

# **Farmer Livelihoods and the Production and Marketing of Cashew Nuts**

**A case study in four villages of  
Central and Eastern Flores**

**Study for Swisscontact and Veco-Indonesia  
by Stefan Gamper**



### ACKNOWLEDGEMENTS

Several people have been of great assistance during the course of this study, for which I am very thankful. Especially, I would like to thank the following:

- Swisscontact and especially *Rita Stupf*, *Peter Bissegger* and *Ruedi Nützi* for having given me the opportunity to carry-out a livelihood study within Swisscontact's Project on Local Economic Development in the fascinating environment of Flores Island
- VECO-Indonesia and especially *Mieke Leermakers* for all support during the course of the study
- *John Boleng*, *Gaudensia Ringa* and *Raras* for their valuable collaboration and friendship during the course of the field work
- all *staff* from *Swisscontact LED NTT* in support of my stage in Flores
- all the *villagers from Rowa, Ilinmedo, Kringa* and *Ilepadung* for their valuable time, patience and open minded attitude

Ende, December 2005

## CONTENTS

---

<b>PREFACE AND ACKNOWLEDGEMENTS .....</b>	<b>I</b>
<b>TABLE OF CONTENTS .....</b>	<b>II</b>
<b>LIST OF FIGURES, TABLES AND BOXES .....</b>	<b>V</b>
<b>LIST OF ABBREVIATIONS .....</b>	<b>VII</b>
<b>EXECUTIVE SUMMARY .....</b>	<b>VIII</b>
<b>I INTRODUCTION .....</b>	<b>1</b>
1. BACKGROUND .....	1
2. OBJECTIVES OF THE STUDY .....	1
3. STRUCTURE OF THE REPORT .....	2
<b>II STUDY DESIGN: PROCEDURE, ANALYSIS AND METHODS .....</b>	<b>4</b>
1. RESEARCH PROCEDURE .....	4
2. THE SUSTAINABLE LIVELIHOODS APPROACH (SLA) .....	6
2.1 <i>Local Economic Development and the Sustainable Livelihoods Approach.....</i>	<i>7</i>
3. FIELD METHODS AND DATA ANALYSIS .....	8
<b>III DESCRIPTION OF THE STUDY LOCATION .....</b>	<b>9</b>
1. VILLAGE PROFILE ROWA .....	9
1.1 <i>General Location and Village Development .....</i>	<i>9</i>
1.2 <i>Infrastructure.....</i>	<i>10</i>
1.3 <i>Natural Resources and Agriculture .....</i>	<i>10</i>
1.4 <i>Social Structure and General Livelihood Activities.....</i>	<i>11</i>
2. VILLAGE PROFILE ILEPADUNG .....	12
2.1 <i>General Location and Village Development .....</i>	<i>12</i>
2.2 <i>Infrastructure.....</i>	<i>13</i>
2.3 <i>Natural Resources and Agriculture .....</i>	<i>14</i>
2.4 <i>Social Structure and General Livelihood Activities.....</i>	<i>15</i>
3. VILLAGE PROFILE ILINMEDO .....	15
3.1 <i>General Location and Village Development .....</i>	<i>15</i>
3.2 <i>Infrastructure.....</i>	<i>16</i>
3.3 <i>Natural Resources and Agriculture .....</i>	<i>17</i>
3.4 <i>Social Structure and General Livelihood Activities.....</i>	<i>17</i>
4. VILLAGE PROFILE KRINGA .....	18
4.1 <i>General Location and Village Development .....</i>	<i>18</i>
4.2 <i>Infrastructure.....</i>	<i>18</i>
4.3 <i>Natural Resources and Agriculture .....</i>	<i>19</i>
4.4 <i>Social Structure and General Livelihood Activities.....</i>	<i>19</i>

<b>IV</b>	<b>SELECTED LIVELIHOOD ASSETS.....</b>	<b>21</b>
1.	HUMAN ASSETS .....	21
1.1	<i>Household Size</i> .....	21
1.2	<i>Education</i> .....	22
1.3	<i>Health</i> .....	23
2.	PHYSICAL ASSETS .....	24
2.1	<i>Housing</i> .....	24
2.2	<i>Energy Supply</i> .....	24
2.3	<i>Transport</i> .....	25
2.4	<i>Information Sources</i> .....	26
3.	NATURAL ASSETS .....	27
3.1	<i>Land Access and Tenure</i> .....	27
3.2	<i>Food Security vs. Cash Crops</i> .....	29
4.	SOCIAL ASSETS .....	30
4.1	<i>Membership in Local Groups</i> .....	30
4.2	<i>The Importance of ‘suku’ and family relations</i> .....	32
4.3	<i>The Importance of Informal Networks</i> .....	33
5.	FINANCIAL ASSETS.....	33
5.1	<i>Available Stocks and Savings</i> .....	33
5.2	<i>Income Sources and Income Diversification</i> .....	35
5.3	<i>Access to Credit and Money Lending</i> .....	39
6.	CLASSIFICATION OF HOUSEHOLDS ACCORDING TO ASSET STATUS.....	41
<b>V</b>	<b>LIVELIHOOD STRATEGIES OF FARMER HOUSEHOLDS.....</b>	<b>43</b>
1.	THE IMPORTANCE OF CASHEW NUTS FOR FARMER LIVELIHOODS: TOWARDS A TYPOLOGY .....	43
<b>VI</b>	<b>THE VULNERABILITY CONTEXT IN THE TARGET VILLAGES.....</b>	<b>49</b>
1.	SHOCKS .....	49
1.1	<i>Coping with shocks</i> .....	50
2.	SEASONALITY .....	51
2.1	<i>Coping with Seasonality</i> .....	54
3.	TRENDS .....	55
<b>VII</b>	<b>INSTITUTIONS AND ORGANIZATIONS.....</b>	<b>58</b>
1.	DIVERSITY AND FUNCTION OF LOCAL LEVEL ORGANIZATIONS .....	58
2.	THE ‘RULES OF THE GAME’ OF SOCIAL INTERACTION.....	61
3.	LIVELIHOOD STRATEGIES FROM A GENDER PERSPECTIVE .....	63
3.1	<i>Females within the household</i> .....	63
3.2	<i>Women and the Pilot Project on Certification of Organic Cashew Nuts</i> .....	66

## CONTENTS

---

<b>VIII LINKAGES BETWEEN PRODUCTION AND MARKETING OF CASHEW NUTS AND LIVELIHOODS.....</b>	<b>67</b>
1. DEVELOPMENT OF CASHEW MARKET IN FLORES .....	67
2. TEMPORAL, FINANCIAL AND LABOUR INPUTS FOR THE PRODUCTION OF CASHEW IN FLORES.....	68
3. FROM THE FARMER TO THE EXPORTER: THE CASHEW MARKET IN FLORES.....	69
4. ACCESS TO MARKET INFORMATION.....	72
5. FUNCTION OF DIFFERENT STAKEHOLDERS ALONG THE CASHEW MARKETING CHAIN.....	74
6. PROBLEMS IN TERMS OF CASHEW MARKETING.....	77
<b>IX A FIRST IMPACT ASSESSMENT OF THE PILOT PROJECT ON CASHEW NUTS .....</b>	<b>80</b>
1. FARMERS' OPINIONS, KNOWLEDGE AND EXPECTATIONS ABOUT THE PILOT PROJECT .....	80
2. THE SELF-REFLECTION PROCESS .....	81
<b>X CONCLUSIONS AND RECOMMENDATIONS .....</b>	<b>84</b>
1. GENERAL RECOMMENDATIONS IN TERMS OF LIVELIHOODS.....	84
2. RECOMMENDATIONS IN RELATION TO MARKETING ISSUES .....	88
3. RECOMMENDATIONS FOR THE PILOT PROJECT ON CERTIFICATION OF ORGANIC CASHEW NUTS.....	90
4. OUTLOOK .....	93
<b>REFERENCES.....</b>	<b>94</b>
<b>ANNEX.....</b>	<b>96</b>

LIST OF FIGURES, TABLES AND BOXES

<b>Figure 1:</b> <i>The Four Research Steps</i> .....	5
<b>Figure 2:</b> <i>The Sustainable Livelihoods Framework</i> .....	7
<b>Figure 3:</b> <i>Educational Level of Respondents</i> .....	22
<b>Figure 4:</b> <i>Highest Educational Level in the Household</i> .....	23
<b>Figure 5:</b> <i>Percentage of Households with a Specific Illness over the last 6 Months</i> .....	24
<b>Figure 6:</b> <i>Energy Use for Lighting and Cooking Purposes</i> .....	25
<b>Figure 7:</b> <i>Public versus Private Transport</i> .....	25
<b>Figure 8 :</b> <i>Available Information Sources</i> .....	26
<b>Figure 9:</b> <i>Size of Agricultural Land</i> .....	28
<b>Figure 10:</b> <i>Diversification of Cash Crop Agriculture</i> .....	29
<b>Figure 11:</b> <i>Food Crops Situation for own Household Consumption</i> .....	29
<b>Figure 12:</b> <i>Availability and Place of Savings</i> .....	34
<b>Figure 13:</b> <i>Amount of Different Kinds of Livestock</i> .....	35
<b>Figure 14:</b> <i>Amount of Available Income Sources</i> .....	36
<b>Figure 15:</b> <i>Percentage of People with a Specific Main Income Source</i> .....	36
<b>Figure 16:</b> <i>Responsible Person for the Management of the Household Budget</i> .....	37
<b>Figure 17:</b> <i>Major Expenditure of a Household in one Year</i> .....	38
<b>Figure 18:</b> <i>Source for Credits over the last 6 Months</i> .....	39
<b>Figure 19:</b> <i>Purpose of Credit Taking</i> .....	40
<b>Figure 20:</b> <i>The 4 Asset Categories in Rowa</i> .....	41
<b>Figure 21:</b> <i>Percentage of Respondents Applying a Specific Income Generating Activity</i> ..	45
<b>Figure 22:</b> <i>Combinations/Factors leading to Higher/Lower Asset Categories</i> .....	48
<b>Figure 23:</b> <i>Factors Leading to Seasonal Stress for Livelihoods</i> .....	52
<b>Figure 24:</b> <i>Percentage of Respondents Mentioning a Specific Month as being Difficult in Terms of Money Availability</i> .....	53
<b>Figure 25:</b> <i>Percentage of Respondents with a Specific Length of the Paceklik</i> .....	54
<b>Figure 26:</b> <i>Important Assets for Coping with Vulnerability for Different Asset Categories (multiple answers)</i> .....	54
<b>Figure 27:</b> <i>Leaders in The Village Mentioned as Being Most Important</i> .....	63
<b>Figure 28:</b> <i>Changing Position of a Woman in the Household During the Course of her Life</i> .....	65
<b>Figure 29:</b> <i>The Cashew Marketing Chain from the Farm Gate in Flores to the Importer</i> .	70
<b>Figure 30:</b> <i>Locality, where Cashew Nuts are Sold and Person, who is Buying it</i> .....	71
<b>Figure 31:</b> <i>Source for Information about Market Prices</i> .....	73
<b>Figure 32:</b> <i>Knowledge about Product Flow after Flores</i> .....	73
<b>Table 1:</b> <i>Agricultural Pattern in Kecamatan Boawae</i> .....	11
<b>Table 2:</b> <i>Quantitative Potential of Households</i> .....	21
<b>Table 3:</b> <i>Membership in Different Types of Local Level Institutions</i> .....	31
<b>Table 4:</b> <i>Household with Max/Min Umsatz of Money over the last Year per Village</i> .....	39
<b>Table 5:</b> <i>Combination of Income Generating Activities within Livelihood Strategies</i> .....	44

## LIST OF FIGURES, TABLES AND BOXES

---

<b>Table 6:</b> <i>Most Frequent Combinations in Livelihood Strategies</i> .....	46
<b>Table 7:</b> <i>Income Generating Activities and Asset Status</i> .....	47
<b>Table 8:</b> <i>Daily Schedule of Male and Female Household Head (Example from Rowa)</i> .....	64
<b>Table 9:</b> <i>Seasonal Calendar for Cashew Production (Example from Rowa)</i> .....	68
<b>Table 10:</b> <i>Profit and Costs of Different Players Along the Marketing Chain</i> .....	76
<b>Table 11:</b> <i>Problems in Terms of Marketing in the Farmers' Perspective (Multiple Answers)</i> .....	78
<b>Table 12:</b> <i>Reasons for Participating in the Pilot Project</i> .....	80
<b>Box 1:</b> <i>Access to Land Decides Over Membership in the Pilot Project</i> .....	27
<b>Box 2:</b> <i>Eternal Debt through Money Lending</i> .....	40
<b>Box 3:</b> <i>The Impact of the Monetary Crisis 97/98 on the Livelihoods in the Target Villages</i> .....	51
<b>Box 4:</b> <i>“If you do not Pray you have to Pay”</i> .....	62
<b>Box 5:</b> <i>Calculation Of Farmer Profit in Kringa</i> .....	69
<b>Box 6:</b> <i>The System Ijon</i> .....	72

**LIST OF ABBREVIATIONS**

BPD	Badan Perwakilan Desa (Village Parliament) → ?
CCC	Cashew Nut Consulting Centre
DFID	Department for International Development
GDI	Gender Related Development Index
HDI	Human Development Index
HDR	Human Development Report
HPI	Human Poverty Index
ICS	Internal Control System
IDT	Instruksi Presiden untuk Desa Tertingal (Credit and Saving Group)
LED	Local Economic Development
LEISA	Low External Input Sustainable Agriculture
LKMD	Lembaga Ketahanan Masyarakat Desa (Village Government)→?
MUDIKA	Muda-Mudi Katolik
NTT	Nusa Tenggara Timur
PEMDES	Pemerintah Desa
PKK	Pendidikan Kesejahteraan Keluarga (Organisation for Education on Family Prosperity)
PLN	Perusaha Listrik Negara (National Electricity Company)
PMA	Profil Mitra Abadi (Cashew Nut Processing and Exporting Company)
POSYANDU	Pos Pelayanan Terpadu (Integrated Health Service Post)
PP	Pilot Project on Certification of Organic Cashew Nuts
PRA	Participatory Rural/Rapid/Relaxed Appraisal
Puskesmas	Pusat Kesehatan Masyarakat (Community Health Centre)
PUSTU	Puskesmas Pembantu (Smalles Community Health Centre)
RASKIN	Beras Miskin (Rice for the Poor)
RMA	Rapid Market Appraisal
RRA	Rapid Rural Appraisal
RT	Rukun Tetangga (Smallest Administrative Unit in Indonesia)
RW	Rukun Warga (Second Smallest Administrative Unit in Indonesia)
SC	Swisscontact
SD	Sekolah Dasar (Primary School)
SLA	Sustainable Livelihoods Approach
SLF	Sustainable Livelihoods Framework
SMA	Sekolah Menengah Atas (Secondary School 2)
SMP	Sekolah Menengah Pertama (Secondary School 1)
TK	Taman Kanak-kanak (Kindergarten)
UBSP	Usaha Bersama Simpan Pinjam (Credit and Saving Group)
UNDP	United Nations Development Programme

## EXECUTIVE SUMMARY

---

### EXECUTIVE SUMMARY

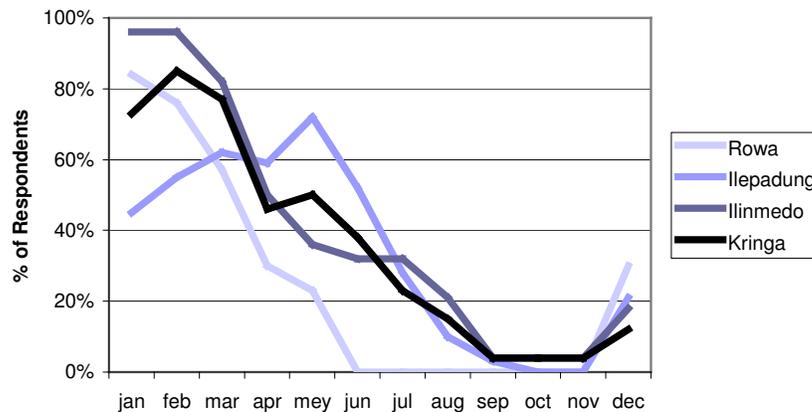
Although being an area with highest potential in terms of agricultural products, economic development in the Province of Eastern Nusa Tenggara (NTT) lacks far behind. Due to this fact Swisscontact launched a project on Local Economic Development (LED) in November 2004 on the island of Flores with focus on development of specific sectors. The backbone during the first year of project implementation builds a pilot project on certification and processing of organic cashew nuts, which was initiated in collaboration with VECO-Indonesia. In order to optimally understand and monitor the impact of the project activities Swisscontact and VECO-Indonesia were looking for a livelihood study, which should help to understand and identify livelihood constraints and support a more participatory and sustainable collaboration between all project partners. To serve this purpose the following research questions were formulated:

- What are common livelihood patterns of farmer households in the target areas?
- What are linkages between the production and marketing of cashew nuts and farmer livelihoods?
- What possible impact has the pilot project on certification of organic cashew nuts on the livelihoods of the farmer households and gender structures within the farmer households?
- How can the findings of the livelihood study support future interventions in terms of livelihood improvements, in terms of marketing in the cashew- and overall agricultural sector and in terms of the pilot project on certification of organic cashew nuts?

As an analytical tool the Sustainable Livelihoods Approach (SLA) as developed by DFID was used. It guarantees a people-centred focus by putting them at the centre of development, having access to specific assets while operating in a context of vulnerability. Institutions and organizations structure the way people can make use of these assets within their livelihood strategies and in pursuit of their self-defined livelihood outcomes.

One of the main findings of the study is the fact that livelihood strategies are highly diverse. Although almost all households in the four target villages are mainly agriculture oriented, the combination of activities within household livelihood strategies are diverse and lead to a different level of vulnerability. Vulnerability is mainly caused through a high level of seasonal stress on livelihoods, commonly referred to as 'paceklik' or the time in which difficulties in terms of money or food availability occur (see Figure). The four study villages of Rowa (Kabupaten Ngada), Ilinmedo (Kabupaten Sikka), Kringa (Kabupaten Sikka) and Ilepadung (Kabupaten Flores Timur) show different features in this term. While in Rowa nobody experiences difficulties anymore in June, Ilepadung is at its peak. The reason for this is a much more diversified agriculture in Rowa, where people sell up to five different products on local and international markets, and a high level of own food security. The opposite is the case in Ilepadung, where mainly two products are sold on the market and the level of own food security is very low. While the villagers in Rowa can harvest

corn and rice between February and March, people in Ilepadung have to buy rice on the market, what makes their situation become even worse. Only with the harvest of cashew



nuts, starting in July/August relaxation in seasonal stress can be observed. One of the main goals for an improvement of the livelihood situation of highly agriculture-oriented societies has therefore to be a decrease in the amount and length of seasonal stress. A way to achieve this is the creation of additional income possibilities during the ‘paceklik’, through for instance processing of agricultural products and through off-farm business or job opportunities. For this again access to finance appeared to be a highly restrictive factor, still many households not being able to keep savings in the form of money or even livestock, while further lacking capacity of managing money at household level. The main recommendations are therefore to:

- a) *facilitate access to finance through the strengthening of existing local level organizations and through linkages of local level organizations to commercial finance institutes*
- b) *build capacity on financial management at household level*
- c) *more focus on own food security*
- d) *promote agricultural diversification*

Not at last the fact that cashew nuts appeared to be the most important income source for between 25% and 70% of the households in the four target villages illustrates that there are very strong linkages between production and marketing of cashew nuts and farmer livelihoods. But since most of the value-added occurs outside of Flores along the marketing chain, farmer profits are minimal. Lacking access to information about markets and prices, a low bargaining position and unfavourable market structures worsen this situation and increase overall dependence and vulnerability. The following recommendations in relation to marketing could support an improvement in this situation:

- a) *support production for the local market, since international markets are not stable*

## EXECUTIVE SUMMARY

---

- b) *improve access to market information*, for instance through community radio stations and programmes
- c) *establish a marketing information and complaint centre*, which is based on the market place itself
- d) *form new or strengthen existing marketing groups*, which support an increasing bargaining position of farmers
- e) *organize stakeholder forums for specific sectors*, where different actors along the chain can share their ideas

Finally, the livelihood study reflected that certain improvements are necessary for the pilot project on certification and processing of organic cashew nuts in the coming years. First of all it is considered important to not scale up the project in the next year, since overall understanding among the project partners is still low and marketing structures are not yet properly working. It is thus recommended to:

- a) *focus more on marketing and processing issues in the coming year*
- b) *improve project socialization and understanding on farmer level through:*
  - increased door-to-door dissemination
  - appropriate teaching and training materials
  - better involvement of local leaders
- c) *clear roles, responsibilities and authorities of the various stakeholders*
- d) *establish better communication mechanisms between all stakeholders*
- e) *ensure gender sensibility in project planning, management and implementation*

For all these interventions it will be necessary to work in a more participatory way, more actively including the farmers, who should start to be more actively manage their own agenda demanding services according to their self-identified needs. This study can support them in this process by delivering an outside perspective on their diverse livelihoods.

## I INTRODUCTION

### 1. Background

With a very moderate economic growth and a GDP being about a third of the country average the Province of Eastern Nusa Tenggara (NTT) is one of the poorest areas in Indonesia. UNDP's Human Development Index (HDI) ranks NTT on 24<sup>th</sup> position of a total of 26 Provinces in Indonesia, only Western Nusa Tenggara and Irian Jaya being positioned further behind (BPS, BAPPENAS and UNDP 2001:78). Due to these facts and as a result of its fact finding mission in NTT Swisscontact decided to start a project on Local Economic Development (LED) in November 2004 on the island of Flores. By means of furthering the overall business environment for private sector development and through the creation of business opportunities in specific sectors it is aimed to accelerate economic growth in NTT and to sustainably contribute to poverty reduction. As an area with high potential for agricultural products and a majority of the population being occupied in the primary sector, farmers are one of the main target groups of Swisscontact's LED NTT Project. In order to create new niche markets and business opportunities for these farmers and, thus, increase their income possibilities, a pilot project on certification and processing of organic cashew nuts was launched in collaboration with Veco-Indonesia, an international development organization with expertise in low external input sustainable agriculture (LEISA). The pilot project with a duration of 4 years (2005-2008) involves four farmer groups in different areas of Flores and aims to have the first harvest of organic cashew nuts certified by the end of the year 2005. Through additional training in processing methods value-added is tried to be kept on the island and not being exported in the form of unshelled cashew nuts to India, which is the destination for almost 100% of the cashew harvest from Flores. In order to optimally understand and monitor the impact of the project activities Swisscontact and Veco-Indonesia are interested in a livelihood study, which will help to understand and identify livelihood constraints and support a more participatory and sustainable collaboration between all project partners.

### 2. Objectives of the Study

A project targeting farmers has to place the farmers themselves at the centre of development, by actively involving them and learning from them. It is thus crucial for the purpose of this livelihood study to understand the environment in which these farmers operate, the assets to which they have access, the factors of vulnerability they are exposed to and 'the rules of the game' that influence their choices in pursuit of their livelihood strategies. Based on this general understanding of the livelihoods special focus will be laid on structures related to the production and marketing of cashew nuts, since it is of priority concern for the pilot project on certification of organic cashew nuts. Cashew nuts are almost exclusively used as cash crop and the (international) market unavoidably affects farmers livelihoods in a considerable manner. A detailed understanding of these processes is necessary in order to be able to assess the impact of the pilot project on the livelihoods of

## INTRODUCTION

---

the farmer households and on structures within the farmer households.<sup>1</sup> Since the latter especially refers to gender differences within a household the livelihoods will be examined with a gender focus. Furthermore, depending on the needs and ideas of the communities, future interventions of Swisscontact and Veco-Indonesia may not only be concerned with marketing interventions in the cashew nut sector. The collection of baseline data on marketing of different agricultural products is thus considered another main purpose of the livelihood study.

In this regard the following research questions will guide this study:

- What are common livelihood patterns of farmer households in the target areas?
- What are linkages between the production and marketing of cashew nuts and farmer livelihoods?
- What possible impact has the pilot project on certification of organic cashew nuts on the livelihoods of the farmer households and gender structures within the farmer households?
- How can the findings of the livelihood study support future interventions in terms of livelihood improvements, in terms of marketing in the cashew- and overall agricultural sector and in terms of the pilot project on certification of organic cashew nuts?

### 3. Structure of the Report

This report is structured into ten parts, starting with an introductory part stating background of the study, what to analyse and why this is important. Part II then describes the study design covering research steps, the Sustainable Livelihoods Approach (SLA) as the analytical concept and methods applied in the field. Then, the four stud locations in Flores are illustrated in short profiles comprising general location and village development, infrastructure, natural resources and agriculture, as well as social structure and general livelihood activities. Part IV depicts a selection of livelihood assets which are characteristic for each village and important for an understanding of overall livelihoods. Since of special interest for the purpose of this study in depth focus will be laid on financial assets. The livelihood assets will further serve as a basis for a classification of households according to asset status, which will be used again in Part V, where livelihood strategies of farmer households are analysed in more detail. It is tried to find to a typology, which allows to understand, what kind of strategy or combination of activities leads to a higher asset status, whereas income generating activities are taken as the main analytical unit. Based on this typology, Part VI focuses on the Vulnerability Context. It considers factors of vulnerability, such as shocks, seasonality and trends, to which people in the target villages are exposed and coping strategies to deal with vulnerability. Part VII rather shortly deals with the institutional and organizational environment, whereas the following part then focuses on linkages between production and marketing of cashew nuts and livelihoods in more detail.

---

<sup>1</sup> It is clear that the impact of the pilot project can not properly be assessed after the first year. But it might help to distinguish tendencies and to define indicators for further impact monitoring.

Next to an analysis on production costs and profit range of cashew farmers, the actors within the marketing chain, their perceptions and functions, farmers' access to information and perceived problems in terms of cashew marketing will be discussed. Part IX will deliver a first impact assessment of the Pilot Project on Certification of Organic Cashew Nuts out of the perspective of different stakeholders, whereas pre-harvest and post-harvest perceptions about the project are depicted. Conclusively, Part X delivers recommendations for improvement of the present project situation and proposes potential fields for further interventions out of the perspective of sustainable livelihoods.

### II STUDY DESIGN: PROCEDURE, ANALYSIS AND METHODS

The livelihood study being a supporting tool for the Pilot Project on Certification of Organic Cashew Nuts, several features of the study design for this livelihood study were inherently given. For the selection of the study site it made most sense to study the four villages, where the PP is being implemented, not at last in order to monitor and evaluate the ongoing activities and to directly feed them back into the project cycle. The selection of control villages was not considered to be necessary, since control households or non-project members are directly available in all the four villages.

In order to optimally cover different realities within a village and especially within individual households, a gender-mixed team was composed. The team consisted of the author responsible for coordination and report writing, of a male Florenese Swisscontact staff for facilitation in the field and an especially for the purpose of this study recruited female with experience in community work. Further support was received from local NGOs, who facilitated an easy access to the communities.

The field work took place between May and December 2005, whereas the following chapter describes the detailed procedure.

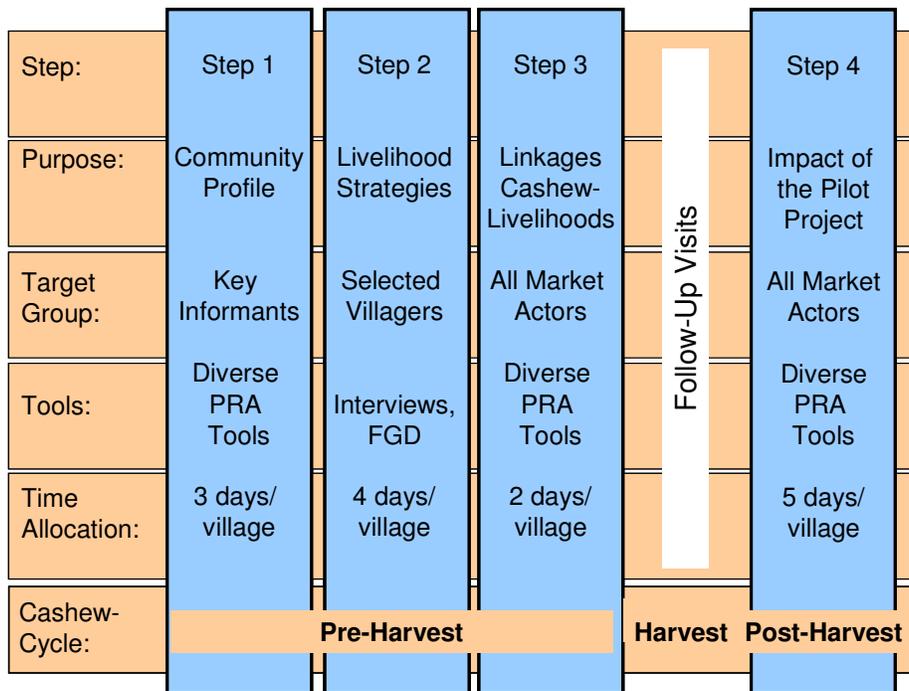
#### 1. Research Procedure

Especially when studying livelihoods in their inherent complexity, diversity and ever-changing dynamics it becomes crucial to appropriately approach the field. In Rowa and Ilepading the research team had to start more or less from scratch with a rather low level of secondary information available, whereas in Ilinmedo and Kringa a previous livelihood study had been carried-out at the beginning of this year (see as well VECO-Indonesia 2005). The research team is of the opinion that an impact of cashew-related activities upon people's livelihoods can only be properly understood in relation to other activities that form the overall livelihood strategy of specific households. Therefore, the study was carried-out in four steps which, not at last due to pragmatic reasons, were geared to the agricultural cycle of cashew farming (see Figure 1). There is no clear temporal borderline that could be drawn in practice between the different steps; consequently they were overlapping to a certain extent.

The first step delivers a community profile, which gives information about the general context, in which households operate: What kind of resources are used, how is the settlement pattern, what is the social structure of the community, what are the main livelihood activities, etc.? The target group for this step comprises key informants with specific knowledge about their communities, such as traditional leaders, religious leaders, political leaders, teachers, health workers, etc. Finally, the community profile serves as a filter for selection of households which are to be covered in the next step.

In a second step specific household livelihood strategies are investigated: What are the livelihood realities of people with different asset entitlements, what are gender differences within families, how is income generated and handled at household level, how are

agricultural products marketed, what are opinions and expectations about the PP, etc.? A standardized questionnaire served as the main tool for this step in order to allow a high level of comparability (see Annex). A total of 109 individual household interviews were carried-out, while it was tried to receive a gender balance among the respondents. Respondents with different livelihood strategies should be more or less represented in the sample according to the proportion in the total population, while the selection was made together with key resource persons based on the community map. Further, not only villagers participating in the PP should be interviewed, but also non-members in order to compare and control impacts of the project.



**Figure 1: The Four Research Steps**

Based on information from the first two steps, the third step focuses on linkages between production and marketing of cashew nuts and livelihoods: what is the current contribution of cashew farming to the income portfolio, what are the roles and perceptions of different actors along the marketing chain, how can farmers access the cashew market, how is money flowing between the different actors, etc.? For this purpose all actors along the marketing chain from the farmer to middlemen, traders and up to exporters were interviewed following a guide of key questions (see Annex).

While the first three steps took place prior to harvest season, the last step was carried-out after harvest. During harvest time only short follow-up visits were made to the target villages in order not to cause misconceptions about the role of the research team, such as being involved in trading activities and the like.

Step four was carried-out in a different way than initially planned. While it was used to share and cross-check outcomes of the livelihood study with the people in the 4 target villages, it was at the same time used for a self-reflection about the first year of pilot project implementation. Since impacts, as stated in other places, are not really visible after only one year of project implementation, it was focussed on a self-reflection which should support an improved project implementation in the following years. For this purpose, much less time than initially allocated was necessary.

### 2. The Sustainable Livelihoods Approach (SLA)

As analytical backing this study has been mainly based on the Sustainable Livelihoods Approach (SLA) and its Framework (SLF), which offer excellent tools to analyse complex livelihood patterns (see as well DFID 2001; KOLLMAIR and GAMPER 2002; GAMPER 2004). At its core it is a way of thinking about people by placing themselves at the centre of development, by focussing on what they actually have, what they are able to do with this and how this relates to the meso and macro level.

