transferred to other places or parents who have died etc.

![Figure 12: Relatives in the home area: change of ties](image)

**Change of ties:** When asked about changes within ties to the home area, respondents mostly stated that the ties have remained (roughly) the same. Differences between the areas are not distinguishable in a significant extent; and the increase and decrease in ties is almost balanced, showing a slightly higher number of increases than decreases. This increase of the intensity of ties, which was given by

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63 Appendix 5, question 5.3: “Ties to the home area: Degree and Direction of assistance?”
64 Appendix 5, question 5.5: “Did the ties (assistance) to the home area change during the last years?”
one fifth of the statements, is caused by different occurrences, which can be taken together in two groups:

a first comprehensible category mentioned was the fact that older siblings, e.g. parents or grandparents in the area need more assistance due to their age. A second was a wish to be with siblings which is expressed through a more frequent get-togethers (even newly established) or more frequent visits. Reasons for this can be found in a certain back to the roots-urge: for example the own children are supposed to know where they descend from and who their relatives are.

A statement given by one respondent in area II (sample 81) nicely represents a possible reason for the greater intensity of ties to the home area:

“The ties with relatives increased as we understand each other better now than before (with the age, we are more mature) and also know the importance of strong ties”.

![Figure 13](image-url)  
**Figure 13**: Other relatives: degree and direction of assistance

**Degree and direction of assistance**: Other relatives than ‘Sub-Households’ and ‘Relatives in the Home Area’ seem to play a marginal role in networks of the households investigated in both areas, as the figure shows. 27 out of 30 (in area I) and 31 (in area II) statements name the ”loosest” code for the degree and direction of assistance of ‘Other Relatives’ in terms of assistance: the ‘Exchange in Emergency Situations only’.

Within this code, there is no difference between the areas; and in each area, there is only one household giving assistance: in one case, sisters to the respondent are the beneficiaries and in the other case, sons without jobs receive assistance. Where the code ‘No Assistance’ was chosen for ‘Other Relatives’ (two times in area I, three times in area II), this mainly refers to sisters and brothers of the respondents and their spouses.

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65 Appendix 5, question 5.14: “Ties to other relatives: Degree and Direction of assistance.”
Change of ties: Very little seems to have changed here in the last years for the households; in fact, only two out of 30 statements in area I and five of 30 statements in area II addressed different codes than ‘Ties remained the same’. Area I has no increase in ‘Ties to other relatives’ but two quotations of the same household referring to a decrease of those ties, but without further specification. Area II cites two times an increase (within the same household) regarding sisters and brothers and three times a decrease, also in the relationship to sisters and brothers (One of those brothers is living in Nairobi). The few statements on increase and decrease represent the rather marginal role these ties played in the past years and obviously continue to play.

Recapitulations on the Trans–Spatial Dimension:

Home area:
- Relatives in the home area are mostly referred to as being of importance in case of ‘Emergency only’. The area I thereby provides a more diverse picture, involving a bigger range from ‘Regular mutual assistance’ to ‘No assistance’.
- A significant part of the statements concerning changes, names the code ‘Ties remained the same’, where an increase in the intensity of ties is detectable, the advanced age of persons in the home area and a growing sense of belonging were named first of all.

Other relatives:
- ‘Other relatives’ than ‘Sub–Households’ and ‘Relatives in the Home Area’ seem to play a marginal role in almost all households. Also in terms of changes, there is no increase or decrease worth mentioning. The most non–committal code was used in most cases, which is ties remained the same. Where changes were mentioned (increase or decrease), sisters and brothers were involved only.

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66 Appendix 5, question 5.16.: “Did the ties (assistance) to other relatives change in the last years?”
5.2 Retrospective on the Sphere of Action ‘Social Networks and Ties’

5.2.1 Households’ Judgement of Different Ties

Who Is Most Important?

When a comparison of all three years is applied, ‘Relatives Home Area’ had priority for more than 35% of the respondents in 1992, followed by ‘Relatives close by’ and ‘Neighbours’ to the same extent. In 1997, it was still the home area but almost the same percentage mentioned the ‘Neighbours’. In 2006 the home area had to leave the top-position from 1992/97 by more than 20% and was replaced by ‘Sub-HH’ and ‘Neighbours’ with the same 27%; the ‘Sub-Households’ thereby increased very much (20%). The ‘Other Relatives’ though are now just slightly below ‘Neighbours’ and ‘Sub-Households’ but had a more marginal position in 1992 and especially in 1997.

Generally, in 1992, more than 50% considered the trans-spatial ties – particularly the ‘Home Area’ but also to 15% ‘Other Relatives’ – of higher importance than space-inherent ties. In 1997, it was a mixture of both (‘Home Area’ and ‘Neighbours’) and 2006 ‘Sub-Households’ and ‘Neighbours’ held the highest shares respectively.

The shift from trans-spatial ties as the more important to space-inherent ties becomes even more obvious by looking at the first mentioned ties only: from a majority stating the code ‘Home Area’ in
1992, to almost 100% of the households stating ‘Neighbours’ and ‘Sub-Households’ in 2006. (The middle-position with the two peaks in ‘Home area’ and ‘Neighbours’ from 1997 is again nicely observable).

Receiving From Relatives: Crucial or Marginal?

That the assistance from relatives was felt ‘Important’ or ‘Very Important’ was said by a majority in 1992; while followed by the code ‘Not very important just in case of emergency’. In 1997, ‘Important’ still holds the same level while ‘Not very important, just in case of emergency’ was mentioned by more households than in 1992. 17% then judged the assistance from relatives as being ‘Very important’. This has dropped down to only 5% in 2006.

Generally, the clear increasing tendency for ‘Assistance in emergency only’ from relatives in 2006, replaces a more balanced distribution along the gradient ‘Very important – not important at all’, as it is detectable in the answers of the former two investigations.

Recapitulations on the Retrospective Judgement of the Sphere of Action ‘Social Networks and Ties’:

Ranking of ties:
- In 1992, more than 50% of the answers mentioned the trans–spatial ties – ‘Home Area’; but also ‘Other Relatives’ – being of higher importance than space–inherent ties. In 1997 it was a mixture of both (‘Home Area’ and ‘Neighbours’). Space–inherent ties – ‘Sub–Households’ and ‘Neighbours’ – though are top–ranked in 2006.

Importance of assistance from relatives:
- The assistance from relatives is ‘Important’ or ‘Not Very Important’ because it can be addressed in case of emergency. This distinct tendency and polarisation in 2006 actually replaces a more balanced distribution on the gradient ‘Very Important – Not Important at all’ which was given by the same respondents in the two former investigations.
5.2.2 Going Deeper and Back in Time: Assessment of Actions within Networks and Ties

Space–inherent Networks

**Figure 18:** Neighbours: degree and direction of assistance in both areas, 1992–2006

**Figure 19:** Neighbours: change of ties in the last years in both areas, 1992–2006

Degree and direction of assistance: ‘Regular exchange’ between neighbours was mentioned by almost 70% in 1992; in 1997, though, there was a drastic reduction and a shift to 50% statements in ‘Assistance exchange in case of emergency’ which then goes up to 80% in 2006. The high number of statements in ‘exchange limited to emergencies’ is based on the understanding of the question: “emergency” is clearly a moment or time of particular needs. If it is assumed that mutual assistance with neighbours is primarily received or given via self-help groups or social welfare groups, the chosen code makes perfect sense. A second explanation might be the fact that the respondents and their households are exposed to manifold problems and when asked for the degree of assistance from/with neighbours, they primarily underline the most important moments regarding the need for assistance. And these are for most respondents demanding social events or difficulties such as death (funerals) in the family. And this again, is seen as an emergency.

A remarkable point is also that ‘No Ties/Assistance’ with neighbours has only a few percentages in 1992; in the two following questionings all respondents seem to have kept ties.

**Change of ties:** There is an increase in code two (‘Exchange regular’), showing that the **ties to neighbours are perceived as still becoming stronger** in the last couple of years. Respondents who...
stated a decrease in ties to or with neighbours were three in 1992, one in 1997 and 2006 (the decision for this code was most probably caused through the collapse of a formal institution, e.g. a neighbourly welfare or self-help group).

The picture given in the diagram represents most probably (once more) age patterns of household members: in 1992, the separate sub-households were not own children yet (which is now the case with many respondents), and therefore fell not necessary within the circle of people with whom assistance is given only, received only or exchanged. Following this argumentation, it is more obvious that a lot more ‘Regular exchange’ is taking place in the most recent investigation and that ‘Assistance TO’ sub-households is given, which is in many cases connected to consequences of separation or death of a respondents’ child (e.g. grand-children care), the payment of education fees or the like.

(Change of Ties not asked in 1992/97)

Recapitulations on the Retrospective Space-inherent Dimension:

Neighbours:
- When a majority of respondents had ‘Regular exchange’ with neighbours (70% in 1992) the statements shifted to ‘Exchange of assistance in case of emergency’ in 1997 and particularly 2006. The way the answers changed from 1992 until 2006, underlines to a certain extent a particular perception of the question by the respondents.
- That ties to neighbours increased, was mentioned with gradually more statements since 1992.

Sub-Households:
- Answers represent a certain age pattern: ‘No assistance’ went down from 60% to almost 0%. This is to some extent representing the growing ‘generation-shift’ taking place within the investigated time period. The increased ‘Assistance TO’ sub-households is connected to deceased children of the respondent.
Two answer-codes with regard to ties and assistance between ‘To’ or ‘From’ the home area have changed over time:

the ‘Regular exchange’ has slightly decreased since 1992 (gone slightly up in 1997, though…) and the ‘Exchange limited to emergency’ has gone up from 19 to 25. It can also be observed that the ‘Assistance TO home area’ increased quite a bit, whereas the code receiving ‘From the home area’ has practically no answer anymore. Similar explanations as for the sub-households can be employed for the observed phenomena here: some respondents have parents in the home area who need and expect support. Another reason was found in the open question 5.5. and has already been discussed in its evaluation: the wish to be with siblings which is expressed through more frequent get-togethers (even newly established) or more frequent visits.

What was mentioned above about the ‘Assistance TO’ the home area might also be an indicator for the increase here in ‘Ties increased in the last years’ – code 2 –, from four to 11 quotations. Around the same number of households, whose ties to the home area ‘Remained roughly the same’. Since 1992 there is a slightly smaller number in ‘Decreased ties’ to the home area (although it was on the same level with ‘ties the same’ in 1997). Therefore the very clear results from the judgement-section about trans–spatial and space–inherent ties (e.g. space–inherent ties have increased, trans–spatial ties decreased) are not very well represented here.
The number of the code ‘Exchange in case of emergency’ mentioned has doubled since 1992; ‘No ties/assistance’ has (surprisingly) considerably decreased. These two facts indicate that although other relatives are usually far and not as closely related as others, they do have a role to play, especially when it comes to problems for which the clan/extended family needs to be addressed. 1997 shows a distribution in almost all fields except for giving ‘Assistance TO’ the other relatives.

The changes within these relationships seem to have almost completely flattened since 1992: while about one quarter stated that the ties to this group of relatives was recently decreasing (codes ‘decreased’ or ‘very much decreased’), the numbers are almost negligible in 2006. However, a very small number always kept increasing ties, which could have manifold reasons: the most obvious are family-gatherings, financial support such as investment, school fees or also death or illness of a family member, where assistance from family members is imperative.

Recapitulations on the Retrospective Trans-Spatial Dimension:

Home area:
- ‘Regular exchange’ has decreased since 92 and the ‘Exchange limited to emergency’ has gone up.
- A majority of the respondents in 1992 said that their ties to the home area did not change which is also the case in 2006. In 2006 though, there are less answers stating that their ‘Ties decreased’, compared to 1992. And at the same time an increase for stronger and more ties can be observed in 2006. This represents a consequence of age patterns among household members.

(Continuation on page 86)
Other relatives:
- The importance of those ties have more and more gone down: ‘emergency only’-code shows again a strong increase since 1992. This might be an indicator for the stronger need for ties with relatives as there are – for example – people of every age dying more frequently today. And ties to the clan/relatives are needed to be able to cope (for example, orphans are kept in the family) with those occurrences and their consequences.
6 Evaluation of the Non-Natural Resources Related Spheres of Action ‘Off-Farm Labour and Remittances’

6.1 Status of the Sphere of Action ‘Off-Farm Labour’ in 2006

6.1.1 Households’ Judgement on ‘Off-Farm Activities’
Priority of Activities: ‘Off-Farm’ or ‘On-Farm’?
Household Expenses: How Much is Covered Through ‘Off-Farm’–Income?
Changes in the Sphere ‘Off-Farm Labour’: Statements from Open Question

6.1.2 Going Deeper: Assessment of Actions within ‘Off-Farm Labour’
Who Works Off-Farm?
Who Works Where?
Who Remits?


6.2.1 Households’ Judgement on ‘Off-Farm Activities’
Priority of Activities: ‘Off-Farm’ or ‘On-Farm’?
Household Expenses: How Much is Covered Through ‘Off-Farm’–Income?
Changes in the Sphere ‘Off-Farm Labour’: Statements from Open Question

6.2.2 Going Deeper and Back in Time: Assessment of Actions within ‘Off-Farm Labour’
Who Worked Off-Farm?
Who Worked Where?
Who Remitted?
Chapter 6 explores the second sphere of action this study is concerned with: 'Off-Farm Labour' activities of the smallholder households in the two areas. Wage labour in many different forms makes out an important part of the diversification strategy within smallholder household economies. Particularly in regard of the contribution to ensuring their livelihoods, these actions took an increasingly important position within the overall household strategy, which was discussed and highlighted by different authors^67.

"Off-farm income generation is a widespread phenomenon in Kenyan small scale farming […] and it is often found in lower potential areas, where it makes an important, and in many cases crucial, contribution to total household income." (Kohler 1987: 85)

Kohler (1987) further states in his study that 82% of the households investigated in the two areas Matanya (semi-arid) and Mia Moja/Ngenia (sub-humid) were engaged in off-farm labour of any kind. Wiesmann (1998) endorses the finding, when he points out that 87% of the households in the study areas, were involved in off-farm labour.

In this study, the investigation concerning households with members engaged in labour off-farm of any kind, shows an even more drastic picture:

100% (n=30) of the households were at least with one member of the household involved in off-farm labour of any kind by the end of the year 2005. The following figure unveils a more detailed 5-point-categorisation. This was not made regarding a household typology, but according to the amount of persons engaged in off-farm labour and the distinction 'Casual labour', 'Permanent employment' or a mixture of both.

An obvious difference is detectable between the areas: in 14 out of 15 households in area II, a minimum of three or one to three persons are engaged in permanent or casual off-farm labour.

In contrast, only three households in area I can count on a minimum of three members working off-farm and seven households have one to three persons. Only one household in area II, compared to two households in area I, have a poor off-farm labour degree, which is one to two persons working casually only.

Within the scope of describing the role of this sphere of action 'Off-Farm Labour and Remittances', the same procedure as for the sphere of action 'Social Network and Ties' was applied here^68. To find out about the status this sphere of action has within the household strategy and particularly with regard to

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^68 See model figure 3, page 68
the other economic sphere of action relevant in this study, the following indicators for judgements were chosen:

- Priority of off-farm or on-farm activities for the household (question 6.36)
- Coverage of expenditures of the household through off-farm income (question 6.31–33)
- Changes in off-farm labour in the past years (open question 6.37)

Besides a general judgement on the importance and position of off-farm labour, differences between the areas are also of interest and are therefore mentioned if possible and relevant.

6.1 Status of the Sphere of Action ‘Off–Farm Labour and Remittances’ in 2006

6.1.1 Households’ Judgement of ‘Off–Farm Activities’

Priority of Activities: ‘Off–Farm or On–Farm’?

With regard to the opinions, a clear distinction between areas is possible: area II–households show a polarisation where more than two thirds would only give off-farm income activities priority, when on-farm activities can be kept at an equal level. The remarks given by the respondents together with the middle code, however, reveal quite a common and uniform explanation for this: respondents refer to a “safety-net theory”. The point thereby is that one field of action has to supplement the other. One respondent (in area I, sample 27) put it this way:

“If you are sacked, you have to go back to farming”

The rest (almost one third of the households) gives priority to ‘Off–farm labour in any case’, whereby weak farming, no irrigation potential or the application of the question explicitly on the younger household members were identifiable as reasons.

A more balanced picture is shown by the respondents in area I: one third of the households gives priority to on-farm activities. The reasons can be found primarily in the respondents age (where they referred the question to themselves only, not to the entire household) which allows the following explanation: respondents feel too old or not educated enough to go into wage labour. But more than
one third also give an explicit statement for off-farm labour where the weak farming activities or unsatisfying livestock activities are mentioned as the major reason. In this area, less than one third stands to the ‘safety-net theory’ by keeping a balance between the spheres.

Household Expenses: How Much is Covered Through ‘Off-Farm’ Income?

Figures 26 and 27: Coverage of expenditures through off-farm labour; area I and area II

Regarding expenses for daily needs it is obviously much more necessary for households in area I to cover those expenses with off-farm income than in area II: ‘Partly’ covered was mentioned almost twice as much in area II, compared to area I which indicates that other sources are used to achieve a coverage there. And the high percentage of ‘Almost or just enough’—coverage in area I points to a higher dependency on off-farm labour remittances to cover these expenses. Only one household in each area relies fully on the income and/or remittances from outside.

Education has a about one quarter of the answers in code ‘No answer’, which indicates that no education expenses are made or are necessary in these particular households. The only detachable difference between the areas is the higher portion of ‘Not at all’ in area I which does not give hints for conclusions; only the lower number of people in off-farm income than in area II: ‘Partly’ covered was mentioned almost twice as much in area II, compared to area I which indicates that other sources are used to achieve a coverage there. And the high percentage of ‘Almost or just enough’—coverage in area I points to a higher dependency on off-farm labour remittances to cover these expenses. Only one household in each area relies fully on the income and/or remittances from outside.

Investments seem for both areas hardly possible with off-farm labour income: 40% of the households in area I can ‘Not at all’ rely on this kind of support to make investments and the same number only ‘Partly’. Area II is similar, with 40% ‘Not at all’ and over 50% ‘Partly’ covered; one household can ‘Almost/just cover’ investments through off-farm income (area I, two households). Thus, investments within household economies are either up to a certain extent done with off-farm income and partly with other means or are not done at all.
Recapitulations on Quantifiable General Judgments of ‘Off–Farm Labour’:

Priority of off– or on–farm activities:
- Households in area II mostly chose off–farm activities as priority, but under certain conditions only. The ‘safety-net-theory’ was thereby mentioned as a reason in a majority of cases.
- Area I is almost equally distributed in their answers. ‘Off–farm labour’ as the priority was more frequently mentioned, though.
- The on–farm activities as a priority seems to be the result of a certain interpretation of the question by the respondents.

Coverage of household expenditures through off–farm labour:
- In order to be able cover daily expenditures, area I has a higher dependency on ‘Off–labour’ remittances than area II.
- According to the results area II uses more other sources for the coverage of expenses for daily needs (high number of code ‘Partly’).
- With education expenses, the areas are very similar: more than half the number of households in each area can cover it ‘Partly’ through off–farm income or remittance; hence, other sources are needed. The comparably high number of ‘No answer’ is due to no education expenses in the particular households.
- For most households in both areas, investments of whatever sort are hardly possible. Or then they are not to be covered by labour income or remittances of it (six and eight out of 15 households give code ‘Partly’).

Changes in Off–Farm Labour: Statements from Open Question

Just as under ‘Social Networks and Ties’ (5.1.1.), a number of phenomena and corresponding categories were chosen to explore the answers on the open question regarding the changes in off–farm employment of household members in the past years.69

The categories can be seen as reasons for the particular statements and are congruent with the categories under 5.1.1. Hence, the phenomena and categories drawn from the respondents’ statements in order to make subsidiary conclusions on the judgement of off–farm labour activities are put into the following pattern:

<table>
<thead>
<tr>
<th>Phenomena</th>
<th>Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st phenomenon: importance of off–farm labour increased</td>
<td>- Resources and access to resources</td>
</tr>
<tr>
<td>2nd phenomenon: importance of off–farm labour the same</td>
<td>- Socio–demographic household structure</td>
</tr>
<tr>
<td>3rd phenomenon: importance of off–farm labour decreased</td>
<td>- Economic status of household</td>
</tr>
<tr>
<td></td>
<td>- Socio–cultural conditions</td>
</tr>
</tbody>
</table>

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69 Appendix 5, question 6.37: "Tell about changes relating to off–farm employment and income in this household in the last years (since 1997)".
1st phenomenon: Importance of off-labour increased (16 text-fragments)

Categories (Reasons, e.g. Action Guiding Conditions):

- Resources and access to resources
- Socio-demographic household structure
- Economic status of household

16 text fragments relating to the increased importance of off-farm labour income can be traced in respondents' answer on the question about changes in off-farm employment and income in the near past. 10 out of 16 fall into the category 'socio-demographic household structure' and the statements are almost equally distributed among the areas. They are therefore mostly concerned with the increased income and remittances from household members who are now in off-farm activities:

Area I, sample 58: “It [income] improved a little, since children are also in off-farm activity”

Area II, sample 27: “Since 1997, my grandchildren have been engaged in employment. It has an impact on the household in terms of income, there is much more remittances now. In general, the off-labour activities are far much better than before 1997.”

Area II, sample 39: “Since G&H [Remark author: children of resp.] joined off, income of HH has significantly increased.”

Area II, sample 5: “M, B, K [Remark author: children of resp.] joined off-farm. B supports my family and I can also approach K if need arises. Therefore, there’s a change in terms of income due to change in off-farm engagement in the family.”

Of course the differences in terms of employment level and income are substantial but also stand in relation to the educational background of the people (most people who recently joined an off-farm activity are children and grand children to the respondents) engaged in wage labour.

Increased importance related to the economic status of the household reveals also other reasons like a more successful self-employment through the release of an own business due to temporary improved conditions, or undertaking illegal activity:

Area 2, sample 92: “Since 1997 up to date, I do tea leaves trading. This improved income status of our household!”

Area I sample 116: “I started a shop in 1998 and it was doing well. [...] I am very pleased with the shop and happy about this, because it enabled to rent a farm (plot) to cater for daily expenditures. Before, I was never engaged in other off-farm activities.”

Area I, sample 133: “I [female respondent] was a farmer all through, but also engaged in selling local brew\textsuperscript{70}, which fetches cash for daily use. H [daughter] is engaged in brewing and selling as well.”

A relevant distinction among the areas is not detachable within this category. As for the category ‘resources and access to resources’, a reason for an increased importance of off-farm activities is given in terms of farming:

Area I, sample 212: “Income from off-farm activities is highly important since there’s nothing (no income) from the shamba” \textsuperscript{71}

\textsuperscript{70} Illegal activity

\textsuperscript{71} shamba = a piece of land for crop and garden.
2nd phenomenon: Importance of off-farm labour decreased (11 text-fragments)
Categories (Reasons, e.g. Action Guiding Conditions):

- Economic status of household
- Socio-cultural conditions

Most statements referring to a decreased importance have something to do with temporary unfavourable conditions or negative events within the households. Nine text-fragments are therefore related to the economic status of the household. Two sets of reasons can be distinguished within that category. The first one incorporates rather tragic events like sickness and death:

Area I, sample 95:  “Financial situation worsened since A [spouse to respondent] fell sick and stopped keeping the shop”

Area II, sample 18:  “The income of HH has been affected by death of E&H [children to respondent], since there is no more remitting and they left children behind”

The second refers to the kind of work and income household members are engaged in:

Area II, sample 7:  “C [husband to respondent] has since stopped working regularly in Borana [private ranch] and F [son] joined off-farm activity. Change is for the worse because of C. Though F is working and remitting, it is not the same like C.”

Area II, sample 15:  “A [husband to respondent] is still working in the same job. Despite E, I, J, G [children] all joined off now, it does not affect the household income status; it doesn’t make any difference to me…”

These statements show, how easily bare figures of household members engaged in off-farm labour may deceive and mislead to wrong interpretations of the individual situations. Sample 15 for example, points out that not primarily the number of people being engaged off-farm in a household are of importance, but to the same – or even higher extent – the kind of work and corresponding income is crucial. And also very important and not less central is the commitment and solidarity of those people working off-farm to the rest of the household.

Two statements were put under the category ‘socio-cultural conditions’, disclosing a certain perception of actions within the sphere of action ‘Off-farm labour’. The expectance and the reality in regard of persons who work, earn money and are embedded in a familial system, can vary substantially among the different actors within a household:

Area II, sample 20:  “Although K [son] joined an off-farm activity and sometimes contributes material, there’s not much change in terms of income. Children –K– do not feel obliged to support parents in those days!”

3rd phenomenon: Importance of off-farm labour remained the same (12 text-fragments)
Categories (Reasons, e.g. Action Guiding Conditions):

- Economic status of household
- Socio-cultural conditions

Under this phenomenon, two categories could be separated within the statements: the economic status of household and the socio-cultural conditions. Regarding the economic status of household within this phenomenon, the respondents gave reasons which can be grouped in two sets: the first is derived from the support from off-farm activities that have not changed and bring not much benefit:

Area I, sample 70:  “I [respondent] feel that off-farm work has not been very beneficial, since I am not trained and so employment does not fetch much.”

The second is concerned with the low support and remittances due to own commitment of the persons working off-farm and therefore leading to no change in the respondent’s household:
Area I, sample 137: “The only person being engaged in an off-farm activity was the husband and still is. Now my daughter got employed in 2003, but the income has not significantly changed since she has a low salary and a kid to cater for.”

Area II, sample 64: “Even though children went in off-farm labour, the impact is minimal, because they are committed to their own personal development.”

One remark referring to socio-cultural conditions, names a reason reflecting a special situation: the household is self-reliant because the husband has income from employment and does not relate well with the rest of the family and therefore does not remit and is also not expecting support.

Recapitulations on Changes Relating to ‘Off-Farm Labour and Income’: Statements from Open Question

- The condition of the socio-demographic household structure is predominant in all three phenomena; it included the highest number of reasons given.
- Socio-cultural conditions are not many and given rather hesitatingly or cautiously as they are of a quite personal nature.
- Besides the number of people and the level of engagement in off-farm activities in a household, a lot more information on the topic needs to be disclosed in order to understand dynamics behind figures.
- Almost no difference can be detached between the areas, it is very balanced.
- Many changes leading to an increased importance of off-farm activities within household strategies are related to the number of household members of a certain age and the access to work (which is mainly achieved through education level, relationships and availability of jobs).

Before proceeding with the analysis, explanations referring to terms used in the following section have to be made:

Place of work: Relating to the work location. A distinction into only three terms on the gradient rural-urban was found appropriate — rural, urban small/medium and urban large —. A further division would not disclose more helpful information. ‘Urban large’ means cities like Nairobi, Mombasa; ‘Urban medium’ are towns like Nanyuki, Nyahururu. ‘Urban small’ are rural shopping centres in the villages, along roads etc.

Type of work: Consisting of the two features ‘Level’ and ‘Sector’, the type of work was brought into a categorisation which was used in Wiesmann (1998). This range of categories was seen appropriate for this study in order to be able to compare results and because of its numerical limitation: two categories for ‘Casual’, four for ‘Employment’, two for ‘Self-employment’, three for the ‘Public sector’ and one for ‘Civil servant’.

Remittances: How people remit from their off-farm income was explored here and categorised into four ways of remitting: ‘No remittances at all’, ‘Not regularly’, ‘Bound to specific expenses’ and ‘Regularly’.

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72 Nyahururu, Nyeri District, has around 32’000 inhabitants (http://treasury.go.ke/cbs.go.ke/pdf/authority.pdf; 31.10.06).
6.1.2 Going Deeper: Assessment of Actions Within ‘Off–Farm Labour’

The next step in the proceeding is a further analysis of the above discussed status of off–farm labour activities within peasants household strategies and the judgments on it by respondents.

The investigation includes the questions ‘Who works off–farm?’ (position in the household), ‘Where do people work?’ (the rural/urban patterns) and ‘Who remits?’ to the household (how do people remit and who the most). They are quantitatively explored.

Who Works Off–Farm?

In both areas, the ‘Sons’ make out the biggest share of people working off–farm in relative terms. The percentage of ‘Household–heads’ and ‘Sons’ are in both areas almost proportionally (10%–30% in area II, 17%–37% in area I). In contrast to this, ‘Household–heads’ and their ‘Daughters’ in area II make out the same portion. In area I, however, the proportion in the same combination are two to three (12%–17%).

The ‘Sons’ and ‘Daughters’ are in the same proportions in both areas: about two third to one third (12–37% in area 1, 11–30% in area II). The ‘Grandchildren’ are only important in area II, where they make out almost 20% of all people in off–farm labour, whereas they make out 0% in area I.

The small share of wives working for income off–farm or beside farming reveal their marginal position in this context. The ‘In–laws’ have a significant share of 15% in both areas and ‘Other relatives’ are 50% more important in area I than in area II.

If the different members in the households of the two areas are brought into a ranking, the following pattern appears:

<table>
<thead>
<tr>
<th>Area I:</th>
<th>Area II:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sons</td>
<td>1. Sons</td>
</tr>
<tr>
<td>2. Household heads</td>
<td>2. Grandchildren</td>
</tr>
<tr>
<td>4. Others</td>
<td>4. Household heads/daughters</td>
</tr>
<tr>
<td>5. Daughters</td>
<td>5. Others</td>
</tr>
</tbody>
</table>
A possible reason for this picture could be, that almost half of the households in area II say that they cover education expenditures through selling farm produce which in turn could have the effect of a better education there than in area I, where it is harder to get the money together with farming. 73 (Six households in area II give farm produce and livestock as means of coverage)

Who Works Where?

It is obvious at first glance that the areas are almost congruent: only minimal differences can be made out. Both areas have a major percentage of people working in places of the category ‘Urban medium or small’. A (rather surprising) fact is the high percentage of household members working in ‘Rural areas’, and small shares of 9.6% (area I) and 13.3% (area II) are engaged in labour work in ‘Large urban centres.

To distinguish the distribution of household members engaged in off-farm labour, both areas are taken together because they showed such little differences as shown above:

If the household members are allocated to places of work, the ‘Sons’ have proportionally the highest share in rural work-places (22 in rural to 19 in more urban places) and the second highest share in ‘Urban large’ (one fifth; others show one third). The two other groups working in ‘Urban large’ are in-

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73 Appendix 5, question 6.33: “Coverage of education expenditures through other than off-farm income? (selling products, remittances etc.)”. 
laws and ‘Other relatives’, which can both be rather “far” in terms of relation to the nuclear family in the household. Noticeable is the fact, that no ‘Household-head’ works in a large urban place, which can most probably be attributed again to the heads’ age and its consequences (those consequences were discussed in this chapter under 6.1.1, 6.2.3). Among all the other persons in off-farm labour, half or two third work in urban medium or small locations (wives, parents of respondents and non-relatives are excluded as they play a marginal role).

If the focus is laid on the type of work people do (including sector and level of employment), primarily two distinctive features are obvious: firstly, the high percentage in ‘Casual employment’ in the primary sector in area II. In total, 30 % of household members in area II work off-farm in the primary sector, but the casual work makes out the highest portion. The availability of casual work in horticulture farms nearby could be accounted for this phenomenon. The self-employment in this area stands at around 20 %. Employed in ‘Production/repair’ or ‘Trade and service’ are 35 % of the people.

The second “eye catcher” is the high percentage (29 %) of ‘Employment in trade and service’ in area I. The category includes a rather wide range of activities, which could be one possible reason for the higher representation. However, the primary sector in area I is represented with a lower percentage than in area II, i.e. 24 % (if work in the primary sector within the public sector in area I is accounted as well, both areas are almost on level pegging).

Who Remits?

Who remits how

In order to explore the contribution of household members engaged in off-farm labour to the household, it is suggested to look at remittance-patterns. The way different people in a household in off-farm labour contribute towards the households income and the respondent’s perception of the most important contributor in terms of remittance/support were the most obvious to choose. (multi-statements possible)
Generally, ‘Household heads’ as the only person group do **always remit** in **both areas**.

The proportions of the categories ‘Regularly’ and ‘Bound to specific expenses’ are therefore almost the same in the two areas (1/3 ‘regularly’, 2/3 ‘bound to specific expenses’). Almost 50% of the ‘Sons’ to respondents in area II do **not remit** anything, compared to only about 25% in area I. This could indicate firstly that their contributions are more needed or secondly that they do not earn enough to support or thirdly that they do not feel obliged to do so.
About 50% of the daughters working off-farm do contribute regularly in both areas. More than half of the grandchildren do not remit at all, despite their relatively high number (only in area II grandchildren were mentioned as relevant to the household regarding off-farm remittances. There are no grandchildren working off-farm in area I). The same picture is revealed with ‘In-Laws’, where again around 50% do not give or contribute towards the household from their off-farm income. ‘Parents’ and ‘Non-Relatives’ have a marginal role in supporting the household with income from off-farm labour and other related persons have no significant share in the contributions.

Again, there is almost no difference among the two areas detachable: the respondents give clear statements when asked about the person in the household who holds the most important position in terms of contributions from income made through off-farm labour, e.g. the ‘Household heads’ are quantitatively balanced with ‘Adult children’. The numeric ranking of members engaged in off-farm work unveils the household–heads position as number two and four in figure 28 (Who works off-farm; attachment to the HH). Compared with the results on the question for the highest remitter towards the household above, it becomes obvious that the heads hold a particular position within a household. The solely materialistic or financial contributions can hardly be separated from their responsibilities and commitment to the household in other matters. It is also clear that the feeling of solidarity of a household head to his immediate nuclear family – wife, children – is stronger than for example the responsibility a third born married son of the respondent has towards the household of his parents while at the same time taking care of his own household. The results in this diagram probably represent as well a certain age-pattern (some respondents are old and more – or even completely – reliant on their children if there is no pension) which is indicated through the balanced mentioning of children and household heads as highest remitters.
Recapitulations on the Analysis of ‘Off-Farm Labour’ Activities:

Who works off-farm:
- ‘Sons’ make out the **biggest share** of people working off-farm in relative terms, whereas the ‘Household-heads’ only hold position four in area II and two in area I, respectively.
- ‘Sons’ and ‘Daughters’ show a relation of 2/3 to 1/3 and the proportion of ‘Household-heads’ to ‘Sons’ is about one to three in each area; 20% of all people in off-farm labour are ‘Grandchildren’ in area II, but 0% in area I.

Who works where:
- The shares of people in off-farm labour is distributed roughly into 40% ‘Rural’, 50% ‘Urban medium/small’ and 10% ‘Urban large’ in both areas.
- ‘Sons’ have proportionally the **highest share** in ‘Rural’ work-places.
- Between half and two third of all the other persons in off-farm labour, work in ‘Urban medium’ or ‘Urban small’ locations.

Who remits:
- Almost 50% of the ‘Sons’ to respondents in area II do not remit anything compared to only about 25% in area I; about 50% of the ‘Daughters’ working off-farm do contribute regularly in both areas.
- More than half of the ‘Grandchildren’ do not remit; which is the same with the ‘In-laws’.
- ‘Household-heads’ are quantitatively **balanced with ‘Adult children’** as the highest remitter which stands in contrast to the number of ‘Household-heads’ in off-farm labour as their position as number two and four in figure 28, page 95 (who works off-farm; position in the HH) shows! This is an indicator for the particularly important position of the household-heads in the households.

6.2.1 Households’ Judgement on ‘Off-Farm Activities’

Priority of Activities: ‘Off-Farm’ or ‘On-Farm’?

Here again, the areas are considered separately. In area I, the ‘Off-Farm Activities’ having priority in any case increased slightly compared to 1992 (six to four households). ‘On-Farm Activities’ in 2006 are also mentioned by one third as holding ‘Priority in any case’, which is slightly less than in 1992 (six to five). However, it has to be stated that the results disclosed for this question are always based on the way the question was understood:
if applied to the respondent’s own personal situation only, the answer–code would certainly be different than when applied to the entire household. And the relatively high number of households giving priority to on–farm activity represents to a certain extent the age–pattern found with respondents whereby the perception of labour, income etc. changes. (See same figure – nr. 25, page 89 – for further explanation). Generally, the responses in area I are distributed quite evenly with small shifts only, if 1992 and 2006 are compared.

In area II, a clearer tendency is detachable regarding the distribution: in 1992, six households gave unconditional ‘Priority to off–farm labour’ and four to ‘On-farm activity’ respectively. The conditional

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24 Appendix 5, question 6.36: „Priority of off-farm activities compared to on-farm activities (opinion)“
Trans-Spatial Economic and Social Networks in Household Strategies of Peasants in Rural Kenya

‘Off-farm labour priority’\(^{75}\) was mentioned by three households. The picture in 2006 shows no ‘On-farm priority’ but more than two third gave conditional ‘Priority for off-farm labour’ and a decrease from six to four in clear ‘Off-farm labour priority is shown’. So, from a more even distribution between on- and off-farm labour priority in 1992, the weight shifted to activities off the farm under certain conditions. This indicates that people are seeking a way to keep the on-farm activity at a certain level (investing in the farm, participate in self-help groups to enhance development on-farm or in the community etc.) without hindering off-farm labour which is still vital for a lot of households.

Household Expenses: How Much is Covered Through ‘Off-Farm Income’?

For the comparison of household expenditures over the years, only the two fields of expenses ‘Daily Needs’ and ‘Education’ were extracted (‘Investments’ was not considered, as this field has shown very small changes).

Area I: in 2006, one household could for the first time fully cover daily expenditures by off-farm income. But also for the first time, two households could ‘Not at all’ cover daily needs with this source. These two households might indicate that their expenses are easily covered by other means like selling farm products and livestock or receiving remittances (the exact reason is not applicable in those two cases).

Further, a slightly higher number of answers in both codes ‘Partly’ and ‘Almost/just enough’ is compared to 1992 and within that, the code ‘Almost/just enough’ holds the majority of answers.

\(^{75}\) Middle code in diagram: ‘Off-farm labour only by same on-farm level or well-paid job’
This allows to state that almost 50% of the households in area I in 2006 ‘Almost or just’ cover daily expenses through income or remittance from activities off the farm.

Area II: the same reason mentioned as above for the increase in code ‘Not at all’, could also be applied here. ‘Partly’ coverage increased drastically from one to nine households and the code ‘Almost/just enough’ on the other hand decreased a lot. This reveals that households in this area obviously rely partly (or entirely, which is shown through ‘Not at all’ covered by off-farm labour income or remittances) on other sources than off-farm income to cover daily expenses, which was not the case in 1992 (For further information on these resources see diagram ‘Coverage Other than Off-Farm’ below). Already known reasons could be responsible for this fact: firstly, the respondents have become older and are therefore in most cases more attached to their plot and not necessarily as often in off-farm activities as they used to (see first diagram under 2.2). Secondly, the number of children working and earning has increased which allows the parents in return to receive something from them. Here again, it is important whether the question is understood in the context of the entire household or regarding one’s own personal situation only.

Generally, the answers in 1992 were more “evenly” distributed among the codes but nevertheless with a peak in ‘Almost/just enough’; while in between, in 1997, the codes showed an equal amount of answers.

The number of the code ‘No answer’ in 2006 represent the households which are currently not engaged with education payments.

In area I, the number of households which are able to cover education expenses ‘Almost or just enough’ decreased from six to one since 1992. At the same time, the code ‘Partly’ covered increased from three (one in 1997) to six. Education expenses can ‘Not at all’ be covered through off-farm labour remittances or income in 4 cases, which has also increased. It is detectable that people do even here not rely on support or income from off-farm labour for education expenses to the same extent as...
1992. The necessity of a ‘balance’ between the two different activities or the fact that off-farm labour for them does not seem as ‘reliable’ as other activities, can be seen as two examples for reasons which were given by respondents. (Details and more reasons see: ‘Changes in Off-Farm Labour’: statements from open questions, under 6.1.1.) Again, area II shows a more clear distinction. There is a strong increase 2006 in ‘Partly’ coverage since 1992, when most answers were ascribed to code ‘Almost/just enough’, just like in area I. In 2006, this code was mentioned by only one household. ‘Not at all’ covered has remained the same, though.

If the question 6.33\textsuperscript{76} is included (which has not yet been mentioned within this analysis and is only available for the 2006 survey), a more thorough search for reasons behind the observed pattern in these two diagrams about the coverage of education expenses is allowed (figure 40, 41, page 103): people try to supplement uncovered expenditures through a variety of means, but most of all – and there again, the areas do not show big differences – through selling produce from the farm and plot, e.g. farm/garden produce or livestock and dairy products\textsuperscript{77}. Other means of coverage are loans or bursaries and relatives assistance, illegal activity or assistance through a welfare group. Two and three households respectively mention no alternative to off-farm income or remittance to pay education expenses. It is noteworthy that the relatives’ assistance is on the same level as illegal activities, welfare and, to a certain extent, loans. This indicates the relatively low ranking position of this source concerning the education expenses. (Most household gave highest priority to education expenditures within the different expenditures in the household.

\begin{figure}
\centering
\includegraphics[width=0.8\textwidth]{coverage_of_education_expenses_through_other_means.png}
\caption{Coverage of education expenses through other means than Off-Farm Activities}
\end{figure}

\textsuperscript{76} Appendix 5, question 6.3.3.: “Coverage of education expenditures through other means than off-farm income?”

\textsuperscript{77} Livestock should not be seen as solely a “farm product” though, as people often use communal grazing areas to feed and graze their livestock.
Recapitulations on the Retrospective of Quantifiable General Judgments of ‘Off-Farm Labour’

Priority ‘Off- or On-Farm’ activities
- From a more even distribution between on- or off-farm labour priority in 1992, the weight shifted to activities off the farm in area II. On-farm activities show a slight decrease and off-farm a slight increase in priorities in area I, but is generally much more balanced, – small shifts only from 1992 to 2006 – than area II.

Coverage of expenditures through off-farm labour

Daily expenditures:
- Almost 50% of the households in area I ‘Almost or just’ cover daily expenses through income or remittance from activities off the farm; ‘Partly’ has increased as well.
- In area II, however, ‘Partly’ coverage increased drastically; so they obviously rely partly (or entirely, which is shown through ‘Not at all’ covered by off-farm labour income or remittances) on other sources than off-farm income to cover daily expenses, which was not the case in 1992. Generally, the answers in 1992 were more “evenly” distributed among the codes.

Education expenditures:
- The two areas are similar; people do not seem to rely on support or income from off-farm labour to the same extent as 1992 for education expenses in area I (as shows the high number in ‘Partly’).
- Even when the other sources to cover education expenses are added, the picture is not at all different among the areas; e.g. most households try to cover the expenses by selling farm products or livestock and livestock produce.
6.2.2 Going Deeper and Back in Time: Assessment of Actions within ‘Off-Farm Labour’

The same questions like in the 2006 analysis ‘Who works off-farm?’ (position in the household), ‘Where do people work?’ (the rural/urban patterns) and ‘Who remits to the household?’ (how do people remit and who most), are quantitatively explored here; but this time in a comparative way. Additional information is thereby incorporated with the question about the ‘Type of off-farm activity’ from the people in off-farm, while sons and household–heads are more thoroughly checked regarding their activities. Also, education/work-type patterns for sons are further inspected.

Who Worked Off-Farm?

The proportion of ‘Household–heads’ and ‘Sons’ in off-farm labour in 1992 was even (34% in both), in 2006 it has become much more imbalanced (14% / 32%); and 68% of all household members working off-farm were household heads or sons in 1992 but 45% only in 2006. Reasons or sources for this can first be the naturally higher age of the household heads in the 2006 survey which could trigger the wish to stay on plot and secondly, the potential higher income of people with a higher education, which are mostly the heads’ children or other relatives.

The number of daughters working off-farm has almost doubled between 1992 and 2006, which means as well that the proportion sons – daughters in off-farm work has changed in favour of the daughters (although their number was even higher in 1997 than 2006). The number of ‘Wives’ and ‘Daughters’ in off-farm labour was balanced in 1992, but is has shifted now as the number of ‘Wives’ working off-farm decreased (6% to 4%) and the number of ‘Daughters’ increased. ‘Grandchildren’ make out 11% of the total number in off-farm in 2006 compared to 0% in 1992 and 1997; while ‘Parents’ of respondents have a very small portion and even went from 6% to 2%. The number of ‘In–laws’ increased from 11 to 15% (in 1997 there were 15% too) and other relatives hold 15% as well, which is an increase of 8%.

In general, two statements can be made: firstly, the ‘Sons’ clearly mark the peak, e.g. the highest percentage of household members in off-farm labour in 2006 (32%) and the remaining 68% are more evenly distributed among the other members of the household than in 1992: ‘In–laws’ and ‘Household–heads’ show almost the same percentage; so do ‘Daughters’, ‘Grandchildren’ and others.

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Sons and HH–heads make out the majority of people in off-farm labour.
Although changes seem to be very small here on the first glance, some interesting differences can be detected. The middle code ‘Urban medium/small’ make out the largest portion in all three surveys which is explainable by the rather broad range of possibilities within: a work place in this category can be an office in a town like Nanyuki79 or it could be a small shop or kiosk close to the homestead. The percentage of household members in a large urban working place always were around 10% since 1992: 11.5% in 1992, a small increase in 1997 (13.5%) and back to 11.8% in 2006.

**Rural working places**, though, make out **over 40%** of the people working off-farm in 2006, which is an **increase** of almost 5% since 1997 and more than 4% since 1992. This fact is opposing the widespread notion of generally continuously increasing urbanisation in the context of development countries, which is also the case in Kenya80. In this study, one explanation for the surprisingly low urbanisation tendency could be given by the availability of alternative job possibilities nearby. A more detailed analysis of the distribution of work places is to be found in the following three diagrams (Figure 45-47, page 108/109)

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79 Nanyuki has just below 40’000 inhabitants (http://treasury.go.ke/cbs.go.ke/pdf/authority.pdf (31.10.06))

80 For further details, see introduction part
Who Worked Where?

The ‘Sons’ had the highest share in rural work places (50%) in 1992 and ‘Household heads’ a little less (45%). Otherwise, it is the ‘Sons’ again with the largest share – 3 out of 16 – in ‘Urban large’, whereby the two non-relatives mentioned, only worked in ‘Urban large’ as well.

Exactly the same portion of people worked in ‘Urban large’ in 1992 and in 2006 (1/8 or 12%), although the distribution among different household members is different. Within this distribution, there is no pattern discernible; except for the ‘Sons’ relatively high share in both years, it seems rather coincidental.

After these views on position-patterns and the work places’ spatial distribution-patterns of household members in off-farm labour, the question about changes in the kind of work that is actually done, arises. A general numerical comparison tries to assess in which fields changes can be observed. In addition, a closer look on the two (obviously) most important actors regarding off-farm work within the households is taken.
Figure 47: General distribution in types of off-farm activity in area II, 1992–2006

If area I is examined, the gap in ‘Casual work’ in 1992 catches the eye. This has changed until 2006: the two categories (‘Occasional casual’ and ‘Casual in primary sector’) make out 14%. However, the employment in the primary sector – which held the highest percentage of people in 1992 – has decreased a lot. On the other hand, a strong increase can be observed within the category ‘Employment in trade/service’, where the number of people engaged has doubled since 1992. This leading category with almost 30% of the people, is followed by the category ‘Self-employed in production and repair’ with 17%, and which has increased just slightly since 1992.