Not at last due to the work of the British Department for International Development (DFID), which defined sustainable livelihoods as a core objective of its development assistance, livelihood thinking has become a priority issue on many development agendas over the last few years. Nevertheless, it remains challenging up to date to actually define what is meant by a 'livelihood'. While for some people a livelihood involves income generating activities only, a much broader definition is used for this study:

*“... a livelihood comprises any means that influences the way a household<sup>2</sup> tries to achieve and sustain its own well-being. This includes assets accessible to a household, external influences to which a household is exposed, and a set of institutions and organizations that deliver the scope for its activities” (modified according to MESSER and TOWNSLEY 2003).*

In its simplest form and as applied for this study the SLF (see Figure 2) depicts people as operating in a context of vulnerability. Within this context, they have access to certain assets (financial [F], physical [P], natural [N], social [S], human capital [H]), which gain their meaning and value through the prevailing formal and informal institutions<sup>3</sup> and organizations<sup>4</sup>. According to this environment people carryout a combination of different

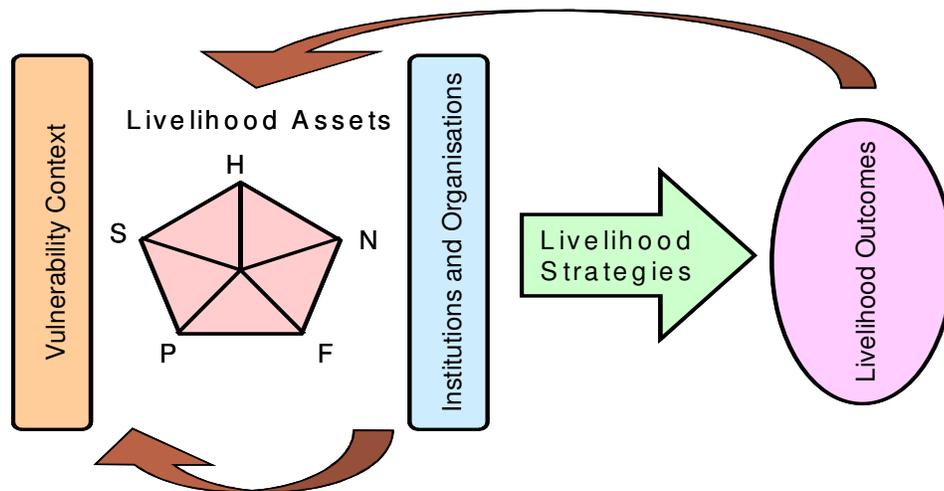
---

<sup>2</sup> Since the impact of most activities is best visible at the level of a household, defined as “... a group of people who eat from a common pot, and share a common stake in perpetuating and improving their socio-economic status from one generation to the next” (FAO, 1992), it serves as the main unit of analysis.

<sup>3</sup> Institutions: “... the rules of the game in a society or, more formally, ... the humanly devised constraints that shape human interaction” (NORTH, 1990). Institutions can be both formal, such as (written) political or economic rules and contracts that human beings devise, and more informal, such as conventions, traditional laws, codes of conduct or normative rules that evolve over time.

<sup>4</sup> Organizations: “... a group of individuals bound by some common purpose to achieve objectives” (NORTH, 1990:5). They include (formal and informal) political bodies (governmental organisations, ...), economic bodies (agencies, companies, firms, ...), social bodies (mothers' groups, sport clubs, ...), educational bodies (schools, universities, ...) and religious bodies.

activities which as a whole form their livelihood strategy that helps them to achieve their livelihood outcomes. One could for instance perceive the farming and marketing of cashew nuts as activities within a portfolio of other activities that contribute to the livelihood outcome of a household.



**Figure 2:** *The Sustainable Livelihoods Framework*

### **2.1 Local Economic Development and the Sustainable Livelihoods Approach**

How does livelihood thinking fit into a project on LED? It is argued here that both approaches are perfectly complementary and that the SLA/SLF can support a more sustainable project implementation. The WORLD BANK (2004) defines the purpose of LED as “... to build up the economic capacity of a local area to improve its economic future and the quality of life for all. It is a process by which public, business and non-governmental sector partners work collectively to create better conditions for economic growth and employment generation.” Finally, LED targets nothing else than an improvement of the livelihood situation of local stakeholders. Within LED the SLA offers an excellent tool to monitor economic processes and their impacts on livelihoods. It guarantees that the actual target group, the local people and their livelihoods in a specific area, remain the core piece of any LED initiative. It supports a consideration of aspects beyond the economic sphere and thus offers a more holistic understanding of people’s livelihoods. It further allows to catch the dynamics of economic changes, as they are more and more characterizing in an atmosphere of increased economic globalisation.

If brought into relation to the SLF, LED mainly influences the institutional and organizational environment, which has a direct impact on people’s assets and livelihood

<sup>5</sup> The modification of the SLF mainly concerns the box ‘institutions and organizations’, which in the original framework is called ‘transforming structures and processes’. It is argued that ‘institutions and organizations’ in accordance with NORTH’s (1990) definition of the terms is better suitable for an understanding of the function within the framework.

opportunities. More indirect, a more sustainable local economy contributes to a decrease in vulnerability towards the external environment and thus an improvement in livelihood security.

### 3. Field Methods and Data Analysis

The methods which were applied in the field made allowance to the fact that circumstances in each village are local-specific and realities within village communities highly diverse. This asked for a flexible research design with rather qualitative and participatory field methods, which allowed to learn from people's experience when it was most suitable to them. Various tools from the miscellaneous RRA/PRA toolbox offered suitable ways to work together with the communities (see as well CHAMBERS 2004). To get a multiple picture of livelihood realities a rather standardized questionnaire was used (see Annex). The following list gives an overview of the methods that were applied during the field work (a more detailed description of methods can be found in CARE 1999):

- *Interview techniques:* besides a standardized questionnaire (see Annex I), semi-structured interviews (see Annex II), expert interviews and focus group discussions represented the main interview techniques in the field.
- *Observation techniques:* mainly qualitative participatory observation, as observation within the natural area of the research objects, was applied, whereas mostly in a non-structured, but highly participative and open form.
- *Ranking Tools:* Ranking tools were often used in combination with interviews in order to understand priorities or preferences of people in relation to specific topics. Ranking tools were used in the form of preference rankings and problem rankings.
- *Mapping/Diagramming Tools:* Similar to ranking, mapping is a suitable tool to be applied in combination with other methods. Mapping/Diagramming was used in the form of social mapping, seasonal calendars, market paths, daily time use analysis, trend analysis, VENN-Diagramms, Gender-related mapping and Transect Walks (see examples later on).

For data analysis all results collected in the field were digitalized. The questionnaires were entered into excel sheets, which were then used for analysis. To keep the communication of results rather simple only methods of the descriptive statistics were used.

III DESCRIPTION OF THE STUDY LOCATION

1. Village Profile Rowa

1.1 General Location and Village Development

Located on an elevation of 650 metres above sea level, the village of Rowa expands along the Transflores Highway, the main traffic, communication and trade axis within the Island of Flores. From Rowa towards west the Kabupaten<sup>6</sup> capital and market centre of Bajawa can be reached in a 45 minutes drive, whereas the capital of the Kecamatan, Boawae, is accessible within 20 minutes.

ROWA: VILLAGE STATISTICS (2005)	
Kabupaten	Ngada
Kecamatan	Boawae
HDI Rank of Kabupaten	177
HPI Rank of Kabupaten	251
Distance to Kabupaten Capital Bajawa	35 km
Distance to Kecamatan Capital Boawae	12 km
Elevation (m asl)	650 m
Total Area	25 km <sup>2</sup>
Average Temperature	27 °C
N° of Rainy Days/year	74
Total Amount of Rain	1659 mm
Total Population	1065
N° of Household Heads	216
N° of Male Inhabitants	533
N° of Female Inhabitants	532
Average Household Size	4.9
Main Religion	Catholic.
Other Religions	Protest.

Administratively the village consists of four Dusuns, which are further subdivided into 9 RTs.

Rowa is located on a moderate slope facing north, which ends in an old, huge crater-like structure, that has been covered by a lake in ancient times. The location on a hillside is not at last responsible for a moderate tropical climate with rather high day-night temperature differences and frequent rainfalls. The rainy season lasts from November to April with a peak between December and January with sometimes heavy rainfall, whereas July and August are normally the driest months.

According to village elders Rowa was founded about fifteen generations ago under the name ‘Roware’ and was situated further up in the hills. At that time the village was ruled by twelve brothers and sisters, from which twelve suku<sup>7</sup> originated, which are still highly present in the social life of the village up to date. With the colonial powers, especially with Dutch influence, a trend has started to

<sup>6</sup> The administrative organization of Indonesia is as follows: Negara (Nation) – Propinsi (Province) – Kabupaten (District) – Kecamatan (Region) – Desa/Kelurahan (Village) – Dusun – RW – RT (check again).

<sup>7</sup> The term ‘suku’ is commonly translated with ethnic group/clan (check again)

## DESCRIPTION OF THE STUDY LOCATION

---

move from villages higher up in the mountains to settlements further down near the dutch-built Flores highway. Hence, community services and administrative centres became more easily accessible and influenced the community structure in Rowa to a high extent (see also FORTH 1998:20-21). With a further improvement of the Transflores Highway during the 1960s major development took place in Rowa and mobility of the villagers increased. This had not at last an effect on overall economic development in the village and is today reflected in a settlement pattern that is highly oriented towards the Highway.

### **1.2 Infrastructure**

Not at last due to its favourable strategic location along the Transflores Highway, infrastructural development in Rowa is comparably advanced, whereas this decreases with growing distance of houses from the highway. Almost the whole village has access to electricity and most houses are accessible by paved or gravel roads.

An Ausaid project in 1999 brought major improvements to the drinking water situation. About 30% of the population get access to water in their own house, whereas the remaining households can fetch water within less than 40 metres distance from their house from public taps.

In terms of community services, there are about five small shops, where products of daily needs can be purchased, one community health post ('Pustu') with a nurse and a midwife, a private, catholic primary school, a kindergarten and a catholic church. For higher education people have to go as far as Gako (8 km distance) or Boawae. The nearest markets, which are regularly frequented by the villagers are in Boawae on Wednesdays and in Mata Loko (10 km distance) on Saturdays. Local transport by bus or truck is regularly available to both Boawae and Bajawa, where services like banks or post offices are available. In terms of transport ojek<sup>8</sup> owned by villagers are becoming more and more popular and offer new job opportunities especially for young people.

### **1.3 Natural Resources and Agriculture**

A rich, green vegetation reflects the tropical climate in Rowa, allowing a big variety of species to grow. The area south and east of the settlement is characterized by dense forests, which are mainly used for construction and firewood purposes (bamboo), for the production of *moke*<sup>9</sup> (lontar trees) and commodities like kemiri (spice) or pinang (beetle nut). North and further down of the inhabited area, people are cultivating their individual land, which is often up to an hours walk away from their houses. Main food crops are dry-land rice and corn, whereas diverse varieties of nuts and vegetables are used for subsistence mainly. Only in the west of the village the soil is suitable for wet rice fields, which are irrigated from a stream nearby. Most farmers grow fruits, such as banana, papaya, mango

---

<sup>8</sup> Ojeks: motorbikes, which can be hired with a driver for short distance transportation

<sup>9</sup> Moke is a traditional kind of alcohol, which is gained from lontar or ... trees and then distilled to high percentage alcohol, called arak.

## DESCRIPTION OF THE STUDY LOCATION

and pineapple in intercropping patterns with food crops and perennial cash crops<sup>10</sup>, such as kemiri, kakao and cashew. In higher locations south of the village the climate is favourable for vanilla and coffee plants. A clear trend towards perennial crops instead of food crops becomes visible in the agricultural pattern of Rowa, and especially cashew trees start to become a formative element in the area. This is reflected in table 1 that shows the main food and cash crops in Kecamatan Boawae in the year 2003. Especially for cashew an increase in production can be expected in the next years, since more than 80% of the total area, which is covered by cashew trees has not yet been yielding in the year 2003. A further increase in area covered by cashew trees has taken place in the last two years and makes cashew to one of the most important cash crops in the area. Despite this trend towards cash crops, in Rowa most of the inhabitants mention to be able to cover their demands for rice and corn mainly from their own crop production. Rice and corn has traditionally never been sold on markets, but kept for own purposes within the village.

	Total Area Covered (ha)	Percentage (%) of newly planted Area (not yet yielding)	Total Production (ton)	Average Production (ton/ha)
Wet Land Rice	671	0	2238	3,3
Dry Land Rice	192	0	389	2,0
Corn	469	0	1353	2,9
Maniok	334	0	3191	9,6
Coconut	1266	43	217	0,3
Coffee	500	45	165	0,6
Cacao	203	52	20	0,2
Cashew	904	84	57	0,4
Candle Nut	382	31	87	0,3
Vanilla	104	63	41	1,1
Clove	229	55	43	0,4

**Table 1:** *Agricultural Pattern in Kecamatan Boawae*<sup>11</sup>

### 1.4 Social Structure and General Livelihood Activities

The villagers of Rowa belong to the ethnic group of the *Nage* in the wider sense which are basically “... a group of cultivators, stock raisers and occasional hunters” (FORTH 1998:2) inhabiting the central part of Flores. As mentioned above the inhabitants of Rowa are descendents of 12 different *suku*, which are still important in terms of access to land and traditional (*adat*) activities. People from the same *suku* generally tend to settle close to each

<sup>10</sup> The term cash crop is used for any agricultural product that is sold on the market and not primarily used for own consumption. While certain crops might be used as food crops for a specific household, another household might grow them as cash crops (for instance fruits or vegetables).

<sup>11</sup> Source: BADAN PUSAT STATISTIK KABUPATEN NGADA 2004.

## DESCRIPTION OF THE STUDY LOCATION

---

other, and are normally using land on neighbouring plots. Six of these *suku* were mentioned to be still strong in terms of traditional activities and landownership, whereas the others are less actively participating in traditional activities.

An important impact on the social structure in all villages in Indonesia had the implementation of the Village Governance Law in 1979. It introduced a new administrative system with *Dusuns* and *RTs*, based on which daily activities like *gotong royong*<sup>12</sup>, praying and often saving activities are organized. Interactions are thus inherently more intense within households from the same *RT* or *Dusun*.

Rowa is a typical farming village with only 4.6% of the population being additionally occupied with non-farm activities, such as in the government (teachers, village administration, ...) or private sector (traders, drivers, shop-keepers, ...) (Village Statistics, Kantor Desa Rowa, 2005). Most of the people being active in non-farm activities are living at strategically favourable locations, such as along the main road and near the village centre with a concentration of social service and infrastructure facilities. As a consequence, socio-economic status is highest in these locations and decreases significantly with growing distance from the centre, which is not at last visible in the quality of the houses. Whereas in Dusun II most houses are made out of stone walls with a corrugated iron roof, RT6 in Dusun III in the west of the village consists mainly of bamboo houses (see as well map). According to a map made by the community health centre in the year 2004 for identification of poor people<sup>13</sup> in the village, 71% of the villagers in Dusun II fall into the category 'poor', whereas in the other Dusun's between 83% - 85% of the population make up the poor. In RT6, as the poorest area of the village, 93% of the villagers are considered as being poor.

## 2. VILLAGE PROFILE ILEPADUNG

### 2.1 General Location and Village Development

The village of Ilepadung is located in the North East of Flores Island bordering to the Hading Bay in the north. It is accessible by a paved road that is cutting off from the Transflores Highway about 8 kilometres outside of Larantuka and is then leading to Ilepadung in a bumpy 17 km drive. A bus journey from Ilepadung to Larantuka takes about 60 minutes, whereas the capital of the Kecamatan can be reached within 40 minutes. The village is hardly ever accessed by sea, since the journey to Larantuka would take much longer and the necessary infrastructure is not available.

---

<sup>12</sup> Gotong Royong is a traditional system of reciprocal time exchange, an ancient social structure that is still widespread in villages throughout most of Indonesia and often a very strong social obligation. The whole community or a community group (i.e. Kelompok RT) will assist a family to build a new home or to assist with planting, harvesting, or other seasonal activities.

<sup>13</sup> The following criteria were used for poor people: house quality (earth floor, bamboo walls, bamboo roof), many children, poor health condition, less than three meals a day.

A beautiful setting on the foot of a rather steep, cashew tree-covered hill that borders to the sea characterizes the village of Ilepadung. Within safe distance from the shore houses stretch along the coast in three main settlement areas over a distance of about 4 kilometres, which are administratively divided into 4 Dusuns and 16 RTs.

The tropical climate is influenced by the sea, and thus comparatively temperate in terms of day-night differences. The rainy season is lasting from November until March with its peak between December and January.

Ilepadung received its name in the 1970s due to its location on the foot of a mountain and literally means ‘embrace of mountain’. The first settlers in Ilepadung lived in an area above today’s Dusun I, from where they started to move down in order to be closer to the main road. When a heavy illness spread in this area, people literally started to abandon the place and move down to the sea and to today’s Dusun II. Probably the most important historical reference point in Ilepadung is the Tsunami in 1992, when a lot of the houses in the settlement area close to the sea were completely destroyed with several victims among the villagers. Due to the huge wave a lot of the land close to the sea slid into the sea and made the people move back to their previous and new settlement areas.

<b>ILEPADUNG: VILLAGE STATISTICS (2005)</b>	
Kabupaten	Flores Timur
Kecamatan	Tanjung Bunga
HDI Rank of Kabupaten	262
HPI Rank of Kabupaten	84
Distance to Kabupaten Capital Larantuka	25 km
Distance to Kecamatan Capital Tanjung Bunga	12 km
Elevation (m asl)	20 m
Total Area	2980 ha
Average Temperature	28.5 °C
N° of Rainy Days/year	no data
Total Population (2005)	1148
N° of Household Heads	246
N° of Male Inhabitants	564
N° of Female Inhabitants	584
Average Household Size	4.6
Main Religion	Catholic.
Other Religions	-

**2.2 Infrastructure**

Drinking water was mentioned as one of the biggest problems in Ilepadung, especially among people from Dusun I – III. In Dusun IV there is a central water tap, which is fed by a source located further up in the hills, what brought a lot of relief to the drinking water situation. Further, for washing purposes two bore-wells are in use in Dusun IV. The other villagers mainly depend from a natural well east of Dusun II just above the road, which is used for all purposes and, according to the villagers, of reasonable quality. Mainly for people living in Dusun I, it is quite a bit of a walk and was mentioned to cover up to 3 hours of work per day. Not at last due to this, the population in Dusun I plans to install a piped water supply system in the coming year by own initiative.

## DESCRIPTION OF THE STUDY LOCATION

---

In terms of electricity the village is not yet connected to the government (PLN) network. As a result of a local NGO's activity most of the Dusuns were equipped with a Genset several years ago, but only the one in Dusun IV is still functioning. A few wealthier people have their own Genset, which is sometimes shared with neighbours, or people have formed small groups, which are jointly using a Genset. Still, the majority of the inhabitants of Ilepadung are dependent on oil or gas lighting.

The village has its own market on Tuesday, where traders from the surrounding area arrive in order to buy commodities or sell products of daily needs. During the cashew harvest season they daily arrive and drive through the Dusuns in order to buy directly from the individual farmers. If not from traders products of daily needs can be bought from the 7 local shops or kiosks. Two schools are available in Ilepadung, one Kindergarden (TK) and one SD, which are located next to the catholic church. For higher education people have to go to the neighbouring village or to Larantuka. In terms of health there is one *Pustu* with two nurses and two *Posyandu*, where basic health services are available.

For local transport purposes, *bemos* arrive about every two hours in the village. Further, there is a truck, which is used as means of transport, and a few privately owned motorbikes. But as mentioned above the road is in a very poor condition and aggravates travelling between the village and Larantuka.

Dusun I has a storage house, which was built as part of a government project in 1995. The project intended to train people in the processing of cashew nuts and provided the necessary infrastructure, such as machines for cracking the nuts, an oven for drying them, a storage house, etc. But the facilities have never been in use, since it did not fit with the villagers habits and preferences. There is still people, who are processing cashew kernels, but by using a self-developed prototype.

### ***2.3 Natural Resources and Agriculture***

Agriculture in Ilepadung is much less diversified in comparison to Rowa. The main reason for this is a rather dry climate and soil with a low degree of fertility. Due to a lack of water irrigation is hardly possible. The main crop is therefore cashew, which is able to grow on less fertile and rather dry soils, often used in intercropping pattern with fruit trees, such as mango, papaya, pineapple, banana, etc. Land for food crops is rather scarce and the villagers have to clear forest land further up the hill in order to grow rice and corn. They normally plant cashew trees together with rice and corn, but stop planting food crops after three years, when the rather densely planted cashew trees are becoming too big and the fertility of the soil declines. Hardly anybody can thus live from its own field in terms of food crops and depends on rice from the market. Not at last due to this fact the selling of food crops is not allowed in Ilepadung. In consideration of this increasing trend towards cash crops and the limitation of land, the villagers are starting to become concerned about the future of their agriculture and even discuss possibilities to get back to shifting cultivation for food crops.

Besides cashew, *moke* is the most important product for the people in *Ilepadung* and a lot of farmers gain the major share of their income through the selling of *moke*.

Although located close to the sea only few people actually make use of maritime resources, which is not at last related to the Tsunami experience in 1992.

### **2.4 Social Structure and General Livelihood Activities**

In Ilepadung 14 different *suku* can be found, which is reflected in the family names of the villagers, whereas mainly five *sukus* are important in terms of decisions about land. Different to Rowa, people from the same *suku* do not have the habit of settling close to each other nor do they have their land on neighbouring plots. Nevertheless, the village appears to be quite united and strong as a community, not at last due to the influence of strong leaders, who are able to motivate the villagers.

According to official village statistics 95% of the working population earns their main income through agriculture. The remaining 5% are shared by people earning their income in a government occupation and people being active in private business activities. Since the 1970s people from Ilepadung have been migrating in search for labour, whereas Malaysia appears to be the most frequented destination. In the 90s up to 60% of the households had a male member that was working in saw mills or plantations in Malaysia, whereas with an increase in labour force needed for cashew farming a lot of them returned to Ilepadung at the beginning of this century. Currently, only 5% of the families mentioned one of their household members to be working in Malaysia, while more and more females are migrating overseas in search for work as a house-assistant or the like. Money earned during migration and the recent increase in cashew plantation had a visible impact on the socio-economic status of Ilepadung. The social map drawn by a group of villagers classifies the villagers in three socio-economic categories, such as higher, middle and lower economic status,<sup>14</sup> whereas especially a transition from low to middle appears to have taken place. According to this map 15% of the households in Ilepadung fall into the category higher, 59% into the category middle and 26% into the category lower economic status.

## **3. VILLAGE PROFILE ILINMEDO**

### **3.1 General Location and Village Development**

The village of Ilinmedo is situated on about 350 metres above sea level in a hilly area about 10 km south of Flores' north coast. The road to Ilinmedo cuts-off the Transflores Highway about 35 kilometres east of Maumere and leads to the village in a steep and very rough 17 kilometre drive, which becomes especially challenging during the rainy season. The settlements are divided into three Dusuns and 10RTs, which mainly stretch along the road over a distance of 9 kilometres. Talibura can be reached within 45

---

<sup>14</sup> The villagers decided to use the following criteria for their classification: richer households have a house with a permanent structure (stone fundament and walls, corrugated iron roof, stone floor, ...), a regular income through business or government employment, private property, such as TV or motorbike and focus on good education of their children; poorer households have non-permanent houses, many children, irregular and lower quality food, less access to land and often children with no education or school drop-outs.

## DESCRIPTION OF THE STUDY LOCATION

minutes, whereas a trip to Maumere takes about 90 minutes for Rupiah 10'000.

The Village is located around a mountain called 'Medo', from which it received its name. A lush, green vegetation characterizes the area between the five rather compact settlements, which are quite far away from each other. The altitude above sea level and the mountainous environment is not at last responsible for a cool climate with considerable day-night differences. Similar to Rowa the rainy season lasts from November to April with a peak around new year.

### ILINMEDO: VILLAGE STATISTICS (2005)

Kabupaten	Sikka
Kecamatan	Talibura
HDI Rank of Kabupaten	286
HPI Rank of Kabupaten	64
Distance to Kabupaten	
Capital Maumere	52 km
Distance to Kecamatan	
Capital Talibura	15 km
Elevation (m asl)	350 m
Total Area	1615 ha
Average Temperature	28.1 °C
N° of Rainy Days/year	no data
Total Population (2005)	681
N° of Household Heads	159
N° of Male Inhabitants	350
N° of Female Inhabitants	331
Average Household Size	4.3
Main Religion	Catholic.
Other Religions	-

Ilinmedo has already been accessible by road since 1958 although an asphalt road is only existent since the 90s. As a village in its present condition it only came into existence about 2 years ago, whereas before it was part of Talibura. Still, most of the public services, such as higher education or health facilities are only available in Talibura.

Events of historical dimensions, which are still discussed today, is the famine between 1964 and 1968, when people had to go into the forests in search of food, a strange epidemic, which killed almost 50 people in 1980 and the earthquake in 1992, that brought dramatic changes in the water availability situation.

### 3.2 Infrastructure

As mentioned above the village is accessible by an asphalt road, which is in very poor condition in many places. Between the dispersed settlements only small dirt roads are available, which are hardly passable by bigger vehicles. Some settlements are about a 90 minutes walk from the primary school and church and thus rather isolated.

Ilinmedo is not yet connected to the PLN electricity network and depends from privately owned Gensets or as in most cases from oil or gas lighting. The Gensets are financed by small groups, which pay a monthly contribution.

Drinking water can be accessed in various forms: for 63% of the respondents the main source for drinking water is a public tap located within close walking distance from the house, whereas about 10% mentioned to have to walk up to 1 kilometre in order to get to a public tap. In 15% of the cases the water enters the house in morning and evenings. The remaining 10% of the respondents, which are mostly living in Dusun III, are still using water from the river for drinking purposes. Proper sanitary facilities are still lacking in the village and more than 85% of the households do not yet have a toilet at their disposal.

In terms of health services the villagers have to go as far as Talibura, since there is no *Pustu* in Ilinmedo, but two *Posyandu* are available and one trained midwife lives in the village. For educational purposes two primary schools are present, whereas for higher education it is necessary to go as far as Talibura. For religious purposes two chapels are at disposition, one in Dusun I and another one in the rather independent Dusun III. Goods of daily needs can be purchased from 6 small kiosks, whereas on Fridays people normally go to the market in Talibura. Sporadically and mainly during cashew harvesting season some villagers go as far as Geliting, the big market centre just outside Maumere. But public transportation is highly restricted and only three vehicles daily pass through the villages.

### **3.3 Natural Resources and Agriculture**

Similar to Rowa agriculture in Ilinmedo is rather diversified, not at last given through the fact that the village is located in a watershed area and offers thus comparably fertile soil. Napu Gete river carries water all year round and is used for irrigation, what makes the cultivation of wet rice in the east of the village possible. The rest of the land is used in dry land farming pattern. Main food crops are rice, corn, sweet potatoes and manioc, various kinds of nuts, vegetables and fruits. Cash crops and especially cashew started to become popular with a community forestry project at the beginning of the 90ies, when seeds were provided by the government.

The farming techniques in Ilinmedo are still highly traditional and shifting cultivation was mentioned to be practiced up to date by several villagers. As well in Ilinmedo the area for food crops is steadily decreasing in favour of cash crops. Today 25% of the agricultural area is covered by cashew nuts in comparison to 35% for dry land rice.

### **3.4 Social Structure and General Livelihood Activities**

Ilinmedo is located in an ethnic area that is commonly known as Tanah Ai. The people in Tanah Ai are following the matriarchal line, which means that the husband moves into the house of the wife after marriage, who is bequeathing possession, such as land or livestock to her daughters. Traditions are still quite strong in Ilinmedo and are steered by the 8 main *suku*, which have clearly defined responsibilities for different traditional ceremonies during the year.

The social structure is further influenced by the fact that the village has come into existence in its present form only three years ago, whereas before it belonged to Talibura. Dusun III belonged to a neighbouring village before and newly joined the other two Dusuns. According to own observations it appears rather independent, since there is an own school and church, and its population is still rather oriented towards the neighbouring village. Not at last due to this it was as a whole not yet included in the first phase of the PP.

In terms of livelihood activities 99% of the villagers in working age are classified as farmers, whereas only 1% are government employees. Some villagers have an additional income source through work as skilled labourers for construction purposes, as kiosk owners, through the selling of weaving products, through trading activities or remittances from family members abroad. The official village statistics (2004) classifies more than 90%

## DESCRIPTION OF THE STUDY LOCATION

---

of all households as non-prosperous or poor with houses mainly made out of bamboo and dirt floors.

### 4. VILLAGE PROFILE KRINGA

#### 4.1 *General Location and Village Development*

Similar to Rowa the village of Kringa stretches along the Transflores Highway, over a total distance of about 5 kilometres. It consists of five separate settlement areas, which are divided into three Dusuns. Some of these settlements are highly remote and up to a 60 minutes walk away from the main public services, while accessible only by small foot tracks leading through thick tropical forest. The centre of the village, where government offices, schools, health posts, the village market and the main church are located is in Dusun I. The district capital Maumere is a 90 minutes drive away from Kringa, the bus passing through the Kecamatan capital of Talibura after 30 minutes; to the east Lantaka is accessible within 90 minutes.

#### **KRINGA: VILLAGE PROFILE (2005)**

Kabupaten	Sikka
Kecamatan	Talibura
HDI Rank for Kabupaten	286
HPI Rank for Kabupaten	64
Distance to Kabupaten	
Capital Maumere	53 km
Distance to Kecamatan	
Capital Talibura	18 km
Elevation (m asl)	300 m
Total Area	2362 ha
Average Temperature	28.1 °C
Total Amount of Rain	1676 mm
Total Population (2005)	1138
N° of Household Heads	274
N° of Male Inhabitants	532
N° of Female Inhabitants	606
Average Household Size	4.2
Main Religion	Catholic.
Other Religions	Islam, Hind

Kringa is located in an area, which is characterized by moderately sloped hills and dense tropical forests. As in the other target villages the agricultural cycle is steered by the rainy season which lasts from November to April with its peak in February.

#### 4.2 *Infrastructure*

Most people in Kringa get their drinking water from a water source in the neighbouring village, from where it leads through a piped supply system to the settlement area. More than 20% of the respondents mentioned to get access to water in their own house, while for 65% a public tap is the primary spot for fetching water. Supply is available in mornings and evenings what makes it for many households necessary to additionally fetch water from the river during the day. In Dusun III the river is still the primary water source for most purposes and accessible within less than 500 metres.

PLN has not yet connected the electricity network with Kringa and about 70% of the households are using oil or gas lamps. The remaining 30% have either access to Gensets, which are in most cases privately owned.

As mentioned above most public community services are located in Dusun I. In terms of

community health services there is one *Pustu* managed by a nurse and two *Posyandu*. Educational facilities are available in the form of a primary school (*SD*), a secondary school (*SMP*) and a newly opened kindergarten (*TK*). One church lead by a German Pastor and two chapels are accessed for religious purposes. The village has its own market on Mondays where villagers meet, exchange, sell and buy goods. A few bigger shops are available in Kringa and offer most goods for daily purposes.

Public transport to Maumere and Larantuka is regularly available along the Transflores Highway, whereas the settlements of Ogolidi and Delang are only accessible by foot. So far only 3% of the villagers own private motorbikes and one person has a private car.

### **4.3 Natural Resources and Agriculture**

Kringa is blessed with several natural water sources which allow irrigation in several places. The most common food crops in the area are rice and corn, manioc and vegetables, whereas perennial plants include cashew, chocolate, candle nut, coconut, fruits, several spices and wood products. Cash crops started to become popular in the aftermath of the global Green Revolution through government programs in the 80s, when the 5K Program (Kakao, Kemiri, Kelapa, Kapuk, Kopi) was introduced all over Indonesia. Promotion of these products went along with application of chemical inputs, which started to loose popularity during the 90s. Today, cashew is by far the most important cash crop and the farmers household budget is highly oriented towards the harvest of cashew. If major financial decisions are necessary a common saying in Kringa is "*tunggu mente*", which is to mean that one has to wait for the income generated through the selling of cashew nuts until costs for education, health and the like can be paid.

As well in Kringa agriculture takes place in a highly traditional manner, accompanied by traditional ceremonies which sometimes prolong agricultural practices to a high extent. People have a strong believe in the nature or the spirit of the plants, which often restricts more efficient agricultural practices.

An interesting feature in Kringa is the high amount of traditionally protected forests, where resources can only be used for traditional ceremonies. With most of these forests there are strong, often magic believes connected, which make a lot of people fear to get even close to them. Since they are estimated to take in up to 30% of the total village area, they are significantly contributing to the protection of the water resource in Kringa.

### **4.4 Social Structure and General Livelihood Activities**

Like Ilinmedo, Kringa belongs to the ethnic area of Tanah Ai and is thus organized matriarchal, although in daily life the women's position does not appear to be much different to patriarchal ethnic groups. There is four main *suku*, who have as well access to land that is distributed to their members. In Dusun II, which served as focus area for this research, since participating in the PP, *suku* appeared to be highly influential for social interaction. *Gotong royong* for instance is being practiced in groups independent of the official administrative structure, but based on membership in a certain *suku*. The land in Dusun II is divided into three plots and managed by three groups, which consist of

## DESCRIPTION OF THE STUDY LOCATION

---

members of specific *suku*. Daily interactions are thus often related to the membership in a certain *suku*.

Definitely an important influence on the social structure has the settlement pattern. Remote settlements like Wairtihuk or Delang are pretty isolated from the overall village life and are interacting with other villagers mainly on Market days.

According to official village statistics 90% of the villagers are earning their main income from farming. About 2% of the population is receiving a regular government salary and another 2% works as private teachers. More than 3% make an important part of their living from wood and construction work, whereas the remaining are either private entrepreneurs, such as traders or shop keepers, or private functionaries. But agriculture remains for most of them at least an important additional income source.

According to the social map drawn by local representatives from Dusun II and III more than 80% of all households in the respective Dusuns fall into the category 'worse off'. This is not at last explainable due to the fact that Dusun II and III are further away from the village and service centre in Dusun I.

#### IV SELECTED LIVELIHOOD ASSETS

By putting people at the centre of development, it is necessary to first and foremost focus on what they actually have, what their strengths and constraints are. The asset pentagon is thus the actual centre piece of the SLA. It is argued that people require a range of assets to achieve positive livelihood outcomes. None of these assets is sufficient on its own, but interdependent on other assets, and constantly changing over time (DFID 2001).

##### 1. Human Assets

Human capital is a very wide used term with various meanings. In the context of the SLA it is defined as "... the skills, the knowledge, ability to labour and good health that together enable people to pursue different livelihood strategies and achieve their livelihood objectives" (DFID 2001). At the household level and for the purposes of this study it comprises the household size, educational level and overall skills, health status and leadership potential.

##### 1.1 Household Size

The household size is an indicator for the available quantitative potential in terms of labour force. The more people are able to contribute to the household budget, the higher the potential for high human capital.

	Rowa	Ilepadung	Ilinmedo	Kringa
<b>Average Household Size</b>	4.9	4.6	4.3	4.2
<b>Female to Male Ratio</b>	1	1.04	0.95	1.14
<b>Percentage of HH with a Member in Migration</b>	5%	5%	4%	7%

**Table 2:** *Quantitative Potential of Households*

Table 2 gives an overview on quantitative household statistics for human capital in the target villages. All villages show a similar picture with an average household size between 4.9 in Rowa and 4.2 in Kringa, whereas families with up to 12 members can be found. Marriage has an important impact on the human capital in terms of household size. In the patriarchal communities in Rowa and Ilepadung the oldest son normally stays with his parents, whereas females leave the house at time of marriage. The other male kids are building their own houses at the time of marriage. The communities in Tanah Ai are organized in matriarchal systems, which means that the eldest daughter stays with the parents and her husband moves into her house. All others are leaving the house at the time of marriage.

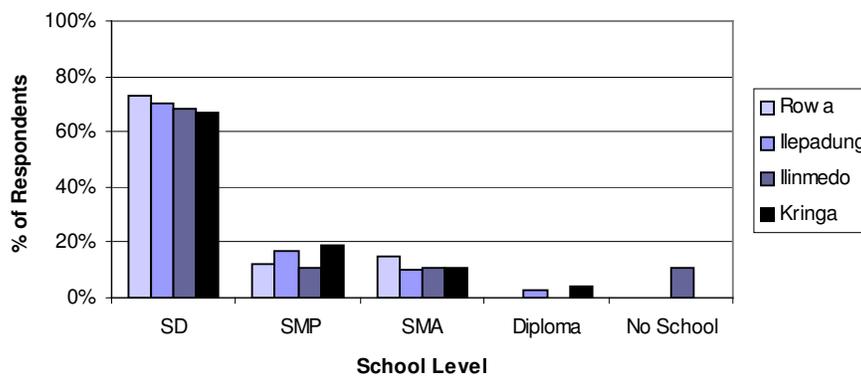
## SELECTED LIVELIHOOD ASSETS

The female to male ratio is quite balanced in all villages and migration seems to be important in all villages to a similar extent. Whereas in most villages these numbers have remained rather constant over the past years Ilepading has experienced significantly higher percentages of households with members in migration. In the 1990s up to 30% of the male population has been in labour migration and the female to male ration was significantly higher. Today, migration is not only a male thing, but more and more females travel to Malaysia, Singapore and other places in search for labour.

### 1.2 Education

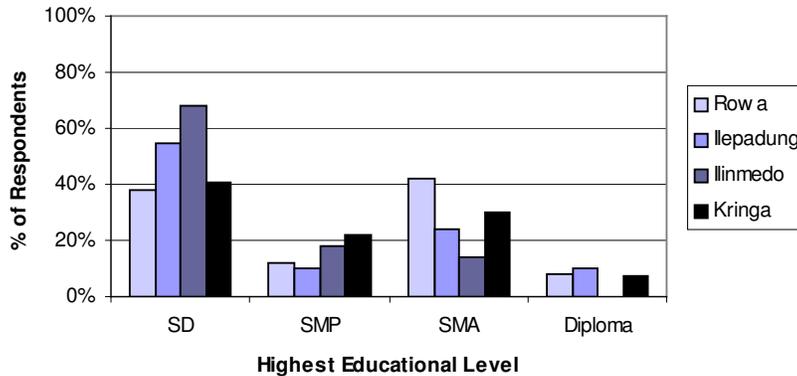
Education is a sign for the qualitative potential of a household. Since it is difficult to receive reliable and comparable quantitative data on village level, the educational level of the respondents in the sample was used to illustrate educational attainment.

Only in Ilinmedo respondents who have never attended school could be found, whereas the majority of the respondents in all villages has at least received primary education. People with higher education are rare among the respondents.



**Figure 3:** Educational Level of Respondents

Respondents were further asked about the highest level of education present in their household. This delivers a good indicator for improvements in education from one generation to another, since mostly the children from above respondents are the ones with the highest level of education. Figure 4 illustrates that there is an increase in secondary level education, especially at the level of SMA, whereas university diplomas are still rather rare. As well in this Figure Ilinmedo performs worst with no respondents having household members at university level, whereas Rowa and Kringa have gone through the biggest improvements in comparison to the former generation.



**Figure 4:** *Highest Educational Level in the Household*

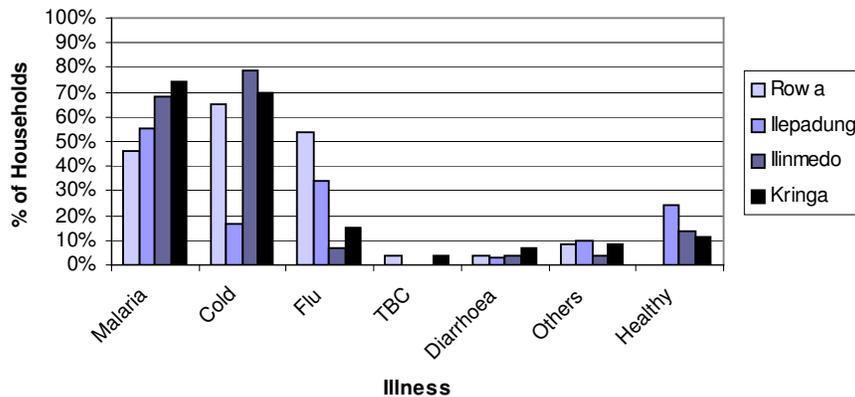
According to the school principles cases of drop-outs are hardly anymore present and almost 100% of the primary school students are going on to secondary school. Still, other problems were mentioned to hinder a good quality educational service: proper infrastructure was mentioned to be lacking in many schools and kids are often learning in decaying buildings with low quality sanitary facilities. For many children, especially in Ilinmedo and Kringa, the distance to school is very far and walks over an hour are not seldom. As a consequence, these kids are often arriving at school delayed or without having eaten anything. Lacking transport facilities are as well hindering for higher education. Teaching materials are often only available for teachers, since the families do not have the money to purchase them and are already struggling with the semester fees, costs for school uniforms and the like. Especially for higher education money becomes a major issue and a lot of families cannot afford are do not give enough priority to education (see as well Livelihood Report and HDR 2001).

**1.3 Health**

A good health is an important precondition for being able to sustain ones livelihood, whereas on the other hand health problems can cause serious stress to livelihoods (see as well Vulnerability Context). But again, reliable health data is difficult to get at village level. According to the HDR 2001 the population without access to health facilities is highest in Sikka with 53.5%, whereas in Flores Timur 29.9% and in Ngada 18.6% of the population do not have access to health facilities. The HDR 2001 states the amount of undernourished children (under age five) to be highest in Flores Timur with 41.8%, Sikka and Ngada show slightly better figures with 25.7% and 32.8% respectively.

The respondents in all villages were asked about the illnesses that were experienced in their household over the last 6 months. Apparently, Malaria is very common in all villages with between 45% - 75% of all households having had a Malaria case in their family. Flu and normal colds are especially frequent in the higher up located villages with bigger day-night differences. In general, illnesses are most frequent during the period of change between rainy and dry season.

## SELECTED LIVELIHOOD ASSETS



**Figure 5:** Percentage of Households with a Specific Illness over the last 6 Months

Health costs per household per year are lowest in Rowa with 110'000 Rupees per year. Ilepading and Ilinmedo are in a similar range with 185'000 and 159'000 Rupees respectively. In Kringa the costs appear to be by far the highest with an annual average of 302'000 Rupees.

## 2. Physical Assets

Physical capital comprises the basic infrastructure and producer goods needed to support livelihoods, such as affordable transport, secure shelter and buildings, adequate water supply and sanitation, clean, affordable energy and access to information. Opportunity costs associated with a lacking endowment in physical capital can for instance preclude access to education or health services and increase the time spent for non-productive activities (DFID 2001). The village profile already covers several of these aspects, whereas at this position focus is laid on the household level.

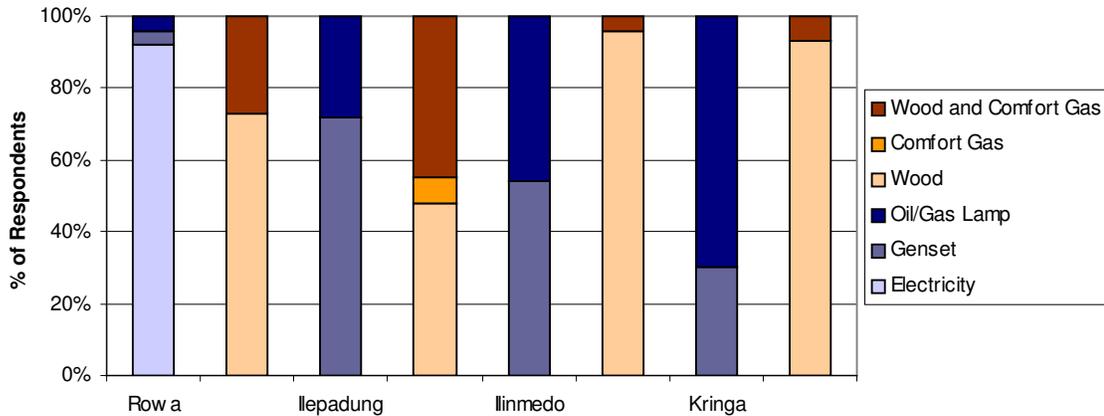
### 2.1 Housing

In terms of housing a clear difference becomes apparent between the villages. Whereas in Rowa stone houses with corrugated iron sheets and stone floors are more and more dominating the village, Ilepading has mostly semi-permanent wooden houses. This is not at last an effect from the Tsunami experience, where a lot of people lost their houses and are not primarily investing in it anymore. According to the village statistics from the year 2004 Ilinmedo and Kringa are characterized by bamboo huts, which were covering more than 90% of all houses.

### 2.2 Energy Supply

The availability of electricity for lighting purposes has been mentioned in the village profiles. The blue column in Figure 6 illustrates people's access to electricity and lighting sources. Electricity supply provided by PLN is only available in Rowa, where most of the villagers are connected to the network. In Ilepading Gensets are dominating, whereas in

Kringa most people are still dependent on oil or gas lighting. Ilinmedo is about to 59% using private generators and to the other half oil and gas lighting.

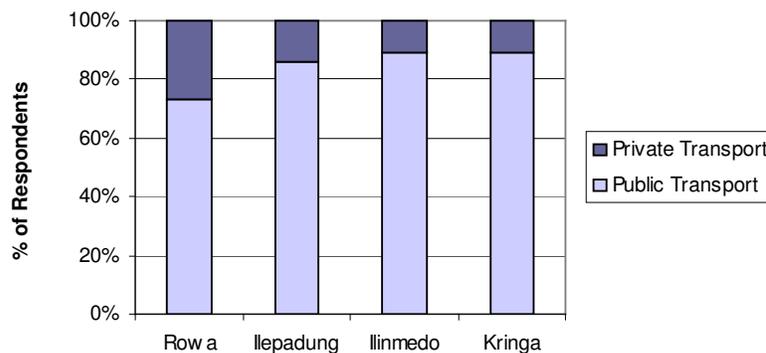


**Figure 6:** Energy Use for Lighting and Cooking Purposes

For cooking purposes wood is the dominant energy source. People collect fuel wood on their own agricultural land or in the community forests, but never buy it on the market. Comfort gas is most frequently used in Ilepandung, but mostly during the rainy season, when it becomes more difficult to cook with wood. Forest resources appear to be rather abundant in all research sites, although being more and more cleared for further agricultural land. A trend towards increasing use of comfort gas might take place in the near future, going along with an increase in the economic status of the household and increasing pressure on forest resources.

### 2.3 Transport

Access to affordable transport influences people’s mobility and for instance the possibility to get access to additional income sources. Not at last transportation facilities to local markets are central in supporting people’s livelihoods. As Figure 7 shows most people are



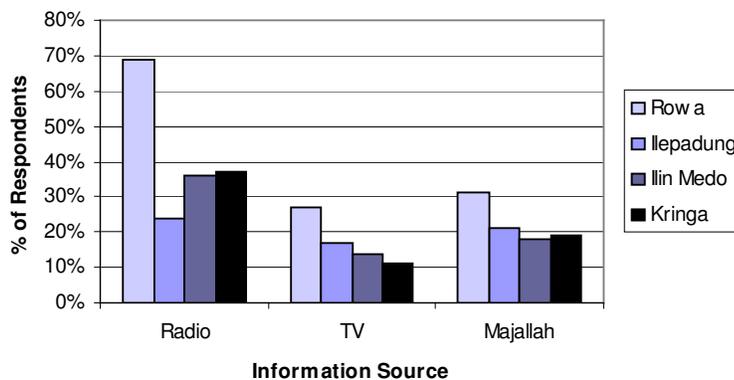
**Figure 7:** Public versus Private Transport

## SELECTED LIVELIHOOD ASSETS

depending on public transportation, while private transport, mainly in the form of motor bikes, are still rather rare. If the frequency of transport use is taken into account a clear difference is visible between the villages located along the Transflores Highway and the more remote villages. Average household spending for transportation in Rowa and Kringa with immediate road access is around Rupiah 500'000 per year and thus significantly higher than in Ilepandung and Ilinmedo, where the average spending is Rupiah 300'000 per year and Rupiah 200'000 respectively. One would expect transport costs to be higher in more remote villages, but the remoteness has the consequence of just not using transport very often, whereas for instance in Rowa people go to the regional markets up to twice a week. Ilepandung has an own market and the need to regularly go to Larantuka is not that high. People in Ilinmedo are in average going to Talibura or Maumere about once a month, whereas in Kringa people often use public transport on a daily basis within the village.

### 2.4 Information Sources

Access to information enables people to participate in public life, enhance democracy and culture.<sup>15</sup> It is important for the purposes of this report in order to see via which information channel farmers can best be reached. Respondents were asked about the information sources which they use on a regular basis, while not taking into consideration the quality/kind of information. Determined by the higher overall asset status in Rowa, the use of information sources, such as radio, TV and newspapers is more popular. The high percentage of radio listeners is definitely influenced by the fact that there is a local radio station ('The Farmers') near Rowa, which especially addresses farmer needs and appears to be highly popular among the villagers.



**Figure 8:** Available Information Sources

<sup>15</sup> As a specialized form of information, access to market information will be analysed at another position in this report (see Part VII, Chapter 4)

### 3. Natural Assets

The term natural capital comprises natural resource stocks, such as land, water, forests and livestock<sup>16</sup>, from which services useful for livelihoods are derived. It is of special importance in areas, where people depend to the biggest part of their livelihoods from natural resource-based activities, as it is the case in Flores.

#### 3.1 Land Access and Tenure

Land access is a highly complex issue in all the four villages. As mentioned in other places, villagers in Rowa and Ilepading inherit their land based on the paternal system, whereas the communities in Tanah Ai follow the matrilineal system. In all places land is mainly owned by the *suku*, which is distributing the land to their members. The strong traditions connected to the land are being expressed in frequent rituals, which are guided by the traditional leaders. For most of the people in the target villages ‘land is life’ and according to the saying: “jual tanah, jual diri”<sup>17</sup> there is nothing left if you take away a person’s land. In Rowa land was distributed to the 12 *suku* in 1989 under presence of the village government. If a person wants to get new land he/she has to apply to the head of the *suku*, who then decides in consultation with other local leaders. If a person for instance does not have enough land to make a living from it, the head of the *suku* can ask another member of the *suku* to give parts of his/her land away or not yet cleared forest land may be accessed. Since the IVAD government project in 1991 official land certification has been introduced and 38% of the population already have at least one of their plots government certificated. While some mention an official land certificate to be an advantage in terms of security and for instance accessibility of bank credits others believe that this apparent security is a trade-off for trust within the *suku*. The selling of land has traditionally been prohibited and some people fear that an increase in government certification might go along with an increase in land selling up to the extent that the land in Rowa might not be owned by its former residents anymore. Although the selling of land might be a reason for conflicts within a *suku*, land conflicts are mainly taking place within families, where brothers for instance do not agree on the share they get from their father.

#### **BOX 1:** *Access to land decides over membership in the Pilot Project*

As a result of the community map in Rowa it became obvious that almost nobody from RT06 in Dusun III is actually following the Pilot Project. The main reason for this, is that the residents - due to membership in a specific *suku* - do not have land in the area, where the IVAD project started a few years ago with the plantation of cashew nuts. Most of these residents are having land further up the hill, where the environment was reported to not be suitable for cashew nuts. It is thus possible that with the Pilot Project these structures of exclusion are furthered, what might impact negatively on the overall village structure. This has to be carefully monitored and possibilities to include these residents - if they want to - are to be found.

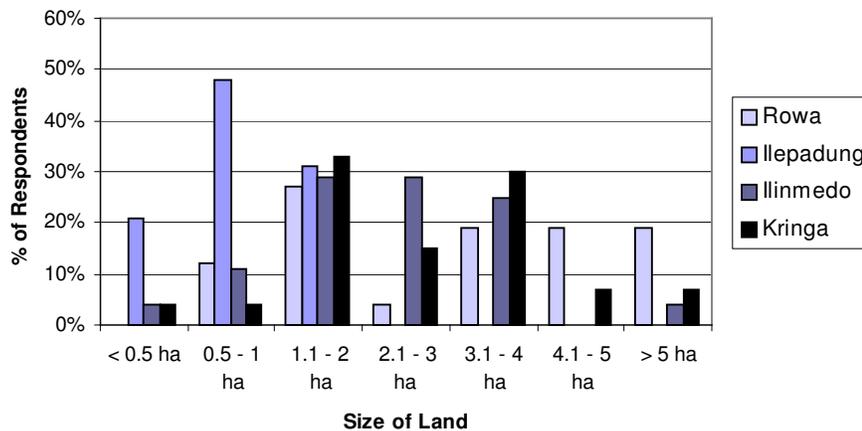
<sup>16</sup> The availability of livestock can be defined as stocks of financial capital also and is therefore discussed under financial capital.

<sup>17</sup> “Jual tanah, jual diri” literally means, if you sell your land, you sell yourself.

## SELECTED LIVELIHOOD ASSETS

In Ilepadung land distribution is based on a pattern dating back over several generations. Nowadays, for any procession related to land the four *suku*, who are owning land have to be present. Together with the village government it is decided, where new land is going to be opened. Normally, about three to four people from which ever *suku* are cleaning and planting the land together. At the time of the first harvest the land is then being split among these individuals. This is not at last a reason, why people have their land spread all over the village and not concentrated according to *suku*. Conflicts over land are occurring, but as well mostly within families or between the group of individuals, who are working on a plot together. The selling of land is not common and believed to be sanctioned through evil spirits. Similar to Rowa, there is no household in Ilepadung that does not have access to land, but government certificates are almost not present at all.

The situation in Ilinmedo and Kringa is similar. A specific person is the *Tanah Pu'an* or the landlord, who has to be descendent of a specific *suku* and manages the traditional ceremonies related to land. The 8 *suku* in Ilinmedo and the 4 *suku* in Kringa are all owning land, but have to consult with the *Tanah Pu'an* for any land-related activity. For a male person newly arriving in Kringa it is only possible to get access to land through marriage with a female local resident. According to official village statistics there is about 3% among the households in Ilinmedo, that do not have access to own land, whereas in Kringa it is 4%. Although official government certificates are not yet frequent, the respondents in Kringa mentioned to have some of their land in the process of being certificated.

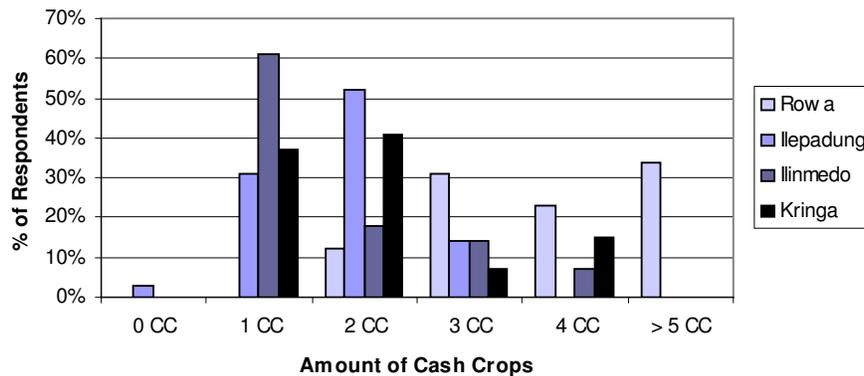


**Figure 9:** *Size of Agricultural Land*

An important factor in terms of natural capital is the available land size, as illustrated in Figure 9. Households in Rowa are endowed with the biggest size of land with almost 60% being above 3 ha. On the other hand up to 70% of the families in Ilepadung do not own more than 1 ha, 20% even less than half a Hectare. Along with this goes the present practice in Ilepadung of opening a lot of new land further up in the hills in order to increase the agricultural area and to reduce the vulnerability to external impacts. The inhabitants of Ilinmedo and Kringa show similar land size endowments being between 1 – 4 ha.

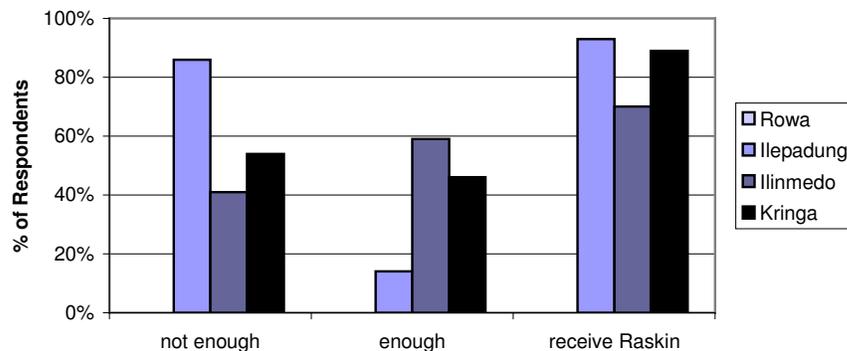
**3.2 Food Security vs. Cash Crops**

Although often differently cited the pure subsistence-farming household does practically not exist anymore and most farmer households are in one or the other way part of the cash economy (HELVETAS 2005:19). This is as well reflected in the agricultural pattern in the target villages (see Figure 10). With exception of Rowa most villagers are dependent on one or two cash crops only, whereas it is in all the cases at least cashew. In Ilepung cashew is mostly used in combination with *moke*<sup>18</sup>, whereas Ilinmedo and Kringa produce a lot of candle nut or cacao. The percentage of households without any cash crops in Ilepung are newly arrived migrants from Malaysia, who have just cleared their land and started to grow agricultural products.



**Figure 10: Diversification of Cash Crop Agriculture**

Most households in all target villages are growing at least some amount of food crops, mainly rice and corn, but are often not completely self-sustaining and have to depend on the market for a certain amount of rice. The respondents were asked if the amount of self-grown rice and corn is sufficient to sustain the yearly household needs or if people additionally have to depend on the market.



**Figure 11: Food Crops Situation for own Household Consumption**

<sup>18</sup> Whereas cashew nuts, candle nuts, cacao and coffee are produced for the international market, *moke* is sold on the local market, which makes a difference in terms of price fluctuation.

For Rowa comparable data on this matter was not collected, but the situation is, according to local informants, more relaxed in terms of food security. *Raskin*<sup>19</sup> is basically distributed to everyone, except government officials, although this rule is not implemented strictly. Some people mentioned to not buy *Raskin*, because of a lack of money or lacking quality of the rice. Especially among community leaders critical voices towards *Raskin* were heard, since they see an increasing dependence of people on this government program and a decrease in own food security. One informant mentioned to not grow rice anymore, since the government provides him boil-ready rice for 1000 Rupees per kilo. Why take the effort to grow it on his own fields.

Clearly visible becomes the low level of personal food security in Ilepadung, where almost 90% of the households can not live from their self-grown food crops. This causes serious stress on their livelihoods during the beginning of the year (see Figure 26), when most other villages can basically live from their own products and do not need to depend on the market.

#### 4. Social Assets

There is much debate about what exactly is meant by the term social capital and the aspects it comprises. For the purposes of this study it is to mean the social resources upon which people draw in seeking for their livelihood outcomes, such as informal networks, that increase people's trust and ability to cooperate or membership in more formalized groups. Often, access and amount of social capital is determined through age, gender or ethnic group (i.e. *suku*) and may even differ within a household (see chapter on gender issues). For the most deprived social capital often represents a place of refuge in mitigating the effects of shocks or lacks in other capitals.

##### 4.1 Membership in Local Groups

Groups are characterized by their degree of formality, ranging from formal rules and sanctions, to which all members agree and which have to be followed in order to maintain the function of the group, and rather informal groups based on mutual trust. The function of these groups and organizations is described in the section on institutions and organizations (see Part VII), whereas here mainly membership on household basis is considered. Indonesia and especially NTT Province has a long tradition of formal and informal groups (GROOTAERT 1999), which is reflected in the situation of the study sites. Households in Rowa follow in average 4.6 groups, in Ilepadung 4.0 and 3.9 groups both in Ilinmedo and Kringa.

Social Service Groups in the four target villages include the women's group for family welfare (*PKK*) and its sub-unit at the neighbourhood level (*Dasawisma*), the integrated health service post (*Posyandu*) and school committees. Groups with social functions –

---

<sup>19</sup> *Raskin* is the term used for a government programme, which delivers subsidized rice 4 to 6 times a year to villages all over Indonesia. A Kilogram of rice can be bought for about a third of the common market price, whereas a household normally receives between 15-20kg per distribution.

## SELECTED LIVELIHOOD ASSETS

especially *PKK* and *Dasawisma* - are very popular in Rowa and Ilepading, although it has to be stated that the *Dasawisma* in Rowa is mainly having saving activities and thus rather a credit and saving group. In Ilinmedo *PKK* and *Dasawisma* have practically not been active so far, what explains the low percentage. Social Service Groups are mainly followed by female members, not at last due to the fact that *PKK/Dasawisma* are per definition only for female members. In the school committees male and female member are about equally represented, whereas *Posyandu* again is mainly female domain.

Type of Institution		ROWA	ILEPADUNG	ILINMEDO	KRINGA
Social Service Groups	<b>Percentage of Households</b>	<b>96%</b>	<b>79%</b>	<b>21%</b>	<b>52%</b>
	Male Member	0%	0%	33%	21%
	Female Member	80%	100%	33%	29%
	Male and Female Member	20%	0%	33%	50%
Production Groups	<b>Percentage of Households</b>	<b>81%</b>	<b>96%</b>	<b>96%</b>	<b>93%</b>
	Male Member	76%	75%	22%	16%
	Female Member	0%	18%	11%	16%
	Male and Female Member	24%	7%	67%	68%
Credit and Savings Groups	<b>Percentage of Households</b>	<b>77%</b>	<b>59%</b>	<b>76%</b>	<b>52%</b>
	Male Member	65%	53%	32%	57%
	Female Member	25%	24%	42%	29%
	Male and Female Member	10%	23%	26%	14%
Religious Groups	<b>Percentage of Households</b>	<b>42%</b>	<b>7%</b>	<b>14%</b>	<b>35%</b>
	Male Member	18%	0%	25%	22%
	Female Member	82%	100%	50%	67%
	Male and Female Member	0%	0%	25%	11%
Governance Groups	<b>Percentage of Households</b>	<b>23%</b>	<b>28%</b>	<b>21%</b>	<b>38%</b>
	Male Member	83%	100%	83%	100%
	Female Member	17%	0%	17%	0%
	Male and Female Member	0%	0%	0%	0%

**Table 3: Membership in Different Types of Local Level Institutions**

Production Groups on the other hand are typically male groups, since often involved with heavy physical labour and work outside of the household. These groups involve the agricultural working groups organized on the base of the government administrative structure (*RT*) or based on *suku* (Kringa), marketing groups as for instance in Ilinmedo and Kringa, and the Organic Cashew Farming Group, which has recently been formed. *Gotong royong* activities are for instance carried-out based on production groups and are followed by almost all households. Female follow production groups mainly, if the male household head is for instance busy with a government job or business activities or as widows, when often highly dependent on additional working force. In several neighbourhoods in Rowa, production groups seem to loose popularity due to the fact that people are getting more concerned with their own livelihood and do or can not spend a lot of time on other people's land. A tendency to hire labour, often from outside the village, is thus observable. Especially people with higher endowments in terms of financial capital are following such practices, since they are not that much dependent on the back-up through social capital.

## SELECTED LIVELIHOOD ASSETS

---

Although management of finances at the household level is mainly in the hands of females, credit and saving groups in the four study locations are rather male dominated. The government-initiated saving group for backward villages (*IDT*), which is for female members mainly, is with exception of Rowa not active anymore. The most common group for saving and credit purposes is *UBSP*, which, with exception of Ilinmedo, is male dominated. Most villages have up to three different *UBSP* groups, which are active to a different extent. In Rowa and Ilinmedo the farmer group for organic farming of cashew nuts has actually been founded on the basis of a strongly organized *UBSP* group.