In area II, it is the more than doubled number of people in ‘Casual employment’ from 1992 to 2006 which seems strange on the first glance but is in line with the above analysed positions of off-farm activities on the urban–rural gradient. The permanent ‘Employment in the primary sector, though, has gone back from 11% to just two or three percent. Just like in area I, the ‘Employment in trade and service’ has increased from 11% to 23%. Even ‘Production and repair’ shows an increase, while there are more people employed than self-employed. In the public sector, the education and health related jobs were the most mentioned in 1992, which have decreased from 22% to around 10% in 2006.

To summarise, one may say that area I came from a quite even distribution in different sectors and levels and a slight peak in the primary sector employment, to a clear majority in ‘Employment in trade/service’. Area II shifted from a quite high number of people in different jobs in the ‘Public sector’ and ‘production/repair’ on a self-employment basis, to two clear peaks: one in ‘Employment in trade/service’ just like in area I and the other one in ‘Casual employment in the primary sector’. The peak in ‘Casual employment in first sector’ makes out the different picture of the separately analysed two areas and asks for an explanation. In more detailed answers and remarks from respondents the indication on a quite recently established labour market appears: it is the large scale horticulture farms which operate primarily north-east of Nanyuki towards or on the slopes of Mt. Kenya. They are close to area II and its sub-locations, investigated in the second phase of the field work for this study.

The above identified most important household members regarding off-farm labour, e.g. ‘Household-heads’ and ‘Sons’, are now looked at more closely in the next two diagrams.
The highest number of household heads working off-farm was employed in 1992 for jobs in the primary sector, followed by ‘Employment in trade and service’. Except for ‘Civil service’, for ‘Employment in production/repair’ and for ‘Casual employment in the primary sector’, all other sectors and levels have been occupied by household heads. Since 1997, household heads got into ‘Casual employment in the primary sector’ and the ‘Employment’ in the same sector vanished; but most heads in off-farm work are nowadays employed in ‘Trade and service’, which is actually very similar for all people in off-farm labour. The summarising diagram already shows: from a quite even distribution in different sectors and levels and a slight peak in the ‘Primary sector employment’, the allotted codes shift to a “majority” in ‘Employment in trade/service’ and second most, the ‘Casual jobs in the primary sector’.

The 1992– and 1997–data regarding the sons’ places and levels of work are very fragmentary and therefore, the diagram basically only reveals good data of the 2006 investigation. This makes a comparison difficult.
Except for ‘Employment in domestic and security’, for the ‘Public primary sector’ and for ‘Self-employment in trade and service’, all sectors and levels are occupied by sons. However, labour work in the primary sector has obviously increased and so has the casual employment in different jobs; by far the most mentioned employment in 2006, is within trade and service with more than one third of all sons. The following categories with five sons each are the second most mentioned: well-paid jobs in ‘Education/health public sector’, ‘Employment production and repair’ and also the ‘Occasional casual jobs in different sectors’.

If the degree of education is regarded (figure 50 below), casual work and particularly the work in the primary sector are carried out by sons with a lower formal education (the first listed category in the diagram below). The employment in trade and services are to a high degree held by men with a specific training: lower informal (driver, fundi83), lower/medium formal training or a higher education (whereas the job type depends on the degree of training or education, of course). Also the self-employment rate is higher in the categories displaying a specific formal or informal training (see the third last and second last code).

Figure 50: Cross-comparison 2006 of degree of education with type of work of sons to respondents

The distribution of work places and the identification of different household members in particular types and levels of off-farm work, does not yet reveal their importance regarding the effective support towards the household. The next two diagrams permit a comparison to the 2006 results, regarding the way household members remitted and which position was thereby considered the most important, incorporating the 1992 answers:

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83 Kiswahili expression for craftsman, manufacturer
Who Remitted?

Although the ‘Household–heads’ and ‘Sons’ are equal in number, (as was already observed; who works off-farm, figure 28, page 95, at the beginning of this chapter), the way of supporting is obviously different:

in most cases the household–heads remitted regularly, a fact that became a little more “loose” in 2006 (more ‘Bound to specific expenses’–codes). No son, though, supported regularly in 1992, but about 50% supported ‘Irregularly’ and ‘Bound to specific expenses’. The share of sons who did not remit at all was also lower in 1992. In contrast to the daughters in the household – from whom 2/3 remit regularly in 2006 – only two out of four remitted at all in 1992 (‘Irregularly’ only).

From the almost equal shares of ‘Household–heads’ and ‘Adult children’ mentioned as highest remitters in 2006, the older surveys disclose a different picture: almost 55% of the answers in 1992 mentioned the ‘Household–heads’ as the most important supporter in terms of remittances (to 10% the children and 7% the wives). The percentage of ‘Wives’ as highest remitters remained the same over the whole period (1997 misses 40% of the answers which does not allow an inclusion in the analysis).

The household heads have obviously lost importance in terms of support of any form through off-farm work.

It has to be said that this question was not easy to answer for respondents and in many cases lead to discussions between the interview team and the interviewee. Especially the notion ‘Highest remitter to the household’ was not understood as the mere cash–bringer, but rather as being connected to other attributes. To avoid confusion, another question was added, in which the most committed person to the household had to be selected.
This person was in no way always chosen by the respondents with regard to the quantifiable amount of cash, but considering issues like solidarity to the household, being available when needed, supporting with food and daily needs on a voluntarily basis, helping in legal matters etc. Some remarks from respondents within the question 6.30 b) might underline this notion:

Area II, sample 27: “C and D [son in law and daughter]; they put extra effort to solve problems regarding this household. (taking care of sick father, taking care of official matters etc.)”

Area II, sample 95: “A, B, C [respondent, her husband and his mother] are equally committed; they all have their role to play in the household”

Recapitulations on the Retrospective of Analysis of Actions within ‘Off-Farm Activities’:

Who works off-farm:
- The proportion of household-heads and sons – who clearly have the highest shares of all – in off-farm labour in 1992 was even (34% in both), in 2006, it has become much more imbalanced (14% / 32%); reasons for that are primarily the heads’ age and the consequences.
- Daughters working off-farm have almost doubled between 1992 and 2006.

Who works where:
Rural/urban patterns:
- Changes seem to be very small at a first glance. The code ‘Urban medium and large’ make out the largest portion (the code includes a broad range of possibilities within ) and 10% of the people in off-farm labour worked in large urban places in all three surveys. Rural working places (over 40% in 2006) increased since 1992.
- The sons had the highest share in rural working places (50%) in 1992 and household heads a little less (45%). The same amount of people worked in ‘Urban large’ in 1992 as in 2006, the distribution, though, is different.

Type of activity:
- Area I had no casual work in 1992, but this changed until 2006. The employment in the primary sector has decreased a lot. A strong increase (doubled since 1992) can be observed within the category ‘Employment in trade/service’.
- More than double the number of people in casual employment from 1992 to 2006 are observed in area II (availability of jobs in horticulture farms nearby); ‘Employment in trade and service’ has increased too.
- The highest number of heads in 1992 had jobs in the primary sector which has almost none in 2006; most heads nowadays are employed in trade and service.
- Of all sons in employment in 2006, more than one third are in trade and service. The ‘Employment in trade and service’ are held by men with a specific training. And self-employed men usually have at least a lower informal training.

Continuation on page 114
Who remits:

How:

- Heads remitted regularly in 1992, in 2006 less. No son supported ‘Regularly’ in 1992, but about 50% 'Irregularly' and 'Bound to specific expenses'. The share of sons who did not remit at all was also lower in 1992 than in 2006.

  Highest remitter:

- Almost equal shares of heads and adult children are highest remitters in 2006 (~40%). In the older surveys' heads were mentioned as the most important supporter in terms of remittances (in 1992 almost 55% of the answers). The term 'Highest remitter' within this question was in many cases not understood as the mere cash-bringer, but somebody who is showing solidarity with the household.
7 Peasants’ View of the Two Focal Spheres of Action in the Frame of the Overall Household Strategy

7.1. Important of Activities and Benefits Within the Spheres ‘Social Networks and Ties’ and ‘Off-Farm Labour and Remittances’ for the Households

7.1.1 Priority of ‘Off- or On-Farm Activities’

7.1.2 Importance of Remittances from ‘Off-Farm Labour’ or ‘Relatives’

7.1.3 Importance of Income from the Holding or from Outside

7.2. Assessment of Income and Expenses in the Household

7.2.1 The Income from Crop, Garden and Livestock

7.2.2 The Households’ Means to Reach Food-Security

7.2.3 Household Expenses: How Much is Covered Through ‘Off-Farm Labour’ Income?

7.2.4 The Households’ Future Plans
With the comparison of results between 1992 and 2006 in the evaluation chapters 5 and 6, it was tried to establish and show the dynamics of the two spheres of action ‘Social Networks and Ties’, ‘Off-Farm Labour’ and the connected remittance-patterns.

The scope of the following section is to find out, how the two spheres are related to each other and if predications can be made in relation to the research question 3, e.g. if conclusions of the 1992 survey are verified. (As a repetition, these conclusions are for one the development of household strategies in a sequence, by first ensuring a basic multi-strategy including all spheres of action. And secondly, opportunities are exploited on this basis, – which in most cases do not endanger the basic multi-strategy – by either expanding the multi-strategy or specializing in certain fields. A third point is the ecological adaptation, which according to the 1992 survey, is not explicitly done by smallholders through adapting their production systems, but through shifting weight to other (non-natural resources related) spheres of action within their overall household strategy.)

7.1 Importance of Activities and Benefits Within the Spheres of action ‘Social Networks and Ties’ and ‘Off–Farm Labour and Remittances’ for the Households

7.1.1 Priority of ‘Off–Farm’ or ‘On–Farm Activities’

The question 6.36 was already addressed in the retrospective judgement section on off-farm labour under 6.2. and the two areas were thereby distinguished. Here, the age of the respondent and the level of off-farm work within households are taken into consideration, while counting certain quoted codes (areas separated). This is followed by a general assessment, looking at the areas together in order to achieve an overall view at the relevance of ‘On– or Off–Farm Activities’ for every household.

![Opinion on the priority of On- or Off-Farm Activities, area I](image)

Area I: the households which mentioned code ‘On–Farm in any case’ (3 households), were the same in 1992 and the following years and have very little off–farm labour (e.g. only few persons working off-farm and casually only). The age of the respondent seemed to be no indicator, since they all had different age classes.
In area II, those households with ‘On-Farm in any case’ in 1992 all became more “moderate” in the recent questioning, quoting ‘Off-Farm labour only by same On-Farm Level’. The respondents’ age, though, is rather high there (>50), but the number of persons working off-farm does not seem to play a role here; e.g. the number of persons range from one to 14.

Generally, two things can be concluded regarding respondents’ opinion about the priority of ‘On- or ‘Off-Farm Activities’ in the household: putting ‘On-Farm Activity’ as a priority can be a necessity in case there is no alternative income or it is a wish and an urge to do so (particularly at a certain age or stage in life). The condition for this priority is the ‘affordability’, e.g. the households’ expenses are covered by other means. Over time (since 1992), the households seem to have become more moderate or “open” for alternatives to activities on the farm, which is clearly indicated by the decreasing ‘On-Farm in any Case’ and the increasing ‘Off-Farm Labour with Conditions’. (Second code, “Priority of off-farm labour only by same level of on-farm level or well paid job”).

7.1.2 Importance of Remittances from ‘Relatives’ or ‘Off-Farm Labour’

Regarding the remittances from networks or through off-farm activities, the areas did not show great differences and were therefore not considered separately. Taking the two areas together in the diagram offers an overall view, supporting a validation and comparison of the two spheres – relatives/off-farm labour – with each other. The differences between 1992 and 1997 are minimal, but from 1992 to 2006, significant changes are observable.
In 1992, exactly 50% of the statements regarded income from 'Off-arm activities' as 'More' or 'Much more important' than the support and remittances from the side of 'Relative-networks'. In the newest survey, it even increased to 81% of the answers. Even within the sphere 'Income from relatives-networks', a transformation can be detected: while in 1992 the remittance from relatives were regarded important (Rem rel+) by 13% of the responses and by 3% very important (Rem rel++) respectively, it is 10% for 'Important' and 0% for 'Very important' currently.

A closer look into the data reveals that in area I, all (three) households within the two codes considering remittances from relatives 'Important' or 'Very important' were not engaged in off-farm labour in 1992. Two households in area II valued relatives' support higher and for one respondent, the relevance of relatives for the household has increased from 1992 until 2006. Three of the respondents valuing relatives higher are quite old, the younger ones shifted from 'Rem rel+' to 'Off+' or 'Off++'.

Generally spoken, it can be said that support from relatives loses importance, income from activities off the farm gains importance.

84 Appendix 5, question 6.35: “What is more important for the household: Remittances from off-farm or from relatives (home a. or others)?”
7.1.3 Importance of Income from the Holding or from Outside in 2006

Data for the question about the importance (judgement) of the sources of income for the household are only available for 2006. This question applies a more general view on the income of the holding on one side and all the external sources on the other side. Moreover, it discloses a slightly different picture from question 6.35. About the importance of off-farm labour income or support from relatives (7.1.2.), thereby showing some varieties among the two areas. If both are taken together, exactly 50% of the responses regard the income reared by the plot more significant than the inputs from outside and 40% regard it vice versa. 'Outside' can thereby mean income from wage labour, property, lease, support/remittances from relatives etc. But in area II alone, 65% consider the plot/holding crucial regarding the income from the household compared to about 27% which count more on income sources from outside. In area I, however, more than 50% give their vote for the ‘Outside-income’.

This different answer pattern for the questions 6.35 and 8.6 could indicate that relatives lose their importance within the smallholders strategies to ensure their income. (In the comparison between ‘Relatives’ and ‘Off-Farm Labour’, most answers were clearly stating the off-farm as more important. The comparison between ‘Outside’ and ‘Holding’ is much more balanced which demonstrates that ‘Outside’ is more or less important according to other sources available, but it is, according to answers to question 6.35, not necessarily the relatives!) It might also indicate – especially through respondents remarks in question 8.6 – that the plot/holding is provoking an emotional bias regarding the actual/real income: it is hardly possible for smallholders to distinguish between the pure economic value or output of the farm and all the socio-cultural values the household and the whole holding represents for its members. This in turn triggers to biased answer patterns from the solely economic point of view. Respondents, for example, mentioned the “control” they have over the production on their own land, whereby they feel that jobs are usually less secure.

Area I, sample 79: “Income/products from the farm, though small, is steady and regular. But from outside it is a ‘one time event’. (From the farm you get everyday, from off only once in a while)”

Another point mentioned is the act of buying food instead of growing it on the own land. An act which seems a difficult task for many smallholders. It shows the important position the production of own food has within the households’ ways of ensuring survival and/or optimising strategies to do so.

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85 Appendix 5, Question 6.35: “What is more important for the household: Remittances from ‘Off-Farm Labour’ or from ‘Relatives’ (home area or others)?”

86 Appendix 5, question 8.6: “Which one is more important for the household: Income from the holding (farming+livst) or from outside?”
Area II, sample 81: “The plot provides us with food; without, my salary would be channelled towards buying food and so wouldn’t be able to finance other activities.”

Recapitulations on the Importance of Activities and Support within Networks and Off-Farm Labour:

Priority of ‘Off- or On-Farm Activities’:
- It seems that ‘Off-Farm Activities’ have gained importance compared to ‘On-Farm Activities’ within the households, whereby ‘Off-Farm Activities’ are in many cases increasingly bound to conditions; e.g. ‘On-farm in any case’ in 1992 became more “moderate” now.

Remittances from ‘Off-Farm Labour’ or ‘Relatives’:
- Support from relatives loses importance, income from activities off the farm gains importance.

Importance of income from the holding or from outside:
- People state that income is drawn to about 50% from on- and 50% from off-plot. But the agro-climatic zones are playing a role and determine the decisions regarding the answers on the importance of income from on- or off-plot.

7.2 Assessment of Income and Expenses in the Household

The data about ‘Income from the farm’ and also the questions on ‘Coverage of expenses’ or ‘Times with insufficient subsistence’ are covered well in the years 1992 and 2006 and therefore allow to draw some conclusions. In doing so, the question about the interaction and relation of the two spheres of action to each other is central. Thereafter, the open questions about ‘Future plans’ in the households are regarded as a supplement to the “hard facts” in the diagrams and are nevertheless displaying explanation-disclosures. As a first step, however, the issues of ‘Income’ and ‘Coverage of expenses’ are explored:
7.2.1 The Income Crop, Garden and Livestock

Crop and garden

Generally, there is a slight increase in ‘0-income’ and ‘High income’ (10’000–30’000 KSH) from 1992 to 2006 which indicates a tendency to specialisation in a certain field of action.

If the areas are considered separately, area I shows a strong increase of ‘0-income’ from crop and garden, and, on the other hand, the ‘High income’ is only mentioned by half the number of households of 1992. The dynamics in income from crop and garden in area II are more flat therefore: the number of households within the category ‘No income’ has decreased since 1992; in the middle range, there seems to have taken place a small shift from low-medium to medium-high income, (e.g. less 3000–7000 KSH and more >10’000 KSH). This supports the specialisation-theory from the general view and shows that area I is to a greater extent following it in this case. The number of households with high income from crop and garden seems to have been new in 1997 (no answer-code makes out a high
portion of the total number of answers!), but stable since that time. This shift could be explained through recently generated irrigation options for certain households in area II (which would have to be verified in the survey 2007), which enables households to grow vegetables, fruit and crop in a less weather- and climate-dependent way. The here identified households with a fairly high income from crop and garden also rank the importance of income from the holding higher than the income from outside (question 8.6, above), whereas significant differences among the areas are not detachable. Those households lie in the higher income categories for livestock as well.

Livestock

It stands out at first glance that the “extremes” e.g. households with ‘No income’ from livestock, have increased since 1992 and the ‘High’ and ‘Very high income’ have also gone up quite a bit. Except one, all categories in between lost drastically since 1992 (almost one third of the answers is missing or were
not applicable in 1997). The picture shown in the diagram indicates a strong specialisation tendency concerning the income generation from livestock.

When the areas are considered separately, area II represents the postulated specialisation tendency to a higher degree than area I: more than two third of the households in area II generate a high yearly income from livestock and its produce. Area I is less distinct: about half of the households have a high income and the other 50% have currently low, medium or no income from livestock. Surprisingly, only four out of those seven rank the income from outside higher (in question 8.6) than from the holding; the reasons are mainly the associated reliability to farming and off–farm labour, which is represented in respondents remarks to question 4.2.20. This issue is best shown by the following example in area II, sample 5:

"Income from off–farm work is occasional, but from plot, one can survive on it for a longer period, especially when harvest was good."

7.2.2 The Households’ Means to Reach Food–Security

The categories of answers for this question were preliminary added to the question but subsequently put into wider categories; a reduction of codes was seen more adequate for a comparison. It has to be kept in mind that it was renounced to put results into percentage which can be slightly irritating. However, it does not make sense to keep single categories comparable; their frequency within the answers as a whole is important only.

Figure 66: Means to cover months with insufficient food in both areas; 1992–2006

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87 Appendix 5, question 4.2.20.: "How much income is there from livestock?"
If all three surveys in both areas are examined (figure 66, page 123), the 'Livestock' was the most frequently mentioned mean to cover gap-times in 1992 and it was followed by the code 'Own savings'. In 2006, the proportion is similar, but both have decreased. The next mean in the 1992–ranking, e.g. the 'Support from the home area' and 'Casual work' showed the same level; followed by 'Relatives in town'. In 2006, livestock is still leading, followed by 'Own savings' and the significantly increased 'Relatives in town' (from three to 10 statements). 'Casual work' and 'Relief food' on the same level are the next mentioned, whereby 'Relief food' was never mentioned before. It seems that in the present issue, the farming did and still does play a marginal role.

The cases when households state to 'Never have insufficient food', has significantly increased since 1992, from six to 15.

If in a next step, the areas are looked at separately, it can be stated that area II has a higher food security now, because 'Never insufficient food' has increased (from 4% to 15%). But the most important mean of coverage seems to be the 'Relatives in town' nowadays, where the number of statements is more than four times higher. This is followed by the code 'Government relief food'. Two reasons can be made responsible for the high number of quotations in code 'Relatives in town': it was already shown that (1) relatives are still addressed in times of emergency – which this question could represent – and (2) simply because area II generally has a higher number of people engaged in off-farm labour, which includes family members working and living in town.

Area I shows for the first time no coverage through farm-crop; but on the other hand 'Livestock' is leading by far since more than 30% of the statements in 2006. Second are 'Own savings' (which has
decreased quite a bit) and ‘Casual work’, (rather the same as in 1992). With the ‘Home area’ and ‘Relatives in town’ a transposition can be observed: ‘Home area’ has lost about half the number it had in 1992, and ‘Relatives in town’ help to bridge bad times in more than 10% of the cases compared to 0% in 1992 and 1997. These figures strongly support the observations made in trans–spatial and space–inherent retrospectives: the important ties for the household regarding support and remittances within networks have shifted away from trans–spatial ties (the category ‘Relatives in town’ is not easily to be allotted: it neither belongs to trans–spatial nor to the space–inherent dimension).

7.2.3 Household Expenses: How Much is Covered Through ‘Off–Farm’ Income?

In contrast to the analysis of this question in the retrospective judgement section on ‘Off–Farm Labour’ in chapter 6.2.1., (where two fields of expenditures, e.g. ‘Education’ and ‘Daily Needs’, were evaluated separately) all three fields of household expenses (‘Daily Needs’, ‘Education’ and ‘Investments’) are taken together here. This provides an overall view on the distribution of off–farm remittances and income on the different expenditures–spheres in the households. The areas are displayed together because the picture resulting from a quantitative analysis of both areas proved not to differ much.

In the combination and through comparing the results from 1992 and 2006 of all three fields of expenses and both areas, one can see that the category ‘Partly covered’ has gone up from 17 to just over 40 and ‘Almost/just enough’ gone down from almost 40 to 14. Already known reasons could hold out for these dynamics: firstly, the respondents have become older and are therefore in most cases more attached to their plot and not necessarily as often in off–farm activities as they used to and therefore try to use other sources again. These other sources are for example empowered through an increased security situation in both area88 which allows better conditions (less thefts etc.) to keep, use and sell livestock. Moreover the welfare and self–help groups help to take measures and replace off–income to cover expenses89. Then, the number of respondents’ children (and their spouses) working and earning has increased since 1992 which can allow the parents in return to receive something from them, and replace their own off–farm income to a certain extent. Another major reason is the often mentioned low trust in reliability of off–farm labour as it has already been shown in 6.2.1. ‘Coverage of expenses’.

Households who felt that their expenses were ‘Not at all covered’ by off–farm income or remittances from this source did make quite an increase; from five to 23 between 1992 and 2006.

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88 For details on this topic see excursus ‘Security issue’, Appendix 3
89 For example Irrigation; if opportunities for irrigation increased, will have to be investigated in the next survey in 2007.
It has to be mentioned that most statements in this category – ‘Not at all’ – can be found in the field ‘Investments’ which is for most households, as will be disclosed in the next diagram (‘Priority of expenses’), the least important of all household expenses. Another reason is then maybe the gap between wish and reality of earning the necessary money (details see ‘Future plans’, 7.3., next section) or increased demands and requirement since 1992. Some respondents have given up off-farm labour and the money/remittance from children is not necessarily in form of cash at free disposal, but bound to specific expenses and situations of need etc. It makes a difference to have self-earned money at disposal or portions of other people’s income. In order to elaborate the discrepancy between wish and reality and probably find potential reasons, a closer look is now taken at the – partly open – questions about future plans within the households in the last two sections of this chapter.