Religious groups include groups, which were mainly formed for the purpose of praying and managing the environment of the church. In the four study sites these involve groups like *Santa Ana* and *Legio Maria*, which are followed by female members, and the catholic youth group (*Mudika*), which is as well active in recreational activities. The church is organized following the government administrative structure. The same households that are forming a neighbourhood group (*Kelompok RT*) are at the same time following religious activities (*Kelompok Basis*). Since almost 100% of the villagers are following religious activities based on the *Kelompok Basis*, such as praying together during the week and especially in *bulan maria* (month of mother Mary), they are not included in the above statistics for religious groups.

Governance groups are concerned with village governance and include groups like the village development council (*LKMD*) and the local parliament (*BPD*). As illustrated in above table, women are highly under-represented in village governance functions.

Recreational groups appeared to not be highly popular in the four villages. In Rowa, and Ilepading people seemed to be highly active with sport activities on Sundays, but since they are not really organized or have a constant membership, they are not listed here. Still, they entail an important function in terms of social capital.

### **4.2 The Importance of 'suku' and family relations**

The importance of *suku* has been mentioned at several positions throughout this report and will not be analysed in too much detail. *Suku* is determined by birth and has important implications on the livelihood opportunities of an individual. It decides over access to land and, as illustrated in Figure 20, over the possibilities of transition between different asset categories. A low endowment in natural capital is a difficult precondition for more financial, physical and human capital. It decides as well indirectly over membership in specific groups, such as for instance the organic cashew farming group. For many people the *suku* can form a kind of backup in difficult times, where help in terms of natural and financial capital or just in terms of advice can be received. On the other hand, to be a member in a stronger or more influential *suku* in terms of traditional activities, can also imply a lot of obligations. Especially the leaders within influential *suku* mentioned to have very high expenditures for traditional activities, where they are obligated to provide food to almost the whole village.

Moreover, certain *suku* have rules in terms of marriage among each other. In Ilepading for instance this is still quite strong and certain *suku* are only allowed to marry people from specific other *suku*.

Family relations, besides of being an important back-up in times of serious livelihood stress (see Vulnerability Context), often entail high obligations. As the oldest son or daughter an individual is often obligated to take care for the welfare of the parents and younger kids and is thus restricted in terms of livelihood choices. It often appears for instance, that the first son is financing the education of his younger brothers and sisters, the education, which he was not able to get due to fact of being the first borne.

### **4.3 The Importance of Informal Networks**

Informal networks and relations of trust and reciprocity are important factors within the livelihoods of poor people. They are able to decrease transaction costs between individuals and can contribute to an increased overall well-being. Informal relations appear to be intensive between neighbours, who are inherently interacting on a more regular basis. Sunday activities in Rowa for instance are often taking place within specific *Dusun*, where people are playing volleyball or football, sit, drink and chat together. Especially with increasing age and decreasing mobility, neighbourhood relations become more important, whereas young people often interact in a wider context. Further, formal groups might increase interactions on an informal basis too, since relations of friendship are furthered through frequent interactions.

Informal networks are often related to specific locations in the village, such as along the main road, in a specific shop, in a house of an influential person, at a bus stop, and are more easily frequented by people living close to these locations. The location of a household within a village is thus influential on its access to these networking places.

Not at last the livelihood activities decide over the kind of social capital. People being active in a trans-local context, for instance as middle-men, have a different kind of social capital than people active within the village only. Some villagers were mentioned to live in their fields mainly and not interacting with others on a regular basis. The collection and processing of *moke*, which takes much time and is often done in a specific group, facilitates access to a different kind of social capital, while at the same time decreasing the interactions with villagers having different, for instance more settlement based activities.

## **5. Financial Assets**

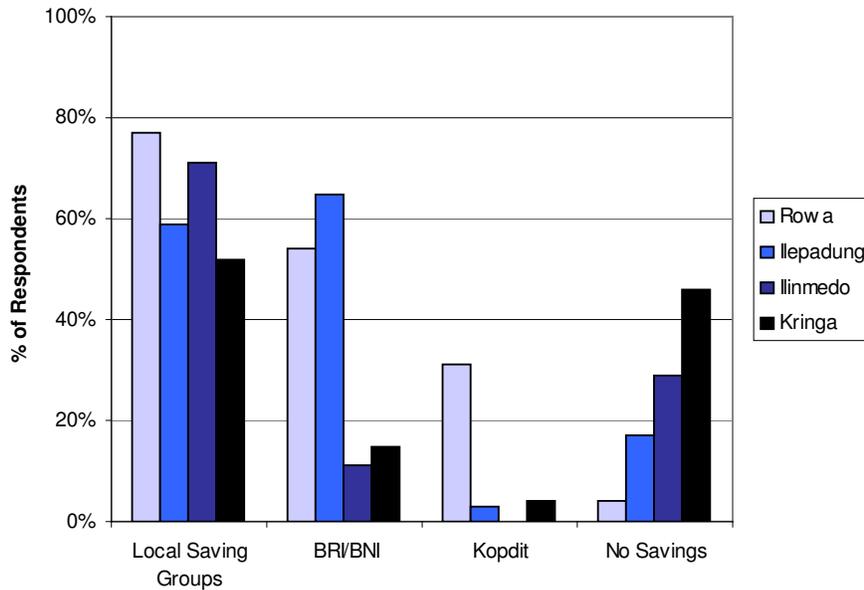
The term financial capital denotes the financial resources that people use to achieve their livelihood objectives. It involves available stocks, such as cash savings, bank deposits or livestock (see natural capital) and regular money inflows, such as labour income, pensions or remittances. While stocks are independent on third parties, money flows are dependent on others and not always reliable.

### **5.1 Available Stocks and Savings**

Respondents were asked about the availability of stocks, both in the form of cash savings and livestock. Figure 12 illustrates the availability of cash savings in local saving groups and external saving institutions. Whereas local saving groups are quite popular in all study

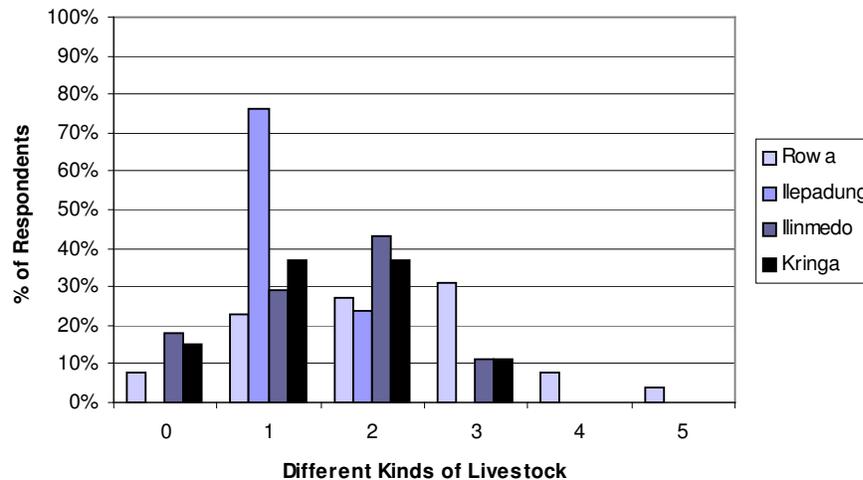
## SELECTED LIVELIHOOD ASSETS

villages the availability of bank accounts or accounts in a credit cooperation is much higher in Rowa and Ilepadung, where economic status is considerably higher. In both villages more than 60% of the households have access to either a bank account in BRI/BNI, to a credit union/cooperation or to both. In Kringa and Ilinmedo 46% and 29% of the respondents do not have access to any form of savings except for small amounts of money for daily needs which are kept at home. A backup in times of vulnerability is thus much more aggravated in these places, where people have to depend to a high extent on social capital (see chapter Vulnerability Context).



**Figure 12:** *Availability and Place of Savings*

Figure 13 shows the percentage of respondents keeping different amounts of big livestock (horses, cows, sheep, pigs). People in Rowa are most diversified in terms of livestock, whereas in Ilepadung the respondents owned in 75% of the cases only one kind of livestock, mostly pigs.



**Figure 13:** Amount of Different Kinds of Livestock

The respondents in Rowa, who are not having access to livestock, are as well not following any local saving group and thus – except of a bit of cash crop - not having any sort of stock at all. In Ilinmedo 18% of the respondents do not have any livestock, but at least try to save money in local saving groups. For Kringa Figure 13 depicts 15% without any possession of big livestock, whereas all of them do not have any other kind of stocks available and completely depend on other kinds of assets in times of hardship.

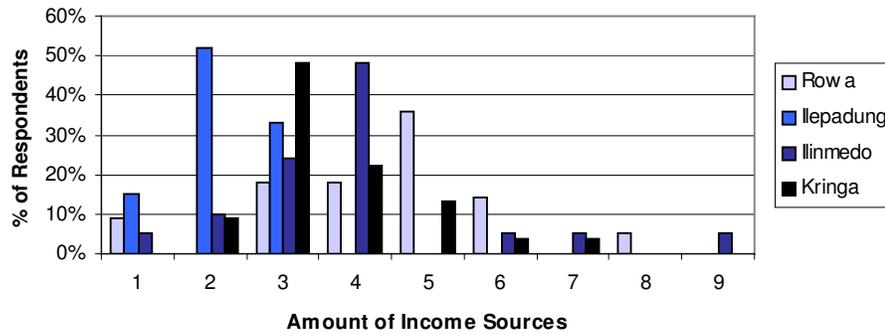
**5.2 Income Sources and Income Diversification**

An interesting fact in terms of livelihood security is the amount of income sources available for a household. In general, the more income sources a household has access to, the less vulnerable it is to negative impacts on one or several of these sources. People were asked about all their income and expenditure over the last year, from where the main income source and the amount of sources could be extracted. Different agricultural products and different business activities were counted as different income sources.

There is hardly any household that earns money from off-farm activities only. Both in Rowa and Ilepading 45% of the households are earning their income from on-farm activities only, whereas in Ilinmedo it is 36% and in Kringa 39%.

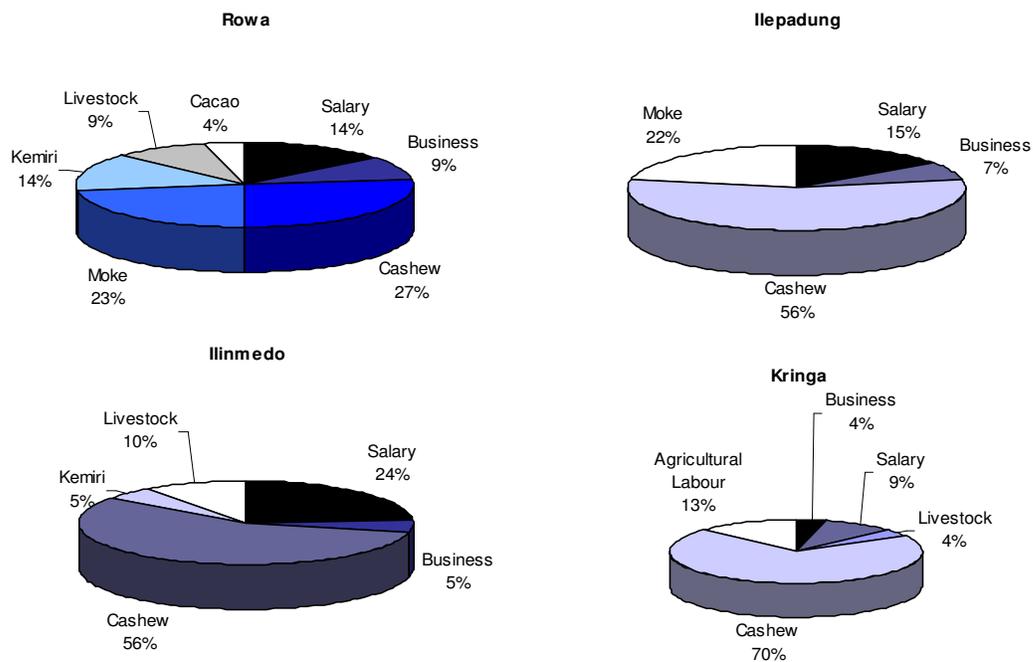
Figure 14 illustrates the income diversification in the target villages. It becomes obvious that people in Rowa have in more than 50% of the cases more than 5 different income sources. On the other hand there is no respondent in Ilepading that can revert to more than 3 income sources. Almost 50% of the respondents in Ilinmedo have access to 4 different income sources, whereas in Kringa the same percentage gets access to 3 income sources.

## SELECTED LIVELIHOOD ASSETS



**Figure 14:** Amount of Available Income Sources

In Figure 15 the main income source for a household is depicted. While the selling of cashew nuts in Rowa is the most important income source for 27% of the respondents, the percentage in Ilepadung and Ilinmedo is more than twice as big. In Kringa it is even 70% of all respondents, who are depending on cashew nuts as the main income source. This gives not at last as well justification for a project intervention in the field of cashew nuts. In all villages less than 30% of the households are earning their main income from off-farm activities, in Kringa not even 15%. An important income source in Rowa and Ilepadung is the selling of *moke*, for more than 20% in both locations it is even the most important source.

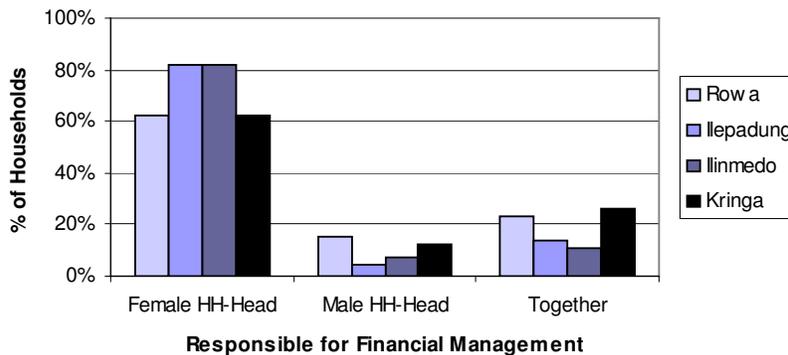


**Figure 15:** Percentage of People with a Specific Main Income Source

**5.3 Financial Management at Household Level and Major Expenditures**

In order to find out how people manage their income and for what they spend most of their money, a special excel sheet was developed. The collected data has to be interpreted with care, since most people are not really keeping records on their incomes and expenditures, but spend money, whenever it is available. It was thus sometimes difficult to receive reliable data on money management at household level. Moreover, people seem to have a tendency to preferably talk about expenditures than income, since it becomes possible to foster the difficulties they face and express the need for (financial) support.

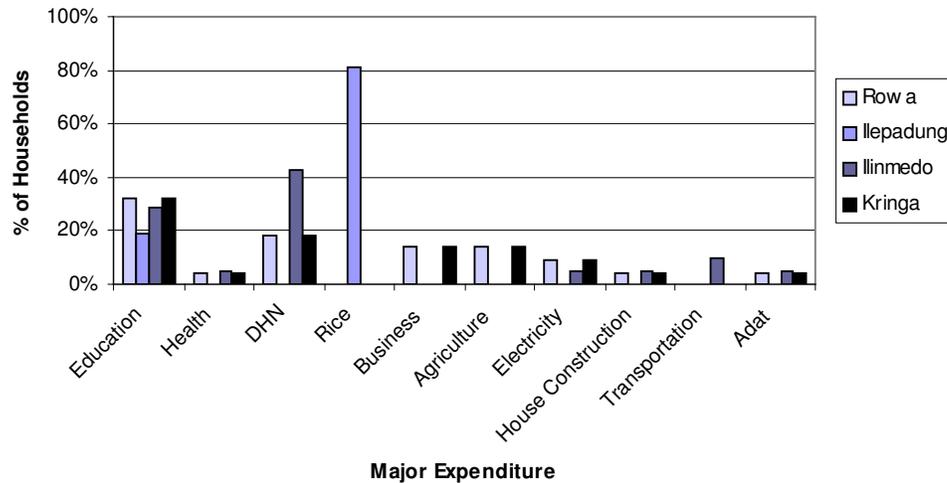
As Figure 16 shows money management in all the target villages is mainly female responsibility; if not alone responsible for it, they are managing it together with the husband. Most of the households without an account in a bank or an external credit association, keep the money at home. Some even burry the money in a plastic bag outside the house for security purposes. With very few exceptions people are not keeping records about income and expenditures. Only if people are following local credit and saving associations, records on group level are kept and people are more aware about their financial situation. Such practice is especially high in Ilinmedo with almost 70% following UBSP and lowest in Kringa with about 20% being UBSP-members.



**Figure 16:** *Responsible Person for the Management of the Household Budget*

An interesting fact for analytical purposes is the main source of expenditure for a household. Predominantly education appears to be the major source of expenditure for a high percentage of households in all target villages. This is not at least a sign for the increasing importance education has received over the past years what is reflected in the Human Development Indicators of the overall Province: NTT Province shows the biggest progress of all Indonesian Provinces between 1990 and 1999 in the HDI (BPS, BAPPENAS and UNDP 2001:14). Inherently, there is a clear correlation between overall asset status of a household and the amount of money spent for education, the later being higher with a higher asset status. A mother or a father with a higher education is more likely to invest in his children’s education, not at last due to the fact that he can afford it in most cases.

## SELECTED LIVELIHOOD ASSETS



**Figure 17: Major Expenditure of a Household in one Year<sup>20</sup>**

Another major entry in the yearly expenditures are daily household needs, for more than 40% of the households in Ilinmedo being the highest of all expenditures. Highly interesting is the fact that expenditures for rice make up the biggest yearly expenditure for more than 80% of the households in Ilepading. As mentioned in other places this is a sign for a rather low level in own food security, while focussing on the production of cash crops mainly. This creates a high dependency on the market and a major risk for vulnerability in case of changing market prices. Expenditures for activities related to traditions (*adat*) are highly difficult to quantify, since they vary throughout years and between households and are often not cash based. Whereas different studies mention expenditures for *adat* to be much more prominent as an expenditure this could not be confirmed during the fieldwork.

In order to get an idea about the money flow in a household within one year and the ranges within a village the following table tabulates the household with the maximum respectively minimum income, the household with the maximum respectively minimum expenditure, the household with the maximum respectively minimum saldo and the percentage of households with a negative saldo.

The household with maximum income in most cases appears to be the one with the highest expenditures and thus not necessarily the one with the best saldo. The percentage of households with a negative saldo varies between the years, so for instance the high percentage in Kringa is not at last explicable through a high number of households having had major expenditures for house construction or health in the last year.

<sup>20</sup> The Category DHN means 'daily household needs' and includes products like coffee, sugar, soap and the like. Rice is as well a DHN product, but mentioned separately in order to illustrate the situation of food security in a village.

	Rowa	Ilepadung	Ilinmedo	Kringa
Maximum Income (IndRp)	142.3 Mio	49.5 Mio	25.2 Mio	58.1 Mio
Minimum Income (IndRp)	0.2 Mio	1.3 Mio	0.5 Mio	0.5 Mio
Maximum Expenditure (IndRp)	137.6 Mio	37.2 Mio	10.6 Mio	23.8 Mio
Minimum Expenditure (IndRp)	0.8 Mio	1.2 Mio	0.2 Mio	0.2 Mio
Maximum Saldo (IndRp)	+ 13.3 Mio	+ 36.4 Mio	+ 16.7 Mio	+ 17.2 Mio
Minimum Saldo (IndRp)	- 1.6 Mio	- 1.5 mio	- 1.5 Mio	- 7.2 Mio
Households with a Negative Saldo (%)	29%	26%	27%	58%

Table 4: Household with Max/Min Umsatz of Money over the last Year per Village

### 5.4 Access to Credit and Money Lending

In order to get an idea about practices of money lending and accessibility of banks for local stakeholders, respondents were asked about their money lending practices over the last 6 months before the time of the survey. As Figure 18 depicts, between 40% - 70% of the households in the target villages have not received credit in any form over the last 6 months. People, who have received rice from Chinese traders, which has to be paid in the form of cashew nuts, are not covered in this Figure, but the proportion was mentioned to be very low and on decrease over the last years.

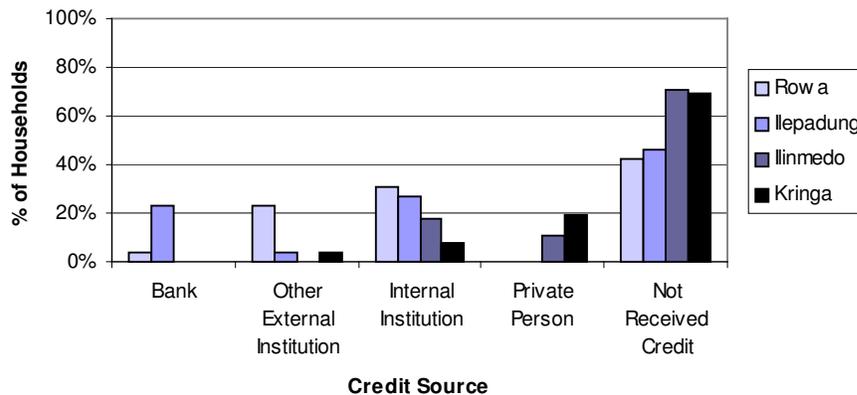
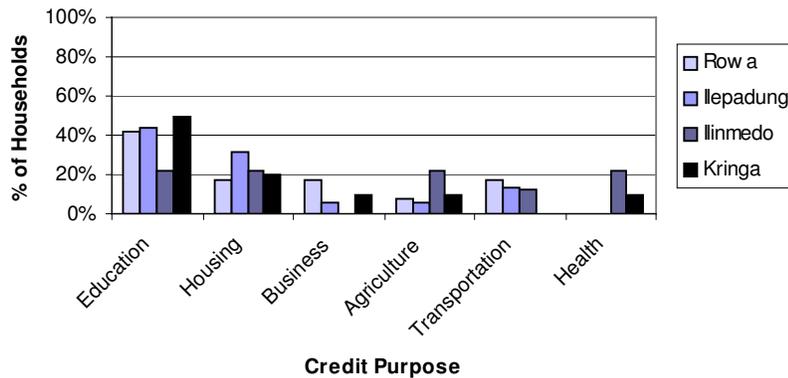


Figure 18: Source for Credits over the last 6 Months

Corresponding with the higher overall economic status in the village official bank credits have only been received by wealthier people in Rowa and Ilepadung, whereas external institutions and banks are hardly accessed by villagers from Ilinmedo and Kringa. The later are rather relying on internal institutions, such as *UBSP* and *Dasawisma* or on private people. Reasons for the reliance on village internal money lending sources are on one hand related to trust issues, since local people and institutions are, although money lending conditions are not always favourable, familiar to everybody. Banks on the other hand are

## SELECTED LIVELIHOOD ASSETS

hardly approached because of restricted physical access and thus rather high transportation costs, and a high level of respect or mistrust towards official proceedings necessary for receiving credit. Moreover and besides that most of the households are not bankable due to non-availability of collaterals, there is a lack of information and general knowledge about different possibilities, their advantages and constraints.



**Figure 19:** Purpose of Credit Taking

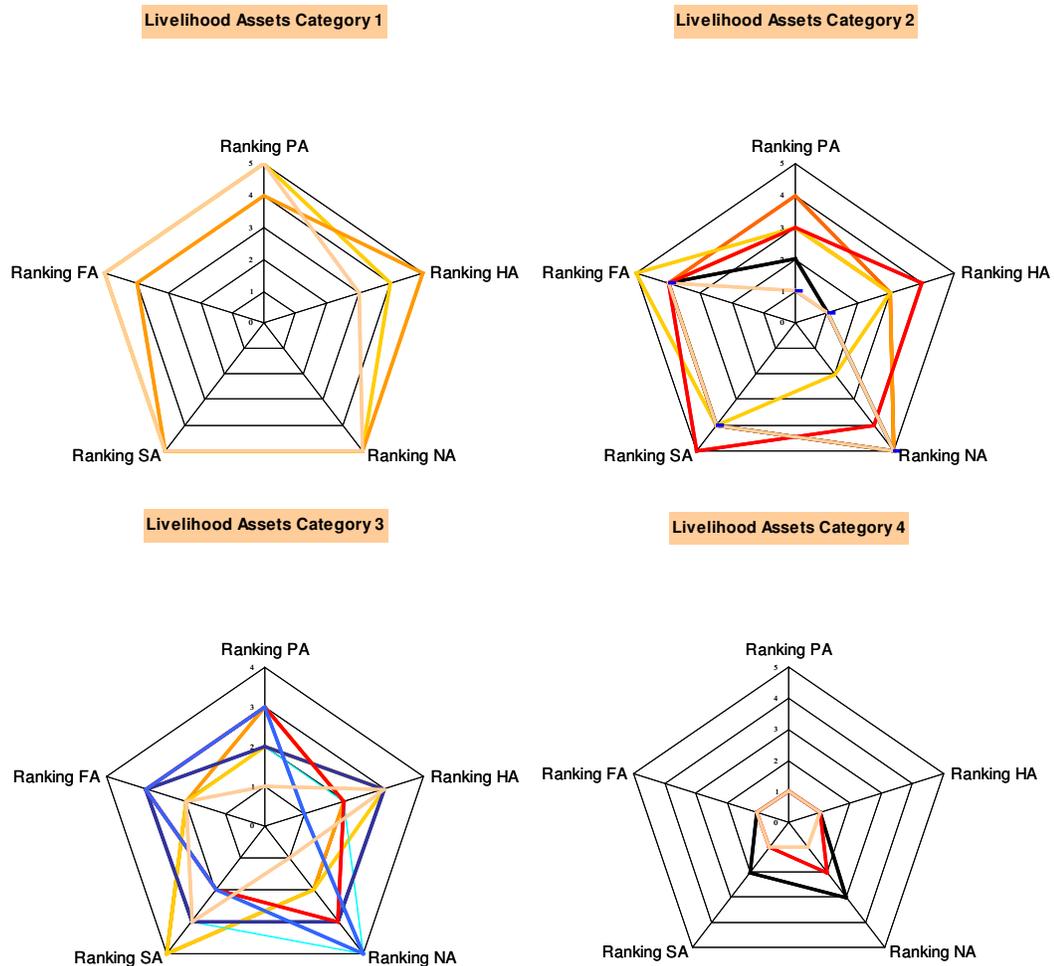
While low education is definitely a major reason impeding access to banks, it is for those taking credit the major purpose of doing so. With an exception of Ilinmedo, more than 40% of the respondents in all villages are taking credits for educational purposes. This fact is not at last reflected in the presently still low educational level among household members in Ilinmedo (see Figure 3). Other credit purposes are investments in house construction, business investments, agricultural investments in the form of labour force or buying of land, transportation costs, for instance for a private motorbike or migrating household members and investments for health purposes.

### **BOX 2:** *Eternal Depth through Money Lending*

A young woman from Ilinmedo tells the following story: in order to improve their economic status she and her husband decided that he migrates to Kalimantan in search for labour. They went to a person in Maumere and borrowed Rupiah 500'000, which had to be returned with the double amount after a year. Although this did not appear to offer a high challenge, the husband went and never came back nor sent any money. The money lender certainly wanted his money back, but still, after five years now, the young women has not been able to pay, while the debts have gone up to Rupiah 16'000'000. In order she did not have to give away her house, she came to a special agreement with the money lender to pay Rupiah 4'000'000 right away, what made her borrow money from another place. While one debt is paid off, a new one begins! (see VECO-Indonesia 2005)

**6. Classification of Households According to Asset Status**

In order to be able to analyse livelihood strategies in relation to asset endowments all households were ranked according to their asset status. Based on the data from the questionnaire, the households were given a rank for each asset (1=very low, 2=low, 3=middle, 4=high, 5=very high). The household with the highest endowment for instance in terms of financial capital received the code 5, whereas the one with the lowest the code 1. All other households were classified in orientation to this range. This was done for each of the 5 assets and the sums of all asset ranks were used to form 4 asset status categories. Category 1 depicts the best-off people with asset ranking sums between 20-25, category 2 people between 15-19, category 3 households between 10-14 and category 1 finally worst-off households with ranking sums between 5-9.



**Figure 20: The 4 Asset Categories in Rowa**

## SELECTED LIVELIHOOD ASSETS

---

This ranking has to be interpreted with care and there is many reasons why a measurement of assets is questionable.<sup>21</sup> The ranking should therefore be understood qualitatively, illustrating relative positions between households in a specific village. Although not absolutely scientific, this classification allows a basic comparison and visualization of the different asset endowments between households.

Figure 20 shows the example of asset endowments of households in the four different categories in Rowa, category 1 standing for the households with the highest endowments and category 4 representing the households with the lowest endowments. A transition from category 4 to category 1 or a possible way out of poverty could take place in the following manner: through increased investments into natural capital, households are able to increase their level in financial capital through an increase in products that can be sold on the market. A higher level in social capital helps to get access to land, markets or saving and marketing groups, which again can support an increase in financial capital and social security. Increased financial capital makes it possible to invest into household tools and physical capital in general or into increased education of family members. As illustrated through the diversity of asset pentagons in category 2 and 3 there is certainly other ways to get to a higher asset level, but in highly natural resource based households it appears to frequently take place in a radial manner, starting from an increased natural and social capital, to increased financial capital, finally supporting investments in physical and human capital.

---

<sup>21</sup> How is it for instance possible to measure social capital in terms of network and connectedness? Or how can human capital be measured, when a big household size and high education fall into the same category, but are often diametric (?) available?

## **V LIVELIHOOD STRATEGIES OF FARMER HOUSEHOLDS**

Up to this position it has been described to what kind of assets people are able to draw back and how the institutional and organizational environment influences this. What people are actually doing with their assets, how they combine them in order to achieve their livelihood outcomes shall be the focus in this section. At first it is tried to find a typology of livelihood strategies, with special focus on income generation through the production of cashew nuts. Since of special interest for the purpose of the PP, it is tried to analyse the dependence of households on cashew nuts and the overall world market as a whole, and back-up strategies in order to reduce this dependence. Then, the functioning of the market structure and perceptions along the marketing chain are described and brought into relation to farmer livelihoods.

### **1. The Importance of Cashew Nuts for Farmer Livelihoods: Towards a Typology**

There is many different ways a typology for livelihoods could be made, each most certainly implying different conclusions (see as well NCCR 2005). In this study, the main focus is laid on the production and marketing of cashew nuts and the inter-linkages with different farmer livelihoods. A set of questions is of priority interest for the purposes of this study: How important is the contribution of cashew nuts within the range of activities that make out specific livelihood strategies? How dependent are people on the world market - often a factor of highest vulnerability - in general? How do people diversify or back-up their livelihood strategies and how successful are they in doing so? What is the role of the local market within the activities of farmer households?

Although livelihood strategies are definitely not only related to income generating activities, it is considered best for the purposes of this study to bring the households into a typology according to the way of income generation: People in the target villages can either generating income through agriculture (or fishing activities), through business activities or a regular salary, or through remittances from migration. Agricultural income can be generated through production for the world market or production for the local/regional market, whereas it is not differentiated between the amount of products that are produced for each market. Since all households are at least to a certain extent producing their own food crops, only cash crops are considered for categorization, whereas with an increasing amount of cash crops that are traded the likelihood of a market to significantly affect a livelihood is increased considerably (see also HELVETAS 2005:14). Business and salary form one category as more or less regularly available off-farm income-sources. With a special focus on cashew – as one world market product – the below tabulated combinations deliver the typology for income-related livelihood strategies in the target villages (see Table 5).

## LIVELIHOOD STRATEGIES OF FARMER HOUSEHOLDS

First of all it becomes obvious that 99% of all households are at least generating parts of their income through agricultural activities. Among them 98% are supplying products to the World Market and are thus impacted by the global market economy. If isolating cashew-related activities it can be shown that only in Rowa 18% of the population is not at all dependent on cashew nut production, whereas in Ilepading, Ilinmedo and Kringa at least 95% of the villagers use cashew nuts as part of their livelihood strategy. Figure 21 illustrates the percentage of households applying a specific income generating activity as part of their income generating strategy. It is interesting that production of additional world market product to cashew is highly important in Rowa, with more than 90% of all households, and in Ilinmedo and Kringa both with more than 50% of the households. Ilepading on the other hand does not produce any other world market products at all and is thus much more dependent on cashew nuts and local market production.

If looking at products, that are produced for the local market, an overall 75% of all villagers are at least delivering one product to such markets, whereas the share in Ilepading is with 65% significantly lower. This is not at last explainable by the low degree of diversification of agriculture. Almost all households producing for the local market in Ilepading are doing this in the form of *moke* or, more recently, through the selling of cashew nuts to residents of Larantuka.

	Rowa	Ilepading	Ilinmedo	Kringa	All
CA	-	3%	4%	4%	3%
WMP	4%	-	-	-	1%
LMP	4%	-	-	4%	2%
BS	-	3%	-	-	1%
M	-	-	-	-	-
CA/WMP	-	-	4%	8%	3%
CA/LMP	-	48%	21%	8%	20%
CA/BS	-	21%	-	4%	6%
CA/M	-	6%	-	-	2%
CA/WMP/LMP	35%	-	14%	12%	15%
CA/WMP/BS	4%	-	11%	8%	6%
CA/WMP/M	8%	-	-	-	2%
CA/WMP/LMP/BS	31%	-	21%	19%	17%
CA/WMP/LMP/M	-	-	4%	4%	2%
CA/WMP/BS/M	-	-	-	4%	1%
CA/LMP/M	-	3%	7%	-	3%
CA/LMP/BS	-	14%	11%	23%	12%
CA/LMP/BS/M	-	-	-	4%	1%
CA/BS/M	4%	-	-	-	1%
WMP/M	4%	-	-	-	1%
WMP/LMP	4%	-	4%	-	2%
WMP/LMP/BS/M	4%	-	-	-	1%

CA: Income generated through the selling of cashew nuts

WMP: Income generated through other world market products (candle nut, coffee, cacao, clove, vanilla, ...)

LMP: Income generated through production for the local market (fruits, vegetables, *moke*, fish, ...)

BS: Income generated through business activities (shop, trading activities, wood work, transport, ...) or a salary (teacher, government employee, NGO worker, ...)

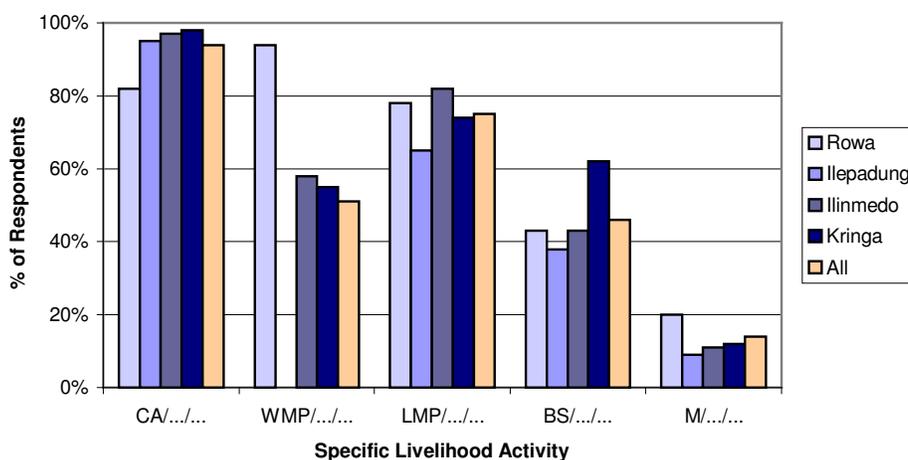
M: Income generated through remittances from labour migration

**Table 5:** *Combination of Income Generating Activities within Livelihood Strategies*

## LIVELIHOOD STRATEGIES OF FARMER HOUSEHOLDS

About half of all villagers in the study locations are generating income through business activities or a salary, whereas the percentage is significantly higher in Kringa. This is difficult to explain, besides of the fact that the location of the villages along the Transflores Highway might further business activities and job opportunities. If Figure 15 is concerned it becomes obvious that the percentage of households earning their main income from business or salary is significantly lower, what indicates that it is mainly small businesses and side jobs that account for the high percentage in above table.

Remittances from migration have been received by an average of 14% of the respondents in all villages during the last year, whereas the ‘potential’ for receiving remittances is higher in most villages, but does often not contribute to the income portfolio on a regular basis. As mentioned at other places throughout this report, migration is a temporary strategy, changing over the years. Although only a low percentage of villagers are actually migrating at present in Ilepadung, migration in the 1990s has significantly contributed to the relatively high present economic status in the village. The villagers themselves state their village to have improved through migration, whereas they mainly returned back due to growing importance and prospect of cashew nut farming by the end of the 90s.



**Figure 21:** Percentage of Respondents Applying a Specific Income Generating Activity

Table 5 shows a lot of combinations which are only used by a few individuals. In order to get the most frequent combinations of income generating activities in livelihood strategies all combinations with less than 5% of the total amount of respondents were cut-off. The remaining most frequent six combinations or 76% of all respondents are all dependent on income generated through cashew nuts. Especially in Rowa the diversification of income sources appears to be high, since besides of cashew nuts most people are producing other world and local market products, while having small businesses or salaries that complement their combination. On the other hand most respondents in Ilepadung have only one other source of income besides of cashew nuts, either being a product for the local market (*moke*) or small business activities. In Ilinmedo and Kringa various different combinations can be found, the local market having special importance in most combinations.

## LIVELIHOOD STRATEGIES OF FARMER HOUSEHOLDS

	Rowa	Ilepadung	Ilinmedo	Kringa	All
CA/LMP	-	48%	21%	8%	20%
CA/BS	-	21%	-	4%	6%
CA/WMP/LMP	35%	-	14%	12%	15%
CA/WMP/BS	4%	-	11%	8%	6%
CA/WMP/LMP/BS	31%	-	21%	19%	17%
CA/LMP/BS	-	14%	11%	23%	12%
<b>Total</b>	<b>70%</b>	<b>83%</b>	<b>78%</b>	<b>74%</b>	<b>76%</b>

**Table 6:** *Most Frequent Combinations in Livelihood Strategies*

All of the above mentioned does not yet illustrate which combinations of income-generating livelihood activities are the most successful. The combinations are therefore brought into relation with the asset ranking as described above. Which combinations lead to rather high asset endowments and which combinations are resulting in rather low asset endowments? It has to be carried in mind that livelihood strategies are dynamic and changing over time. This means that a specific asset endowment is the result of a livelihood history, which might have gone through changes in strategic combinations over the past. As well on a seasonal basis, combinations of livelihood activities are varying, but in order to bring them into a typology the present combination of activities over the duration of one year is analysed under the assumption that it has contributed to a major extent to the present asset combination.

Table 7 depicts the combination of income generating livelihood activities within livelihood strategies of the households and relates them according to the asset status. Category 1 is representing the group with the highest asset status, whereas category 4 shows the group with the lowest asset status. Combinations within category 1 and 2 are thus termed more successful, while entries in categories 3 and 4 are less successful. As graphically highlighted in Figure 22 the combinations CA/WMP/LMP/BS and CA/LMP/BS appear to be the most successful; the first being applied by 40% in category 1 and 22% in category 2; the later forming the strategy for 20% and 22% respectively. Only 12% of the households in category 3 are also following the pattern CA/WMP/LMP/BS and 7% the pattern CA/LMP/BS, whereas none of the household in category 4. The least successful combinations are CA/WMP/LMP and CA/LMP, both not appearing in category 1, whereas in category 4 they are represented by 26% each.

An important and somehow obvious fact is that off-farm income sources, such as through business and job opportunities, support the achievement of a rather high asset status. All households in category 1 are at least getting some part of their income through business activities or a salary, in category 2 still 59%. Category 3 on the other hand shows a significant decline in the importance of BS, whereas only 5% in the lowest category are having a BS income source. The same is valid formulated the other way around: people with on-farm income sources only appear to have lower asset endowments. Off-farm

**LIVELIHOOD STRATEGIES OF FARMER HOUSEHOLDS**

<b>Rowa</b>			
<b>Category 1</b>	<b>Category 2</b>	<b>Category 3</b>	<b>Category 4</b>
CA/W MP/LMP/BS	CA/W MP/LMP/BS	CA/W MP/LMP	W MP/M
CA/W MP/LMP/BS	CA/W MP/LMP/BS	W MP/LMP	W MP
CA/W MP/LMP/BS	CA/W MP/LMP/BS	CA/W MP/LMP	CA/W MP/LMP
W MP/LMP/BS/M	CA/BS/M	CA/W MP/LMP/BS	CA/W MP/LMP
CA/W MP/LMP/BS	CA/W MP/M	LMP	
	CA/W MP/LMP	CA/W MP/LMP	
	CA/W MP/BS	CA/W MP/M	
	CA/W MP/LMP	CA/W MP/LMP	
		CA/W MP/LMP	
<b>Ilepadung</b>			
<b>Category 1</b>	<b>Category 2</b>	<b>Category 3</b>	<b>Category 4</b>
CA/LMP/BS	CA/LMP	CA/LMP	CA/LMP
CA/BS	CA/BS	CA/LMP	CA/BS
BS	CA/LMP	CA/LMP	CA/M
CA/BS	CA/LMP	CA/BS	CA/LMP
	CA/LMP/M	CA/LMP	CA/LMP
	CA/LMP/BS	CA/M	
	CA/LMP	CA/BS	
	CA/LMP/BS	CA/BS	
	CA/LMP	CA	
	CA/LMP/BS	CA/LMP	
<b>Ilinmedo</b>			
<b>Category 1</b>	<b>Category 2</b>	<b>Category 3</b>	<b>Category 4</b>
CA/W MP/LMP/BS	CA/LMP/BS	CA/W MP/LMP/M	CA/W MP/LMP
CA/W MP/LMP/BS	CA/LMP	CA	CA/W MP
CA/W MP/BS	CA/W MP/LMP/BS	CA/LMP/BS	CA/LMP/M
CA/W MP/BS	CA/W MP/LMP/BS	CA/LMP	CA/LMP
CA/LMP/BS		CA/LMP	CA/W MP/LMP
		CA/LMP/M	W MP/LMP
		CA/W MP/LMP	CA/W MP/LMP
		CA/LMP	
		CA/LMP	
		CA/W MP/BS	
		CA/W MP/LMP/BS	
		CA/W MP/LMP/BS	
<b>Kringa</b>			
<b>Category 1</b>	<b>Category 2</b>	<b>Category 3</b>	<b>Category 4</b>
CA/W MP/BS	CA/LMP/BS	CA/LMP/BS	CA/W MP
CA/W MP/LMP/BS	CA/W MP/LMP	CA/LMP/BS	CA/LMP
CA/LMP/BS	CA/W MP/LMP/BS	CA/BS	CA
CA/LMP/BS	CA/LMP/BS	CA/W MP/LMP/BS	
CA/W MP/LMP/BS	CA/W MP/BS/M	CA/W MP/LMP/BS	
CA/LMP/BS/M		CA/LMP	
		CA/W MP/LMP/M	
		CA/W MP/LMP	
		CA/W MP/BS	
		CA/W MP	
		CA/W MP/LMP	
		LMP	

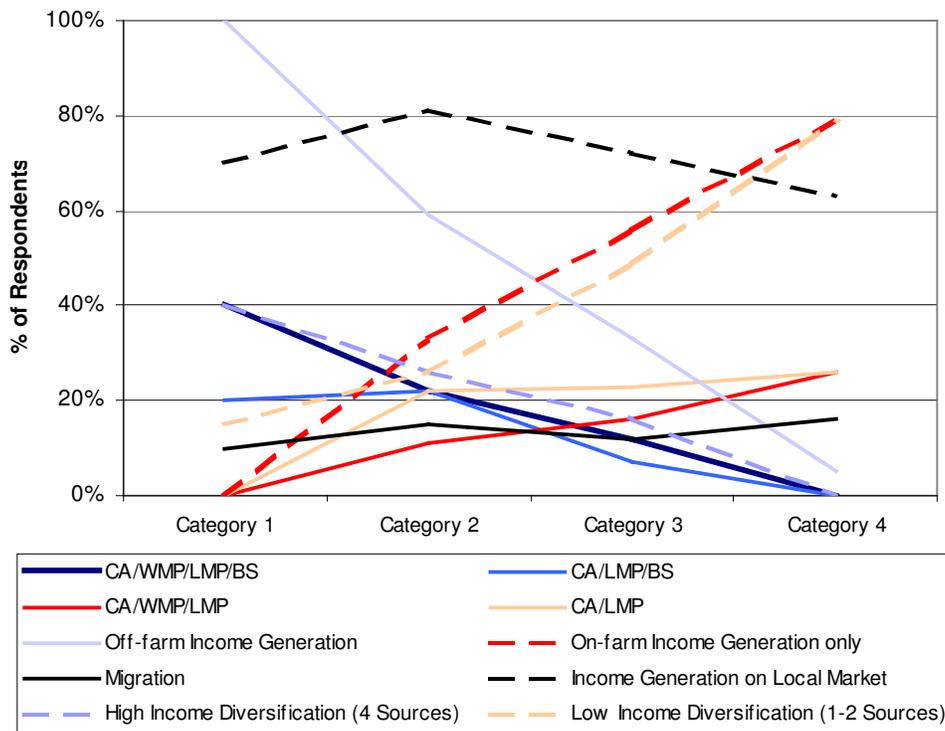
**Table 7: Income Generating Activities and Asset Status**

## LIVELIHOOD STRATEGIES OF FARMER HOUSEHOLDS

income possibilities are especially important in order to decrease the seasonal vulnerability, which is typical for farmer households.

By looking at diversification of income generating activities – although not looking at diversification within a category and treating CA as a separate category -, it can be shown that people with four different sources are more likely to be found in category 1 and 2, and not at all in category 4. Households with only 2 or less different sources are on the other hand more likely to be in a lower asset category, up to 80% in category 4.

By focussing on products destined for the world market, such as cashew, cacao or coffee the role of the local market, which is especially important in times of vulnerability, is often underestimated. But as Figure 22 – among others – shows, the local market plays an important role within the diversification of livelihoods. In combination with other income generating activities it serves as an important income source for 70% of the households in category 1 and 83% of the respondents in category 2.



**Figure 22:** *Combinations/Factors leading to Higher/Lower Asset Categories*

This short analysis illustrates that income diversification is an important livelihood coping strategy and crucial for the reduction of vulnerability, be it in the form of agricultural diversification, as often the case for poorer households, or be it in the form of additional off-farm income through business or job opportunities.

## VI THE VULNERABILITY CONTEXT IN THE TARGET VILLAGES

The Vulnerability Context can best be perceived as “the external environment in which people exist” (DFID, 2001:...). In its core it lies furthest outside of stakeholders control, but gains importance through direct and often negative impacts upon people’s assets. For analytical purposes it is thus of highest interest to observe how different people with different livelihood asset combinations and thus different livelihood strategies cope with vulnerability. Vulnerability can be experienced in the form of shocks, seasonality and trends.

### 1. Shocks

The least controllable impacts from the external environment are so called shocks, which are sudden, irregular events, which mostly occur unexpected (DFID 2001:...) and constitute a situation of serious stress to poor people’s livelihoods. Shocks may impact on individual, on household, on community or even national level, whereas strategies for coping with them might differ for different kinds of shocks.

By giving several examples people in all target villages were asked about shocks having impacted on their household’s livelihood over the past. In 65% of the cases in Rowa shocks are related to human health, such as death incidences, heavy mental and mainly heavy physical illness. About 16% of the respondents mentioned cultural issues, such as the payment of dowry, the celebration of *potong gigi*<sup>22</sup> or conflicts within their *suku* to have constituted the heaviest stress for their livelihoods. The remaining respondents (12%) perceived no incident as shocking or did/could not answer the question (7%).

In Ilepadung 35% of the answers were related to death incidences or heavy illness of a family member, whereas 7% were heavily affected by the Tsunami in 1992, lost houses or even family members. The remaining were of the opinion that they never really experienced a shocking incidence, whereas it appeared as well not to be very common to talk about these issues in Ilepadung.

The respondents in Ilinmedo answered in 28% of the cases to already have experienced shocks related to human health, such as heavy physical or mental illness, and death cases within the family. A high 21% of the answers mentions food shortage to have impacted on their livelihood in a shocking way, whereas 15% stated the earth quake in 1992 to have had highly negative impacts, such as for instance a loss of crops due to a decrease in surface water. Almost 10% perceive a shock in the fact that their husbands or sons have migrated to Malaysia and never returned or sent any support. The remaining respondents did never experience an incidence they would classify as shocking.

Finally in Kringa, 66% of the respondent families already experienced a death incidence within the family or a heavy physical/mental illness. Similar to Ilinmedo food shortage has affected 15%, whereas the remaining interview partners have, according to their opinion, never been impacted by a shocking incidence.

---

<sup>22</sup> Potong gigi is a celebration taking place at the time of a female becoming an adult and involves the cutting of the front teeth. The whole village assists the celebration and heavy expenditures for ... become necessary.

### 2. Coping with shocks

Besides of an emotional impact most of these shocks involve high financial investments, for which people apply different strategies. Almost 30% of the villagers in Rowa mentioned village solidarity in the form of *memento mori*<sup>23</sup> and *ulu-éko*<sup>24</sup> to be important to overcome the situation of stress for their livelihood. Family support for money lending purposes is a coping strategy for almost 20%, whereas similarly important for respondents with different asset status. The use of natural capital (commodities, livestock), which can be converted into financial capital in times of hardship is a strategy for 33% of the respondents.

In terms of coping with shocks the Tsunami incidence in Ilepadung was certainly exceptional, since affected households received government support. For all other incidences people are either depending on social capital or on financial capital. In 30% of the cases the *suku* supported the coping strategy and in another 30% of the cases it was the family network. The remaining 40% mainly relied on their savings, either cash or in the form of other valuables, such as for instance ivory, which was used as currency in earlier times.

Coping strategies in Ilinmedo rely in 32% of the cases on personal cash savings. About 15% of the respondents are borrowing money from their personal network, such as family, neighbours and friends, whereas almost 10% rely on local saving groups, such as IDT, *arisan* and the like or, in case of death, get village support in form of *memento mori*. If savings are not available, 18% of the villagers are looking for opportunity work, mainly on other people's land. Additionally to above strategies special strategies are applied in case of food shortage. About 15% of the people said that they are going to the forest in order to search for wild sweet potatoes.

In order to deal with shocks 37% of the Kringa respondents are relying on third party support, such as family and neighbours, money lenders, such as traders or middle-men, or the pastor, which is highly respected in Kringa not at last due to the fact of being a German Missionary. Only 4% rely on own savings (see as well Figure 12) and for 11% local level organizations, such as *arisan* groups or *UBSP*, are crucial. Another 15% rely on natural capital in terms of livestock or commodities that can be sold in difficult times. Similar to Ilinmedo people go to the forest in times of food shortage or search for opportunity work on other people's land.

A significant difference in coping with shocks between households of different asset categories is not observable. Nevertheless, when it comes for instance to the selection of a treatment method for a physical illness people with different asset endowments have different opportunities. Most households with a low asset status select traditional and cheaper methods, whereas households with a higher asset status approach hospitals and doctors. For the later purpose access to banks or other saving opportunities is crucial and

---

<sup>23</sup> *Memento mori* is a term used for an institution, which has been created with the purpose to help to support families in case of death and to which all villagers pay a monthly contribution.

<sup>24</sup> *Ulu-eko* is a traditional Nage term and describes a settlement area as having a head (*ulu*) and a tail (*eko*), whereas the head is normally pointing towards the Volcano Ebu Lobo. In terms of coping with vulnerability it designates the mutual support that people living in the same settlement area provide each other in case of hardship, independent of status within the community.

mainly a possibility for better-off households (see as well chapter on financial assets). On the other hand traditional or local level saving or money lending organizations are of highest importance in times of high vulnerability for households with low asset endowments.

**BOX 3:** *The Impact of the Monetary Crisis 97/98 on the Livelihoods in the Target Villages*  
The sustainable livelihoods report published by the WORLD BANK (2002) mentions the monetary crisis in Indonesia as having impacted in a shocking way on people's livelihoods in Indonesia. Interestingly, in the four target villages for this livelihood study the crisis was sensible in a different way. Since many people are pretty much self-dependent in terms of food crops, the increase in prices for food crops did not really negatively impact on their livelihoods. Only government officials with a low level of self-dependence in terms of food crops were hit badly by the crisis. For some cash crops, such as cacao, kopi or cashew the prices actually increased and had a rather positive impact on many livelihoods in the target villages.

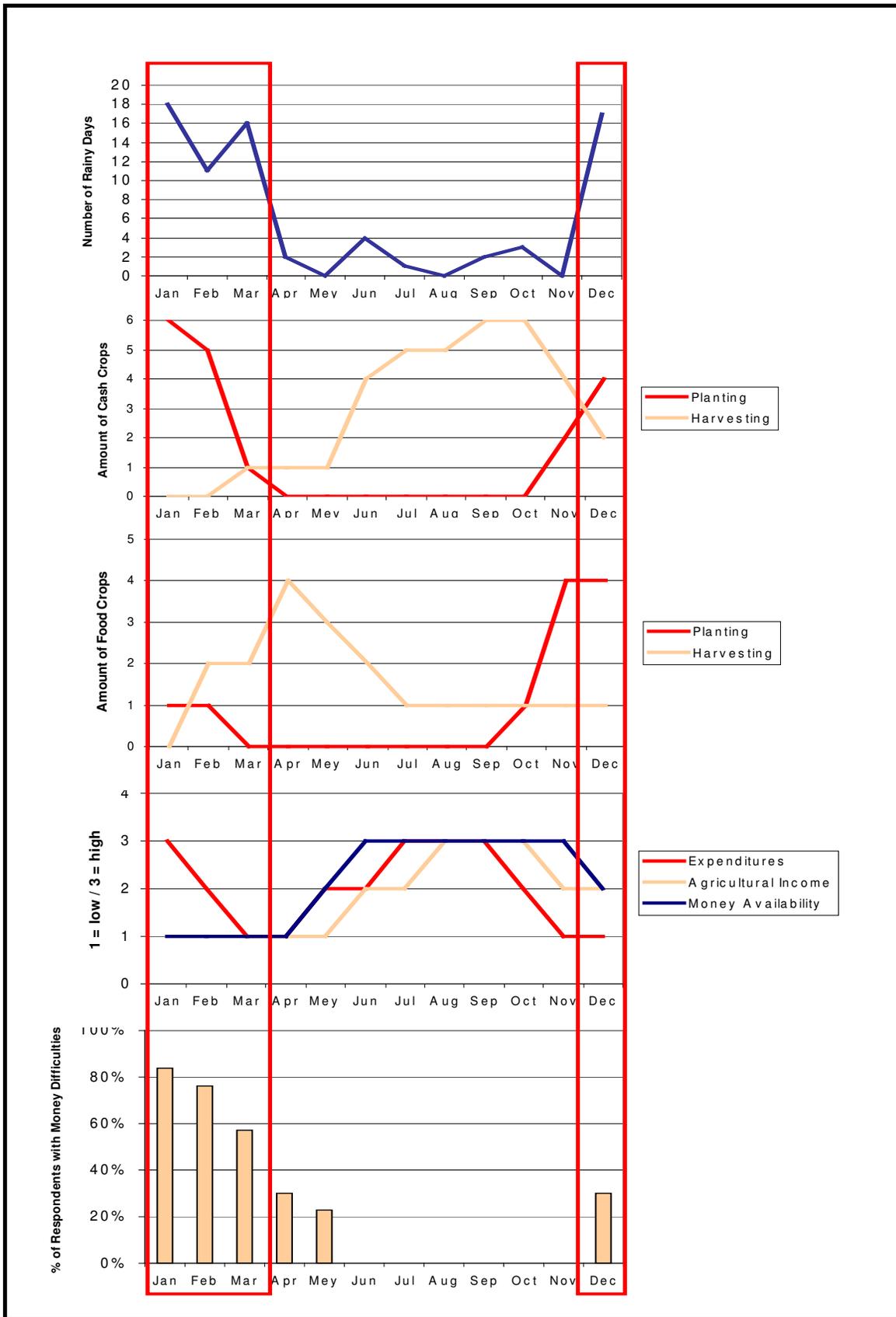
### 3. Seasonality

Communities or households with predominantly natural resource-based livelihoods are subject to seasonal cycles of stress (WORLD BANK 2000:36), such as seasonal income possibilities, seasonal changes in market prices, or seasonal impacts on human and animal health. For the purposes of this study it is thus mainly interesting to analyse these seasonal stress factors and strategies to overcome them.

It is clear that seasonality is mainly guided by the climatic pattern that allows certain agricultural strategies. Figure 23 illustrates with the example of Rowa that most people face difficulties during the rainy season, since availability of financial resources is low. This is not at last due to the fact that there is hardly any cash crop that can be harvested during this time and thus no real income from agriculture. Still, expenditures remain high not at last due to traditional (*adat*) festivities at the beginning of the year. Further, health conditions are worst during rainy season and increase the stress for the household budget due to increased medical treatment costs. Not ending with this the rainy season also affects the health of livestock and frequently results in loss of livestock. The input of work force for agricultural activities follows the above pattern. During the dry season the need for labour input is lowest and a lot of people seasonally migrate for working purposes and return at the beginning of the rainy season, when labour input for harvesting and especially for planting activities is highest.

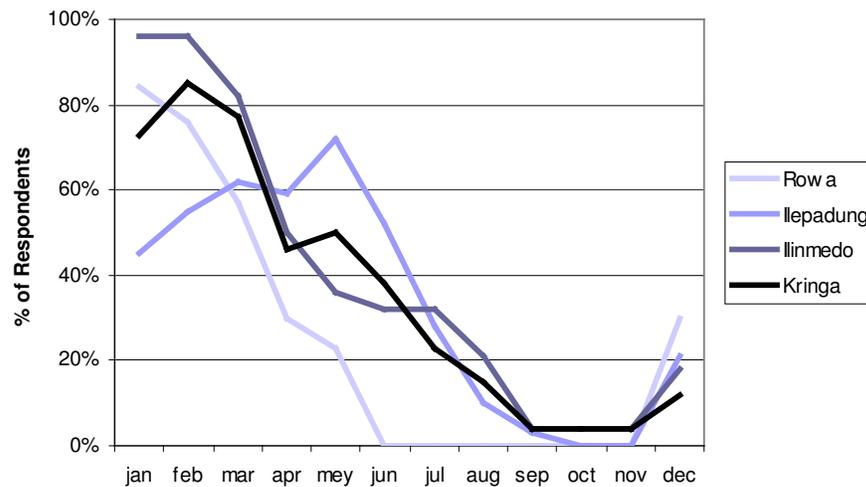
The diagram at the bottom shows the percentage of respondents, who describe a specific month as being difficult in terms of money, while as well here it becomes clear that the beginning of the year is the worst in these terms. But for a lot of villagers in Rowa the beginning of the year not only becomes difficult in terms of money, but also in relation to food crops, which are mainly harvested in February and March. With the beginning of corn harvest in March and definitely with the harvest of rice starting in April the food availability situation becomes more relaxed, whereas money availability improves only

**THE VULNERABILITY CONTEXT IN THE TARGET VILLAGES**



**Figure 23:** Factors Leading to Seasonal Stress for Livelihoods

with the beginning of April/Mey, when income can be generated from up to five different cash crops. This situation is similar in Ilinmedo and Kringa, whereas in Ilepading the length of the *paceklik* is prolonged due to the low level of own food security and diversification of agriculture (see Figure 24). Instead of declining in Mey and June the money difficulties are at its peak due to constantly high expenditures for rice and find relaxation with the beginning of the cashew harvest only. The Cashew season is the period with the least financial stress and illustrates the importance of the crop. But what could happen in places, where people almost exclusively depend on the production of cashew nuts if the world market price collapses, as has happened in the case of vanilla?



**Figure 24:** *Percentage of Respondents Mentioning a Specific Month as being Difficult in Terms of Money Availability*

Figure 25 shows the percentage of respondents with a specific length of the *paceklik*. A clear peak in the pattern of the curves can be distinguished for a length of three months. Less accentuated peaks occur after 6 months and in Ilinmedo and Kringa after 8 months. Whereas a *paceklik* of 3 months is common among all asset categories, the peaks after 6 and 8 months are caused through households belonging to asset category 3 and 4 mainly. The average duration of the seasonal stress in money availability is 2.6 for category 1, 4.3, 4.1 and 5.7 for the following categories.

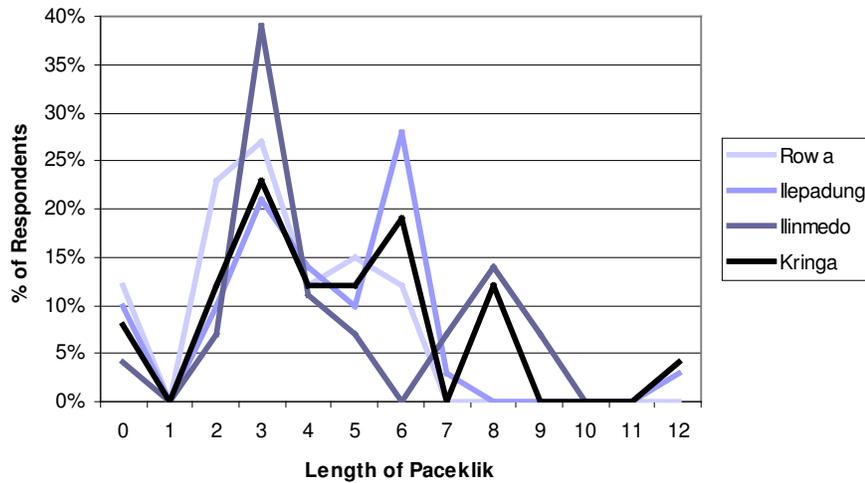


Figure 25: Percentage of Respondents with a Specific Length of the Paceklik

#### 4. Coping with Seasonality

Coping strategies for seasonal situations of stress are crucial for the sustainability of a livelihood, not at last due to the fact that they are applied on a regular basis and can be planned to a certain extent. Respondents in the villages were asked, what they do during the time in the year, which they perceive as being difficult in terms of money availability.

The most frequent strategies people apply in order to cope with seasonal vulnerability are either related to financial capital, such as getting money from savings, through business activities or a salary; to social capital, such as borrowing money from a third party including family, neighbours, traders and the like; to natural assets, for instance through selling of livestock, *moke* or other commodities; or to human assets in terms of agricultural labour or special skills for production of *ikat*<sup>25</sup> and wood work .

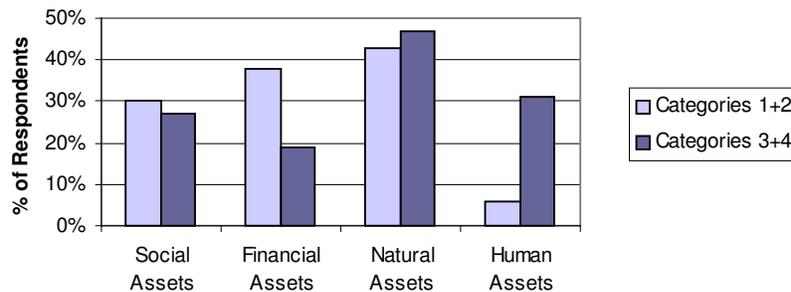


Figure 26: Important Assets for Coping with Vulnerability for Different Asset Categories (multiple answers)

<sup>25</sup> *Ikat* stands for the traditional, handmade technology of producing sarungs

The back-up through social capital is equally important for people with different asset status. The strong family bonds as typical for Florenese communities help better-off people in times of seasonal vulnerability as well as poorer households, whereas for the latter it is often the only way to cope with seasonal vulnerability. Similar, natural assets are equally important for all asset categories, although the better endowed households have access to more diversified sources of natural capital. The selling of livestock appears to be important for almost all people relying on natural capital, whereas for instance *moke* is especially important for worse-off households. As mentioned also elsewhere throughout this report financial assets are more frequently used for households in category 1 and 2 (see Figure 20), since they simply have better access to financial capital. Regular business activities and a salary, as available for most better-off households, highly mitigates the seasonal stress. Financial assets for respondents being classified in category 3 and 4 are mainly locally based savings, such as in *UBSP*, *IDT* or *arisan* groups, which normally have to be further backed-up through other capitals. Finally, human assets are significantly more influential for poorer households, where often a big family size is used as labour force on other people's land during the *paceklik*.