Recapitulations on the Importance of Activities and Support within ‘Social Networks and Ties’ and ‘Off-Farm Labour and Remittances’:

Income crop/garden and livestock:
- Generally, there is a slight increase in ‘0-income’ and ‘High income’ (10’–30’000) from 1992 to 2006 which indicates a tendency to specialisation in a certain field (the identified households with a fairly high income from crop and garden also rank the importance of income from the holding higher than the income from outside).
- As could be expected, the specialisation tendency is crops in area II and livestock in area I.

Coverage of month with insufficient food:
- The most important mean of coverage is the ‘Relatives in town’ nowadays in area II; in area I though, months with insufficient food are clearly tried to overcome through the mean ‘Livestock’.
- Area I shows for the first time no coverage through farm-crop; but on the other hand, livestock is leading by far with more than 30% of the statements in 2006. (This is probably a consequence of improved security which can be attributed to changed action guiding condition ‘Political condition’)
- ‘Never have insufficient food’, has significantly increased since 1992.
- The important ties for the household regarding support and remittances within networks have shifted away from trans-spatial ties.

Coverage of expenses through remittances or income from ‘Off-Farm Labour’:
- The category ‘Partly covered’ has gone up and ‘Almost/just’ has gone down which produces a variety of possible reasons:
  1.) Respondents become older, are more attached to their plot and not as often in off-farm activities as they used to. 2.) Other sources like livestock keeping (empowered through an increased security situation; see also ‘Coverage of month with insufficient food’ above, second point) or welfare and self-help groups help to take measures and replace off-income to cover expenses. 3.) Respondents’ children (and their spouses) working and earning has increased since 1992. 4.) There is a low trust in the reliability of off-farm labour like it has already been shown.
- There is a gap between wish and reality of earning the necessary money.

90 See question ‘How do people remit’ under 6.2.2.
91 See question ‘Who works off-farm’ under 6.2.2: 14% HH-heads / 32% sons
7.3 The Households’ Future Plans

In order to shed light on the connection between the actual relevance of households spheres of action by looking at judgements from respondents and income/financing patterns within household economics, the future plans of each household are addressed here as a last set of questions:

First, the dynamics of future plans regarding the holding (question 9.1) since 1992 are considered and are followed by a ranking of the most quoted statements for the future plan of every household in the fields ‘Off-Farm Labour’, ‘Investments’ and ‘Farming Activities’ (question 9.2–4), which were given by respondents in the conversations of the most recent survey 2006. Only the future plans for the holding had a preliminary coding and were asked in 1992 (Question 9.2–4 are new and only asked in 2006).


For the holding, most households (area I: eight, area II: ten) would like to expand their land resources e.g. pasture and/or crop land, but there are constraints. ‘Constraints’ means the lack of funds in almost all cases. The slight increase in ‘No concrete plans’ which is a decrease of “expansion–plans” for the farm seems to represent some households heads’ age and their satisfaction with what they currently have. The increase in the category ‘Planning to hand over parts of the holding’ from 1992 to 2006 as well shows the “growing” generation shift within the households. Now the most frequent statements and remarks to question 9.1 address a will to invest in the farm or the wish/necessity to hand over at least some of the land to the children etc. It was for example stated:

Area II, sample 64: “Due to the large family 1 acre is far too little; I wish to expand, but it’s not even in the pipeline!” Or:

Area I, sample 73: [The plan is:] “To expand, to increase pasture and also because I would like to pass over some land to my children.”

Together with statements regarding the experience that income through off-farm labour is not reliable enough (see for example comments to ‘Income from livestock’, above) they all support the revelation of the ranking of importance of income (Question 8.6. under 7.2.1.); which is that most of those households with good income from crop and livestock do naturally rank the income from the holding

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92 Appendix 5, question 9.1.: “What are your future plans to expand or reduce the holding? (specify)”
higher than from outside; and this in turn supports the theory of utility optimisation and the specialisation in a certain field. But in the train of thoughts, one has yet to include the emotional and cultural cohesion to the land and holding/plot etc. besides the mere utility optimisation. As mentioned before, this is not easy to distinguish for respondents as members – and often mothers and/or heads of a household. Three statements of respondents of both areas illustrate this, and for a more thorough explanation on land-attachment see excursus “The Relationship of Kikuyu–People to Land” in Appendix 2.

Area II, sample 39:  „Every son works to be able to get an own plot."
Area II, sample 92:  “I want to expand (buy additional land), so that it can be enough for farming food crop and keep livestock, instead of renting from outside.”
Area I, sample 137:  [The plan is:]  “To increase activities by adding land and grow wheat in bigger portion.”

7.3.2 Plans for Farm Activities, Investments and Off–Farm Employment: Statements From Open Questions

Instead of a graphical illustration, a mere ranking of 'frequency of occurrence' regarding the statements given to the subject ‘Future Plans’ in farming activities, in investments and in off-farm labour is displaced below. Both areas were taken into consideration together. The rather simple procedure of categorising and counting statements allows to immediately identify where households see their priorities, make efforts and invest respectively. However, the word ‘plans’ bears a challenge regarding its perception in the sense that it can be understood in different ways. It wasn’t always possible to detect the difference between the wish or hope people express in their answer or if it is a concrete plan they are about to realise. By looking at the following results, this has to be taken into consideration.
Table 2: Respondents statements about future plans in ‘Farming Activities’

<table>
<thead>
<tr>
<th>Code</th>
<th>Farming Activities</th>
<th>Number of statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Increase commercial farming</td>
<td>10</td>
</tr>
<tr>
<td>1</td>
<td>Increase subsistence</td>
<td>9</td>
</tr>
<tr>
<td>0</td>
<td>No plans</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>Increase livestock</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>Wish to increase farming but constraints</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>Reduce cultivation</td>
<td>3</td>
</tr>
</tbody>
</table>

To sell a little bit of farm produce, or at least have enough for the own consumption seems to be the common denominator in the subject ‘Farm activities’. It has to be stated that a consensus was reached within the research team that with the exception of two households in area II, the statements should be read as wishes and not as plans to be realised in the near future. The codes one and two could therefore be put into code three as well. However if it is a wish or a plan, what can be seen is the strong tendency to increase farm activities whereby their reduction was mentioned far less. ‘No plans’- statements stand in a proportion of six to 28 statements where an increase of activities is wished for or actually planned.

Table 3: Respondents statements about future plans in ‘Investment’

<table>
<thead>
<tr>
<th>Code</th>
<th>Investment</th>
<th>Number of statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Investment in livestock/shoats/poultry</td>
<td>11</td>
</tr>
<tr>
<td>4</td>
<td>Develop commercial plot</td>
<td>7</td>
</tr>
<tr>
<td>2</td>
<td>Buy/rent land</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>Operate business</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>Irrigation</td>
<td>3</td>
</tr>
<tr>
<td>0</td>
<td>No plans</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>Educating children</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>Commercial farming</td>
<td>1</td>
</tr>
</tbody>
</table>

Investments seem to steer in the same direction like ‘Farm activities’ and the attention is clearly on big and small livestock (cattle, sheep, goats and poultry). Some respondents gave as reasons their age and the less tiresome work with livestock compared to other farming activities like cropping. The commercial developing of owned or rented plots seems to be another viable alternative or flanking measure to get rear/generate income. Codes 1, 2, 3 and 6 are all clear farm investments, e.g. leading to the expanding of the farm activities and thus either generating some income or increase the level of subsistence farming. If they are taken together, investments in the farm are in a proportion of 21 to 14 statements not directly related to the farm and its activities, e.g. business operation, developing a commercial plot or educating the children. Whereas the last mentioned code – ‘Educating children’ – is considered as a future investment and/or old-age provisions. Hence, investing into the farm or particular farm activities seem to be more important than to do so with off-farm activities.

It should not be forgotten that the pattern in the list results from a mere counting of statements; most households keep activities and plans parallel. For example, they first obtain an additional cow for home use or to sell produce and then start developing step by step a bought or rented commercial plot.
Table 4: Respondents statements about future plans in ‘Off-Farm Labour’

<table>
<thead>
<tr>
<th>Code</th>
<th>Off-Farm Labour</th>
<th>Number of statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Self-employed/business</td>
<td>8</td>
</tr>
<tr>
<td>0</td>
<td>No plans</td>
<td>7</td>
</tr>
<tr>
<td>3</td>
<td>Wishing for employment</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>Maintain job</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Educating children</td>
<td>3</td>
</tr>
<tr>
<td>9</td>
<td>Not applicable</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>Little farming, little off-farm labour</td>
<td>1</td>
</tr>
</tbody>
</table>

Distinct plans in off-farm activities are not that obvious; but the clearest request or wish for income in this sphere, is found in self-employment and/or starting/keeping an own business with eight statements. In contrast to this, only five respondents wish for employment, which in turn is about the same amount of ‘Maintaining the current job’. At the least seven households do not have plans to move into off-farm labour or expressed the wish to do so.

Recapitulations on Statements about Future Plans:

All in all, there is the impression that the owned and rented land and the farming activities can rear more concrete plans for action to secure survival than off-farm activities. The already before observed adoption of a critical position of respondents towards off-farm labour and employment, is to be represented again in those statements about future plans. The impression grows that to be on the sure side, people tend to develop wishes and plans for the holding first of all, and only after that allow a “look beyond the fence”. This strongly supports the 1992–conclusion of the basic multi-strategy theory (and following this, the opportunity exploitation/specialising in a certain field respectively).
8 Synthesis

8.1. Findings on Judgements and Analysis
8.1.1 The Status of the Focal Spheres of Action in 2006 and Retrospective 1992–2006
    Judgement of ‘Social Networks and Ties’ and Analysis of Actions
    Judgement of ‘Off-Farm Labour and Remittances’ and Analysis of Actions

8.2. Positioning of the Two Focal Spheres of Action in Household Strategies of Peasants
8.2.1 Assessment of Importance of Activities and Support
8.2.2 Assessment of Income

8.3 General Conclusions and Experiences
8.3.1 General Conclusions
8.3.2 Experiences and Recommendations from the Field
8.3.3 Further Research

In this last chapter, the main outcomes of this study are highlighted and brought in connection with the research questions stated in 1.3. The same line of argumentation as in the evaluation chapters is applied for this purpose:
A summary of the 2006-findings and the changes between 1992 and 2006 is listed first, followed by the endeavour to emphasise the relevance of the ‘Non–Natural Resources Related Spheres of Action’ within household strategies of the investigated smallholders. The first two sub–chapters shall answer the relevant research question/s, based on the findings of the study which were summarised in the recapitulation boxes at the end of each sub–chapter. Differences between the areas are incorporated as far as they make relevant contributions to answering the questions.

8.1.1 ‘Social Networks and Ties’: Judgement and Analysis of Actions

Research question 1:

To what extent has the field of activity ‘Social Networks and Ties’ within the context of remittances to the household gained or lost importance?

Six categories of social networks93 which proved to be important for the households, were judged by the respondents and brought into a ranking. The analysis revealed the space–inherent social dimension (e.g. ‘Neighbours’ and separate ‘Sub–households’) as predominant and the priority dimension, while the assistance from relatives in general was not considered important from three quarters of the respondents. Almost all respondents placed ‘Neighbours’ and ‘Sub–Households’ in the first rank, if the first stated category is considered only.

93 1.) Relatives in home area, 2.) Other relatives, 3.) Relatives in estate nearby, 4.) Neighbours, 5.) Sub–HH, 6.) Non relatives

One of many children growing up with his grand parents.
Within the question about the importance of support FROM relatives, a remaining connection and bond to the higher social aggregate of the lineage or clan in very needy or scarce situations was unveiled by people’s most chosen answer-code ‘In case of emergency only’. It is an obvious inference, that other actions and strategies of actions to secure survival and livelihood than ties to kin, only cover the requirements of the households up to a certain point. In those cases which go beyond that point, (such as great financial burdens or the care for relatives in need, for example orphans), the ties and relationships to the relatives (in the home area or others) need to be addressed. But in percentage, it is not even 25% of the households which account the assistance from the relative-networks generally ‘Important’ or ‘Very important’.

The period of settling of the investigated smallholders ranges from 43 to 15 years (most households moved to Laikipia in the 1980ies, though) and is the foundation of a long interaction between individual, unrelated households in the same settlement scheme and neighbourhood. This fact leads to closer ties with time and to a growing sense of solidarity and belonging. People sense that they have the same lot and, at the same time, perceive relatives as being “far” in comparison to the people who are “always there”. The often stated need (or wish) of households close to each other to get organised in groups or associations, reflects financial distress through emergencies and required investments. But this alone does not serve as the full or sole explanation: the strong cohesion among people sharing neighbourhood and daily communal live leads to socio–moral assistance, sharing ideas etc., which is in many cases felt just as important as materialistic support.

The areas show some distinctions in the way codes were chosen and allotted: within the context of judging networks in terms of their relevance to the household, area II was generally slightly more polarised; area I, on the other hand, more diverse and less explicit. This is supporting the conclusion of the 1992–study on the enhancement of a basic multi–strategy or the specialisation in a certain field of action: households in area I are consequently less “allowed” to neglect social ties (for example with the home area) as a mean to receive support, than households in area II.

With a glance back to the same questions judging the social networks and ties in 1992, a different pattern is showing:

more than 50% of the respondents considered the trans–spatial ties (particularly the ‘Home Area’ but also to 15% ‘Other Relatives’) of higher importance than space–inherent ties such as ‘Neighbours’ and ‘Sub–households’. That this shift was gradually taking place, is represented in the 1997–answers, where the result was a mixture of both (‘Home Area’ and ‘Neighbours’) and the 2006–answers, where ‘Sub–households’ and ‘Neighbours’ held the highest shares, followed narrowly by ‘Other relatives’.

A complex pattern of reasons is reflected in the answers over time: on one hand, the increased age of the respondents and the settlement time in Laikipia probably trigger a change of habits. On the other hand, the tradition of getting organised near one’s home with alliances, self–help organisations or groups, was enhanced through the settling time and led people to rely less on ties with relatives especially if they are far. Also certain migration–movements out of different motives contribute fractions to the pattern of reasons, why the shift from trans–spatial to space–inherent ties is taking place.

Thus, the perceived weakening of trans–spatial ties seems to be a fact here, but it is hardly possible to talk of a general trend beyond this study in its particular context.

Talking about degrees of support in trans–spatial and space–inherent networks, there is a tendency to intensify links and ties to the people close–by. People distinguish between kin and neighbours/friends.

94 Unrelated in the sense of non–kin.
95 For example, children of respondents establish own households and have own commitments.
96 Well educated and trained family members naturally look for employment, which might push them to other areas and/or urban centres; family members move to other areas where they hope to find more promising farming conditions, thus communication and contacts are further complicated.
in space-inherent links: ‘Neighbours’ do play a very important role, as stated many times, but are seen as the “backstop” for times of need, e.g. what respondents perceive as emergencies when manifold support is required quite urgently (for example for deaths and consequently funerals, weddings, school fees etc.). ‘Sub-Households’, on the other hand, are not subject to great fluctuations in terms of changes of intensity of ties. The assistance is more regular and not limited to mutual support; on the contrary, one−way support is more frequent. A distinction among the areas can be made here: within area I, ties have more frequently increased and the regular mutual exchange was predominant. Hence, those ties play a more dominant role. This, again, supports the conclusion made in Wiesmann (1998) that after the ensuring of a basic multi−strategy, a specialisation in a certain field can take place and be seen a particular adaptation strategy.

Trans−spatial ties such as ‘Other relatives’ are perceived as being increasingly marginal from 1992 to 2006, which again allows the inference of a retreat to the space−inherent dimension. The ‘Home Area’ as part of the support−network, is more complex and subject to very diverse individual family− and migration−histories. However, one tendency can be observed: while regular exchanges since 1992 have gone down, exchanges limited to emergencies have gone up. This indicates a general decrease of intensity of ties with the home area. It can be interpreted that the relatively “slender” decrease reflected in people’s answers, is due to the major role of the respondents’ age and consequently their parents’ age (which is reflected in an increased assistance−degree ‘to’ the ‘Home Area’ in contrast to ‘from’ this side); but also sudden occurrences which address family matters and require family−gatherings, can lead to a perceived increase in ties. Behaviour according to age and time of settling stands under the action guiding condition ‘Area of origin and background’.

I would like to highlight three conclusions out of this part:

- With generational changes, shifts in intensity and also directions of assistance are taking place.
- With the increasing settling time, there is a shift from trans−spatial to space−inherent ties, e.g. the nuclear family and neighbours have become more important than the clan, collateral relatives etc. The action guiding condition ‘Area of origin and background’ entails this behaviour.
- Action guiding conditions such as less favourable natural resources and access to those (indicated through differences between area I and II), can provoke a closer attachment and dependency on social networks.
8.1.2 Off-Farm Labour and Remittances: Judgement’ and Analysis of Actions

Research question 2:

Has the significance of the field of activity ‘Off-Farm Labour and Remittances’ quantitatively changed since the first survey? Which particular activities are involved?

While about six out of 30 households in 1992 were not engaged in income generating off-farm activities of any kind, it is 100% of the households in 2006.

In comparison with the two activity dimensions ‘On-Farm’ or ‘Off-Farm’ in 2006, 50% of the respondents give priority to conditional off-farm labour. ‘Conditional’ thereby refers to the households’ attempts not to pin all their efforts and hopes for example on off-farm labour only, but keep other activities going. The overall explanation for the behaviour is the “safety-net-theory”, as one respondent named it: one field of action has to supplement the other; if one fails the other one is to take over. Households which are ‘putting all eggs in one basket’ (33% of all respondents give priority to ‘Off-Farm Labour’ in any case) proved to do so because of constraints in other spheres of action; for example, the lack of natural resources to achieve required goals. This was mostly the case in area I, where a more equal distribution was given in the answers, while households in area II stated more off-farm activities under certain conditions as their designated priority.

Generally, the weight attributed to activities between 1992 and 2006, shifted from ‘On-farm’ to ‘Off-farm’. This progression shows that people are seeking a way to keep the ‘On-farm’ activity at a certain level (investing in the farm, participate in self-help groups to enhance development on the farm or in the community etc.), without hindering ‘Off-farm’ labour which is vital for a lot of households. (It has to be kept in mind that the perception of the question and its application either to the respondents’ personal situation or the whole household marks a difference. Hence, I rather talk about tendencies here). This supports the 1992-conclusion on the basic multi-strategy. Almost all households need at least a little bit or ‘partly’ contributions of other resources to cover expenses for daily needs and education in 2006. Area I generally had and has a higher dependency on off-labour remittances for the coverage of expenses in the household, while area II uses more other sources to do so. The variety of other means to cover education expenses for example is in most cases narrowed down to selling produce from the farm and plot, e.g. farm/garden produce or livestock and dairy products. This shows the role of the action guiding conditions ‘Resources and Access to Resources’, which is naturally different between the areas.

With the help of quantifiable answers and statements from respondents, it can generally be said that changes leading to an increased importance of off-farm activities within household strategies, are related to the number of household members of a certain age and sex and their access to work, which is mainly linked to the level of education, relationships or a favourable distance to working opportunities (which is primarily the availability of jobs in horticulture farms nearby). Since 1992, a significantly increased number of persons engaged in off-farm work of any kind are sons to respondents. Hence, they – at least numerically – seem to hold the most important position in the households in terms of the activity sphere ‘Off-Farm Labour’.

Most people engaged in labour off-farm, are working in ‘Medium Urban’ and ‘Small Urban’ locations. Two outcomes within the questions about working places were rather surprising: the number of persons working in ‘Large Urban’ spaces has remained equal between 1992 and 2006; and the amount

of persons working in ‘Rural Places’ did not decrease, on the contrary: half of all sons to respondents work in ‘Rural Places’. The reason for this fact can in most cases be detected in the availability of job opportunities within the large scale horticulture flower- or vegetable-farms on the eastern slopes of Mt. Kenya and as well on the large scale ranches (commercial farming and tourism). This might also be a cause for the significant increase in casual work: unqualified or low qualified workers are employed in horticulture farms with short time contracts only. In area II, more than double the number of people in casual employment from 1992 to 2006 are counted, which is, in my opinion, again to a certain extent the consequence of (and enhanced through) action guiding conditions such as casual job opportunities nearby within the horticulture business.

In terms of remittances, the sons (and children/grandchildren in general) can be referred to as being less committed to the household in terms of materialistic support and remittances than the household-heads. Whereas a mismatch is detachable: the (married and non-married) adult children of respondents are judged as ‘Highest Remitters’ in an equal portion to household–heads (contrasting the 1992–results, where the heads held a great majority), although the household–heads are numerically much less engaged in off–farm labour anymore.

This is an indicator for the particularly important position of the heads within their own households. Moreover, the term ‘Highest Remitters’ within this question was in many cases not understood as the mere cash-bringer, but somebody who is showing and proving solidarity to the household in manifold ways.

I wish to recapitulate three outcomes crucial to answer research question 2 here:

- There is an increased quantity from 75% to 100% between 1992 and 2006 of households engaged in off–farm labour of any kind and degree.
- A combination of generation shift, constraints regarding natural resources and the accessibility of work (through education and available job–opportunities), lead to an increased number of people in off–farm labour (particularly children and grandchildren).
- The judged priority of the activity dimensions shifts from ‘On–Farm’ to ‘Off–Farm’ (particularly off–farm work under certain conditions), which is an indicator for the “safety net–theory”, e.g. after ensuring a basic multi–strategy, the concept of opportunity–exploitation (utility optimisation) is applied. Area I and II are thereby considering their individual action guiding conditions.
8.2 Positioning of the Two Focal Spheres of Action in Household Strategies of Peasants

Respondent’s judgements on particular questions to the ‘Non-Natural Resources Related Spheres of Action’ and some numerical comparisons, allow drawing conclusions about their relation to each other and, to a certain extent, also about their position within the overall household strategy.

In order to answer research question 3, the attempted importance is segmented in Activities and Support as well as Income.

Research question 3:

“Do smallholder households since 1992 generally tend to turn towards fields of activities which are not directly related to the use of natural resources on the plot within their overall household strategy? How is thereby the relation among the two focal spheres of action?”

8.2.1 Assessment of Importance of Activities and Support

Activities

Generally, two things can be concluded regarding respondents’ opinion about the priority of ‘On- or Off-Farm Activities’ (e.g. activities related to the direct use of natural resources or other activities) in the household:

1.) Putting ‘On-Farm Activity’ as a priority can be a necessity in case there is no alternative income, or it is a wish (particularly at a certain age and stage in life) and it is “affordable”, e.g. necessary expenses are covered by other means.

2.) Over time, the households seem to have become more “moderate” or “open” for alternatives to income-rearing activities on the farm, which is clearly indicated by the decreasing ‘On-Farm in any Case’ and also the ‘Off-Farm Labour with Conditions’. Hence, the households (increasingly) carefully estimate whether the starting, dropping or shifting of a particular activity is worthwhile and benefiting in the realm of securing livelihood.

The underlying rationale of peasants’ strategy in the attempt to secure livelihoods seems to be the concept of ‘utility optimisation’ (which is a combination of risk minimisation and profit maximisation) which was postulated as the peasant’s theory of action in Wiesmann (1998).

The more moderate or less extreme “position” concerning on- or off-farm activities shows that alternative livelihoods to farming seem to be more accepted by respondents and are more frequent with changing conditions in political, socio-economic and cultural contexts over time. Within this, there are a number of possible reasons:

the successful distributions of government relief food to targeted people increased in the last years; there are enhanced labour market conditions and a growing third sector. Concerning their own children, respondents see the impacts solid formal education and training can have. Moreover, the generally increased mobility through access to facilities, such as mobile phones and the World Wide Web can additionally be named as a possible influencing factor.

Respondent’s future plans (they are mostly rather ‘wishes’ than concrete plans, see chapter 7.3.) regarding activities within the household strategies, though, do shake this concept to a certain extent, particularly if the ‘Utility optimisation’ as a concept for the theory of action is connected to economic values only:
If all plans of respondents concerning the development of their household are taken together, there is the impression that the owned and rented land and the farming activities can rear more concrete plans for actions to secure survival than off-farm activities. Personal statements and remarks about future plans in the households represent a critical position of respondents towards off-farm wage labour: In order to satisfy the respondents’ requirements regarding their land and plots, they tend to develop wishes and plans for the holding first of all. Only after that, they are “looking beyond the fence” for more activities off the plot to cover further needs if it is necessary. This supports to a certain extent (not all households show this behaviour) the 1992-synthesis of the ‘basic multi-strategy theory’, but shows that the wish for activities related to land, farming and livestock keeping in particular are mostly ranked first by respondents within their strategy.

Following this, peasants employ the ‘Enhancement of a Multi-Strategy’ based on a basic multi-strategy or ‘Specialising in a Certain Field’ respectively. This is revealed through the above stated comparison of ‘On- and Off-Farm Activities’ on one hand and the results from the future plans on the other hand. Thus, it can be said that there is no explicit “turning away” from activities on the farm to those off-farm observable.

Support

From opinions whether ‘Relatives’ or ‘Off-Farm Activities’ act as more serious support-performers within the spheres of action not directly related to the use of natural resources, it can generally be concluded that the support from ‘Relatives’ loses importance, and the income from ‘Off-Farm Activities’ gains importance (1992: 50% said ‘Off-Farm Labour’ is more or much more important than ‘Relatives-Networks’; in 2006: 80%). The slight tendency to act according to age does not affect the result and also goes in line with tendencies described in 8.1.

8.2.2 Assessment of Income

Income

The comparison incorporating the judgement of the ‘Income from the Holding or from Outside’ is only applicable for 2006. If an overall look is applied, exactly 50% of the responses regard the income (or output) reared by the plot more significant than the inputs from outside and 40% see it vice versa. However, there are different views shown in results distinguishing between the areas:
area II (as a more favourable farming area) does rate the on-farm benefits higher than the semi-arid, less adequate farming area I. As the priority of ‘Outside-Income’ there rears 65% of the answers, the theory of a specialisation in a certain field of action, based on a concept of utility-optimisation, is verified and strengthened.

I would like to point out that this result might also indicate – especially through respondent’s remarks in question 8.6 about the future plans – that the plot/holding is provoking an emotional bias regarding the real and actual income: it is hardly possible for smallholders to distinguish between the pure economic value or output of the farm and the extended socio-cultural values and norms the household and its holding represent for the members. This triggers biased answer-patterns from the solely economic point of view: wage-labour activities are usually felt less secure in terms of long-term employment opportunities and income prospects; whereas people feel that they have a certain amount of “control” over their own farming activities and consequently the production (and possibly income) on their land.

If looked at the results more closely, there is generally a slight increase in ‘0-income’ and ‘High income’ (10’–30’000 KSH) from 1992 to 2006, which indicates a higher degree of the tendency to
specialise in a certain field (The identified households with a fairly high income from crop and garden also rank the importance of income from the holding higher than from outside (question 8.6) and as expected, the tendency to a specialisation are represented by crops in area II and livestock keeping in area I).

The inclusion of the means of coverage for times of insufficient self–produced food further endorses the specialisation–theory based on the foundations of a basic multi–strategy: Households in area I in 2006 mostly use ‘Livestock’ related activities to overcome needy times while it is the mean ‘Relatives in Town’, (narrowly followed by the mean ‘Casual Work’) in the area II, which were ranked number one most frequently in terms of importance to overcome times with no food self–sufficiency. However, the livestock–keeping in area I could be concluded as a reaction to the Action Guiding Condition ‘Security’ (Political condition) and therefore as an indicator for the dynamic nature of smallholder household strategies. The second most stated code ‘Casual Work’ in area II is due to the availability of working opportunities within or near this area and can be ascribed to the action guiding condition ‘Socio–Demographic Household Structure’ if the required working force is available. Area I applies a greater weight on ‘On–Farm Activities’ with livestock, for area II it is ‘Off–Farm Activities’ (‘Casual Work’) and ‘Social Networks and Ties’ (‘Relatives in town’) which help out most. Hence, there is no clear shift from on– to off-farm activities, just as stated before under ‘Future Plans’ regarding activities in the households. But, in turn, actions and reactions of peasants are subordinate to action guiding conditions.

Most statements regarding future plans and income in this part, address an intention to invest in the farm or the wish and/or necessity to hand over at least some of the land to children. Together with statements regarding the experience that off-farm labour is not reliable enough (see comments above), they all support the revelation of the ranking of importance of income in 8.6; which is, that most of those households with good income from crop and livestock do naturally rank the ‘Income from the Holding’ higher than ‘Income from Outside’. This, in turn, supports again the theory of the specialisation in a certain field, based on the concept of smallholder’s utility optimisation. However, one must not forget to regard the emotional and cultural cohesion to the land and holding/plot, besides the mere economic view of utility optimisation only.

According to the investigated indicators for research question 3, I can conclude that

- Households seem to have become more moderate or “open” for economic alternatives to activities on the farm. Within the qualitative analysis, though, a critical position towards off–farm wage labour is observable in respondent’s statements and behaviour.

- If future plans and wishes are regarded, there is generally a tendency to rank the activities related to land, farming and particularly livestock keeping first within the strategy, which does not match with figures regarding income. This is an indicator for the verification of the 1992–synthesis of the ‘Basic Multi–Strategy Theory’ (However, this has to be further investigated with a bigger sample, including all spheres of action in the next survey 2007). Hence, within plans and ideas about the future, there is no explicit “turning away” from activities on the farm to those off the farm observable.

- ‘Relatives’ within the sphere of action ‘Social Networks’ lose importance as supporter, and the income from ‘Off–Farm Activities’ gain the importance. But the shift is subordinate to specific action guiding conditions of households.

- There are clear indications for the theory of smallholder’s specialisation in a certain sphere of action according to specific ‘Action Guiding Conditions’. This strongly underlines the issue of the dynamic nature of smallholder household strategies postulated in Wiesmann (1998).
8.3 General Conclusions and Experiences

8.3.1 General Conclusions

The present study could not reveal proof for the basic multi-strategy as the foundation of the attempt to secure livelihood by smallholders in Laikipia, postulated by Wiesmann (1998). It would have required taking into account all spheres of action.

But it could distinctly be shown that a specialisation in a certain sphere of action, by using options and possibilities according to the utility maximisation theory, is applied. Moreover, the influence of dynamic conditions of action on smallholders’ decisions on strategies of action postulated in Wiesmann (1998), could be shown in the realm of this study: their strong, determining and direct influence was detected in different forms. And also the respondents’ (and their families) firm consolidation in traditions, manifold social values, hierarchies and rules, provide a number of margins which, together with the conditions, define the “operating range” of those people eventually. Age-bound decisions and wishes are just one example.

To illustrate these points, I would like to add three examples for the statements above, before proceeding with some – rather practical – experiences in the next sub-chapter, followed by recommendations particularly regarding the survey to be followed in 2007.

(1) In regard of conditions to smallholders’ decisions for a certain strategy, the livestock keeping was an obvious example: because the security situation in Laikipia District improved notably, peasants tend to keep more livestock (for their own daily needs or business purpose) than before. (2) The availability of jobs nearby (though casual only and rather poorly paid) allows members of a household to acquire cash income without migrating to large urban centres. Socio-demographic structures in a household such as the number and sex of household members thereby play an important role. (3) On the other hand, conditions like background, origins and social rules bound to age, can possibly hinder practises to enhance an improved – or more pragmatic – household economy\textsuperscript{98}: the continuous failure of maize yields over years for example, does not necessarily trigger the adoption and use of a different crop or land use system, based on the experiences.

Thus, development efforts which are targeting the successful improvement of smallholders’ particular situation and their attempt to secure livelihood in any respect, must inevitably take into account these considerations.

8.3.2 Experiences and Recommendations from the Field

The data and findings of this study are based on an existing questionnaire-frame which was further enhanced with qualitative in-depths questions. Hence, the resulting methodology was new to the respondents and the research team. Experiences made within the research processes are therefore seen as being of value for further and similar research in the area and in particular for the follow-up survey in 2007. Besides the rather practical experiences in the field, I would like to outline some implications this thesis may have and add a topical approach further down, with recommendations and ideas for further research.

\textsuperscript{98} Pragmatic in the sense of not becoming completely dependent on food aid, family members or illegal activities.
The ‘Mixed-Methods’ methodology employed in this study partly consisted of open questions with the scope of finding out about personal opinions and views regarding reasons for the applying of particular strategies of action of smallholders in their daily attempt to secure livelihood. This is per se a demanding method and was further aggravated through the task of working as an international team: the interviews could not be held in English, because it was decided within the team to be a too great obstacle for the respondents to give enough valuable information (the experience from former surveys showed that there were interviewees without knowledge of English at all). Hence, all interviews except one were held in Kikuyu, the native language of all respondents and one of two research assistants. This, in turn, meant a virtual impossibility for me to follow the questioning and conversations directly, and to ask back in case some answers were not understandable, too brief or the like. Consequently, questions arose from my side (in many cases caused through cultural differences or biases) while the answers were translated back to me after the actual interview and could not be back-checked or resolved as the interview and visit was already terminated. Although the interaction within the research team was very good and fruitful, it is not possible to avoid large information gaps through the applied procedure.

In the end, it is difficult to distinguish if a more “traditional” and lineal interview procedure (e.g. the author asks questions, they are translated to the respondent, and the answer is translated back again and so forth) releases better results regarding its value as qualitative information: because the openness people develop towards a researcher from their own tribe to whom they can talk in their own language, most probably balances out what gets lost through the translating and lack of possibility of asking back in the applied method here.

It has to be said that within the particular setting of this study (e.g. the international team, the short time frame without the possibility of backstopping), a qualitative interviewing method is not an entirely adequate and satisfying way of acquiring good-quality data.

As for the data processing, it could definitely be a gain in my opinion if questions – and in particular the corresponding legends – will be changed and applied directly within the interviews according to categories made in Wiesmann (1998), e.g. lead-variables, topical re-grouping etc. This procedure would save time and facilitate comparisons to the former surveys.

It was also experienced that the personal bias researchers naturally apply to their questions, can lead to sensitive deviations in results. In order to keep this peril as small as possible, the training of persons doing the interviewing and data processing is crucial for reliable data-gathering. In my opinion, this includes very thorough training and the transmitting of background information and goals regarding the study in advance. Another topic I would like to address in the practical context is the above mentioned question about paying for information in research (see also methodology sub–chapter 4.4.1, page 62).

Because the same respondents investigated in the present study will – among others – be visited again next year for the final part of three surveys, it is my request to give a personal opinion and advise within this subject:

people who were visited in the context of this study mostly have to work hard and are struggling to survive. Considering the sometimes very time-consuming interviewing process of at least half a working day and the great attendance and readiness most respondents showed, it does express arrogance to take their collaboration as a matter of course and for granted. Particularly because the people’s direct benefit from this research is not applicable. In regard to the fact that one is served tea and/or food during or after the interviewing, I perceive it as a sign of respect and the expression of one’s gratitude for the assistance and hospitality to carry a small present such as half a kilo of sugar, some tea etc. for the respondents and their families. One should be aware of the difference between the mere paying for information and the appreciation for the readily provided service.
8.3.3 Further research

In regard of further topic–similar research within the Laikipia context and the third survey on household strategies of peasants next year, I would like to mention the following three subjects:

- Gender relations,
- Education
- Generational perceptions

Gender relations appeared in different contexts within the data gathering, processing and evaluation in the present study. However, it was only marginally included in the argumentation, as it did not substantially contribute to the answering of the research questions and to the line of argumentation. The appeared levels of the subject ‘Gender relations’ range from the individual household’s concrete situation to overall societal alterations detected in the answers and behaviour of respondents during the conduction of this study. Particularly in the sphere of action ‘Off–Farm Labour and Remittances’, some interesting developments could be observed by comparing results from 1992 and 2006. They were detected within the type and level of work and are hypothetically caused by the relation of education–level and type of work, or can then be observed in daughters/sons–relations within the type of work and the employment–level. Moreover, the determinate and traditional work arrangement of household–heads and wives seem not to have weakened significantly over time and does not show fundamental signs of changes. Within this context, the following questions remain:

To which extent do decisions on strategies to ensure livelihood in a household incorporate and regard gender relations? Are they bound to the concept of ‘Utility optimisation’ only or subject to other significant steering–conditions? Further, which (action guiding) conditions can be determining factors to trigger certain habitual changes and which (action guiding) conditions influence decisions regarding this topic on actions and reactions within household strategies?

It would also be interesting to further follow indications on women’s groups (self–help groups for women only, solidarity groups etc.) as one aspect of social networks and ties with people nearby, such as neighbours etc. To what extent does the involvement in such a group influence decisions on household strategies and (traditional) behavioural patterns in terms of responsibilities within a household?
The next survey in 2007 will most probably disclose quantifiable changes regarding the subject ‘Gender relations’ in the last 15 years on a broader scale, which will possibly allow assessing developments in a more widely applicable way.

**Education:** This sphere of action (see figure 2, page 4) has not been considered to the previously intended extent in the study. The ban of primary school fee which was released by the new government in January 2002, for example seemed to have had a rather small effect on smallholder household strategies’ decisions and the allocation of resources. As well the respondent’s increased age and thereupon the **decreased importance of education expenditures** marginalized the subject further. For many respondents, the ‘school fees–issue’ does not play a major role in household expenditures anymore; or it is only through assistance for grandchildren. Thus, few households are still engaged in education–payments, which makes it difficult to assess changes or the implication of the topic on decisions within the household. On the other hand, the role of formal education as a future investment – for the children and parents – has a determined and highly ranked space in people’s perception of its importance:

a high percentage of respondents consider education as highly important for their children’s future (and consequently their own) and rank it higher than (other) investments. Hence, implications of education issues on smallholder household strategies such as access to formal education, education expenses etc., are recommended to be assessed in a larger context or through in–depths information gathering with carefully selected households only.

**Generational perceptions:** The present study concentrated its efforts on the verification of results from 1992 (and to a certain extent 1997) and was therefore dependent on comparable data. On one hand, this was tried to establish through the interviewing of the same persons like in 1997, which succeeded in most cases. On the other hand, answers from 1992 and 1997 were up to a certain point reproduced. However, especially regarding changes of actions, reactions and decisions on overall household strategies, the research team was aware that a (additional) **questioning of the younger generation**, e.g. the children of respondents, would reveal great differences to the older generations’ answers. Hence, **in order to assess changes, the parents’ and children’s views should possibly be compared**. It would, for example, allow another notion of the issue of owning farming land, of subsistence farming and consequently probably affect the basic multi–strategy theory. The young people’s perception of the importance of land and its consequences remain among the central questions; so does the differences to the older generation’s lifestyle and its implications again. Thus, a **‘generation interviewing’** as a further step in research in the Laikipia context could reveal an interestingly different picture of strategies and their changes within smallholder households.
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Appendix 1: Self-Organisation of Peasants

Many statements within the interviews prove that the more or less closely knit aggregations of people which they call self-help or welfare groups make out an important part of smallholder’s networks of mutual support and assistance. Although the size, the degree of organisation and status varies among the many different groups, they all seem to have one thing in common: the positive notion of people. Some comments are trying to shed light on the reason for the important position of these well established institutions within smallholder household strategies. A definition of those groups by Wacker (1996) unveils the following:

“These are voluntary organisations formed by neighbours of the poorer segments of the population with defined rules and leadership and membership, membership contributions and sharing of common benefits usually on an egalitarian rotational basis. They register themselves with the government in order to legalise their activities and to obtain assistance and advice from the government and donors for carrying out their activities. The activities are self-defined by the group to meet their specific needs, encompassing one or several of the following activities: mutual assistance and welfare, regularised rotating credit and labour associations, cultural activities and income generating projects.”

(Translated after Wacker, 1996: 28)

The groups addressed in the present study were not all registered with the government and also did not all obtain assistance from the government or donors. On the contrary, many groups seemed to solely rely on the members for their trustfulness and a good leadership. Hence, I only partly agree with the groups description of a “specific type of formalised solidarity among peasant households” (Wacker 1996: 49/50). The formalising is according to respondents’ opinions only done or necessary if a application for official support is submitted or the group is large and needs a stronger frame or formalising is explicitly seen as an asset by the members.

Explanations concerning the importance and self-evidence of those groups in peasant’s lives are disclosed by looking at traditional solidarity among the Kikuyu people, where clan- or gender-mixed neighbourhood groups or female work–groups (for farming) demonstrate a long tradition (Wacker 1996: 55–57). Some forms of solidarity still prevail and can be found in today’s groups. Historical occurrences on the other hand seem to have promoted and/or changed some values and forms of support. This was in particular the peasants ‘subsistence basis’ which was crucial for the surviving of people working as squatters on white-owned land. After world war II this basis was reduced by colonial regulations. Hence, the peasants expanded their patterns of solidarity to new needs in this period, which was called “welfare from below”. In the following, it was population growth, limited access to land to produce subsistence needs and the effects of stratification related to the monetarisation of the peasants agriculture and also labour-over-exploitation which triggered widespread poverty. As a result, a strong basis of solidarity arose among the (Kikuyu) squatters who shared a similar lot.

Most self-help or welfare groups addressed or mentioned in the present study are formed by neighbours to assist each other in defined tasks related to the needs of households and farms. This can be within issues such as cultivation or daily needs/investments. Another form is the banking of money as a credit circle. The paid allotments are given out in turns to the members or can be asked for in times of need. Some groups are also involved in income generating activities, such as poultry projects or milk-sellng organisations.

99 This information is gathered within interviews or informal conversations with respondents or within the research team and its viability is therefore not given.
Appendix 2: The Relationship of Kikuyu—People to Land

Some of the questions, answers and corresponding diagrams in this study have proved (see chapters 5–7) that although off-farm activities were ranked higher or more important in terms of income (see question 8.6, chapter 7.2.), it is still the plot, the farming activities and the livestock people rather talk about and would like to develop and expand. This is becoming particularly clear in the interview questions about plans for the future, when respondents could freely answer to an open question:

a lot of households (around 18 out of 30) and even the least favourable in terms of ecological conditions and wealth seem to have more to say and clearer ideas about their plot and farming development than any other activity. The results from income – and coverage of expenditures – assessment draw a different picture though, disclosing a generally higher relevance of activities off-farm.

Where does this "irrational" bias in people's behaviour regarding their land and its benefit come from?

Some explanations regarding this bias in answers to interview questions could be given by generally applicable reasons like respondent's increased age and consequently the wish to withdraw from tiring business or wage labour activities. Other reasons and explanations for the phenomenon of the strong land attachment in Kikuyu culture were discussed in Droz (1999) and Sottas (1992), and can contribute some explanatory fractions to the present study.

"It seems that for the traditional Kikuyu the land ownership was the essence of live, the agriculture, the human activity par excellence." (Buijtenhuijs 1971, cited in: Droz 1999: 252)

This quotation can be taken as the basic consideration in the question about the land attachment of kikuyu people. The attachment to land has its roots in the “founder myth” of the Kikuyu people where land ownership and the acquiring of new land incorporates a very important, almost holy attribution to life and the scope of life. According to Droz 1999, 250, land makes out the “bank” of the life triangle assigned to these people:

Figure 71: Kikuyu Life Triangle

Source: Droz (1999: 250), adapted by author
The three corners of the triangle each calls for the next one or in other words, acts as a condition for the following. In terms of “materialistic requirements” (italics), the land is indispensable to keep livestock/produce food, (e.g. the physical survival). And without livestock or farm produce no accumulation is possible while this in turn is necessary to obtain a spouse by the possibility of fulfilling marriage compensation or operate as a marriage insurance. The spouse, on the other hand, allows access to land through the rule that with marriage, a son gets a piece of land. The “fundamental requirements” (bold) though guarantees the basic set of requirements (bold) in life. The third one, the “potential requirements” (standard) incorporate the position of giving sense to life, of revealing the determined role to the other two means: land assures physical survival, livestock and crop assure survival in case of calamities and children assure the metaphysical survival of the genealogy and name. The base of the triangle, however, is the land, because it is the basis for livestock possession and food production. Or like Droz (1999) puts it:

“The land has hegemony over other forms of richness, be it livestock, children or money because it’s the origin of all presumably.” (Droz 1999: 252)

However, land owning is not only important or necessary for the establishing of a family, an “agricultural business” and social respect. But if one is able to be buried on own land, it is a sign of relative immortality as well. Financial richness then does not count a bit if one cannot be buried on own land. To own land is a condition for respect from family, neighbours but also and first of all the children. Sottas (1992) quotes this as a cause and reason for the on-going development, expansion and opening–up of land resources in Laikipia District and also links this fact with the crucial role of land rights (e.g. heredity, last resting place) in traditional Kikuyu culture. (Sottas 1992: 219)

Another (important) issue that can be found in the “founder myth” of the Kikuyu people and cited as an example for land attachment was also addressed by Droz (1999): a traditional “muramati”, – somebody who is in charge, a leader or caretaker\footnote{See Droz (1992: 242–6) for further explanation.} which could in our cases also be a household head;

“[...] means somebody working under own’s control, working under the control of one’s own mind, no influence from outside” (Droz 1999: 246).

This quotation gives a hint for the explanation of the relatively strong ambivalent and/or critical attitude towards off–farm employment and wage labour, compared to on–farm activities, which appeared rather often in peoples answer-statements within the interviews. (for examples see 7.1.3.: ‘Importance of income from the holding or from outside’ (question 8.6), 7.2.4.: ‘Future plans’ (question 9.1–4))
Appendix 3: Security Issue

An issue which emerged in interviews and conversations with respondents concerned the security situation within the two areas of investigation. People frequently talked about it, particularly in connection with farm activities, e.g. livestock keeping and consequences involved like household income, market situation. This, in turn, is of relevance to questions about livelihoods and in particular the household strategies of the smallholders interviewed: the security in the district can be perceived as an action guiding condition for smallholders’ household strategies and there seemed to be no noticeable difference within the two areas and naturally the separate households. This labels the condition as ‘similar for all the households’.

In the following, two statements of respondents in which livestock keeping activities and security are listed. (The sub-location Weruini is situated on the north-western end of the study area II at quite a distance to the main road):

Area I, Weruini Sample 126, question 4.2.21
“We rely so much on livestock sale and security has improved in the last years.”

Area I, Weruini, Sample 116, question 4.2.21
“Security has improved since the police are more vigilant, that’s why I have courage to keep more livestock than before, bought seven additional cows in 05.”

I also had the impression that the perception of changes regarding the security matters triggered a certain common confidence in the potential to fight nuisances.

Area II, Ngenia, Sample 31, question 4.2.21
“The security improved, a police post was established near my [female respondent] home, and another one close by. They ‘beefed’ up security; so nowadays (with new government) this is a quiet and safe area, you sleep from dusk ‘til dawn”

In a personal talk with a government representative at division level and in charge of a location, Chief Benjamin Rono, the issues addressed by respondents were discussed. We thereby defined the problems mentioned and the concrete actions which were taken thereupon by the new government and the implementing bodies respectively.

For the chief, the main reason for the termed “insecurity” in the area was the problem of cattle rustling.

He as well mentioned petty crime such as breaking in (which in his opinion always happens) “But cattle rustling was the biggest issue.”

To improve the security in the region (the areas in the west–north–western part of the district, where farming and pastoralists areas coincide, were continuously afflicted the most by assaults), a number of measures taken after the establishment of the new government were named by Chief Benjamin: there was first of all the matter of lack of personnel which lead to an increased number of police posts in the region and the establishing of vigilant groups through involving the local communities. Included within this part of the action plan was the improved coordination with other divisions, which actually signifies the responsibility of a division for “their thieves” and the recovering of stolen cattle (not recovered

101 The term ‘I’ here represents the notion of the research team after intensive discussions and acts as its exponent.

102 A chief is in charge of a location and reporting to the District Officer DO. The DO in turn, works under the District Commissioner DC, who is in charge of an entire district. A chief has several assistant chiefs who are responsible for sub-locations and under them are the village elders. The elders are selected by the villagers and hold frequent meetings in order to take care of issues and problems arising in the villages.