### 5. Trends

In order to understand the current dynamics in the target villages people were asked about general trends, which they perceive as being formatting for their village. Besides of Focus Group Discussions, the respondents were also asked in the questionnaire about differences they observe in their village between now and five years ago and how they perceive them to change in the near future. Trends on national or global level were hardly ever mentioned, since not understood in their complex impacts on the target villages; they will thus only be mentioned marginally at this position.

- *Population Trends*

People in Rowa and Ilepung both mention to have observed significant improvements in the economic status of their village, being accompanied by an increased mobility and higher educational level of their population, and a more healthy environment in general. On the other hand, rather fatalistic, a high percentage of people in Ilinmedo and Kringa do not really perceive their village to have improved in these terms and are as well rather pessimistic for the near future. Although in all villages people mention traditions to have become less important, especially among the younger generation, Ilinmedo and Kringa are still highly traditional in terms of agricultural practices and believes, which is much less the case in Rowa and Ilepung. Especially in Rowa, certain respondents mentioned a visible trend away from agriculture, since the younger generation becomes more and more interested in 'modern' jobs, such as driving an ojek and the like. An overall trend towards labour migration is visible in all villages, with a decreasing tendency in Ilepung, but rather increasing in the other villages. This is not seldom causing social problems, since many migrants are not returning from migration, leaving

widow headed families behind. In Rowa in-migration of labour is becoming increasingly trendy, mainly during harvest season through people from Western Flores. These people are being employed as seasonal workers on the fields of better-off farmers. This is not always welcomed by the villagers and was mentioned to cause several social problems, while some of the traditional working groups even prohibit the use of labour force from outside the village. For some RT-based working groups it had a negative effect, while others were strengthened through it.

- *Agricultural Trends*

Similar to many other places in the developing world, an increased trend towards market orientation is visible in the four target villages, which often goes along with a decrease in own food security. The introduction of cash crops through government programmes furthered a shift towards perennial cash crops and pushed back practices of shifting cultivation. Whereas shifting cultivation was practiced in Rowa up to the 1980s, when land was divided to individual families, similar practices are still visible in Ilinmedo and Kringa.

An increased market orientation certainly furthers an increased market dependence. Since a lot of the cash crops are produced for the global market, people are exposed to complex processes, which they can not understand properly and which often increase their vulnerability. Although not concerned personally, most farmers have observed the sudden drop in vanilla prices, which lies completely outside of farmer's control. Some mentioned to be reluctant to go for cashew, since they fear similar things to happen and a few have out of these reasons started to actively diversify their products. A general diversification of agriculture in comparison to a few years ago is actually visible in all villages – maybe with the exception of Ilepadung -, whereas this diversification mainly took place in terms of cash crops.

Another trend which was observable in most villages is an increase in official government land certification. Whereas this process is already quite advanced in Rowa, Ilepadung does not yet have any government certified agricultural land. Advantages and disadvantages of an official land certification are perceived highly different among farmers, since it is not at last concerning their own traditions and most land is, although government certified, still perceived as '*tanah suku*'<sup>26</sup>.

- *Environmental Trends*

Not at last related to decreasing traditional beliefs are environmental trends. In Kringa and Ilinmedo forests protected by traditional beliefs served as protection of water resources. Since beliefs nowadays are less strong people start to exploit these forests, which is feared to impact on the water situation in the villages. Especially Ilinmedo has experienced increased water scarcity over the last years, initiated with a loss of several water sources due to the 1992 earthquake. In Ilepadung people mention their water situation to have become more difficult over

---

<sup>26</sup> *Tanah suku* literally means land of the ethnic group, land of the *suku*.

## **THE VULNERABILITY CONTEXT IN THE TARGET VILLAGES**

---

the past. While some drinking water sources have disappeared with the Tsunami, other sources have apparently become more saline. People in Rowa mentioned negative changes in the water situation over the past mostly being related to the practice of slash burning agricultural land. With reforestation initiatives and not at last with a drinking water project by AUSAID they mentioned their overall water situation to have improved (for more information about trends in Rowa see DINAS PKT NGADA et al. 1999).

### VI INSTITUTIONS AND ORGANIZATIONS

Institutions and organizations are of central importance within the livelihoods of poor people, since they effectively determine access, terms of exchange between different types of capital, and returns to any given livelihood strategy (SHANKLAND, 2000; KEELEY, 2001). They directly feedback to the vulnerability context for instance through political structures that influence economic trends, through working market structures that help to keep price fluctuations under control or they might restrict people's choices of livelihood strategies through membership in a specific ethnic group (*suku*) that decides over access to land.

This section is only able to deliver a short insight into the complexity of institutions and organizations in the target villages. Focus will be laid on local level organizations and a selection of overall institutions shaping village interaction, whereas for instance institutions related to marketing will be covered at a later stage.

#### 1. Diversity and Function of Local Level Organizations

Indonesia and in particular the Province of NTT have a long tradition and high density of formally and more often informally organized local level organizations (GROOTAERT 1999). These organizations take over important community functions and are to a high extent influential for the development of a community. But the immense density goes as well along with many obligations towards the community, which especially in recent years gives raise to critical voices complaining about lacking time for individual activities.

In the following a short description of local level organizations in the target communities is given, while mainly following WERNER's classification.<sup>27</sup> WERNER (1998) distinguishes between the following groups:

1) *Social Service Groups*

Social service groups provide assistance and service to community members in the fields of education, health, pest management, security, general neighbourhood assistance and development. (...). Within community-based social service groups there is a wide variation concerning their scope of activities and their role for the community. Some groups are concerned with limited, specific purposes, like the assistance of families where somebody has died or the collective purchase of dishes used for large festive occasions. Other groups have a wide scope of activities and a large role in the village community, (...) such as customary (*adat*) organizations, which regulate customs, settle disputes and impose sanctions.

2) *Production Groups*

---

<sup>27</sup> WERNER talks of local level institutions, while for the purposes of this study the term 'local level organizations' is used (see as well chapter ...). Although specific occupational groups, natural resource management groups and recreational groups are not available in the four villages they are mentioned in order to be complete (reformulate).

- This category encompasses those associations founded for the purpose of mutual assistance in the production of goods to facilitate an increased production capacity. All groups concerned with agricultural production are classified as production groups. (...).
- 3) *Occupational Groups*  
Groups mobilizing the labour force of its members to achieve a common purpose or to solve a common problem are classified as occupational groups. Although a major part of these work groups consists of mutual help groups for field work, (...), these groups also contribute to the maintenance of village infrastructure.
  - 4) *Credit and Saving Groups*  
The category consists of groups providing credit facilities and informal groups with rotational saving activities (arisan). (...).
  - 5) *Religious Groups*  
Local level organizations with religious activities like collective praying or related to religion like groups for the construction of mosques or churches are classified as religious groups. They are very important for bringing the community together, and function as a forum for meeting and exchange.
  - 6) *Natural Resource Management Groups*  
These groups target the use and management of natural resources, (...) such as for instance the irrigation of paddy fields.
  - 7) *Governance Groups*  
This category consists of groups concerned with village governance. It encompasses the village government itself as well as the Village Development Council (LKMD) and Village Deliberation Council (LMD). (...). The lowest level of administration is the RT (*Rukun Tetangga* = smallest neighbourhood unit), followed by RW (*Rukun Warga* = intermediate neighbourhood unit) and the Dusun (largest neighbourhood unit). These administrative units reflect traditional settlement entities and are the main locus of collective action and mutual help within the village. (...) In NTT, RT and Dusun have a high profile not because of their government task, but because they perform many social tasks.
  - 8) *Recreational Groups*  
Associations concerned with leisurely pastimes like sports, arts and cultural activities are classified as recreational groups. A large part of these groups are initiated by youths. (...).

Social Service Groups in the target villages include *PKK* and *Dasawisma*, which are only active in Rowa and Ilepadung, the *Posyandu*, which has to be present in every village by government prescription, school committees and more informal organizations, such as *suku* (see also chapter X on social capital). *PKK* and its sub-organization *Dasawisma* are concerned with family welfare and exclusively consist of women. Whereas in Rowa *Dasawisma* takes over saving functions for family issues mainly, the *Dasawisma* in Ilepadung is involved in various activities: it collects money for the *Posyandu*, is active in cleaning the village market environment, the village government office and the environment of the public well, collects house construction material and money for funeral activities, or buys for instance chairs, which are then rented to the villagers for any purpose. It normally has a minimal membership fee of around Rupiah 1000 per month, which is collected in the monthly meetings.

## INSTITUTIONS AND ORGANIZATIONS

---

Production Groups are the *Kelompok RT*, which is based on the government administrative structure, marketing groups, as for instance present in Ilinmedo and Kringa, farming groups for *gotong royong* purposes, as present in Kringa, and the newly formed organic cashew farming group (see chapter X). The *Kelompok RT* is normally working on its members fields for planting, harvesting or cleaning activities, while each member gets in average three times a year the service of the group on its private field. The *Kelompok RT* is not only a group that is concerned with mutual help in the form of *gotong royong*, but even more a locus of friendship, where villagers – mainly men – meet often on weekly purposes. The members have to be paid for their work, whereas the money goes into the group account and is used within the RT. In Kringa *gotong royong* is organized in three special farming groups, which are formed based on *suku* membership, whereas the *Kelompok RT* is not important in terms of productive activities. On the initiative of Bangwita, a local NGO, marketing groups were formed in Ilinmedo and Kringa in 2002. These groups were in direct contact with Indian exporters in Maumere and delivered products to the storage place of the exporter. Since the transportation costs appeared to be too high the partnership failed and the groups tried to sell to Chinese traders or started to sell individually again.

Credit and Saving Groups exist in the form of *UBSP*, which are groups formed on private initiative, but backed up by credit unions in terms of capacity building or money problems, in the form of *IDT* as the government formed saving group for poor villages, and several forms of other *arisan* groupings (for house construction, for funeral activities, for school children, ...). All these groups work with revolving funds, where members meet on monthly basis, pay their interests, which are then newly divided among the members. In Rowa and Ilinmedo there is three different *UBSP* groups active, in Ilepading five different groups, whereas in Kringa *UBSP* appears to be less popular yet. The main advantage of these groups are credit possibilities with low interest rates, which are kept alive through a rather high level of social control. *IDT* is only existing in Rowa, but due to a lacking support from government side presently less active. Often the poorest of the poor appeared to not be members in any of the credit and saving groups, not at last due to inability or lacking discipline to pay back their debts.

Organizations especially formed for religious purposes are *Santa Anna* in Rowa, *Legio Maria* in Ilepading and *Mudika* in all the four villages. With the exception of *Mudika* all these organizations are exclusively women managed and have the main purpose of praying together, cleaning the church environment, and support the Pastor on his visits for Mass in the villages. A monthly membership fee between Rupiah 1000 - 2000 has to be paid for these organizations. Following the government structure the church is administratively organized into *Kelompok Basis (RT-based)*, which are used for performance of religious activities. Each year during the month of Mary (*bulan Maria*), which is twice year, these groups meet every night at a different members house in order to pray and discuss together. In Rowa they additionally meet twice a week in order to perform so-called duty prayers together. In Kringa the *Kelompok Basis* takes over many other social functions, such as house construction, piping of drinking water and agricultural work, not at last due to an active German Pastor. *Mudika* is a catholic group for young people, which is concerned with singing activities in church, cleaning of the church environment, with recreational

activities on Sundays and even *gotong royong* work on its members fields. In most villages it was mentioned the loose a bit in popularity, since the youth is getting more interested in other activities. In Ilinmedo there is a special women's choir, which mainly takes over recreational functions, but regularly performs on Sunday's in church. Since no other village has recreational organizations, the choir is listed under religious organizations.

Governance institutions are responsible for village policy and its implementation and involve the actual village government or the executive body with representatives from each *Dusun* and *RT*, the Village Development Council (*LKMD*) and the Parliament (*BPD*), who is the legislative and controlling instance of the village government and represents the community. The *LKMD* seems to be not really active in all villages, whereas the function of the village government often rises and falls with strong leaders. Inherently, the organization's function entitles it with a rather high amount of power in terms of village development and its support is indispensable for any activity within the village.

### **2. The 'Rules of the Game' of Social Interaction**

Following NORTH (1990:3) institutions can be defined as the 'rules of the game' of social interaction that define the scope for human interaction. Institutions are constantly evolving and have to be deemed as a creation of human beings, who reproduce and alter them according to their possibilities. Rules are on one hand formal as for instance government laws that can change over night, or more informal, such as traditions and customs, being practiced and passed on over generations.

Basically, there is three different inter-connected spheres of institutions that are important for village interaction in the target communities: traditional institutions, religious institutions and government institutions. Almost without exception people mentioned all of these spheres to be highly important for the function of their village life, whereas in the past people mainly regarded their traditional institutions to be the central guiding force for their interactions. Traditional rules, regulations and beliefs are still of high importance for each of the four villages, even more in the Tanah Ai villages Ilinmedo and Kringa. Certain traditional activities are regularly taking place during the year according to the agricultural cycle, while others are related to land and have to be performed for instance for the construction of a new house or for the opening of new land. Finally, important changes within the life cycle of a person have to be celebrated by traditional rituals. In Rowa the girls for instance have to get their teeth cut at the time of turning into an adult, Rowa and Ilepadung have the tradition of bride price at the time of marriage. Whereas in the former two villages the woman moves into the man's house, the opposite is the case in Tanah Ai. Another interesting practice is known in Tanah Ai: if a parent dies the children are split among the family of the wife and the family of the husband. The first child normally follows the female side, whereas the second goes with the husband's family; the third then might go again with the wife's side or can be 'bought-off' by the husband's side.

A decline in traditional religious activity has followed as much from economic and political changes as from the introduction of Christianity and hence an alien set of beliefs (FORTH 1998:21). Not at last due to the fact that education and health care on Flores were and still

are largely in the hands of the catholic church, catholic ideas were not only promoted by priests and missionaries, but also by school teachers and health officials. Over a long time traditional rituals were taught as being satanic and lost a lot of their past importance, whereas traditional ideas have to a certain extent been able to assimilate to Christian beliefs. The attitude of the church today is less about eradicating traditional rituals and ideas, but much more about the connections and synergies between the two different perceptions. Today, the church is basically present in all spheres of social life in the villages and has contributed significantly to village development with projects on infrastructure, agriculture and education. More direct it impacts on the social life within the villages through informal rules and prescriptions. In many villages for instance a written recommendation from the Pastor is necessary in order to be allowed to marry, whereas it is clear that only young people often going to church will receive such a recommendation. Nevertheless its importance, it still can happen, that the priest stands in front of empty church benches, since most villagers follow a traditional ritual on somebody's field.

**BOX 4:** *“If you do not Pray you have to Pay”*

An astonishing fact in relation to the influence of church rules was observed in Rowa. People have the practice to pray and discuss together in the *Kelompok Basis* each Wednesday and Saturday. Each household has to be represented at these meetings with at least one member. If a household does not send a representative sanctions between 5000 – Rupiah 15'000 have to be paid. Since this is an enormous impact on many people's household budget, most villagers follow these practices, but maybe not primarily motivated by belief, but by economic reasons. It goes as far that people, who are mainly living in their fields – often being up to 1 hour walk away from the main settlement – are walking back to the village for the purpose of praying and later back to the field.

Government institutions are to a high extent formalized and legally accusable, and thus often perceived as stronger than others. Especially with the introduction of the Village Governance Law in 1979 government institutions received an increasing importance for village life. This law enforcement significantly contributed to a decline in importance of traditional institutions through the replacement of older forms of leadership with modern political and administrative institutions (FORTH 1998:20). Figure 27 illustrates the people in the village mentioned as being most important for village life, which is an indicator for the importance for each sphere of 'rules of the game'. In more than 70% of the cases people answered government leaders - village head, head of *Dusun* or *RT* - to be most influential for their village life. Traditional community leaders – head of *suku*, village elders, etc. - are most important for more than 40% of the villagers. Religious leaders are significantly more important in Ilepadung and Kringa, the former having a religious leader at the same time highly involved in overall village functions and the latter mainly due to the German Pastor living among the villagers.

Conclusively it can be stated that all three spheres of 'rules of the game' entail important and indispensable functions for village life, whereas individual leadership potential and capacity are able to influence the relative importance of a specific sphere. It is important to know this constellation in order to facilitate interaction with the target communities and to

guarantee sustainable success of any kind of project intervention. A more active involvement of the German Pastor in Kringa in the PP for instance would most likely contribute to a better success of the project.

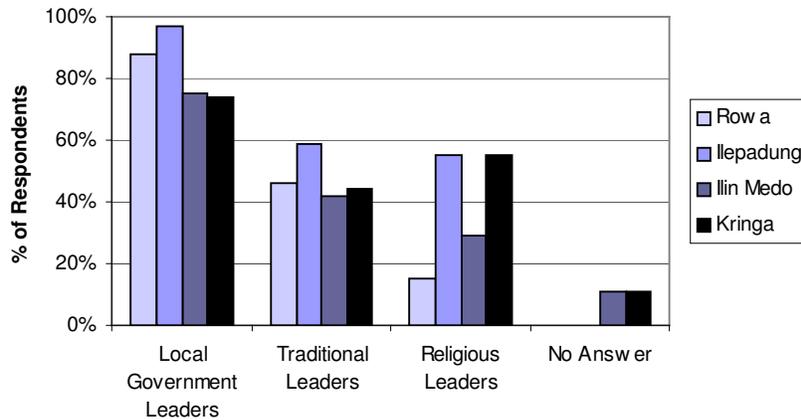


Figure 27: Leaders in The Village Mentioned as Being Most Important

### 3. Livelihood Strategies from a Gender Perspective

Livelihood strategies have been analysed for the purpose of this report by focussing on the household as the analytical level. But it is clear that differences in livelihood activities within a household occur, mainly in relation to gender and age. This section gives a short insight into gender-related differences in terms of livelihood activities. Of special interest is the position of a woman within a household, the changes of this position during the course of her life, attitudes about gender differences in the villages and women’s role in cashew production and marketing.

#### 3.1 Females within the household and the community

As in many traditional societies, gender differences are highly apparent in terms of work division. While in general female household members are more concerned with reproductive work in and around the house, the male are normally concerned with income generation outside the house. A similar picture is observable in the four target villages, although it is not appropriate to generalize, since diversity between and within households is enormous. Table 8 below gives an example of the daily schedules of husband (blue colour) and wife (pink colour) of a family, which has children at school age, a small shop and is mainly busy in agricultural work. It is obvious that the wife has more different duties and less recreational time, whereas the husband is mainly busy with field work and shop attendance. Field work is carried-out by both husband and wife, whereas the husband works often in the working group, which is as well a place for social gathering and not only hard work.

## INSTITUTIONS AND ORGANIZATIONS

Time	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM
getting up												
praying												
bathing/showering												
cooking												
drinking/eating												
house cleaning												
child care (school kids)												
livestock feeding												
pig feeding												
gotong royong												
to the field												
field work/wood collection												
attending the shop												
break/sleeping												
Time	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
praying												
bathing/showering												
cooking												
drinking/eating												
house cleaning												
child care (school kids)												
livestock feeding												
pig feeding												
gotong royong												
field work												
return from the field												
attending the shop												
watch TV/talk with friends												
break/sleeping												

a: when working gotong royong

b: when not working gotong royong

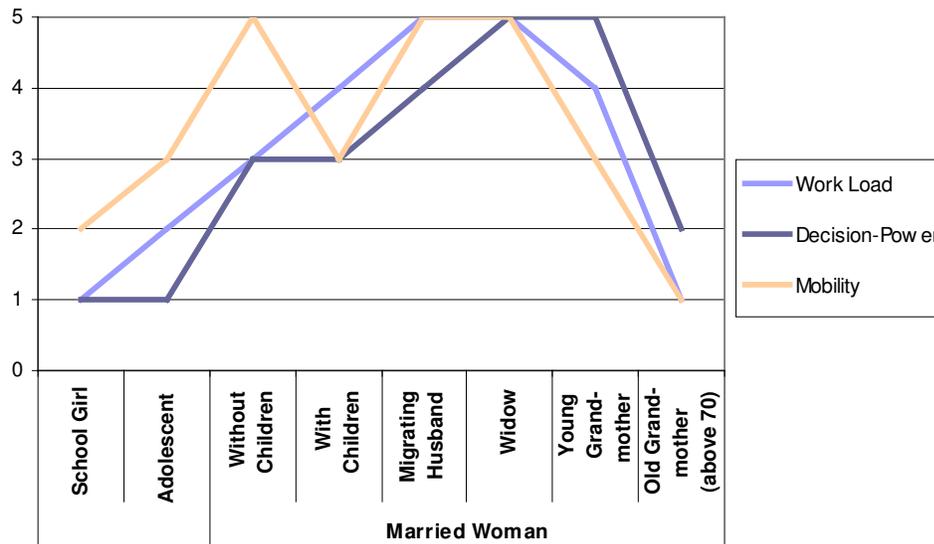
c: gotong royong is practiced four times a week by this household

d: praying takes place every Wednesday and Saturday, during the months of Mother Mary (twice a year) daily

**Table 8:** Daily Schedule of Male and Female Household Head (Example from Rowa)

When people are asked about the work load of each wife and husband, the most frequent answer is that ‘... the wife works more in terms of time and different duties, but the husband works physically harder.’ If decisions have to be made within a household, in

most cases it was mentioned to happen together between husband and wife. Financial decisions for daily needs are mainly taken by the wife, who is normally responsible for the household budget. But decision power within a household changes during the course of the life with changing marital status and age. Figure 28 depicts the result of a Focus Group Discussion with women of different age and status from Ilepadung. They discussed the changes in terms of work load, decision power and mobility that occur during the lifecycle of a woman. The work load of a woman steadily increases during the course of her life, being on a maximum, if the woman is basically operating as the head of the household, which is the case when her husband migrates or passes away. Traditional male works have to be delegated to other male members or, as often the case, taken over by herself. Workload decreases, with the entrance of a daughter-in-law into the household, who is then taking over a lot of her previous duties. Decision-power within a household is similar to the workload steadily increasing, being the highest as a widow and young grand-mother. Finally, the increase in mobility as a child is on a maximum for a married woman without children, who works in the field and often goes to the market. With the birth of children mobility becomes limited, but might rise again in case of migration or death of husband, depending as well on the age of her children. The grand-mother of course is again less mobile and has especially at higher age activities in and around the house only.



**Figure 28:** *Changing Position of a Woman in the Household During the Course of her Life*

Although Ilinmedo and Kringa are matrilineal structured, these features are similar in all the four villages, the biggest difference being the fact, that the woman stays in her house and will thus might have a different position towards her mother instead of mother-in-law. With growing age a women’s access to social capital and overall community functions changes (see Table 3). Women and especially women with children which have not yet left school are mainly responsible for social service functions in relation to family welfare.

Older women with often adult children are further holding important functions in terms of religious cohesion within the village, motivating their neighbourhood for praying activities and care for religious celebrations in general. In decision making functions on village level they are still highly underrepresented, hardly any women being part of the village government or holding important traditional leadership functions. Although being the managers of the finances on household level, credit and saving groups are still often male-dominated. These functions and roles have to be taken into account when planning and implementing a project more related to agricultural production, production groups being traditionally highly male dominated.

### ***3.2 Women and the Pilot Project on Certification of Organic Cashew Nuts***

Although production groups having a low level of female participants, women are in fact often helping their husbands on the field, especially for seed collection, planting and harvesting of cashew nuts, and further take over an important function in terms of marketing. Especially in Rowa they are the ones, who go to the market and interact with middle-men and traders.

The project proposal for the pilot project states that 40% of the direct beneficiaries have to be women, whereas it remains difficult to define the term 'beneficiary'. If the membership list of the pilot project is consulted it is obvious that in Rowa 12%, in Ilepadung 9%, in Ilinmedo 17% and in Kringa 15% of the registered members are female. If it comes to project meetings their proportion is even much lower, since their motivation to participate in male dominated events is low. In the self-reflection meetings about the pilot project held at the beginning of December 2005 for instance, three of the four meetings in the villages did not have a single female participant. Strikingly, quite a few registered females do not even know that their name is on the list and that they are part of a project, which involves responsibilities, duties and sanctions. And even more – although regularly working on cashew fields - do not really know that their husband is following a project. This poses some danger for the integrity of the ICS, since the organic standards might not be followed. Finally, with the exception of Rowa, where two of the five inspectors are females, there is not other village that has a female internal inspector. Female inspectors would be much more able to access female project participants and represent their issues in farmer group meetings. It has thus to be stated that gender issues, although being fostered in the project proposal, are not yet properly addressed on both farmers side and on the level of project management. While the former is a process not changing over night, the latter issues have to become a focus point for the remaining project period.

### VII LINKAGES BETWEEN PRODUCTION AND MARKETING OF CASHEW NUTS AND LIVELIHOODS

*“I have never tried a cashew nut in my life, but it is the most important income source for me. I do not know who the people are, that are actually eating the cashew nuts I produce, where in the world they live and why they like them” (Farmer from Ilinmedo).*

This quote impressively illustrates the situation of many farmers in the four target villages. Many of them are somehow producing for a ‘black box’, which they do not yet understand and that lies to a high extent outside of their control. In words of the sustainable livelihoods approach much of the relationship between production and marketing of cashew nuts yet impacts on livelihoods in the form of vulnerability. That rather strong linkages between cashew nut production and marketing, and farmer livelihoods exist is depicted in Figure 21 and Table 7. But what does it actually mean to produce cashew nuts in terms of time and cost investments for production and marketing, how does the marketing chain work and who along the chain has which function and perception? These are questions which will be addressed in this section.

#### 1. Development of Cashew Market in Flores

On international level the economic use of cashew started about in the 1920s, when the first factories for processing were opened in Southern India and the nuts began to be traded on the international market (VERON, STRASSER and GEISER:2004). In Flores 60 years more had to pass before the first cashew nuts were traded. With a comparably low price (Rupiah 500 – 1000 per kg unshelled nuts) the cashew tree did not yet have an important function in the target villages until the late 80s and early 90s, when government programs supported the plantation of cashew trees as part of reforestation projects. With a growing market and increasing prices, farmer started to plant cashew trees on own initiative in the mid 90s, until it became the most prominent cash crop by the year 2000. People started not at last to realize that with a rather low external input in terms of time and money, with low needs of the cashew tree in terms of soil fertility and water availability, a comparably high income could be achieved. Since then the cashew market in Flores experienced a steady growth with more and more Indian exporters entering directly into the local market and prices going up to Rupiah 9000 per kg unshelled nuts. Nevertheless, most of the value within the marketing chain is added outside of Flores and Indonesia, since a processing industry has not yet been able to grow, not at last due to the fact that the cashew market is highly controlled by Indian companies, who are looking for raw products to be processed in India.

## LINKAGES BETWEEN CASHEW NUTS AND LIVELIHOODS

### 2. Temporal, Financial and Labour Inputs for the Production of Cashew in Flores

In order to be able to value the price of a product it is necessary to understand what inputs in terms of time, money and labour are necessary to grow the product. Table 9 illustrates the cashew-related activities during the course of one year, the estimated time and labour force input, as calculated with a farmer from Rowa. Whereas the activities are more or less similar for all farmers in Flores, input in terms of time and labour varies highly according to the size of the cashew plantation, the amount of tress, the socio-economic status of a farmer, the community a farmer lives in and so on. This is again to say that livelihoods of farmer households are highly diverse and differently affected by project interventions. The table below gives an idea about these necessary inputs and depicts the harvest time between August to December as being most busy in terms of temporal inputs. Over the period of one year more than 400 hours have to be worked by one person for one Hectare of cashew trees of this farmer from Rowa. Whereas planting, harvesting and marketing is mainly done by the farmer family individually, overall plant and field care is carried-out in working groups (*gotong royong*).

	Jan	Feb	Mar	Apr	Mey	Jun
<b>Activities</b>	Last Harvest Opening of New Field Planting Cutting Big Grasses Treatment of Field/Plants	Treatment  Planting Cutting Big Grasses	Cutting Small Grasses	Cutting Small Grasses	Cutting Small Grasses	Clean Leaves  Disease Prevention (Smoke Method)
<b>Hours/ha/month</b>	30 Hours	30 Hours	20 Hours	20 Hours	20 Hours	20 Hours
<b>Labour Force</b>	2-3 People (Husband, Wife, External Labour Force)	2-3 People (Husband, Wife, External Labour Force)	Group Work (Kelompok RT)			
	Jul	Aug	Sep	Oct	Nov	Dec
<b>Activities</b>	Harvesting Marketing	Harvesting Marketing	Harvesting Marketing	Harvesting Marketing	Harvesting Marketing	Harvesting Marketing
<b>Hours/ha/month</b>	20 Hours	50 Hours	50 Hours	50 Hours	50 Hours	50 Hours
<b>Labour Force</b>	Harvesting: Husband and Wife Selling: Wife	Harvesting: Husband and Wife Selling: Wife	Harvesting: Husband and Wife Selling: Wife	Harvesting: Husband and Wife Selling: Wife	Harvesting: Husband and Wife Selling: Wife	Harvesting: Husband and Wife Selling: Wife

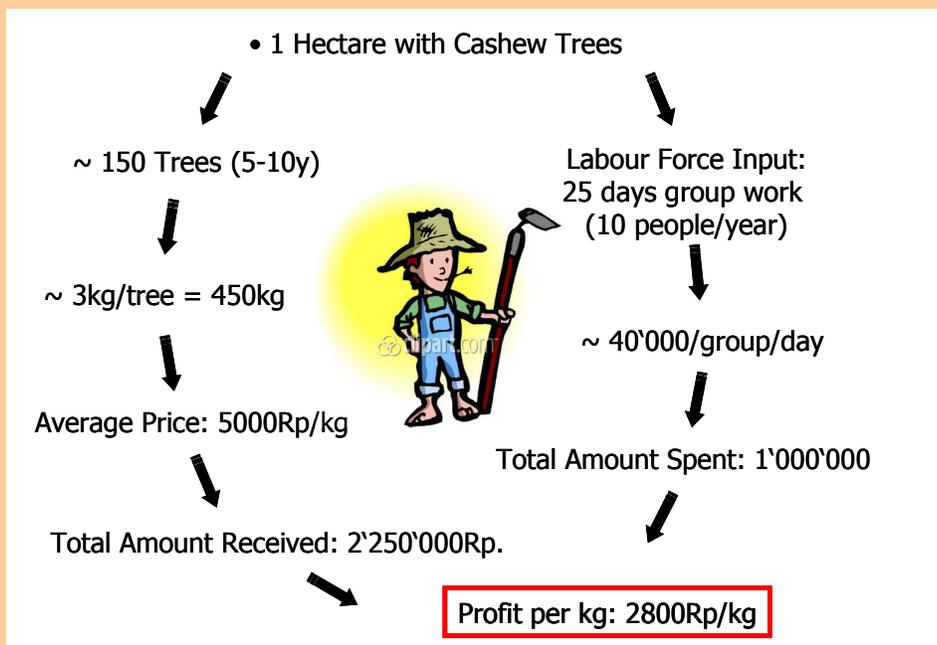
**Table 9:** Seasonal Calendar for Cashew Production (Example from Rowa)

If analysing production costs it is again highly complex to make a general statement, since diversity between different farmer households is enormous. Box 5 shows an example of a production cost and profit calculation carried-out with a farmer group in Kringa. Since most farmers do not have records or control about their production costs it was astonishing for

them to actually realize, what kind of factors constitute the price and where within the marketing chain value is added. Moreover, for most of them it is unimaginable that prices in Flores can be influenced by processes far away, such as for instance the bad harvest in Africa, which drove prices high last year. These facts make most farmers operate under a high level of security, which if course affects a successful project implementation.