103 This operation is usually done by young men and involves the stealing of livestock (cattle, sheep, goats, occasionally rabbits) for own use; consumption or selling).
stolen cattle has to be repaid with three times the price!). Then, the disarmament of people and certain groups and the ‘cracking’ of illicit brewing-groups. In this context, Chief Benjamin stated:

“*This helped thieves to get information (when you are drunk you tell a lot of things!) and a good place to gather and hide. We arrest them, then talk to them, advise them. Some have given up totally now and have jobs etc.*”. (Quotation Chief Benjamin Rono, personal conversation at CETRAD offices (20.02.06))

Those measures, in turn, require better/well trained police which involves/d a sensitisation in community work for the forces. Parallel to these actions, an increased presence and interaction in the communities was intended and accomplished which concretely meant the regularly held “barazas”\(^{104}\) with communities and community representatives – e.g. elected village elders – where measures are discussed and decided upon. The barazas have been there before but were not held regularly and less seriously\(^{105}\). Behind all those measures stands the arrangement of **law enforcement** which is expressed from Chief Benjamin in the following words:

"*When I do not give proof that the work is done well and successful, I am sacked.*” (Quotation Chief Benjamin Rono, personal conversation at CETRAD offices (20.02.06))

To guarantee quality management and control, the chief has to write a report every month which could be used against him. He is in charge of the location the present study took place and actually works with three assistants and in continuous touch with community elders (the elders on the other hand represent approximately 50–100 members of a village).

While the new government came into power and offered new strategies, some developments cannot simply be seen as a mere result of certain measures taken. In my opinion, there was basically a change in people’s perception of what is possible, what can be done, what is achievable. Some processes have now taken a new dynamic involving a good mixture of legislation, democratic self–responsibility and confidence.

\(^{104}\) Baraza: a meeting, session.

\(^{105}\) Quotation Chief Benjamin Rono, personal conversation at CETRAD offices (20.02.06): “Police–stations were built, actually people built them and then they demanded police staff from the government. So, some measures came from communities themselves, from within, some from top, from the government. Especially funding came, money was given in form of staff etc. But also the CDF, the constituency development fund came to life. The vigilant groups are a joint venture between communities and the police (government).”
## Appendix 4: Final Compilation of Sample Households Visited

<table>
<thead>
<tr>
<th>Interview Nr.</th>
<th>Colour 1997</th>
<th>Sample Nr.</th>
<th>Name of Sub Location</th>
<th>Colour 2006</th>
<th>Date of interview</th>
<th>Names of Interviewers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semi-Arid area I</td>
<td></td>
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<tr>
<td>1</td>
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<td>46</td>
<td>Sweetwaters</td>
<td>(blue)²</td>
<td>12.01.06</td>
<td>Grace/Nic</td>
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<td>Burugutia</td>
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<td>17.01.06</td>
<td>Grace/Nic</td>
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<td>beige</td>
<td>16.01.06</td>
<td>Grace/Nic</td>
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<td>Burguret</td>
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<td>Burguret</td>
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<td>79</td>
<td>Burguret</td>
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</tr>
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<td>212</td>
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<td>yellow</td>
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</tbody>
</table>

¹ Information about off-farm activities is missing in 1997!
² (blue)= few household members in off-farm labour, doing casual job only
# Appendix 5: Questionnaire

## 1. GENERAL INFORMATION

<table>
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<tr>
<th>New no.</th>
<th>Old no. quest 97</th>
<th>SAMP</th>
<th>EST</th>
<th>PLOT</th>
<th>APLOT</th>
<th>INT</th>
<th>DATE</th>
<th>RESP1</th>
<th>RESP2</th>
<th>RESP3</th>
<th>RESP4</th>
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### New Information
- **SAMP**: Number of the sampled HH
- **EST**: Name of the estate
- **PLOT**: Plot number according to the map (plot with main house of the HH)
- **APLOT**: Additional plots (owned, rented or utilized by the HH)
- **INT**: Name of the interviewers
- **DATE**: Date of interview
- **RESP1**: Respondent: Alphanumeric code
- **RESP2**: Respondent: Sex
- **RESP3**: Respondent: Age class (according to new legend!)
- **RESP4**: Name of the respondent
- **RESP5**: Position within household

## 2. FAMILY TREE

<table>
<thead>
<tr>
<th>TREE</th>
<th>Draw household tree (incl. members not living on the plot)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mark all members with alphanumeric code, starting from top</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LIV1</th>
<th>Circle members living permanently on the plot (or plots)</th>
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</thead>
<tbody>
<tr>
<td>If the household is divided onto two (or more) plots mark which members are living on which plot</td>
<td></td>
</tr>
<tr>
<td>If applicable, mark different subhouseholds and indicate which one was interviewed</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>LIV2</th>
<th>Degree of temporary living on the plot (for every member)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>AGE</th>
<th>Age-class (for every member; after new legend)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>ACT</th>
<th>Main activity (for every member)</th>
</tr>
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</table>

<table>
<thead>
<tr>
<th>EDUC</th>
<th>Highest level of education (for every adult member)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>INC</th>
<th>Monthly income (for every adult member; according to legend quest 97, ANNEX2)</th>
</tr>
</thead>
</table>

| LIV3 | Place of living of those not living on the plot (for every member; according to legend quest 97, ANNEX 1) |
### 3. GENERAL SUB-GROUP 1

Persons (Derived from Family Tree)

### 4. GENERAL SUB-GROUP 2-3

#### 4.1. HOMESTEAD

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<th>Age of settlement? (give year)</th>
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<table>
<thead>
<tr>
<th>REL2</th>
<th>Relation between the settler and the actual owner?</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

#### 4.2. FARMING

<table>
<thead>
<tr>
<th>ACRE</th>
<th>Size of land available to the household in number of acres (within the estate)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CROP</th>
<th>How large is actually total cropland in acres? (incl.kitchen garden and pasture etc.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 4.2.3.a) New

<table>
<thead>
<tr>
<th>Major crops grown in 04?</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>---</td>
</tr>
</tbody>
</table>

#### 4.2.3.b) New

<table>
<thead>
<tr>
<th>Amount produced of each crop in 04? (in units)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>---</td>
</tr>
</tbody>
</table>

#### 4.2.4.

<table>
<thead>
<tr>
<th>Amount harvested of each crop in 04? (in units)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>---</td>
</tr>
</tbody>
</table>

#### 4.2.5.

<table>
<thead>
<tr>
<th>How much of each was sold in 04? (in units)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>---</td>
</tr>
</tbody>
</table>

#### 4.2.6.

<table>
<thead>
<tr>
<th>Number of milk cows</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

#### 4.2.7.

<table>
<thead>
<tr>
<th>Number of bulls, oxes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

#### 4.2.8.

<table>
<thead>
<tr>
<th>Number of heifers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

#### 4.2.9.

<table>
<thead>
<tr>
<th>Number of calves</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

#### 4.2.10.

<table>
<thead>
<tr>
<th>Number of dairy goats</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

#### 4.2.11.

<table>
<thead>
<tr>
<th>Number of other goats</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

#### 4.2.12.

<table>
<thead>
<tr>
<th>Number of sheep</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

#### 4.2.13.

<table>
<thead>
<tr>
<th>Number of donkeys or horses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

#### 4.2.14.

<table>
<thead>
<tr>
<th>Number of pigs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

#### 4.2.15.

<table>
<thead>
<tr>
<th>Number of chicken (mature or almost mature)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

#### 4.2.16.

<table>
<thead>
<tr>
<th>Number of rabbits (mature or almost mature)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

#### 4.2.17.

<table>
<thead>
<tr>
<th>Number of occupied (!) bee hives</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

#### 4.2.18.

<table>
<thead>
<tr>
<th>Others (specify)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

#### 4.2.19.

<table>
<thead>
<tr>
<th>How much income is there from the crops and garden? (ANNEX2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

#### 4.2.20.

<table>
<thead>
<tr>
<th>How much income is there from livestock? (ANNEX2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

#### 4.2.21.

<table>
<thead>
<tr>
<th>How has the farming (cropping, garden) and the livestock keeping developed and changed in the last years? (since 199 )</th>
</tr>
</thead>
</table>
5. TIES BACK TO THE ORIGINAL HOME AND MIGRATION HISTORY

<table>
<thead>
<tr>
<th>Task</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>From which area do you (HH-head) originally come from? (according to legend quest 97)</td>
<td>FORI1</td>
<td></td>
</tr>
<tr>
<td>Are there still relatives living there; on own shamba?</td>
<td>REL1</td>
<td></td>
</tr>
<tr>
<td>Ties to the home area: Degree and direction of assistance</td>
<td>TIES2</td>
<td></td>
</tr>
<tr>
<td>Ties to the home area: Form of assistance (man’s side)</td>
<td>TIES3</td>
<td></td>
</tr>
<tr>
<td>Ties to the home area: Form of assistance (woman’s side)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did the ties (assistance) to the home area change during the last years? (after legend quest 97)</td>
<td>TCHG1</td>
<td></td>
</tr>
<tr>
<td>Do you have relatives (with other homesteads) in the estate (man/woman)</td>
<td>REL2</td>
<td></td>
</tr>
<tr>
<td>Do you have relatives (with other homesteads) in neighbouring estates (man/woman)</td>
<td>REL3</td>
<td></td>
</tr>
<tr>
<td>Ties to those relatives (estate or nearby): Degree and direction of assistance</td>
<td>TIES7</td>
<td></td>
</tr>
<tr>
<td>Ties to those relatives (estate or nearby): Form of assistance (man’s side)</td>
<td>TIES8</td>
<td></td>
</tr>
<tr>
<td>Ties to those relatives (estate or nearby): Form of assistance (woman’s side)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did the ties (assistance) to those relatives change during the last years (after legend quest 97)</td>
<td>TCHG3</td>
<td></td>
</tr>
<tr>
<td>Ties to separated subhouseholds; (indicate m or w! see fam. tree): Degree and direction of assistance</td>
<td>TIES11</td>
<td></td>
</tr>
<tr>
<td>Ties to separated subhouseholds; (indicate m or w! see fam. tree): Form of assistance</td>
<td>TIES12</td>
<td></td>
</tr>
<tr>
<td>Did the ties (assistance) to the subhouseholds change during the last years? Indicate m or w! (after legend quest)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ties to other relatives (not home, not HH-tree): Degree and direction of assistance</td>
<td>TIES5</td>
<td></td>
</tr>
<tr>
<td>Ties to other relatives (not home, not HH-tree): Form of assistance (man’s side)</td>
<td>TIES6</td>
<td></td>
</tr>
<tr>
<td>Ties to other relatives (not home, not HH-tree): Form of assistance (woman’s side)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did the ties (assistance) to other relatives change during the last years? (after legend quest 97)</td>
<td>TCHG2</td>
<td></td>
</tr>
<tr>
<td>Ties to neighbours (not relatives) in the estate: Degree and direction of assistance</td>
<td>TIES9</td>
<td></td>
</tr>
<tr>
<td>Ties to neighbours (not relatives) in the estate: Form of assistance</td>
<td>TIES10</td>
<td></td>
</tr>
<tr>
<td>Did the ties (assistance) to the neighbours change during the last years? (after legend quest 97)</td>
<td>TCHG4</td>
<td></td>
</tr>
<tr>
<td>How important is the assistance FROM relatives etc. for the household</td>
<td>TJDG1</td>
<td></td>
</tr>
<tr>
<td>How satisfied are you overall with the assistance from relatives (home and others) (after legend quest 97)</td>
<td>JUDJ8</td>
<td></td>
</tr>
<tr>
<td>How satisfied are you overall with the collaboration within the estate?</td>
<td>JUDJ9</td>
<td></td>
</tr>
<tr>
<td>Which of all the named ties are the most important ones for the household?</td>
<td>TJDG3</td>
<td></td>
</tr>
<tr>
<td>Did the ties to the above mentioned groups change in their intensity and form, over the last years (since 1997)?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.25. New

MHIST

Brief history of migration incl. intermediate stages: Years, places, activities
### 6. OFF-FARM ACTIVITIES

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 1. PERSON |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 6.1 | 12.1 | OFF11 | Who is working off-farm - compare HH-tree? |
| 6.2 | 12.2 | OFF12 | Where is the actual off-farm activity? (ANNEX 1) |
| 6.3 | 12.3 | OFF13 | Actual type of work in off-farm (level/sector)? |
| 6.4 | 12.4 | OFF14 | Since when is the person in the SAME job (same employer)? |
| 6.5 | 12.5 | REM11 | How and for which expenses does the person make remittances? (row of importance) |
| 6.6. New |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 6.7. New |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 6.8. | 12.6 | OFF21 | Who is working off-farm - compare HH-tree |
| 6.9 | 12.7 | OFF22 | Where is the actual off-farm activity (ANNEX 1) |
| 6.9.10 | 12.8 | OFF23 | Actual type of work in off-farm (level/sector) |
| 6.11. | 12.9 | OFF24 | Since when is the person in the SAME job (same employer) |
| 6.12. | 12.10 | REM21 | How and for which expenses does the person make remittances (row of importance) |
| 6.13. New |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 6.15. | 12.11 | OFF31 | Who is working off-farm - compare HH-tree |
| 6.16. | 12.12 | OFF32 | Where is the actual off-farm activity (ANNEX 1) |
| 6.17. | 12.13 | OFF33 | Actual type of work in off-farm (level/sector) |
| 6.18. | 12.14 | OFF34 | Since when is the person in the SAME job (same employer) |
| 6.19. | 12.15 | REM31 | How and for which expenses does the person make remittances (row of importance) |
| 6.20. New |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 6.21. New |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 6.22. | 12.16 | OFF41 | Who is working off-farm - compare HH-tree |
| 6.23. | 12.17 | OFF42 | Where is the actual off-farm activity (ANNEX 1) |
| 6.24. | 12.18 | OFF43 | Actual type of work in off-farm (level/sector) |
| 6.25. | 12.19 | OFF44 | Since when is the person in the SAME job (same employer) |
| 6.26. | 12.20 | REM41 | How and for which expenses does the person make remittances (row of importance) |
| 6.27. New |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 6.28. New |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 6.29. | 12.21 | REM2 | Was or is 2005 a average year concerning remittances from off-farm activities? Give reasons |
| 6.30. a) | 12.22 | REM3 | Who of the persons working off-farm made the highest remittances 2005? (according to HH Tree) |
| 6.30. b) New |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 6.30. | 12.23 | REM3 | Who of the persons from the tree is most/least committed to the household? |
### 6.31 12.23 I_____I  REM4 Do the off-farm remittances (income) cover the cash needs of the household for daily expenditures

### 6.32 12.24 I_____I  REM5 Do the off-farm remittances (income) cover the cash needs of the household for education

### 6.33 New (12.5.) I______________I  I______________I  REM11 Coverage of education expenditures through other than off-farm? (selling products, rem...)

### 6.34 12.25 I_____I  REM6 Do the off-farm remittances (income) cover the cash needs of the household for investments

### 6.35. 12.26 I_____I  REM7 What is more important for the household: Remittances from off-farm or from relatives (home a. or others)?

### 6.36. 12.27 I_____I  JPRIO Priority of off-farm activities compared to on farm activities (opinion)

### 6.37 New Tell about changes relating to off-farm employment and income in this household in the last years (since 1997).

### 7. EDUCATION

### 7.1. 11.24 I_____I  EDUC1 Yearly expenditures for education of children in cash (fees, harambee, uniforms, books etc.) (ANNEX2)

### 8. GENERAL SUP-GROUP 4: INCOME AND EXPENSES

### 8.1. 9.1 I_____I  COV1 Taking the overall production of the farm: For how many months could the household live FULLY on the own production in a NORMAL YEAR (refer to experiences)

### 8.2. 9.2 I_____I  COV2 Taking the overall production of the farm: For how many months could the household live FULLY on the own production in a BAD YEAR (refer to experiences)

### 8.3. 9.3 I_____I  COV3 Taking the overall production of the farm: For how many months could the household live FULLY on the own production in a GOOD YEAR (refer to experiences)

### 8.4. 9.5 I_____I  COV5 Through which means do you cover months with insufficient own

### 8.5 New I______________I  PRIO If factors like health, wealth, ties within the household were held constant, which of the three expenses education, investment, daily expenditures would you personally see as the priority?

### 8.6 New I______________I  PRIO Which one is more important for the household: Income from the holding (farming+lvst) or from outside (rem, off-farm, property)?
9. GENERAL SUB-GROUP 5: FUTURE

<table>
<thead>
<tr>
<th>9.1.</th>
<th>(3.21.)</th>
<th>PLANL</th>
<th>What are your future plans to expand or reduce the holding?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>9.2. New</th>
<th>(3.21.)</th>
<th>PLANL2</th>
<th>What are your future plans to expand or reduce farming activities on the plot? (Specify!)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>9.3 New</th>
<th></th>
<th>PLANL3</th>
<th>What are your future plans for investments? (Specify!)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>9.4 New</th>
<th></th>
<th>PLANL4</th>
<th>What are your future plans in off-farm? (Specify!)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>9.5.</th>
<th>5.33</th>
<th>MOVE</th>
<th>Do you know neighbors that have left for good?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>9.6. New</th>
<th></th>
<th></th>
<th>If yes, give more reasons why they have left.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. To be observed on the plot:

<table>
<thead>
<tr>
<th>10.1</th>
<th>6.6</th>
<th>HNO</th>
<th>Actual number of houses for living</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10.2</th>
<th></th>
<th>HTY</th>
<th>Construction material of main house; condition of houses.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10.3</th>
<th>6.21</th>
<th>TF</th>
<th>Type of fence?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendices

Appendix 6: Legend to Questionnaire

0. GENERAL CODES

<table>
<thead>
<tr>
<th>Code</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Means real &quot;zero&quot; (nothing)</td>
</tr>
<tr>
<td>99</td>
<td>Means &quot;not applicable&quot;</td>
</tr>
<tr>
<td>999</td>
<td>Means &quot;no answer&quot; (there would be but respondent does not give an answer)</td>
</tr>
</tbody>
</table>

1. GENERAL INFORMATION

1.8 RESP2: Respondent: Sex

<table>
<thead>
<tr>
<th>Code</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>female</td>
</tr>
<tr>
<td>2</td>
<td>male</td>
</tr>
</tbody>
</table>

1.9 RESP3: Respondent: Age class

<table>
<thead>
<tr>
<th>Code</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>16-25 years</td>
</tr>
<tr>
<td>4</td>
<td>26-45 years</td>
</tr>
<tr>
<td>6</td>
<td>46-65 years</td>
</tr>
<tr>
<td>8</td>
<td>66 years or older</td>
</tr>
</tbody>
</table>

1.11.New RESP4: Position in household

<table>
<thead>
<tr>
<th>Code</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Man (After database yrs 1992)</td>
</tr>
<tr>
<td>2</td>
<td>1. Wife to 1</td>
</tr>
<tr>
<td>3</td>
<td>2. Wife to 1</td>
</tr>
<tr>
<td>4</td>
<td>Woman alone</td>
</tr>
<tr>
<td>5</td>
<td>Married adult child</td>
</tr>
<tr>
<td>6</td>
<td>Non married adult child</td>
</tr>
<tr>
<td>7</td>
<td>Non adult child</td>
</tr>
<tr>
<td>8</td>
<td>&quot;Married in&quot;</td>
</tr>
<tr>
<td>9</td>
<td>Other relative</td>
</tr>
<tr>
<td>11</td>
<td>Mother mothers side</td>
</tr>
<tr>
<td>12</td>
<td>Mother fathers side</td>
</tr>
<tr>
<td>13</td>
<td>Father Mothers side</td>
</tr>
<tr>
<td>14</td>
<td>Father Fathers side</td>
</tr>
<tr>
<td>21</td>
<td>Owner, Owners family</td>
</tr>
<tr>
<td>90</td>
<td>Worker</td>
</tr>
</tbody>
</table>

2. FAMILY TREE

2.1 TREE: Draw household structure and give alphanumeric codes

Draw household tree (incl. members not living on the plot)
Include parents of the household heads from both sides
- Circle = female, square = male

Mark all members with alphanumeric code, starting from top (use the same Codes as in the trees of 1992)
- A, B, C, D, ....: All adults (>16 years)
- X1, X2, X3, ....: Children schooling
- Y1, Y2, Y3, ....: Children not (yet) in school

2.2 LIV1: Circle members living permanently on the plot

Circle all members living permanently on the plot
If the family is divided onto two (or more) plots mark which members are living on which plot
Separate sub-households who have own farm production (e.g. married son who cultivates a part of the homestead separately)

2.3 LIV2: Indicate degree of temporary living on the plot (for every member)

<table>
<thead>
<tr>
<th>Code</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Stays permanently on the plot</td>
</tr>
<tr>
<td>1</td>
<td>Is leaving the plot during times of casual employment (or similar) - else stays there</td>
</tr>
<tr>
<td>2</td>
<td>Stays regularly on weekend an in holidays on the plot</td>
</tr>
<tr>
<td>3</td>
<td>Stays quite often on weekends and in holidays on the plot (ca. every second weekend)</td>
</tr>
<tr>
<td>4</td>
<td>Stays regularly during leave (holidays) on the plot</td>
</tr>
<tr>
<td>5</td>
<td>Stays sometimes during leave (holiday) on the plot</td>
</tr>
<tr>
<td>6</td>
<td>Visits regularly several times a year (also on other occasions than family meetings)</td>
</tr>
<tr>
<td>7</td>
<td>Visits only or mainly for special family occasions (e.g. Christmas etc.)</td>
</tr>
<tr>
<td>8</td>
<td>The visits are few and irregular</td>
</tr>
<tr>
<td>9</td>
<td>May visit occasionally</td>
</tr>
<tr>
<td>10</td>
<td>Does not visit at all</td>
</tr>
</tbody>
</table>
### 2.4 AGE: Indicate age-class for every member after old quest

<table>
<thead>
<tr>
<th>Age-Range</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5 years</td>
<td>1</td>
</tr>
<tr>
<td>6-10</td>
<td>2</td>
</tr>
<tr>
<td>11-15</td>
<td>3</td>
</tr>
<tr>
<td>16-20</td>
<td>4</td>
</tr>
<tr>
<td>21-25</td>
<td>5</td>
</tr>
<tr>
<td>26-30</td>
<td>6</td>
</tr>
<tr>
<td>31-35</td>
<td>7</td>
</tr>
<tr>
<td>36-40</td>
<td>8</td>
</tr>
<tr>
<td>41-45</td>
<td>9</td>
</tr>
<tr>
<td>46-50</td>
<td>10</td>
</tr>
<tr>
<td>51-55</td>
<td>11</td>
</tr>
<tr>
<td>56-60</td>
<td>12</td>
</tr>
<tr>
<td>61-65</td>
<td>13</td>
</tr>
<tr>
<td>66-70</td>
<td>14</td>
</tr>
<tr>
<td>71-75</td>
<td>15</td>
</tr>
<tr>
<td>76-80</td>
<td>16</td>
</tr>
<tr>
<td>81-85</td>
<td>17</td>
</tr>
<tr>
<td>&gt; 85</td>
<td>18</td>
</tr>
<tr>
<td>66 years or older</td>
<td>19</td>
</tr>
</tbody>
</table>

### 2.5 ACT: Indicate main activity for every member

(Remark: first indicate first digit; continue to ask and then add second digit if not more precise)  
0 = No activity (e.g. small children, elderly persons)  
1 = Working on the farm  
2 = Working partly on the farm - no other activity  
3 = Working on the farm as well as in the household  
4 = Working fulltime on the farm  
5 = Working partly on the farm and partly off-farm (occasional casual jobs)  
6 = Working off-farm  
7 = In nursery school  
8 = In primary school  
9 = In secondary school  
10 = In University or other higher education institution  
11 = In specific training (specify)  
12 = Others: specify

### 2.6 EDUC: Indicate highest level of education for every adult member

0 = No formal schooling  
1 = Started primary, but did not complete  
2 = Ending education with form 4 (O-level)  
3 = Ended primary school  
4 = Started secondary, but did not complete  
5 = Ending education with form 6 (A-level)  
6 = Ending education with form 4 (O-level)  
7 = Lower informal training after primary or form 4 (driving, farm work, etc.)  
8 = Lower formal training after primary or form 4 (e.g. as teacher, nurse)  
9 = Medium training after form 4 or 6 ending with certificate (e.g. Institutes of technology)  
10 = Higher training after form 6 ending with diploma (e.g. National Polytechnics)  
11 = University and postgraduate

### 2.7 INC: Monthly income (for every adult member) (according to ANNEX 2)

### 2.8 LIV: Place of living of those not living on the plot (for every member)

(Legend see ANNEX 1)

### 4.1.1 SETLA: Age of settlement? (give year)

### 4.1.2 REL: Relation between the settler and the current owner

(only fill if owner is not included in the HH-tree - see OWNR1, 3.7)

1 = Relative of older generation who passed away  
2 = Relative of older generation from the home area  
3 = Relative of older generation not living in the home area  
4 = Relative of same (or lower) generation from home area  
5 = Relative of same (or lower) generation not living in the home area  
6 = Relative from the side of the housewife  
7 = Owner is not a relative  
8 = Others (specify)
### 4.2. FARMING

#### 4.2.1. ACRE: Size of the land currently available to the household in number of acres

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Nil</td>
</tr>
<tr>
<td>1</td>
<td>Covering only a few m² (less than 5 m²)</td>
</tr>
<tr>
<td>2</td>
<td>Around 10 m²</td>
</tr>
<tr>
<td>3</td>
<td>Around 20 m²</td>
</tr>
<tr>
<td>4</td>
<td>Around 50 m²</td>
</tr>
<tr>
<td>5</td>
<td>Around 100 m²</td>
</tr>
<tr>
<td>6</td>
<td>Around 250 m²</td>
</tr>
<tr>
<td>7</td>
<td>Around 500 m² (= roughly 1/8 of an acre)</td>
</tr>
<tr>
<td>8</td>
<td>Around quarter of an acre (roughly 1000 m² or 32 m² x 32 m²)</td>
</tr>
<tr>
<td>9</td>
<td>Around half (0.5) an acre</td>
</tr>
<tr>
<td>10</td>
<td>Around three quarters (0.75) of an acre</td>
</tr>
<tr>
<td>11</td>
<td>Around 1 acre</td>
</tr>
<tr>
<td>12</td>
<td>Around 1.5 acres</td>
</tr>
<tr>
<td>13</td>
<td>Around 2 acres</td>
</tr>
<tr>
<td>14</td>
<td>Around 2.5 acres</td>
</tr>
<tr>
<td>15</td>
<td>Around 3 acres</td>
</tr>
<tr>
<td>16</td>
<td>Around 4 acres</td>
</tr>
<tr>
<td>17</td>
<td>Around 5 acres</td>
</tr>
<tr>
<td>18</td>
<td>5.5 to 7 acres</td>
</tr>
<tr>
<td>19</td>
<td>7.5 to 10 acres</td>
</tr>
<tr>
<td>20</td>
<td>10 to 15 acres</td>
</tr>
<tr>
<td>21</td>
<td>15.5 to 20 acres</td>
</tr>
<tr>
<td>22</td>
<td>Over 20 acres (SPECIFY)</td>
</tr>
</tbody>
</table>

#### 4.2.2. CROP: How large is the total cropland incl. kitchen garden etc.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Nil</td>
</tr>
<tr>
<td>1</td>
<td>Covering only a few m² (less than 5 m²)</td>
</tr>
<tr>
<td>2</td>
<td>Around 10 m²</td>
</tr>
<tr>
<td>3</td>
<td>Around 20 m²</td>
</tr>
<tr>
<td>4</td>
<td>Around 50 m²</td>
</tr>
<tr>
<td>5</td>
<td>Around 100 m²</td>
</tr>
<tr>
<td>6</td>
<td>Around 250 m²</td>
</tr>
<tr>
<td>7</td>
<td>Around 500 m² (= roughly 1/8 of an acre)</td>
</tr>
<tr>
<td>8</td>
<td>Around quarter of an acre (roughly 1000 m² or 32 m² x 32 m²)</td>
</tr>
<tr>
<td>9</td>
<td>Around half (0.5) an acre</td>
</tr>
<tr>
<td>10</td>
<td>Around three quarters (0.75) of an acre</td>
</tr>
<tr>
<td>11</td>
<td>Around 1 acre</td>
</tr>
<tr>
<td>12</td>
<td>Around 1.5 acres</td>
</tr>
<tr>
<td>13</td>
<td>Around 2 acres</td>
</tr>
<tr>
<td>14</td>
<td>Around 2.5 acres</td>
</tr>
<tr>
<td>15</td>
<td>Around 3 acres</td>
</tr>
<tr>
<td>16</td>
<td>Around 4 acres</td>
</tr>
<tr>
<td>17</td>
<td>Around 5 acres</td>
</tr>
<tr>
<td>18</td>
<td>5.5 to 7 acres</td>
</tr>
<tr>
<td>19</td>
<td>7.5 to 10 acres</td>
</tr>
<tr>
<td>20</td>
<td>10 to 15 acres</td>
</tr>
<tr>
<td>21</td>
<td>15.5 to 20 acres</td>
</tr>
<tr>
<td>22</td>
<td>Over 20 acres (SPECIFY)</td>
</tr>
</tbody>
</table>

#### 4.2.4. HARV1: Amount harvested of maize (Total in 2005: Long rains and short rains)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No harvest</td>
</tr>
<tr>
<td>1</td>
<td>Less than one bag</td>
</tr>
<tr>
<td>2</td>
<td>1 to 2 bags</td>
</tr>
<tr>
<td>3</td>
<td>3 to 5 bags</td>
</tr>
<tr>
<td>4</td>
<td>6 to 10 bags</td>
</tr>
<tr>
<td>5</td>
<td>11 to 15 bags</td>
</tr>
<tr>
<td>6</td>
<td>16 to 20 bags</td>
</tr>
<tr>
<td>7</td>
<td>21 to 30 bags</td>
</tr>
<tr>
<td>8</td>
<td>31 to 50 bags</td>
</tr>
<tr>
<td>9</td>
<td>51 to 70 bags</td>
</tr>
<tr>
<td>10</td>
<td>71 to 100 bags</td>
</tr>
<tr>
<td>11</td>
<td>101 to 150 bags</td>
</tr>
<tr>
<td>12</td>
<td>151 to 200 bags</td>
</tr>
<tr>
<td>13</td>
<td>201 to 300 bags</td>
</tr>
<tr>
<td>14</td>
<td>301 to 500 bags</td>
</tr>
<tr>
<td>15</td>
<td>Over 50 bags</td>
</tr>
<tr>
<td>91</td>
<td>Less than one debbe</td>
</tr>
<tr>
<td>92</td>
<td>1 to 3 debbe</td>
</tr>
<tr>
<td>93</td>
<td>4-5 debbe</td>
</tr>
</tbody>
</table>

#### 4.2.5. SOLD1: Total amount of maize sold of the harvest(s) of 2005

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No harvest</td>
</tr>
<tr>
<td>1</td>
<td>Less than one bag</td>
</tr>
<tr>
<td>2</td>
<td>1 to 2 bags</td>
</tr>
<tr>
<td>3</td>
<td>3 to 5 bags</td>
</tr>
<tr>
<td>4</td>
<td>6 to 10 bags</td>
</tr>
<tr>
<td>5</td>
<td>11 to 15 bags</td>
</tr>
<tr>
<td>6</td>
<td>16 to 20 bags</td>
</tr>
<tr>
<td>7</td>
<td>21 to 30 bags</td>
</tr>
<tr>
<td>8</td>
<td>31 to 50 bags</td>
</tr>
<tr>
<td>9</td>
<td>51 to 70 bags</td>
</tr>
<tr>
<td>10</td>
<td>71 to 100 bags</td>
</tr>
<tr>
<td>11</td>
<td>101 to 150 bags</td>
</tr>
<tr>
<td>12</td>
<td>151 to 200 bags</td>
</tr>
<tr>
<td>13</td>
<td>201 to 300 bags</td>
</tr>
<tr>
<td>14</td>
<td>301 to 500 bags</td>
</tr>
<tr>
<td>15</td>
<td>Over 50 bags</td>
</tr>
<tr>
<td>91</td>
<td>Less than one debbe</td>
</tr>
<tr>
<td>92</td>
<td>1 to 3 debbe</td>
</tr>
<tr>
<td>93</td>
<td>4-5 debbe</td>
</tr>
</tbody>
</table>

#### 4.2.6. LNO1: (1) Number of milk cows

#### 4.2.7. LNO2: (2) Number of bulls, ox

#### 4.2.8. LNO3: (3) Number of heifers

#### 4.2.9. LNO4: (4) Number of calfs

#### 4.2.10. LNO5: (5) Number of dairy goats

#### 4.2.11. LNO6: (6) Number of other goats

#### 4.2.12. LNO7: (7) Number of sheep

#### 4.2.13. LNO8: (8) Number of donkeys or horses

#### 4.2.14. LNO9: (9) Number of pigs

#### 4.2.15. LNO10: (10) Number of chicken (mature)

#### 4.2.16. LNO11: (11) Number of rabbits (mature)

#### 4.2.17. LNO12: (12) Number of occupied (!) bee hives

#### 4.2.18. LNO14: (14) Others (specify)
5. TIES BACK TO THE ORIGINAL HOME AND MIGRATION HISTORY

| 5.1 | FORI1: From which area does the settler originally come from
(if grown up in the estate: Give original place of family (father))
FIRST DIGIT: Original place of mans side
SECOND DIGIT: Original place of womans side
(Legend see ANNEX 1) |
| 5.2 | RELI1: Are there still relatives living there; on own shamba?
FIRST DIGIT: Mans side
SECOND DIGIT: Womans side
11 = Many relatives (incl. close and less close relatives) are still living there on own shamba(s)
12 = Many relatives (incl. close and less close relatives) are still living there but not on own shamba(s)
21 = Parents are still living there on own shamba
22 = Parents are still living there but not on a own shamba
31 = Other close relatives (brother etc.) are still living there on own shamba
32 = Other close relatives (brother etc.) are still living there, but not on own shamba
41 = Other less close relatives are still living there on on shamba(s)
42 = Other less close relatives are still living there but not on own shamba
52 = No relatives are living there anymore |
| 5.3 | TIES2: Ties to the home area: Degree and direction of assistance
(5.8, 5.11, 5.14, 5.17)
FIRST DIGIT: Mans side
SECOND DIGIT: Womans side
0 = No exchange of assistance
11 = Both-sided: Regular exchange of assistance (school fees, investments, emergency etc.)
12 = Both-sided: Exchange of assistance in case of investments, buildings etc.
13 = Both-sided: Exchange of assistance limited to emergency situations
21 = Receiving regular assistance FROM the home area (e.g. school fees, investments, emergencies etc.)
22 = Receiving assistance FROM the home area in case of investments, buildings etc.
23 = Receiving assistance FROM the home area in case of emergency
31 = Giving regular assistance TO the home area (e.g. school fees, investments, emergencies)
32 = Giving assistance TO the home area in case of investments, buildings etc.
33 = Giving assistance TO the home area in case of emergencies
41 = Exchange of assistance limited to (irregular) exchange of presents |
| 5.4 | New TIES 3: Ties to the home area: Form of assistance
(5.9, 5.12, 5.15, 5.18.)
FIRST DIGIT: Mans side
SECOND DIGIT: Womans side
(If several, give codes in row of importance)
1 = Money for education
2 = Money for investments (buildings, fencing etc.)
3 = Money to purchase goods for daily use
4 = Money for emergencies
5 = Labour for investments (helping to build home, fences etc.)
6 = Labour for farming (helping on the farm)
7 = Material for investments (e.g. iron sheets .....)
8 = Material for daily consumption (e.g. clothes .....)
9 = Food
10 = Social Welfare/Assistance
11 = Social Welfare/Assistance in emergency situation
12 = Others (specify) |
| 5.5 | TCHGI1: Did the ties (assistance) to the home area change in last years
(5.10, 5.13, 5.16, 5.19.)
FIRST DIGIT: Mans side
SECOND DIGIT: Womans side
1 = Ties increased very much in the last some years
2 = Ties increased in the last some years
3 = Ties remained roughly the same in the last some years
4 = Ties decreased in the last some years
5 = Ties decreased very much in the last some years |
| 5.6 | REL2: Do you have relatives with OTHER homesteads in the estate
(Do not count separated sub-households mentioned in HH-tree)
FIRST DIGIT: Mans side
SECOND DIGIT: Womans side
0 = No
1 = One homestead
2 = 2 to 3 homesteads
3 = 4 to 5 homesteads
4 = More than five homesteads |
<table>
<thead>
<tr>
<th>5.7</th>
<th>REL3: Do you have relatives with homesteads in neighboring estates</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRST DIGIT: Mans side</td>
<td></td>
</tr>
<tr>
<td>SECOND DIGIT: Womans side</td>
<td></td>
</tr>
<tr>
<td>(Legend same as 5.15 REL2)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5.8</th>
<th>TIES7: Ties to those relatives (estate or nearby): Degree and direction of assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRST DIGIT: Mans side</td>
<td></td>
</tr>
<tr>
<td>SECOND DIGIT: Womans side</td>
<td></td>
</tr>
<tr>
<td>(Legend same as 5.8 TIES2)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5.9</th>
<th>TIES8: Ties to those relatives (estate or nearby): Form of assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRST DIGIT: Mans side</td>
<td></td>
</tr>
<tr>
<td>SECOND DIGIT: Womans side</td>
<td></td>
</tr>
<tr>
<td>(Legend same as 5.9 TIES3)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5.10</th>
<th>TCHG3: Did the ties (assistance) to those relatives change during the last years</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRST DIGIT: Mans side</td>
<td></td>
</tr>
<tr>
<td>SECOND DIGIT: Womans side</td>
<td></td>
</tr>
<tr>
<td>(Legend same as 5.10 TCHG1)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5.11</th>
<th>TIES11: Ties to separated sub household (compare HH-tree): Degree and direction of assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRST DIGIT: Mans side</td>
<td></td>
</tr>
<tr>
<td>SECOND DIGIT: Womans side</td>
<td></td>
</tr>
<tr>
<td>(Legend same as 5.8 TIES2)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5.12</th>
<th>TIES12: Ties to separated sub household (compare HH-tree): Form of assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRST DIGIT: Mans side</td>
<td></td>
</tr>
<tr>
<td>SECOND DIGIT: Womans side</td>
<td></td>
</tr>
<tr>
<td>(Legend same as 5.9 TIES3)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5.13</th>
<th>TCHG4: Did the ties (assistance) to the sub households change during the last years</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRST DIGIT: Mans side</td>
<td></td>
</tr>
<tr>
<td>SECOND DIGIT: Womans side</td>
<td></td>
</tr>
<tr>
<td>(Legend same as 5.10 TCHG1)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5.14</th>
<th>TIES5: Ties to other relatives: Degree and direction of assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRST DIGIT: Mans side</td>
<td></td>
</tr>
<tr>
<td>SECOND DIGIT: Womans side</td>
<td></td>
</tr>
<tr>
<td>(Legend same as 5.8 TIES2)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5.15</th>
<th>TIES6: Ties to other relatives: Form of assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRST DIGIT: Mans side</td>
<td></td>
</tr>
<tr>
<td>SECOND DIGIT: Womans side</td>
<td></td>
</tr>
<tr>
<td>(Legend same as 5.9 TIES3)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5.16</th>
<th>TCHG2: Did the ties (assistance) to other relatives change in last years</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRST DIGIT: Mans side</td>
<td></td>
</tr>
<tr>
<td>SECOND DIGIT: Womans side</td>
<td></td>
</tr>
<tr>
<td>(Legend same as 5.10 TCHG1)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5.17</th>
<th>TIES9: Ties to neighbors (not relatives) in the estate: Degree and direction of assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRST DIGIT: Mans side</td>
<td></td>
</tr>
<tr>
<td>SECOND DIGIT: Womans side</td>
<td></td>
</tr>
<tr>
<td>(Legend same as 5.8 TIES2)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5.18</th>
<th>TIES10: Ties to neighbors (not relatives) in the estate: Form of assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRST DIGIT: Mans side</td>
<td></td>
</tr>
<tr>
<td>SECOND DIGIT: Womans side</td>
<td></td>
</tr>
<tr>
<td>(Legend same as 5.9 TIES3)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5.19</th>
<th>TCHG4: Did the ties (assistance) to the neighbors change during the last years</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRST DIGIT: Mans side</td>
<td></td>
</tr>
<tr>
<td>SECOND DIGIT: Womans side</td>
<td></td>
</tr>
<tr>
<td>(Legend same as 5.10 TCHG1)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5.20</th>
<th>TJDG1: How important is the assistance FROM relatives etc. for the household</th>
</tr>
</thead>
<tbody>
<tr>
<td>If several, give codes in row of importance</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Very important - could not make without; no specific reason named</td>
</tr>
<tr>
<td>11</td>
<td>Very important - could not make without; because of support for daily needs</td>
</tr>
<tr>
<td>12</td>
<td>Very important - could not make without; because of support for education expenses</td>
</tr>
<tr>
<td>13</td>
<td>Very important - could not make without; because of support with money for building of the homestead</td>
</tr>
<tr>
<td>14</td>
<td>Very important - could not make without; because of support with labour for farming, livestock etc.</td>
</tr>
<tr>
<td>15</td>
<td>Very important - could not make without; because of support with labour for building up of homestead</td>
</tr>
<tr>
<td>16</td>
<td>Very important - could not make without; because of support in times of emergency</td>
</tr>
<tr>
<td>17</td>
<td>Very important - could not make without; because of other reasons (SPECIFY)</td>
</tr>
<tr>
<td>20</td>
<td>Important - would be harder without; no specific reason named</td>
</tr>
<tr>
<td>21</td>
<td>Important - would be harder without; because of support for daily needs</td>
</tr>
<tr>
<td>22</td>
<td>Important - would be harder without; because of support for education expenses</td>
</tr>
<tr>
<td>23</td>
<td>Important - would be harder without; because of support with money for building of the homestead</td>
</tr>
<tr>
<td>24</td>
<td>Important - would be harder without; because of support with labour for farming, livestock etc.</td>
</tr>
<tr>
<td>25</td>
<td>Important - would be harder without; because of support with labour for building up of homestead</td>
</tr>
<tr>
<td>26</td>
<td>Important - would be harder without; because of support in times of emergency</td>
</tr>
<tr>
<td>27</td>
<td>Important - would be harder without; because of other reasons (SPECIFY)</td>
</tr>
</tbody>
</table>
30 = Not very important; no specific reason named
31 = Not very important; because the household does hardly need any support
32 = Not very important; because the relatives etc. can not support enough (low wealth)
33 = Not very important; because the support is limited to emergency only
34 = Not very important; other reasons (SPECIFY)
40 = Not important at all; SPECIFY REASONS

5.21. JUDJ8: How satisfied are you overall with the assistance from relatives (from home area or others)
0 = No opinion, no answer
1 = Very satisfied
2 = Quite satisfied
3 = not fully satisfied, but it is o.k.
4 = not satisfied
5 = not satisfied at all

5.22. JUDJ9: How satisfied are you overall with the collaboration within the estate
0 = No opinion, no answer
1 = Very satisfied
2 = Quite satisfied
3 = not fully satisfied, but it is o.k.
4 = not satisfied
5 = not satisfied at all

5.23. TJDG3: Which of all the named ties are the most important ones for the household (in the sense of support)
(If several, give codes in row of importance)
11 = Relatives in the home area, mans side
12 = Relatives in the home area, womans side
21 = Other relatives, mans side
22 = Other relatives, womans side
31 = Relatives from the estate or from nearby, mans side
32 = Relatives from the estate or from nearby, womans side
40 = Neighbours
50 = Sub household(s)
60 = Others (specify)

5.24. MHIST: Give years of migration (incl. intermed. stages)
OPEN QUESTION: Write down years, places and activities of the stages of migration (man and womans side)
If the current settler did not migrate, give some hints to the migration history of the family

6 OFF-FARM ACTIVITIES

6.1 OFF11 Who is working off-farm - compare HH-
(Give alphanumeric code)

6.2 OFF12 Where is the actual off-farm activity
(Legend see Quest 97, ANNEX 1)

6.3 OFF13 Current type of work in off-farm
FIRST DIGIT: Level of off-farm activity
1 = Occasional casual jobs
2 = Regularly casual jobs
3 = Permanent employment in private enterprise - lower income (<4000 sh/month)
4 = permanent employment in private enterprise - higher income (>4000 sh)
5 = permanent employment GOK or parastatal - lower income (<4000
6 = permanent employment GOK or parastatal - higher income (>4000 sh)
7 = Self employed in small business (<10 employees)
8 = Self employed in larger business (>10 employees)
SECOND DIGIT: Sector of off-farm activity
1 = Sector A: Agriculture, ranching, forest (private sector)
2 = Sector A: Agriculture, ranching, forest (government sector)
3 = Sector B: Domestic and security (private sector)
4 = Sector C: Jua Kali, informal and small enterprise sector (private sector)
5 = Sector D: Production and repair in formal enterprises (private sector)
6 = Sector E: Trade and transport (private sector)
7 = Sector F: Hotel, entertainment, tourism, services (private sector)
8 = Sector G: Education, health, church (private and government sector)
9 = Sector G: Civil services (government sector)

6.4 OFF14: Since when is the person in the SAME job (same employer)
1 = Since less than a month
2 = Since 1 to three months
3 = Since 4 to 6 months
4 = Since 7 to 9 months
5 = Since around one year
6 = Since around one and a half year
7 = Since around two years
8 = Since 3 to 5 years
9 = Since 6 to 10 years
10 = since more than 10 years
6.5 REM11: **How and for which** expenses does the person make remittances

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No remittances at all</td>
</tr>
<tr>
<td>1</td>
<td>No cash remittances but material (food, clothes etc.)</td>
</tr>
<tr>
<td>2</td>
<td>Very irregularly</td>
</tr>
<tr>
<td>3</td>
<td>Mainly on family gatherings (Christmas etc.)</td>
</tr>
<tr>
<td>4</td>
<td>Mainly bound to special expenses concerning education</td>
</tr>
<tr>
<td>5</td>
<td>Mainly bound to special expenses concerning investments on the farm (fencing, construction)</td>
</tr>
<tr>
<td>6</td>
<td>Mainly bound to special expenses in farming and livestock (e.g. buying new cow)</td>
</tr>
<tr>
<td>7</td>
<td>Mainly bound to needy times (e.g. cash needs for food, clothes etc.)</td>
</tr>
<tr>
<td>8</td>
<td>Mainly regular and not bound to specific expenditures (e.g. almost every month)</td>
</tr>
<tr>
<td>9</td>
<td>Very regularly and not bound to specific expenditures (e.g. regularly every month same amount)</td>
</tr>
</tbody>
</table>

6.6 New

**How much** per year? (after Quest 97, ANNEX 2)

6.7 to 6.27: Same Variables and Legends for Persons 2, 3 and 4

6.28 REM2 Was 2005 an **average** year concerning remittances from off-farm activities

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Far above average (more than double of &quot;normal&quot;)</td>
</tr>
<tr>
<td>2</td>
<td>Above average</td>
</tr>
<tr>
<td>3</td>
<td>Around average</td>
</tr>
<tr>
<td>4</td>
<td>Below average</td>
</tr>
<tr>
<td>5</td>
<td>Far below average (less than half of &quot;normal&quot; year)</td>
</tr>
</tbody>
</table>

6.29 REM3 Who of the persons working off-farm made the **highest remittances** in 2005

(Give Alphanumeric Code - see persons 14)

6.3 REM4 Do the off-farm remittances (income) cover the cash needs of the household for daily expenditures

6.31 REM5 Do the off-farm remittances (income) cover the cash needs of the household for education

6.32 New REM11 Coverage of education expenditures through other means than off-farm? (selling products, rem...)

6.33 REM6 Do the off-farm remittances (income) cover the cash needs of the household for investments

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>not applicable, as no off-farm income</td>
</tr>
<tr>
<td>1</td>
<td>not at</td>
</tr>
<tr>
<td>2</td>
<td>partly (other sources)</td>
</tr>
<tr>
<td>3</td>
<td>almost (with &quot;struggling&quot; it is enough)</td>
</tr>
<tr>
<td>4</td>
<td>Yes, it is just enough</td>
</tr>
<tr>
<td>5</td>
<td>Yes, fully (there might even be a surplus, so that we can live well and realize our plans)</td>
</tr>
</tbody>
</table>

6.34 REM7 What is more **important** for the household: Remittances from off-farm or from relatives (home area or others)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Both are not important at all</td>
</tr>
<tr>
<td>2</td>
<td>Both are not important</td>
</tr>
<tr>
<td>3</td>
<td>Both have a low importance</td>
</tr>
<tr>
<td>11</td>
<td>Off-farm is much more important</td>
</tr>
<tr>
<td>12</td>
<td>Off-farm is more important</td>
</tr>
<tr>
<td>13</td>
<td>Both are equally important</td>
</tr>
<tr>
<td>14</td>
<td>Remittances from relatives are more important</td>
</tr>
<tr>
<td>15</td>
<td>Remittances from relatives are much more important</td>
</tr>
</tbody>
</table>

6.35. PRIO **Priority** of off-farm activities compared to on farm activities (opinion)

(Opinion of the respondent on the prioritization between off-farm and on-farm activities of the household)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Respondent has no opinion to this question</td>
</tr>
<tr>
<td>1</td>
<td>If there is an opportunity for a member of the household for a off-farm activity this off-farm opportunity would IN ANY CASE have higher priority than the on-farm activity</td>
</tr>
<tr>
<td>2</td>
<td>If there is an opportunity for a member of the household for a off-farm activity this opportunity would only have priority when the job secure and well paid</td>
</tr>
<tr>
<td>3</td>
<td>If there is an opportunity for a member of the household for a off-farm activity this opportunity would only have priority when the person concerned does not play a very important role in on-farm activities</td>
</tr>
<tr>
<td>4</td>
<td>If there is an opportunity for a member of the household for a off-farm activity this opportunity would only have priority when the household could still keep the on-farm activities on the same level</td>
</tr>
<tr>
<td>5</td>
<td>If there is an opportunity for a member of the household for a off-farm activity the on-farm activities would still have priority in any case</td>
</tr>
</tbody>
</table>
7. EDUCATION

7.1 EDUC  **Yearly expenditures** for education of children (fees, haramabes, uniforms, books etc.)

(including expenditures for adult children; e.g. at University etc.)