**Box 5: Calculation Of Farmer Profit in Kringa**

Together with a group of farmers in Kringa the overall production costs, the total income and the possible profit derived from 1 hectare of cashew trees were estimated. It has to be stated that these costs are highly variable, depending on amount of cashew trees, age of cashew trees, applied labour force (gotong royong, individual labour, hired labour), place of selling (transportation costs) and current market prices for inputs and outputs. Thus, costs will vary with these factors and profit may range between Rupiah 0 – 4000 per kg. In the example below the farmer owns 150 cashew trees of 5 to 10 years of age, each producing about 3kg. The total of 450 kg unshelled cashew nuts can be sold for an average of Rupiah 5000 per kg delivering a total income of Rupiah 2.25 Million. On the expenditure side about 25 days group work are needed per year to work on 1 Hectare of cashew trees, which costs about Rupiah 1 Million. As a result the farmer below makes around Rupiah 2800 profit per kg.



**3. From the Farmer to the Exporter: The Cashew Market in Flores**

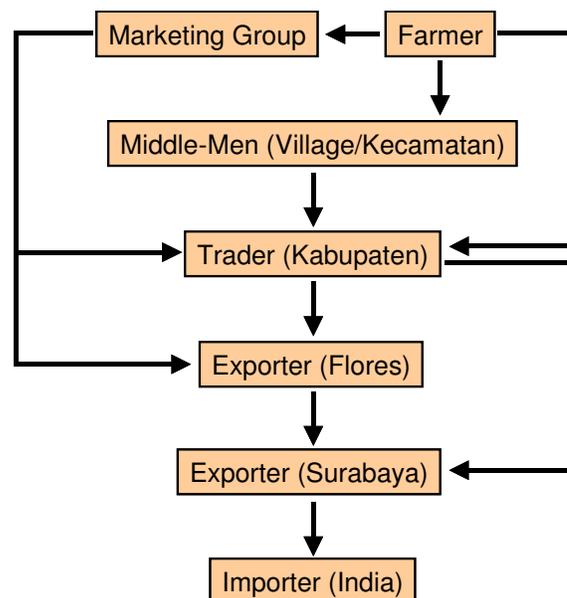
According to TRADEDATA INTERNATIONAL (2004) the world market for cashew nuts is a steady, slow growing market purchasing shelled and unshelled nuts. For both of these products only a small number of countries account for the majority of trade. In terms of imports India accounts for 60% and the USA for 21% of the global imports, whereas data on exports are more difficult to receive; Tanzania, India, Ivory Cost and Brazil are among

## LINKAGES BETWEEN CASHEW NUTS AND LIVELIHOODS

---

the biggest exporters, whereas Indonesia is responsible for about 5% of the world-wide exports, mainly in the form of unshelled nuts. The biggest share of the nuts exported from East Java are actually grown in NTT.

How do these nuts get from the farm gate in Flores to the exporter? Basically, the farmer has three possibilities to sell unshelled cashew nuts (see Figure 29): through a middle-men, who either buys directly in the village or on the regional market, through a marketing group, as present in Ilinmedo and Kringa<sup>28</sup> or directly to a trader, who is either entering the village or buys at his storage place in town. The middle-men always works for a trader (or for another middle-men), who is supplying him with the necessary finances to buy a certain amount of cashew nuts. The trader has the possibilities to store the commodities and wait for good offers from either bigger traders or, as normally the case, from the exporter, who is then delivering to Surabaya, from where almost all unshelled cashew nuts from Flores are exported to India (via Singapore and Mumbay). Bigger traders have their own expeditions and deliver directly to Surabaya. In India the nuts are then processed and sent to the consumer markets in Europe or the United States of America, whereas they might be packed in Belgium, delivered to a Wholesaler, then to a Retailer and finally to the consumer.



**Figure 29:** *The Cashew Marketing Chain from the Farm Gate in Flores to the Importer*

The marketing group may directly be accessing an exporter or an intermediate trader, whereas minimal quantities of commodities are required. For individuals it is often difficult to sell to bigger traders and exporters, since quantities are low and trust between the two parties might be insufficient.

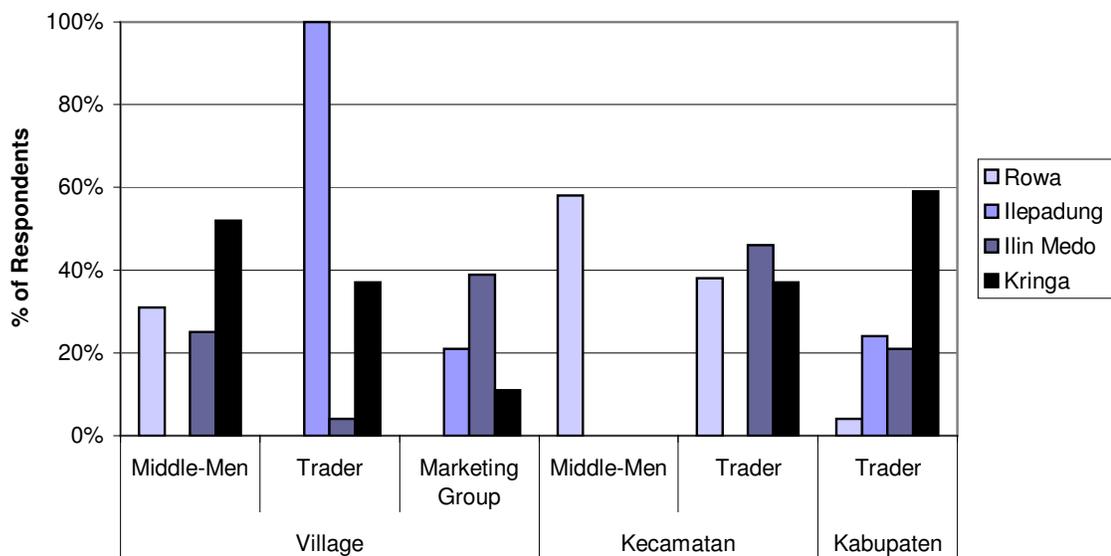
---

<sup>28</sup> People mentioning to sell via a marketing group in Ilepading are referring to shelled cashew nuts, which are commonly sold to shops and offices in Larantuka.

## LINKAGES BETWEEN CASHEW NUTS AND LIVELIHOODS

Figure 30 shows where the people in the study locations sell their cashew nuts, which is actually similarly valuable for most other world market products. The situation is quite different in all villages depending on the local-specific characteristics of the market. In Rowa for instance there is no marketing group, so most of the harvest is either sold to middle-men in the village or to middle-men or traders on the regional market in *Boawae* or *Mata Loko*. Traders are not yet entering the village on a regular basis and are hardly ever directly approached at their storage place.

In Ilepandung it has to be distinguished between shelled and unshelled cashew nuts, since some villagers already are processing a certain amount of their raw nuts into kernels. Everybody sells unshelled cashew nuts at least to some extent within the village to traders, who are normally buying directly from the farmers' houses. About 20% of the villagers have already sold once directly to traders on *Kabupaten* level – on the market in *Geliting* in *Sikka* -, while this again is only valid for unshelled cashew nuts. There is no trader who is buying shelled cashew nuts yet, so the group of farmers, who is already processing cashew nuts, is selling to stores and offices in Larantuka, which are approached personally.



**Figure 30:** Locality, where Cashew Nuts are Sold and Person, who is Buying it<sup>29</sup>

In Ilinmedo the case is as follows: Many villagers do sell to middle-men, who are entering the village during the cashew season, whereas traders are normally not arriving directly in the village. About 40% mentioned to sell via the marketing group that has been established under facilitation of Bangwita, but due to problems in terms of operational costs and management it was not that popular in the last year anymore. Almost 50% of the villagers at least sometimes go to the regional market in Talibura and sell their commodities directly to traders, whereas about 20% go as far as Geliting for accessing traders directly.

<sup>29</sup> More than 1 answer could be given, since most people have different ways of selling not at last depending on the price situation.

### **Box 6: The System Ijon**

The system ijon is an alternative system of trading that is based on the fact that the farmer is in dire need of getting access to money in order to buy food, school fees or the like at the beginning of the year (*paceklik*). A trader offers him/her money during this period, whereas he/she has to promise a certain amount of the harvest to the trader ('sell trees to the trader') according to a price that is fixed in advance. This price is not being adjusted to market prices during the harvest time, what mostly results in big disadvantages for the farmer. In Uru and Kringa it seemed to be still existent, whereas in Rowa it has never been popular. There is quite a few variations of the system: in Ilepadung it is often practiced as an exchange of rice for cashew, since food crops are really scarce in Ilepadung. A trader might arrive and offer 50kg of rice at the beginning of the year, which is currently Rupiah 3000 per kg on the market. At the beginning of the cashew market the farmer has to pay pack the amount plus an interest in cash or pay equivalent in cashew according to the lowest market price.

Not at last due to the favourable location Kringa is often accessed by traders and middlemen and a lot of people sell directly in the village. The marketing group is not very popular and only used by about 10% of the respondents. Up to 60% stated to sell their products as well directly to traders in Geliting, where prices are often better and options for selling are the biggest. Similarly, traders on Kecamatan level take over important functions for the villagers in Kringa and regularly buy their commodities.

#### **4. Access to Market Information**

Access to market information is a crucial factor for marketing purposes, since it reduces transaction costs. These costs occur in any human transaction as information about quality, price and actor's behaviour is needed. Situations with high transaction costs and risks are typical for less developed economies with weak institutional environments and particularly affect those with low asset endowments (DORWARD 2002:5).

Figure 31 depicts the way the farmers in the target villages get access to market information. Most of them are getting information about prices from other farmers or from the person they sell to. Although they often compare between different buyers, they do not really know how fair or realistic these prices are. Radio and newspaper, as rather independent sources, are hardly ever used or available; if so, mainly in Rowa (see as well Figure 8). Unfortunately, even if accessed by farmers, these sources are not available on a regular basis, since for instance the Flores Pos publishes prices only about every second week. It is thus difficult for the farmer to decide, where, when and how it is best to sell his products or to understand processes in relation to price development in Flores, not to say on the world market. As a result not at last of a lacking access to information the perception of being treated unfair and of being powerless in influencing the system is persisting and often perpetuating the status quo.

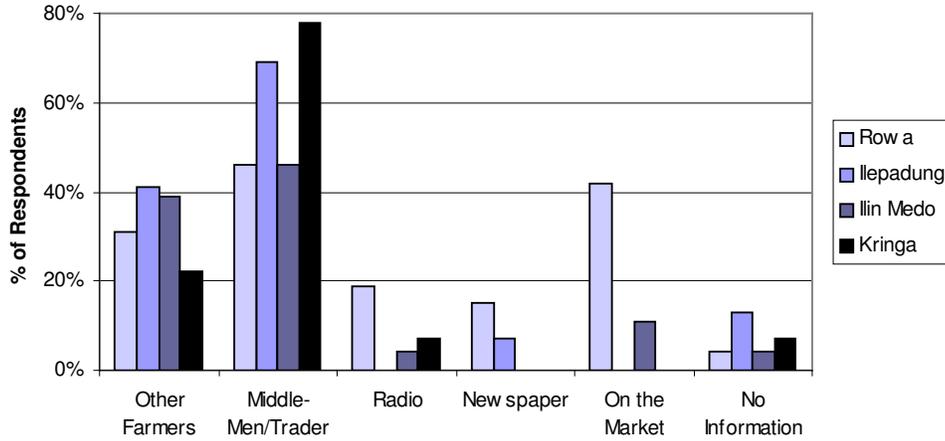


Figure 31: Source for Information about Market Prices

Figure 32 shows how far the farmers know about the product flow after the cashew nuts have left Flores. Obviously, most of them do not have a clue where the unshelled cashew nuts go to after having left the island. One might argue that this is not important, since the farmer only needs to sell his commodities, what happens afterwards is none of his business. But a better information about processes along the marketing chain would support a better understanding of how prices are influenced in Flores, why it is like this and what reactions are possible to this. As DORWARD (2002:2) states "... the development of livelihoods critically depends upon, among other things, demand for the outputs supplied by those livelihoods." If information and knowledge about the demand side is hardly available to the farmers it is difficult to develop their livelihoods.

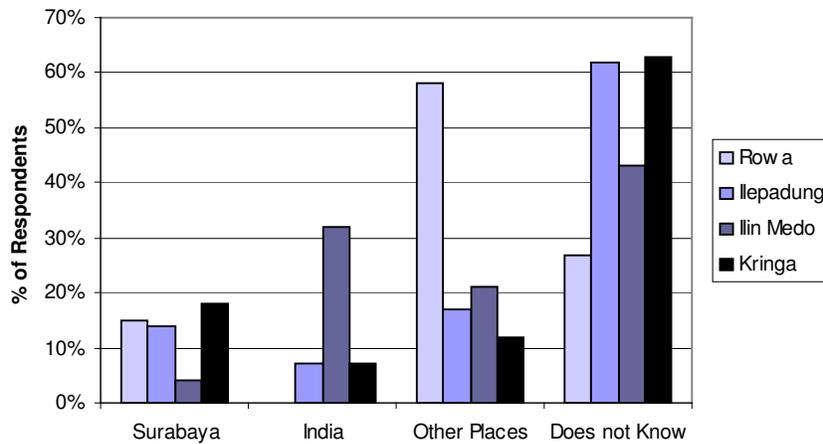


Figure 32: Knowledge about Product Flow after Flores<sup>30</sup>

<sup>30</sup> The rather high knowledge about the destination India in Ilinmedo can be traced back to the fact that the marketing group was in direct business relation with an Indian exporter for one year.

The farmers in Ilepadung for instance, after having heard that their unshelled cashew nuts are being shipped to India, where they are processed and then exported to the consumer as Indian cashew nuts, felt betrayed and wanted the consumer to actually know, where the nuts are originally from. This gave additional rise to the will to actually process the cashew nuts in Flores and deliver them to the consumer directly as cashew nuts from Ilepadung. Or, a slightly better understanding of the complexity of the marketing chain might support a diversification of agriculture in order to not be over dependent on a specific product only. It might further improve the relationship between different actors along the marketing chain, since their actual role, costs and risks are better understood. Finally, farmers might realize that a strong partnership among themselves will increase their bargaining position within this complex system and lead to new forms of collaboration within the marketing chain.

### **5. Function of Different Stakeholders along the Cashew Marketing Chain**

By interpreting Figure 29 and 30 it appears to be obvious that a shorter marketing chain will inherently benefit the farmer, not at last due to a common perception of middle-men as being exploitive by definition, being the bloodsuckers of the poor (see as well HELVETAS 2005:11,19). But it is often forgotten that all people within the marketing chain take over essential functions, have transaction costs and finally contribute to the value of a local economy. DORWARD (2002:17) puts it the following way: "... while grossly inequitable returns between traders and farmers and corrupt and violent means to maintain market positions must be condemned and attacked, such action must recognise (...) the value of the services they provide, and the skills, difficulties and risks which are involved in providing these services". Admittedly, it must be difficult to adapt a rather neutral approach towards the marketing system, especially if one is part of it. What is tried within this chapter is to illustrate the facts, views and opinions of different stakeholders, while not directly judging them as being good or bad.

#### *The Farmer*

The farmer is the first joint within the marketing chain and functions as the producer of the good. His main costs – besides of costs in terms of time - occur in production and eventually in transport to the market. Production costs are highly variable depending on the farmers amount of cashew trees, the age of the trees and thus the harvest amount, and the labour force he can/wants to invest. Box 5 above gives an idea about production costs for a farmer group in Kringa. Similar to production costs, transportation costs are highly variable depending on the distance to the market and the frequency of selling on the market. An example calculated in Rowa, where people weekly go to the market in order to sell their products resulted in about Rupiah 10 per kg unshelled cashew nuts.

#### *The Middle-Man*

As the name suggests the middle-man, while often being a farmer himself, links the farmer with the trader, buys commodities from the farmer and sells it to the trader. A trader employs up to 30 middle-men, who receive money on a market day and a fixed price for

which they will be able to sell to the trader at the end of the day. What they do with the price on the market, if they cheat, if they employ other people, etc. is their business. A lot of them stated to have their tricks to cheat a little bit in order to make enough profit, whereas on the other hand the relation to the farmers is based on trust issues and often middle-men invest rather in trust and a long-term relationship, than in short-term profits. The farmers often know the middle-men by name, sometimes they are from the same family or at least the same village, what increases trust. Such trust issues appeared to be especially important for people with lower asset status, who are often überfordert on the busy market.

Transport is normally organized by the trader and not part of the business of the middle-men; still he and eventually his staff, who has to be paid for work, have to get to the market. If middle-men directly enter villages for buying commodities they have to pay a kind of a (illegal) village contribution, which is apparently used for the national day and ranges between Rupiah 25'000 – 100'000 per year. If working on a market the ministry of trade (apparently) collects Rupiah 500 per m<sup>2</sup> which is used for trading activities on the market. If a middle-man does not own a scale he has to hire one from a trader for which the costs are normally shared among a few middle-men and are roughly about Rupiah 5000 per person per day. According to several estimations, an average profit of about Rupiah 50-250 per kg seems to be realistic for a middle-man.

### *The Trader*

The trader is the person, who has the possibility to transport (transport facilities), store (storage facilities) and trade (business network) the commodities further within the marketing chain. He has access to own finance and normally operates his business in strategically favourable locations, such as big market places, towns located on important traffic axis and/or access to a harbour. Bigger traders have their own expeditions and directly deliver to the exporter in Surabaya.

From the middle-man to the trader costs increase considerably, while the profit range was estimated to be similar. Transportation costs were mentioned to be – again depending on the distance – between Rupiah 25 – 60 per kg, whereas shipping costs (Flores-Surabaya) of the bigger traders range between Rupiah 175 – 300 per kg. Storage costs are highly variable, depending on ownership status, but can come up to Rupiah 2.3 Mio per ton per year for a rented storage house. Additional costs for the necessary trading licences for the trading location (SITU) and the trading activity (SIUP) have to be paid to the ministry of trade, which further collects a tax (SP3) on the commodities. This tax is by law 1% of the total amount, but was mentioned to be negotiable. The costs for SITU and SIUP are different from district to district. Whereas in Ngada SITU costs up to Rupiah 10'000 for a period of one year, in Sikka entrepreneurs do not have to pay at all. For SIUP it is the other way around and Sikka asks up to Rupiah 200'000, while in Ngada no expenditures occur for it (re-check). Further costs occur for staff salary, security issues, administration and information, the later resulting in phone bills of up to Rupiah 3 Mio per month in the busy season.

## LINKAGES BETWEEN CASHEW NUTS AND LIVELIHOODS

	Farmer	Middle-Man	Trader	Exporter
<b>Buys from</b>		Farmer	Farmer/Middle-Men	Big Trader
<b>Buys in</b>		Village/Market	Village/Market/Storage Place	Storage Place
<b>Profit-Range (Rp./kg)</b>		50 - 250	50 - 250	50 - 250
<b>Costs</b>	Production Transport	Transport Village Contribution Market Tax Tax for Scale Use Salary for Staff (up to 5 people)	Transport Storage Salary for Staff (up to 30 people) Licence Costs (SITU/SIUP) Cost for SP3 Security Information Administration	Transport, Shipping Storage Salary for Staff (up to 40 people) Licence Costs (SITU/SIUP) Harbour Tax Security Information Administration

**Table 10:** Profit and Costs of Different Players Along the Marketing Chain

### *The Exporter*

The Exporter finally delivers the products from the country of production to the country of further processing or consumption. Exporters in Flores are mainly Indian business people, who are delivering cashew nuts via Surabaya to India – mainly Kerala – where they are processed and exported to the consumer markets in Europe and USA. During cashew harvest season about 30 Indian exporters were mentioned to be in Flores, who are working together with the traders on contract basis. Contracts are issued for instance for a quantity of 100 tons, which have to be delivered within 3 days or 1 week. This has the effect that the trader adjusts the buying price from the farmer according to his stock and need, which sometimes may result in high price fluctuations.

Costs for the exporter are similar to the ones of the trader, except additional costs for shipping and harbour tax.

### *The Government*

Additionally to the actors concerned with the actual product flow the government entails an important function in terms of controlling, taxation and business environment as a whole. Besides the Ministry of Industry and Trade, the Ministry of Economics, the Ministry of Communications, the Ministry of Finance and the Head of the Sub-District entail functions within the cashew marketing chain. While the later ones mainly have functions in terms of tax and revenue collection the Ministry of Industry and Trade has the duty to inform the population about prices via radio and newspaper, which they normally inquire on the local

market themselves. Once in a year they check all the scales in use for trading purposes and mark them with a stamp; they further serve as a kind of complaint centre, where people can address the problems they experience within marketing and have the possibility to weigh on a standardized scale. This possibility was mentioned to not been used on a regular basis, not at last due to the fact, that the complaint centre is often too far away and a trip to the office often costs an amount equal to the one a farmer might have been cheated on the market.

### **6. Problems in Terms of Cashew Marketing**

The perfect market does not exist and problems in terms of market function are typical for less developed economies. According to HELVETAS (2005:9) "... the rural poor often find that the marketing of agricultural products is a huge problem. Remoteness together with often difficult access to markets form barriers that can hardly be removed by local resources in a reasonable time. Also difficult to influence are the conditions in the world markets ...". Besides a difficult physical access and uncontrollable macro-economic structures DORWARD (2002:19) perceives the following difficulties within product marketing, which are all present to a certain extent within the cashew market in Flores: a poor informational access that increases communication and overall transaction costs, an inappropriate regulatory framework, for instance through over-licensing or, in contrary, missing market control, a poor market organization in terms of lacking physical infrastructure or weak concurrence situation, inadequate access to finance for all players within the chain, weak business skills and trade conditions favouring cash instead of food crops.

#### *The Factor Ethnicity*

As visible in Figure 29 the cashew market in Flores is highly controlled by the Indian import market that again depends on the situation on the world market. While the big centre for export is based in Surabaya, there is Indian inter-island traders working directly in Flores, normally via contract with local traders. These traders and business people in Flores are generally people of Chinese origin, whose families have lived over generations in Flores. The middle-men, who are frequently in direct contact with the farmers are normally recruited from local people, who have good or even family relations with the villagers, speak their local language and thus receive a higher level of trust. When it comes to problems within the marketing chain, it tends to become a problem of ethnicity. The traders are then suddenly more Chinese than anything else and definitely not Flores people anymore, whereas the Indian exporters often remain invisible for the farmer. In the year 19... it went so far that people started to burn stores of the successful Chinese originated business community.

#### *The Farmer's Perspective*

The respondents in Rowa, Ilepadung, Ilinmedo and Kringa were asked, what they personally perceive as problems in terms of cashew marketing (Table 11). Problems were either related to the trader/middle-man, to the farmers themselves or to the market situation

## LINKAGES BETWEEN CASHEW NUTS AND LIVELIHOODS

as a whole. Whereas only few respondents mentioned lacking marketing information and the length of the marketing chain – not at last due to the fact that they do not know about the length - as a problem, price fluctuation appeared to be a prominent issue. Farmers are rather vulnerable to it not at last due to their low bargaining position. Since they often need money on a day-to-day basis, they have to sell their products for whatever price possible. Moreover, still most of them do sell alone and thus in low quantities, what makes it difficult to bargain about prices. Also price related, but brought in relation with the middle-men and traders is the perception that they are being cheated, either with scales that are fake or fake-handled. A little more self-critical, some farmers mentioned it to be a problem, that there is no quality management on their side, not at last due to the fact that they do not know how to do it and do not yet consider it to be important enough. On the other hand it appears to be a feature of agricultural markets that "... income mainly results on the sold quantities rather than on quality aspects" (HELVETAS 2005:13).

Marketing Problem	Rowa	Ilepadung	Ilinmedo	Kringa
Lacking marketing information	4%	7%	0%	0%
Long marketing chain	8%	3%	0%	0%
Price fluctuation	58%	38%	25%	26%
MM/Trader cheats with the price/scale	39%	28%	43%	44%
MM/Trader makes the price	4%	3%	7%	4%
Low bargaining position of the farmers	26%	13%	7%	4%
Farmers do not care about quality	15%	3%	0%	26%
No problem	8%	7%	7%	22%
Does not know	11%	34%	25%	15%

**Table 11:** *Problems in Terms of Marketing in the Farmers' Perspective (Multiple Answers)*

### *The Middle-Man's and Trader's Perspective*

Problems mentioned by middle-men and traders appeared to be rather similar. First of all, they mentioned the quality problem. Most farmers are not grading their commodities and mix everything together, are not processing the products properly and are often trying to cheat by mixing stones or water into the harvest. During transport and storage the commodity might further loose in quality or weight and result in price decrease. Many of them mentioned to have problems with people, who are stealing the already bought/stored products. Price fluctuation was as well perceived as a problem and the fact that price information could only be received from one level above. Middle-men complained further about lacking liquidity and dependence of money from traders, which sometimes is lost, whereas the traders often experience a delay in money delivery from the exporter. A few of them further perceived the government as being a problem, having different regulations, if at all, from district to district, which is not furthering for the marketplace Flores. Finally, each of them has to survive under steadily increasing concurrence on the market, in Boawae for instance being sometimes up to 40 middle-men active at the same time.

### *The Exporter's Perspective*

Main problems experienced on exporter's side are related to stealing from their storage place, delayed delivery and increasing concurrence, whereas basically the situation was perceived as favourable for business.

### *The Government's Perspective*

People on government's side mentioned the main problem to be related to the farmers, which are not organized in cooperatives and thus have a low bargaining position. Moreover, there is no quality management on the farmers' side, what decreases the prices significantly. Although from government's side certain services are offered, such as for instance a complaint centre with a standardized scale, they are not used.

Conclusive it may be stated that linkages between the production and marketing of cashew nuts are manifold involving various actors with different livelihoods operating in a complex system. This complexity and the fact that for many people in the target villages the production and selling of cashew nuts is the most important source of income, leaves them operate with a rather high level of risk and vulnerability. An improved information and capacity building at all levels accompanied by promotion of income diversification will support more sustainable livelihoods among the farmers in the target villages.

**VIII A FIRST IMPACT ASSESSMENT OF THE PILOT PROJECT ON CASHEW NUTS**

As mentioned elsewhere, it is difficult to assess impacts of the pilot project on certification of organic cashew nuts at this point of time, since the selling of the certified nuts is still in progress presently. But a lot of experiences could be collected during the first year, which will help to better adjust the project to the livelihood situations in the field and contribute to a more successful project implementation.

**1. Farmers’ Opinions, Knowledge and Expectations about the Pilot Project**

Important for a proper understanding of possible impacts of a project are opinions, knowledge, motivation and expectations especially *prior* to the first year of marketing with the organic certificate. This and the success during the first year will not at least be responsible for the motivation for the following years and the overall success of the project.

Table 12 shows the main arguments why people have decided to participate in the project. It gets immediately visible that the price argument is the main motivation for the farmers to follow the project and it makes clear that the success of the project will highly depend on the increase in price the farmers will be able to get.

Quite a few respondents answered that they followed because others did so too and it would thus be necessary for their village or group unity. Among these people motivation might not be high, since the level of personal commitment is rather low. Some others stated that they were mainly motivated because a somehow guaranteed buyer is available, if they sell the nuts with their certificate. A few farmers actually perceived the certificate as a buying guarantee.

Finally, only about 10% of all answers were related to the fact that organic is important for the environment and with a certificate a contribution to an improvement environment and human health could be made.

	Amount of Answers
Learn from the project/learn about processing	10
Improve the quality of the cashew	4
Increase in price	31
Certificate gives law protection	5
There is a buyer for organic	14
Helps in marketing of the harvest	7
Have to follow as a group/village	20
Good for the environment	12
Others	6
Does not know	12
<b>Total</b>	<b>121</b>

**Table 12:** *Reasons for Following the Project (Multiple Answers)*

In general these answers indicate that the overall understanding about the purpose and the functioning of the project might be lacking among the participants. If asking them directly about their personal understanding of the project, quite a lot state to not really understand the project, especially in Ilinmedo and Kringa with almost 30% of the respondents. In Rowa 50% of the respondents think that they understand the project roughly, but would definitely need more explanations and support. Only 12% of the farmers in Rowa are sure that they understand the project, its purpose and its contents. The percentage is highest in Ilepadung, where 60% are sure that they know all about the project. This is certainly the case due to the fact that the villagers in Ilepadung are not supported by a Local NGO and have to manage the whole certification more self-reliant in comparison to the other villages. This seems to have increased the motivation and understanding of the farmer group. In Ilinmedo and Kringa still about 30% think that they understand the project, whereas this might be furthered due to the fact that the supporting local NGO, which is an important stakeholder within the project, has representatives actually living in the village. Although the general understanding of the project before the first harvest time of organically certified cashew nuts is in general low, most villagers were sure that the project will be successful. Probably inherently, farmers will expect more from a project when international NGOs are involved and not at last social correctness might have influenced to state their expectations like that. On the other hand it appeared to be hard for them to understand the purpose of finally just an expensive 'piece of paper'. A lot of villagers mentioned the project to be '*pikiran dari luar, pikiran kantor*'<sup>31</sup> showing a rather low sense of ownership themselves. At the same time hopes and expectations were high. When asked about their expectations of the project a majority of the villagers stated to expect a guaranteed, long term high price agreement with a trader. Since during one of the initial meetings with the farmers it was mentioned that the price for organic cashew nuts can be up to 30% higher than the normal world market price, it was interpreted by quite a few villagers that they can expect a somehow guaranteed 30% increase in price at the farm gate. This made the project take-off into a rather challenging and pressuring start-off phase, although still having quite a few insecurities around.

## 2. The Self-Reflection Process

Whereas chapter 1 focussed more on perspectives prior to the harvesting season, this chapter will focus on a retrospective, on reflections about experiences during the first year. Step IV of the livelihood study was carried-out as part of a self-reflection process on the PP having taken place after the harvest season 2005. The overall objective of this self-reflection process was to learn from and reflect together with all involved stakeholders upon the experiences gained during the first year of implementation of the organic cashew nut certification project in Flores, in order to adjust and adapt the programme planning for 2006. Specifically, it was aimed:

---

<sup>31</sup> Literally: thinking from outside, office thinking.

## FIRST IMPACT ASSESSMENT OF THE PILOT PROJECT

---

- a. To establish a participatory discussion forum among the different stakeholders involved in the pilot project activities in Flores
- b. To clearly (re)define roles and responsibilities of the key stakeholders, particularly the local NGOs Bangwita and YMTM and the service providing company CCC, and (re)develop a shared project vision among all stakeholders.
- c. To establish a system for improved communication between all stakeholders for 2006 and beyond.
- d. To integrate the outcomes of the livelihood study into the self-reflection exercise and planning for the year 2006 and beyond.

This process appeared to be highly important for all stakeholders not only to understand their own situation within the project, but as well the situation of others and the challenges that such a multi-stakeholder project poses. The retrospective in a rather appreciative inquiry perspective offered a valuable tool for an improvement of future collaboration and not only revealed shortcomings, but at the same time achievements, which sometimes appear to have gone forgotten during the first year's difficulties. The following list depicts a selection of achievements and shortcomings discussed during the self-reflection process. For a more detailed insight a report is available from Swisscontact or VECO-Indonesia.