(See Legend Quest 97, ANNEX 2)

8. GENERAL SUP-GROUP 4: INCOME AND EXPENSES

8.1 COV1 Taking the overall production of the farm: For how many months could the household
live FULLY on the own production in a NORMAL YEAR

8.2 COV2 Taking the overall production of the farm: For how many months could the household
live FULLY on the own production in a BAD YEAR (refer to experiences)

8.3 COV3 Taking the overall production of the farm: For how many months could the household
live FULLY on the own production in a GOOD YEAR (refer to experiences)

(For 9.1 to 9.3 : Give number of months per year)

8.4. COV5 Through which means do you cover months with insufficient own food?

(If combination: Give codes in row of importance)

0 = Never have insufficient food
1 = Can not cover times of insufficient food
2 = Have great difficulties to cover times of insufficient food
11 = Through getting food from the home area
12 = Through getting food from relatives and household members in towns
13 = Through getting food from neighbours and friends
14 = Through getting food from the Government (food relief)
15 = Through working casually for food
21 = Through working casually to buy food
22 = Through buying food with cash from remittances from the home area
23 = Through buying food with cash from remittances from relatives, household members in town
24 = Through buying food with cash from neighbours and friends (gifts)
25 = Through buying food with cash from loans from relatives or friends
26 = Through buying food by using own savings
31 = Through buying food with cash from selling cash crops
32 = Through buying food with cash from selling crop products of which one has enough
33 = Through buying food with cash from selling cattle
34 = Through buying food with cash from selling shotes
35 = Through buying food with cash from selling poultry
36 = Through buying food with cash from selling milk
37 = Through buying food with cash from selling eggs
41 = Other sources (specify)

8.5 New PRIO1 If factors like health, wealth and ties within the household were held constant, which of the three expenses
education, investment, daily expenditures would you personally see as the priority?

1 = Daily expenses
2 = Education
3 = Investment

8.6. New PRIO2 Which one is more important for the household: Income from the holding (farm&livestock) or from
outside (rem, off-farm, property)?

0 = Can't tell
1 = from outside more important
2 = from outside much more important
3 =from plot more important
4 = from plot much more important
5 =equal
## 9. GENERAL SUB-GROUP 5: FUTURE

### 9.1 PLAN: Indicate the plans to expand or reduce the holding

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No concrete plans for any change of the holding are existing</td>
</tr>
<tr>
<td>2</td>
<td>Would like to expand the holding; but constraints (money, availability of land ..)</td>
</tr>
<tr>
<td>3</td>
<td>Is actually planning to expand the holding within the next some years</td>
</tr>
<tr>
<td>4</td>
<td>Is actually planning to hand over parts of the holding to relatives (son etc.)</td>
</tr>
<tr>
<td>5</td>
<td>Is actually planning to rent out part of the holding</td>
</tr>
<tr>
<td>6</td>
<td>Is actually planning to give up the holding through handing out to a relative</td>
</tr>
<tr>
<td>7</td>
<td>Is actually planning to sell the holding</td>
</tr>
</tbody>
</table>

### 9.2 What are your plans to expand or reduce farming activities of the HH?

Specify

### 9.3 What are your future plans for investment?

Specify

### 9.4 What are your future plans in off-farm?

Specify

### 9.5 MOVE: Do you know neighbours who have left the estate for good

FIRST DIGIT: Give number of those who left because of low wealth
SECOND DIGIT: Give number of those who left because of high wealth

### 9.6 Give more reasons, why they might have left.

### 10. TO BE OBSERVED ON THE PLOT:

#### 10.1 HNO: Actual number of houses for living, type of main house

HTY: Construction material of main house

#### 10.2 FDOM: Dominant type of fencing (excluding live fence)

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No constructed fence (but perhaps live fence - see below)</td>
</tr>
<tr>
<td>1</td>
<td>Posts only</td>
</tr>
<tr>
<td>2</td>
<td>Twigs, cut bushes</td>
</tr>
<tr>
<td>3</td>
<td>Wood, timber</td>
</tr>
<tr>
<td>4</td>
<td>Barbed wire (ev. with droppers)</td>
</tr>
<tr>
<td>5</td>
<td>Mesh wire</td>
</tr>
<tr>
<td>6</td>
<td>Electric fence</td>
</tr>
<tr>
<td>7</td>
<td>Others (specify)</td>
</tr>
</tbody>
</table>
ANNEX 1 to LEGEND: AREAS OF ORIGIN, MIGRATION AND WORK

<table>
<thead>
<tr>
<th>First and second Digit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Laikipia not differentiated (only applicable if no further details)</td>
</tr>
<tr>
<td>11</td>
<td>Laikipia: Nanyuki</td>
</tr>
<tr>
<td>12</td>
<td>Laikipia: Central Division zone IV (&quot;Kalalu-area&quot;)</td>
</tr>
<tr>
<td>13</td>
<td>Laikipia: Central Division zone V (&quot;Matanya-area&quot;)</td>
</tr>
<tr>
<td>14</td>
<td>Laikipia: Mukogodo Division</td>
</tr>
<tr>
<td>15</td>
<td>Laikipia: Rumuruti Division (without high potential area)</td>
</tr>
<tr>
<td>16</td>
<td>Laikipia: Ngarua Division</td>
</tr>
<tr>
<td>17</td>
<td>Laikipia: High potential areas Laikipia west and Nyahururu</td>
</tr>
<tr>
<td>18</td>
<td>Laikipia: Large scale ranches (all Divisions)</td>
</tr>
<tr>
<td>21</td>
<td>Nyeri District: Part bordering Laikipia around Naro Moru - Nanyuki</td>
</tr>
<tr>
<td>22</td>
<td>Nyeri District: Nyeri town and direct surroundings (ca. 15 km)</td>
</tr>
<tr>
<td>23</td>
<td>Nyeri District: Rest (not covered by 21 and 22)</td>
</tr>
<tr>
<td>31</td>
<td>Meru District: Part bordering Laikipia around Timau - Nanyuki</td>
</tr>
<tr>
<td>32</td>
<td>Meru District: Meru town and direct surroundings (ca. 15 km)</td>
</tr>
<tr>
<td>33</td>
<td>Meru District: Highlands (excluding 31 and 32)</td>
</tr>
<tr>
<td>34</td>
<td>Meru District: Lowlands</td>
</tr>
<tr>
<td>41</td>
<td>Nairobi Center</td>
</tr>
<tr>
<td>42</td>
<td>Nairobi suburbs</td>
</tr>
<tr>
<td>43</td>
<td>Central Province: Nyandarua District</td>
</tr>
<tr>
<td>44</td>
<td>Central Province: Kirinyaga District</td>
</tr>
<tr>
<td>45</td>
<td>Central Province: Murang District</td>
</tr>
<tr>
<td>46</td>
<td>Central Province: Kiambu District</td>
</tr>
<tr>
<td>47</td>
<td>Rift Valley Province: Nakuru District</td>
</tr>
<tr>
<td>48</td>
<td>Rift Valley Province: Baringo District</td>
</tr>
<tr>
<td>50</td>
<td>Other parts of Kenya (specify)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Digit: Gradient urban rural</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Urban large (Nairobi, Mombasa, Kisumu, etc.)</td>
</tr>
<tr>
<td>2</td>
<td>Urban medium (Nanyuki, Nyahururu)</td>
</tr>
<tr>
<td>3</td>
<td>Urban small (rural shopping center)</td>
</tr>
<tr>
<td>4</td>
<td>Rural without further differentiation (only applicable if no further informention)</td>
</tr>
<tr>
<td>5</td>
<td>Rural in high potential area</td>
</tr>
<tr>
<td>6</td>
<td>Rural in medium potential area</td>
</tr>
<tr>
<td>7</td>
<td>Rural in semi-arid area</td>
</tr>
<tr>
<td>8</td>
<td>Rural in dry (pastoralist area)</td>
</tr>
</tbody>
</table>

ANNEX 2 to LEGEND: ESTIMATION OF CASH AMOUNTS

<table>
<thead>
<tr>
<th>Description</th>
<th>(\text{Ksh})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
<td>0</td>
</tr>
<tr>
<td>Less than 100</td>
<td>1</td>
</tr>
<tr>
<td>100 - 200</td>
<td>2</td>
</tr>
<tr>
<td>200 - 400</td>
<td>3</td>
</tr>
<tr>
<td>400 - 700</td>
<td>4</td>
</tr>
<tr>
<td>700 - 1000</td>
<td>5</td>
</tr>
<tr>
<td>1000 - 1500</td>
<td>6</td>
</tr>
<tr>
<td>1500 - 2000</td>
<td>7</td>
</tr>
<tr>
<td>2000 - 3000</td>
<td>8</td>
</tr>
<tr>
<td>3000 - 5000</td>
<td>9</td>
</tr>
<tr>
<td>5000 - 7000</td>
<td>10</td>
</tr>
<tr>
<td>7000 - 10000</td>
<td>11</td>
</tr>
<tr>
<td>10000 - 15000</td>
<td>12</td>
</tr>
<tr>
<td>15000 - 20000</td>
<td>13</td>
</tr>
<tr>
<td>20000 - 30000</td>
<td>14</td>
</tr>
<tr>
<td>30000 - 50000</td>
<td>15</td>
</tr>
<tr>
<td>Over 50000</td>
<td>16</td>
</tr>
</tbody>
</table>
Appendix 7: Code Lists for Open Questions

Code lists for open question on ‘Farming Activity Changes’

Question 4.2.21

“How has the farming (cropping, garden) and the livestock keeping developed and changed in the last years (since 1997)?”

1st phenomenon: **Farming Increased**

Category (Reasons, Action guiding conditions): **Resources and Access to resources**
- Through renting land (a 126, a 79)
- Rainwater harvest (a 119)
- Spreading risk (a 79)
- Irrigation (h 92)

2nd phenomenon: **Farming Decreased**

Category (Reasons, Action guiding conditions): **Resources and Access to resources**
- Harvest failure for some years (a 130, a 212, a 227, a 126, a 116)
- Water constraints (h 18, h 14, h 15, h 64, h 20, h 7, h 2)
- Plot too small (h 64)

Category (Reasons, Action guiding conditions): **Area of origin and background**
- Ignorance (a 137)

Category (Reasons, Action guiding conditions): **Political and legal conditions**
- No or bad market (a 206)

3rd phenomenon: **Livestock Increased**

Category (Reasons, Action guiding conditions): **Resources and Access to resources**
- Available (unsettled) grazing land (a 126)
- Change of livestock-breed (a 119)

Category (Reasons, Action guiding conditions): **Economic status of household**
- Bought livestock through irrigation-money (a 225)
- Through investment acquired by self-help group (h 27)
- Through own investment (h 39)

Category (Reasons, Action guiding conditions): **Political and legal conditions**
- Improved security (a 126, a 116, a 73)
4th phenomenon: **Livestock Decreased**

Category (Reasons, Action guiding conditions): **Resources and Access to resources**
- Death of livestock (drought, disease) (a 130, a 212, a 227, a 70, a 46, a 58, h 31, h 15, h 7 )
- Inadequate feed ( a 206, a 73)

Category (Reasons, Action guiding conditions): **Economic status of household**
- Selling of livestock to buy food, education etc. (a 212, a 225, a 137, h 5, h 7 )

Category (Reasons, Action guiding conditions): **Political and legal conditions**
- Insecurity (a 46, h 95)
**Code lists for open question on ‘Changes in Networks and Ties’**

**Question 5.25**

“Did the ties to the above mentioned groups change in their intensity and form, over the last years (since 1997)?”

Identified people groups according to two phenomena:

1st phenomenon: **Ties Increased**

Categories of ties, people groups:
- Sub-Households: as children have own household now (a 227); children have jobs (a 137); children are with grandparents (h 5, h 81)
- Neighbours: increasing problems (a 227); others are too far (a 126); more people settling (a 58)
- Parents: getting old (h 31, h 18)
- Relatives: sense of belonging (h 81)

2nd phenomenon: **Ties Decreased**

Categories of ties, people groups:
- Relatives: are far (a 126); low income (a 212), everybody for himself (a 212, h 7); low wealth (a 58); lack of interest (h 95); engaged in own HH (a 137, h 95); increased exp on education (h 20)
- Sub-Households: children committed to own household now (h 7); low wealth

**Code lists for identified people groups ‘Neighbours’, ‘Sub–Households’ and ‘Relatives’ according to four phenomena**

1st phenomenon: **Ties Neighbours Increased**

Category (Reasons, Action guiding conditions): Socio–demographic household structure
- Time of settling (in connection to intermarriage, meeting in social institutions etc.): (a 119, a 206, a 46, a 58, a 137, h 5)
- Distance (Relatives are far, neighbours always there): (a 126, a 126, h 18)

Category (Reasons, Action guiding conditions): Economic status of household, Socio–demographic household structure (Collaboration)
- Need for organisation with people nearby (a 70, a 206, a 46, a 73, a 137, a 79, h 92, h 31, h 27, h 43, h 7, h 81, h 2)
- One cannot survive alone, must join hands (a 126, a 70);
- Problems are more frequent (a 73, a 58, a 79, h 31);
- Wishing for development (h 27, h 81)

2nd phenomenon: **Ties Sub–Household increased**

Category (Reasons, Action guiding conditions): Socio–demographic household structure
- Development of own household (a 227)
- Parents need support (h 18)
- Grandchildren living with respondent (h 5, h 81, h 2)

Category (Reasons, Action guiding conditions): Economic status of household

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**Appendices**

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"Did the ties to the above mentioned groups change in their intensity and form, over the last years (since 1997)?"
• Children in good jobs (a 119, a 137)

3rd phenomenon: **Ties Sub-Households Decreased**
Category (Reasons, Action guiding conditions): **Economic status of household**
• Lack of job and low income (a 212)
• Not much to give (a 212)

4th phenomenon: **Ties Relatives Decreased**
Category (Reasons, Action guiding conditions): **Economic status of household**
• Low income(a 212),
• Low wealth (a 58)
• Relatives are far(a 126)
Category (Reasons, Action guiding conditions): **Socio-demographic household structure**
• Relatives are engaged in own household (a 137,h 95);
• Increased expenses on education (h 20)
Category (Reasons, Action guiding conditions): **“Cultural conditions”**
• Everybody for himself (a 212, h 7);
• Lack of interest(h 95);
Code lists for open question on changes in 'Off–Farm Employment and Income'

Question 6.37
“Tell about changes relating to off–farm employment and income in this household in the last years (since 1997).”

1st phenomenon: Importance of Off–Labour Increased
Category (Reasons, Action guiding conditions): Resources and access to resources
• Nothing from shamba (a 212);
Category (Reasons, Action guiding conditions): Socio–demographic household structure
• Children/Grand–children in good job and able to help (a 225,a119 a 58, a137, h92, h27, h39, h5, h43);
Category (Reasons, Action guiding conditions): Economic status of household
• From self–employed to employed (a 126);
• Illegal activity (a 133)
• Increased business with more settlers (a73)
• Started own business (a 116, h 92);
• Promotion (h31)

2nd phenomenon: Importance of Off–Farm Labour the Same
Category (Reasons, Action guiding conditions): Economic status of household
• Limited to support for daily expenditures (a 225, a79);
• Untrained/casual jobs only, little income (a 70,a 46, a137, h64);
• Low remittance due to own commitment (a137, h14, h15, h64, h2)
Category (Reasons, Action guiding conditions): Socio–cultural conditions
• Not feeling obliged (h20)
• Not relating well with household (a130)

3rd phenomenon: Importance of Off–Farm Labour Decreased
Category (Reasons, Action guiding conditions): Economic status of household
• HH–member lost job (h 7)
• Untrained and job doesn’t fetch much(casual) (a70, a46, h64)
• Sickness, Death (h95, h18)
• Low remittance due to own commitment or casual only due to primary only? (h15, h64, h7)
Category (Reasons, Action guiding conditions): Socio–cultural conditions
• Not feeling obliged (h14, h20)
### Code lists for open question on ‘Future Plans’

#### Question 9.2:
*What are your future plans to expand or reduce farming activities on the plot? (specify!)*

<table>
<thead>
<tr>
<th>Code</th>
<th>Off-farm labour</th>
<th>Number of statements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Self-employed/business</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No plans</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wishing for employment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Maintain job</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Educating children</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>

#### Question 9.3:
*What are your future plans for investments? (specify!)*

<table>
<thead>
<tr>
<th>Code</th>
<th>Investment</th>
<th>Number of statements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Investment in livestock/shoats/poultry</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Develop commercial plot</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Buy/rent land</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Operate business</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Irrigation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No plans</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Educating children</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Commercial farming</td>
<td></td>
</tr>
</tbody>
</table>

#### Question 9.4:
*What are your future plans in off-farm? (specify!)*

<table>
<thead>
<tr>
<th>Code</th>
<th>Off-farm labour</th>
<th>Number of statements</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Self-employed/business</td>
<td></td>
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<tr>
<td></td>
<td>No plans</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wishing for employment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Maintain job</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Educating children</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Little farming, little off-farm labour</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 8: Abbreviations and Glossary

Abbreviations

ASAL Arid and semi-arid lands
CETRAD Centre for Integrated Training and Research for ASAL Development
DC District Commissioner
DO District Officer
HA Home Area
HH Household
KSH Kenyan Shilling
Lvst Livestock
LRP Laikipia Research Programme
NCCR Swiss National Centre of Competence in Research

Exchange rates (February 2006, approximation)

1 CHF 55.60 KSH
100 KSH 1.80 CHF

Glossary:

Debbe: Equivalent to 16 kg. An old English measuring unit used in Kenya until present.
Cattle rustling Stealing of cattle by force.
Pastoralism: Animal husbandry: the care, tending and use of animals such as camels, goats, sheep, cattle. It contains a mobile element, moving the herds in search of fresh pasture and water.
Peasant: An agricultural worker with roots in the countryside in which they dwell; owning or renting and working by their own labour a small plot of ground. The terms ‘peasant’ and ‘smallholder’ are used as synonyms in this study.
Smallholder: A person owning or renting a smallholding, e.g. a small piece of land consisting of a few acres. The average size of land of the investigated smallholders in this study is 6.2 acres. The terms ‘peasant’ and ‘smallholder’ are used as synonyms in this study.
Sub-household: A separate and more or less independent household from the investigated one. A sub-household is usually consisting of close relatives such as children or parents to respondent.
Subsistence farming: Growth of crops and livestock keeping predominantly for consumption by the farm-holders and dependents, than for sale.
Remittances: Funds transferred from one party to another as the payment for purchased goods or services. In this study, the term ‘remittances’ is predominantly used for mutual or one–way support within social
networks in terms of cash, but also with assistance through goods, such as material and food.

**Vigilant group:** Security guards or patrols; in the context of this study they are groups consisting of young male inhabitants of a particular area and armed police personnel.

**Kiswahili terms**

Kiswahili is a highly dynamical and diverse language, spoken throughout East Africa. One word can render many meanings and translations. The following translation of Kiswahili terms into English are therefore derived from personal conversation with native Kiswahili speakers of Laikipia.

<table>
<thead>
<tr>
<th><strong>Kiswahili:</strong></th>
<th><strong>English:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Baraza:</td>
<td>Meeting, session</td>
</tr>
<tr>
<td>Fundi:</td>
<td>A skilled labourer, e.g. mechanic, carpenter etc.</td>
</tr>
<tr>
<td>Harambe:</td>
<td>It literally means “pulling together”. It is the official motto of Kenya and appears on its coat of arms. But commonly used, it is synonym for the Kenyan tradition of community self-help events, e.g. fundraising (which is the synonym applied in this study) or community development activities.</td>
</tr>
<tr>
<td>Jua kali:</td>
<td>Literally ‘hot sun’, but used as synonym for the informal sector in Kenya.</td>
</tr>
<tr>
<td>Kikuyu:</td>
<td>The largest ethnic group in Kenya (almost 25% of the population), are traditionally farmers from high potential areas in central Kenya. Their native language is also called Kikuyu.</td>
</tr>
<tr>
<td>Meru:</td>
<td>The Meru people are an ethnic group in Kenya (about 5% of the population); their origin and language is closely related to the Kikuyu.</td>
</tr>
<tr>
<td>Muramati:</td>
<td>Caretaker, a person who is in charge</td>
</tr>
<tr>
<td>Saa:</td>
<td>Time; also watch or clock</td>
</tr>
<tr>
<td>Shamba:</td>
<td>A piece of land where crops and fruit/vegetables are grown. Sometimes people refer to their ‘shamba’ as the whole holding, including the house/es.</td>
</tr>
</tbody>
</table>