The following points were perceived as project achievements:

- For the first time in Indonesia, an international certificate for organic farming on farmer group level could be introduced and 4 farmer groups in Flores were certified within only 1 year
- A network of interested buyers for organic products is about to be set up
- The 4 farmer groups in Flores were trained in the establishment of an internal control system (ICS), which was successfully inspected by the international certification body
- Several tons of organically certified cashew nuts could be processed through the CCC and be sold during the first couple of harvesting months this year
- All stakeholders within the project were able to learn about organic certification and the importance of organic agriculture in general

The following issues were mentioned as shortcomings:

- Roles, responsibilities and authorities of the different stakeholders in the pilot project are not yet clear enough
- The communication flow between the different stakeholders and especially down to the field has not yet been transparent enough
- Lacking marketing alternatives made the selling of organic cashew nuts difficult and a lot of farmers being disappointed with the project
- A too optimistic socialization made the farmers expect too much from the first year of the pilot project
- Farmers have not yet been trained in sorting, grading and processing properly and are therefore not yet giving enough care to quality aspects

- A proper project socialization towards the general public is lacking so far

To improve this for the future several issues will have to be improved. Among others there is need for:

- An operational plan understood and agreed on by all stakeholders, which clearly states roles and responsibilities of each stakeholder, including additional or reduction of current role or function
- Institutional strengthening on the level of farmer groups, local NGOs and cooperatives, especially in relation to marketing issues is necessary
- An improved communication system, including regular meetings between the different stakeholders as well with all stakeholders together
- Additional skills for anticipation of price fluctuation and general market behaviour
- Creativity, flexibility and alternatives in order to deal with unforeseen changes within the project
- A well-working common monitoring system

### IX CONCLUSIONS AND RECOMMENDATIONS

This study has shown that for most of the farmers in the target villages cashew nuts form an integral part of their life. For many, cashew nuts *are* even life! But it has further been illustrated that cashew nuts are important along a spectra of high diversity of farmer livelihoods (see also ELLIS 2000). Different farmers have different livelihood situations, different choices and different priorities and even within a household high diversity occurs. All these households are exposed to a certain extent of vulnerability, through shocks, seasonal impacts and trends and have adapted strategies to cope with it; some more successful, others less. It has not at last to be one of the main purposes of any development intervention to support more sustainable livelihoods, to decrease vulnerability of livelihoods in the long term. Recommendations are therefore not at last aiming at a reduction of vulnerability. There is certainly recommendations which would go far beyond the purposes of this livelihood study. Here it is focussed on issues, which can be addressed by the partners involved in the Pilot Project, since they fall into their area of competence or influence. Issues like improvement of roads for better access to markets or improvements of the educational system are for instance beyond the area of competence. Moreover, there is no concrete project design delivered for future interventions within this report, but ideas and illustrations of what could make sense. Selection and project development should be in the hand of the villagers. They are selecting the kind of interventions they consider issues most pressing for their livelihoods and they should be able to define what kind of support they need and when they need it. In other words, the agenda should as far as possible be hold by the actual experts of their environment, although it is clear that livelihood improvements for the poor requires the involvement of multiple stakeholders creating an overall enabling environment (see also DORWARD 2002).

The recommendations are divided into three categories: general recommendations in terms of livelihoods, recommendations specifically addressing marketing issues and recommendations for the Pilot Project.

#### 1. General Recommendations in Terms of Livelihoods

It could be shown in various places throughout this report that diversification entails an important function in terms of sustainability of a livelihood. Income diversification for small peasant farmers makes especially sense in this time of liberalization, globalisation and price fluctuations. As Figure 22 illustrates people with a higher level of diversification of cash income sources appear in general to be less vulnerable and on a higher overall asset level. Most successful are people, who have off-farm income sources through business activities or a government salary. These people often show a highly decreased level of vulnerability due to the fact that they can rely on regular cash income, which is not that much dependent on the agricultural cycle. This leads to the following recommendation:

- 1) *Create additional income possibilities for farmer households, which allow to mitigate the seasonal stress for their livelihoods through a regular cash income*

The processing of cashew nuts for instance is an excellent opportunity to shorten the seasonal stress, since the consumer is not sensitive to seasonal consumption of cashew nuts. But since traders in Flores do not yet buy processed nuts, these marketing channels have to be established first (see PP). The households in Ilepadung, which are already processing cashew nuts, showed for instance a highly decreased vulnerability due to the fact that they were able to sell cashew nuts directly to people in Larantuka, even after harvest season. People in Rowa especially mentioned to be interested in further processing technologies for candle nuts, which is a very important crop all over the island of Flores.

Another opportunity would be the production and marketing of *ikat*, which is highly requested among tourists. If a marketing network for instance with shops in Bali or even overseas could be established, the *ikat* producing women would have an excellent income possibility as well outside of the cashew nut season. Especially in Ilepadung the production of *ikat* is still an important income source, although mainly sold among villagers.

The use of maritime resources has high potential and is not that much seasonally dependent, but is inherently only possible for communities living close to the sea. Fish farming, which was as well practiced in the hilly environment of Ilinmedo in the past, or the cultivation of sea weed deliver additional income possibilities.

Another interesting product, which can reduce the seasonal dependence of income is *moke*. It is destined for the local market and consumed in the form of *arak* and due to possible negative side effects not really ethical for project support. But possibilities for improving the distillation process and the use of alcohol for pharmaceutical purposes, should be further explored. This would be especially interesting for people in Rowa and Ilepadung, where for more than 20% of the households it is the most important income source.

Many other possibilities, such as the opening of a small shop, the opening of a small transportation business or the creation of an agricultural seed bank for commercial purposes deliver opportunities to get additional income, whereas interventions in these terms are highly dependent on access to finance. A next recommendation for a future intervention would therefore be:

- 2) *Facilitate access to finance through a) the strengthening of existing local level organizations and b) through linkages of local level organizations to commercial finance institutes*

The importance of financial capital as a crucial asset for coping with vulnerability has been shown in Figure 26. Moreover, it appears to be one of the key assets in the transition from a low overall asset status to a higher asset status as depicted in Figure 20. For worse-off households it is often not available, since they do not have savings or

## CONCLUSIONS AND RECOMMENDATIONS

---

access to credit and saving organizations. Further, a lot of local level organizations with the purpose of saving are existent, but not properly functioning, be it due to poor management or low level of motivation to follow rules and regulations. Through a strengthening of these existing local level organizations – the available density of local level organizations does not give a lot of justification to the creation of new organizational structures - through training and capacity building<sup>32</sup>, access to finance could be significantly improved as well for worse-off people. At a later stage linkages to commercial finance institutes could be established for further improvement of access to finance, such as commercial credits. But only the access to money does not imply that the money is actually reasonably used. Basically, in the four target villages, when money flows into a household it normally goes straight out again. This gives raise for a third recommendation:

**3) *Build capacity on financial management at household level by focussing on women as the main managers of the household budget***

As part of the research in the field respondents were asked about their overall income and expenditures, whereas it appeared to be extremely difficult to get information about this, since people normally do not have ‘control’ about their finances. When money is available, it is spent and it is often spent for luxury goods, which people normally would not buy. Still, most of them found it highly interesting and often astonishing to hear about the composition of their household budgets, where they spend most – for instance what percentage of a household budget can be used for cigarettes only - and where most comes in. It is thus recommended to create capacity on financial management at household level, focussing on women as the money responsible person and the ones, who are according to various research reports the more responsible savers and money managers. Such a capacity building could include issues like when to save, to spend for what, to invest into what, how to keep money, how to make for instance a monthly or yearly budget? Again, decisions about this should be left to the women themselves.

**4) *More focus on own food security***

As one of the major trends it could be observed that the importance of cash crops is steadily growing, often on cost of individual food security. This might not be of much concern, if the food supply markets and the world markets for cash crops would be stable, which especially the later is not. An increased cash crop orientation can thus create an increased market dependence and overall vulnerability. The vanilla case has shown, that farmers can get close to the ruin almost over night. It is thus recommended that more focus should be laid on individual food security in order to be able to cope with changes on the markets. The case of Ilepadung has shown that for more than 80%

---

<sup>32</sup> The Indian Grameem Bank being based on social control as alternative form of collateral delivers a good example for

of the respondents the main expenditures occur for the purchasing of rice on the local market, what considerably contributes to a prolongation of their *paceklik* (see Figure 24). A project on food security and the furtherance of food crops could improve this situation. On the other hand government programmes like *Raskin* may support a decrease in own food security, since delivering boil-ready rice to the villagers on a regular basis. This is why not at last the government should be a strategic partner for interventions in this field in order to integrate *Raskin* into a programme on food security. As a pre-condition for *Raskin* a certain amount of own food crops could for instance be defined.

### 5) *Promote agricultural diversification*

Similar to a diversification in income sources, a diversification in agricultural products is important, especially when producing for the world market. People in Rowa with a high level of agricultural diversification appeared to be significantly less vulnerable compared to people in Ilepadung, who are dependent on few products only. A crash in cashew prices would ruin a lot of villagers in Ilepadung, whereas Rowa still has back-up through other products. It is clear that diversification is not at last dependent on soil and micro-climatic conditions, but possibilities for diversification are even available in Ilepadung with a comparably low soil fertility. People in Kringa for instance mentioned the high, but almost unused potential of growing vegetables, since Kringa is rich in water resources. This would further support production for the local market (see recommendation 2 in relation to marketing issues).

### 6) *Support existing coping strategies in relation to natural capital*

More than 40% of the households in each asset category rely on natural capital to cope with vulnerability, such as livestock or additional agricultural products that can be sold. An intervention in the field of livestock breeding and keeping, better access to animal hospitals or medicine, could support this important back-up. Besides livestock, access to land is a crucial factor for sustainable livelihoods. Although most land in Flores is still in the hand of the *suku*, a lot of voices can be heard that promote government land certification as the solution for land-related problems. Other voices are fostering the traditional land rights, which regulate all land-related activities. Since to a certain extent government land certification is becoming popular, a situation of pluralism of right exists, which potentially gives a lot of room for conflict. The only recommendation that is reasonable to make at this position is, that land certification is an issue that has to be taken up in a much more participative manner and with respect to traditional concepts of right.

## CONCLUSIONS AND RECOMMENDATIONS

---

### 2. Recommendations in Relation to Marketing Issues

Over the past and still today development projects have the tendency to be focussed on the producer side mainly, whereas bottlenecks often occur on the marketing side. Rather than only asking, if a farmer is interested to produce a certain product, it has to be asked, if the people along the marketing chain are interested to buy this product. Issues related to marketing appeared to be as well one of the most challenging points within the PP and thus of special interest for all stakeholders within this project.

#### 1) *Facilitate access to finance for marketing groups and traders*

Similar to individual farmers marketing groups and traders are in need for better access to finance. With technical support and facilitation commercial financial organizations might be able to offer such services to favourable conditions in the future and improve the overall business environment along specific marketing chains.

#### 2) *Support Local Market Production*

Local markets often appear to be much more stable in comparison to world markets with high price fluctuations and are not at least a good fundament for a local economy. Moreover, production of local market products is an important part of the income generating strategy for more than 70% of all households in the target villages and a reliable back-bone in terms of financial income. Local markets are better predictable and farmers can faster adapt to them, since in close contact with the consumer. Fruits, vegetables and to a certain amount food crops are products traded on the local market. Through furtherance of marketing of local market products not at least an important contribution to an improved diet could be made.

#### 3) *Improve access to market information*

In all four target villages and even along the marketing chain, access to market information is highly restricted. Personal contacts and word to mouth information is still the main way for farmers to get to information about prices. The farmer is thus often not in a position to bargain or to select, since he just does not know any better. There is several possibilities, how access to market information could be improved: In Boawae for instance there is a small community radio called 'The Farmers', which addresses farmer issues and enjoys high popularity in the neighbouring villages. This would be an excellent source for delivering information about prices or stocks and might even make the trip to the local market unnecessary. Similar radio stations could for instance be established near the other target villages under facilitation of Swisscontact and technical assistance from 'The Farmers'. Another option would be the establishment of community based satellite phones, from where market information could be accessed (see also [www.imperial.ac.uk](http://www.imperial.ac.uk)), for instance directly via trader or via marketing information centre (see recommendation 4). Or

in collaboration with government and private companies, mobile phone connections could be established all over Flores, which would make it possible to access market information even by sms.

#### 4) *Establish a marketing information and complaints centre*

Although the government in Bajawa for instance offers some kind of an information and complaint centre, it is non-functional. This is not at last due to its location far away from the farmers and local markets. If such a (mobile) complaint centre could for instance be established on the market itself, runned by the government or by private people, it would be used more frequently. Whereas procedures on the market could directly be monitored (i.e. control of weighing scales and practices) and conflicts directly be settled, farmers might be able to check their harvest on a standardized scale or get information about prices even on the world market. In the future such centres might even offer internet access and a much wider network of information.

#### 5) *Form new or strengthen existing marketing groups*

One of the main constraints that farmers in the target villages face is a very low level of bargaining power. Most of them sell by themselves and thus mainly in small quantities, which they have to sell, since in dire need of money. Where not yet existing, marketing groups should be formed, which have their own working capital, storage facilities and network of traders. Through this they become able to sell bigger quantities for a better price whenever they want to whoever offers the best price at whatever place. In other words they have a much higher level of bargaining power. With the pilot project on organic cashew nuts for instance such groups are compulsory, since only by selling in the group the certificate keeps validity. These groups need further capacity building and support in order to become properly functional.

#### 6) *Create an Enabling Business and Marketing Environment*

The marketing and business environment in Flores shows a lot of features that are hindering for the development of a local economy. Complex licensing practices or cartel-like structures impede a healthy and competitive environment. Through capacity building entrepreneurial skills have to be furthered, be it for marketing groups or traders. Licensing practices could be made easier for instance through One Stop Services, as Swisscontact is already facilitating in Sikka and Ngada. Further, certain control mechanisms on markets have to be established that decrease and sanction unfair behaviour. Other issues like an improved infrastructure for physical market access and on the market place itself lie beyond the capability of the partners within the PP, but could be part of government advocacy work.

#### 7) *Organize stakeholder forums for specific sectors*

## CONCLUSIONS AND RECOMMENDATIONS

---

A lot of actors along a specific marketing chain have similar interests, but would never get the chance to sit together and exchange ideas in a forum. Forums like this could serve to collect and address problems within the marketing system and become institutionalised. Such a forum would then be able to considerably steer sector development and overall economic development in a specific area.

### **3. Recommendations for the Pilot Project on Certification of Organic Cashew Nuts**

Although the direct impacts of the pilot project on people's livelihoods are difficult to evaluate after only one year of implementation, a rich portfolio of experiences could be collected, which supports further project implementation. Since at the end of the year most partners are finalizing their yearly planning for the coming year, the following PP-specific recommendations should be considered for this purpose.

#### *1) Diversify project activities, do not focus on cashew nuts only*

A project focussing on the production of cash crops, even though in an organic manner, supports the overall trend towards increased market and cash crop orientation. Moreover, it is image forming and a lot of people automatically relate Swisscontact with cashew nuts. Although the latter is not necessarily negative, it might create difficulties for activities in other fields and is especially dangerous in case of problems on the world market for cashew nuts. It is thus recommended to diversify the project activities, for instance towards the furtherance of local market products, towards the facilitation of local radio stations or towards projects focussing on access to finance (see Part X, Chapter 1 and 2).

#### *2) Do not scale up the PP, but strengthen existing project structures*

This first year of experience has shown that the general understanding about the project is still rather low, not only among the farmers, but also among the other partners. Processes are not yet functioning optimally and roles and responsibilities are not yet clear to all stakeholders (see as well recommendation 4). Moreover, the marketing of the first organically certified harvest has not been as smooth as expected. Not at last, both Swisscontact and VECO-Indonesia are in the process of restructuring their overall programs to a certain extent, what leads to the recommendation to not scale-up the project to other farmer groups until the PP with the four groups so far included is better functional. Although it might take another two years until this is the case, it could then serve – if successful - as an ideal model for further up-scaling. In line with this goes the next recommendation:

#### *3) Focus more on marketing and processing issues in the second year*

A lot of factors of insecurity within the project are related to the marketing side. To find reliable traders and exporters, who are willing to buy for an organic price directly from the farmers has appeared to be the main bottleneck. This is somehow clear, since structures and networks for the international organic label market, which are not yet existent in Indonesia, have to be established first. Further, the project was for a long time too much dependent on one marketing channel only, which poses a high level of risk. It is therefore recommended to focus more on marketing issues during the second year in order to establish a well-working network of traders and exporters, who are committed and reliable. Since a lot of the exporters are interested in shelled cashew nuts, which can so far only be produced by the CCC and PMA, who have restricted capacities, it is further recommended to focus on the training of farmer groups in processing of cashew nuts as foreseen in the project proposal. This is not at last recommended, since repeatedly requested by the farmer groups themselves.

4) *Organize stakeholder meetings in order to clearly clarify roles, responsibilities and authorities within the PP*

As mentioned elsewhere, a clear understanding of roles, responsibilities and authorities of the project stakeholders is lacking in general (see also Part IX, Chapter 1). As an example, it is quite common among farmers to think that Swisscontact is a buyer and trader of cashew nuts, rather than a facilitator, whereas VECO-Indonesia's involvement in the project is often not known to them. It is therefore recommended to organize stakeholder meetings with all partners in order to clarify these issues, define a shared vision and find to a common, formal commitment. The self reflection exercise as carried-out in December of this year will take over this task and support participatory project planning for the next year.

5) *Establish better communication mechanisms between all stakeholders*

A lacking common understanding of the project and the fact, that most partners are based far away from each other, has aggravated good communication. For a successful further project implementation it will be necessary to establish well-working, maybe formalized communication mechanisms between all partners. Crucial hereby is a closer interaction with the people in the villages (i.e. via satellite telephone).

6) *Improve project socialisation and dissemination through a) increased door-to-door dissemination, b) more focus on gender issues, c) appropriate teaching and training materials and d) better involvement of local leaders (church, local government, traditional leaders)*

The lacking common understanding, as identified above, is not at last a result of project socialisation and dissemination. There are several factors that have contributed to this. For some farmers or even farmer groups the whole process went too fast. Although they were

## CONCLUSIONS AND RECOMMENDATIONS

---

all able to receive a certificate of international standard within one year – which is a great achievement as such -, they need much more intensive support and capacity building. Further, farmers do often not follow meetings on a regular basis and might not have the habit to ask or give inputs in public. Especially female farmers do not feel comfortable in male-dominated spheres and often do not follow farmer group meetings. It is thus recommended to focus more on door-to-door dissemination – but not in replacement of farmer group meetings, which certainly still entail important functions -, where local motivators/inspectors disseminate and socialise the project to *all* family members by using simple, local language and illustrative teaching materials. The latter has to focus more on picture messages instead of long written explanations and has to be kept in the household. As motivators, local leaders, such as religious, political or traditional leaders, should more actively be involved in the dissemination and promotion of the project. This would additionally contribute to an increased sense of ownership among the farmers, since the project is supported by *their* leaders (see also Figure 27).

A lot of confusion was further created due to the fact, that many different actors arrived in the village in connection with the project, but had different tasks – for instance to carry-out a livelihood study - and often different arguments or explanations for project-related questions of the farmers. Further, more care has to be taken in the way of socialization, since it can give rise to misconceptions and irrational expectations (see Part IX, Chapter 1). A more defensive socialisation and dissemination would in many cases be more appropriate.

### 7) *Ensure gender-sensitivity in project planning, management and implementation*

Chapter 3 in Part VI described that women are not yet project beneficiaries or active participants to the extent actually stated in the proposal. This is not at last due to the fact that gender issues are not yet an integral part on the side of the project management and planning. Project socialization should, as stated in recommendation 6), not only focus on local leaders, but on female leaders, such as heads of the PKK or Dasawisma. Female internal inspectors would be more able to access female issues related to the project and possibly increase women participation in group meetings. On the other hand the target of 40% of women beneficiaries might be too ambitious when focussing on rather male dominated activities. Therefore, the amount of women beneficiaries could be increased for instance with more gender-sensitive additional interventions, such as an intervention on financial management on household level, as recommended in Chapter 1 of this Part.

### 8) *Communicate the PP better towards the general public*

An important lesson from the first year of experiences is the need to better or more actively communicate the project towards the general public. Still, among farmers, government officials, traders and other NGOs rumours and misconceptions about the project are present, which should be cleared through a good PR-Strategy. Especially among traders the perception is present that the project has the goal to cut-off the middle-men and traders in

order to support the farmers. As part of a project on LED this can not be the purpose, since middle-men and traders are part of the local economy and employment generation throughout the value chain contributes to its development.

Means for communication to the general public could be the posting of information on the internet, articles in local and regional newspapers, radio programmes, performances on public happenings (exhibitions, fairs, carnival, ...), leaflets or dissemination workshops. In line with this is the next recommendation:

### 9) *Start a campaign on organic farming on a wider level in Flores*

Not only on farmers' level, but all over Flores, the awareness about the importance of organic production is still low (see also Table 12). A campaign on the importance of organic food production and consumption carried-out on a broad level together with farmer groups, government departments, local and international NGOs, educational, health and religious institutes would contribute to a much bigger awareness and motivation to go organic. Ideas of shops or *warungs* that sell organic food only are present and could be supported as part of such a campaign. Finally, it would prove to the farmer, that it is something that the general public in Flores is interested in, and not only people overseas, who ask for a 'piece of paper' as guarantee for organic.

## 4. Outlook

The year 2006 will be of highest importance for the pilot project on certification and processing of organic cashew nuts. The farmers need to have a much more successful experience in terms of value-adding to their livelihoods in order to keep motivation beyond the year 2006. This will ask a special effort from all stakeholders within the project, a better and more transparent collaboration and finally commitment from all sides including the traders. This needs to be formulated in an operational plan upon which all stakeholders agree and which is being strictly followed. Not at last from an organizational perspective a diversification of project interventions beyond the mere certification of organic cashew nuts would make sense. But again here it is important that the planning process is carried-out in a more participatory way, in which the farmers themselves can decide on their livelihood improvements. This will allow them to become more and more owners of their own livelihood improvements instead of depending on outside interventions mainly.

The recommendations of the livelihood study and issues discovered during the self-reflection process were included into the yearly planning 2006 and will hopefully contribute to a more successful project implementation in the future. This study will further support project implementation as an important information source and might be of interest for people beyond the stakeholders of the pilot project. It should therefore be accessible for all interested actors. For the farmers it can finally deliver a valuable outside perspective on their own livelihood situation, which may contribute to an improved overall understanding and support them in making use of existing potentials in a more successful way.

## REFERENCES

---

### REFERENCES

- BADAN PUSAT STATISTIK KABUPATEN NGADA 2004: Kabupaten Ngada di dalam Angka 2004. Bajawa.
- BPS, BAPPENAS and UNDP 2001: Indonesia Human Development Report 2001. Towards a New Consensus. Democracy and Human Development in Indonesia. Jakarta.
- CARE 1999: Embracing Participation in Development. Wisdom from the Field. Worldwide Experience from CARE's Reproductive Health Programs with a step-by step Field Guide to Participatory Tools and Techniques. Atlanta.
- CHAMBERS, R. 2004: Notes for Participants in PRA-PLA Familiarisation Workshops in 2004. Institute of Development Studies. Bradford.
- DFID 2001: Sustainable Livelihoods Guidance Sheets. London.
- DINAS PKT NGADA et al. 1999: Latihan dan Penerapan PRA-ZOPP. Bajawa, 1999.
- DORWARD, A. et al. 2002: Critical Linkages: Livelihoods, Markets and Institutions. Paper Presented at the Seminar on 'Supporting Institutions, Evolving Livelihoods', Bradfords Centre for International Development, University of Bradford 29<sup>th</sup> – 30<sup>th</sup> May 2002.
- ELLIS, F. 2000: Rural Livelihoods and Diversity in Developing Countries. Oxford University Press. Oxford.
- FAO, 1992: Sociological Analysis in Agricultural Investment Project Design. FAO Investment Centre Technical Paper No. 9. Rome.
- FORTH, G. 1998: Beneath the Volcano. Religion, Cosmology and Spirit Classification among the Nage of Eastern Indonesia. KITLV Press. Leiden.
- GAMPER 2004: Institutional Arrangements of Forest Use in Nepal. Local Realities Beyond Community Forestry. Master Thesis submitted at the Geographical Institute of the University of Zurich. Zurich.
- GROOTAERT, C. 1999: Local Institutions and Service Delivery in Indonesia. Working Paper No.5. World Bank. Washington.
- HELVETAS 2005: Clients First! A Rapid Market Appraisal Tool Kit. Theoretical Background and Experiences from Various RMA Events. Zurich.
- KEELEY, J. E. 2001: Influencing Policy Processes for Sustainable Livelihoods: Strategies for Change. Lessons for Change in Policy and Organisations 2. Institute of Development Studies. Brighton.
- KOLLMAIR and GAMPER 2002: The Sustainable Livelihoods Approach. Input Paper for the Integrated Training Course of NCCR North-South. Aeschiried (9.9.–20.9.2002), Switzerland.
- MESSER, N. and TOWNSLEY, P. 2003: Local Institutions and Livelihoods: Guidelines for Analysis. FAO. Rome.
- NORTH, D.C. 1990: Institutions, Institutional Change and Economic Performance. Cambridge University Press. Cambridge/New York/Melbourne.

- SHANKLAND, A. 2000: Analysing Policy for Sustainable Livelihoods. IDS Research Report, 49. Sussex.
- STEINMANN, B. 2005: Livelihood Strategies in North-West Pakistan. Results from the Sustainable Livelihoods Survey 2004, North West Frontier Province. NCCR North South IP Working Paper No.5. Zurich.
- TRADEDATA INTERNATIONAL (2004): An Analysis of World Trade in Cashew Nuts. Study for Swisscontact.
- VECO-Indonesia 2005: Sustainable Livelihoods Study in Ilinmedo and Kringa. Unpublished. Denpasar.
- VERON, STRASSER and GEISER:2004: Globalisierung und Agrarproduktmärkte in Kerala In: Geographische Rundschau, 56 (11):18-24.
- WERNER, S. 1998: Local Level Institutions and Collective Action. Mimeo, Social Development Department. World Bank. Washington.
- MUKHERJEE, N., HARDJONO, J. and CARRIERE, E. (2002): People, Poverty and Livelihoods: Links for Sustainable Poverty Reduction in Indonesia. DFID and World Bank. Jakarta.
- WORLD BANK 2000:36
- <http://www.imperial.ac.uk/agriculturalsciences/research/centres/cdpr/imi/conc.htm>

**Questionnaire for Livelihood Patterns in Rowa**

**Household Information:**

*Tanggal dan waktu:*

*Nama:*

*Sex:*

*Umur:*

*Pendidikan:*

*Lokasi rumah (Dusun, RT):*

*Relasi dengan ketua keluarga:*

*Partisipasi di dalam proyek tentang sertifikasi KM:*

*Silahkan check kualitas rumah (material atap, material, dinding, kebersihan):*

**Household Assets:**

- **Physical Assets (Block PA)**
  - Rumah (berapa banyak, status kepemilikan, harga, ...) → PA1
  - Air diperoleh (dari mana, biaya, berapa kali, berapa lama untuk mengambil, kualitas, ...) → PA2
  - Bahan bakar utk memasak (dari mana, berapa kali mengambil, berapa lama utk mengambil, ...) → PA3
  - Fasilitas transportasi → PA4
  - Memperoleh informasi (sumber: majalah, TV, Radio, Phone, ...; berapa kali: setiap hari, ...) → PA5
  - Listrik (biaya, berapa lama, ...) → PA7
- **Human Assets (Block HA)**
  - Berapa orang tinggal didalam rumahtangga anda? → HA1
  - Status pendidikan didalam rumahtangga (tamat SD, SMP, SMA, ...)? → HA2
  - Status kesehatan di dalam rumahtangga? Sakit apa dalam 6 bulan terakhir? → HA3
- **Natural Assets (Block NA)**
  - Apakah rumahtangga Anda punya tanah? Berapa bidang? → NA1

- *Apa status dari tanah (sertifikat resmi/pemerintah, sertifikat tradisional, menyewa, menggarap, ...) → NA2*
- *Berapa luas tanah Anda seluruhnya? → NA3*
- *Apakah tanah Anda ditanami?Tanaman apa? → NA4*
- *Kira-kira berapa kilogram hasil dari setiap macam tanaman tsb dalam satu tahun? → NA5*
- *Menurut Anda, bagaimana situasi kecukupan makanan utk keluarga anda? → NA6*
- *Apakah anda bisa hidup hanya dari kebun pribadi atau perlu beli beras dan makanan lain dari pasar? Kapan dan berapa? → NA7*
- *Ada perubahan dari waktu dulu dan sekarang? Bagaimana pembangunan di masah depan? → NA8*
- *Apakah anda tergantung dari sesuatu programm makanan seperti Raskin, ...? → NA9*
- *Apa saja ternak yang dimiliki (jumlahnya masing-masing)? → NA10*
- **Social Assets (Block SA)**
  - *Organisasi apa saja yang diikuti oleh anggota keluarga anda → SA1*

1) Santa Ana:	10) LKMD:
2) Dasawisma:	11) IDT:
3) PKK:	12) Legio Maria::
4) Kel. RT:	13) Komitee Sekolah::
5) UBSP:	14) Kader Kesehatan:
6) Arisan lain:	15) Kelompok Pemasaran:
7) Kel. Tani Org:	16) Kel. Basis:
8) Mudika:	17) Lain:
9) Pemdes:	18) Lain:
  - *Apa keuntungan yang anda memperoleh dengan menjadi anggota organisasi tersebut? → SA2*
  - *Apa tugas/peran (ketua, sekretaris, anggota, ...) anda dalam organisasi itu? → SA3*

- Mengapa kamu tidak ikut organisasi lain juga? → SA4
- Apakah anda memperoleh keuntungan dari organisasi lain? → SA5
- Bagaimana kedudukan/peran anda dalam masyarakat (tokoh masyarakat, ketua suku, ...)? → SA6
- Jika anda menghadapi masalah, kepada siapa anda minta bantuan/konsultasi? → SA7
- Menurut pendapat anda siapa saja orang penting di desa anda? Jelaskan mengapa? → SA8
- Menurut pendapat anda apakah ada orang yang berelasi kurang bagus dalam masyarakat? Jelaskan mengapa? → SA9
- Menurut anda aturan-aturan apa (gereja, suku, adat, pemerintah, ...) yang paling penting untuk anda? Jelaskan! → SA10
- **Financial Assets (Block FA)**
  - Siapa yang bertanggung jawab mengatur keuangan keluarga anda? → FA1
  - Bagaimana cara untuk mengatur uang (disimpan dimana? Semua pendapatan/pengeluaran dicatat? Ada sistem tabungan? Uang biasanya langsung keluar setelah dapat atau disimpan?...)? → FA2
  - Apakah anda punya tabungan (uang, emas, ternak, ...)? → FA3
  - Tabungan disimpan di mana? → FA4
    - Rekening bank::
    - Kopdit:
    - Di rumah:
    - Tempat Lain:
  - Apakah ada sumber keuangan lain? → FA5
    - arisan : - sistem ijon:
    - kredit bank: - uang merantau:
    - subsidi pemerintah: - lain:
  - Apakah anda pernah meminjam uang dalam enam bulan ini? Dari mana (keluarga, bank, ijon, ...)? Untuk apa (kesehatan, pendidikan, rumahtangga, ...)? → FA6

- Di dalam bulan yang mana anda mengalami musim paceklik (sulit uang, sulit makanan)? → FA7
- Bagaimana jalan keluar anda mengatasi hal ini? Jelaskan mengapa! → FA8

### ***Vulnerability Context and Changes (Block C)***

- Apakah keluarga anda pernah mengalami krisis mendadak seperti:

#### ***Krisis → C1***

- Kekurangan Makanan:
- Sakit/kecelakaan berat:
- Jiwa RT yang meninggal:
- Perceraian:
- Kehilangan pekerjaan:
- Pencurian:
- Krisis moneter:
- Kehilangan ladang:
- Kehilangan ternak:
- Bencana alam:
- Lain-lain:

#### ***Strategi utk mengatasi → C2***

- Apa akibat dari krisis moneter (97/98) kepada hidup anda? → C3
- Bagaimana anda mengatasi masalah tersebut? Apa hal-hal penting yang membantu anda dalam mengatasi masalah itu? → C4
- Apa perbedaan yang terjadi dalam 5 tahun terakhir di desa anda? → C5
  - Akses kepada sumber alam:
  - Lingkungan:
  - Adat/Kegiatan adat:
  - Status ekonomis masyarakat:
  - Anak mudah:
  - Pola pekerjaan:
  - Pola pertanian (komoditi, pemasaran, ...):
  - Masalah:
  - ...
- Menurut anda apakah perubahan yang dapat terjadi dalam 5 tahun ke depan? → C6
  - Akses kepada sumber alam:
  - Lingkungan:
  - Adat/Kegiatan adat:

- *Status ekonomis masyarakat:*
- *Anak mudah:*
- *Pola pekerjaan:*
- *Pola pertanian (komoditi, pemasaran, ...):*
- *Masalah:*
- ...

**Gender Aspects (Block G)**

- *Apa tugas harian dari masing-masing anggota keluarga anda (laki-laki/perempuan)? → G1*
- *Siapa membuat keputusan dalam keluarga anda (siapa membuat keputusan apa)? → G2*
- *Bagaimana pendapat anda tentang perbedaan tugas antara laki-laki dan perempuan (rumah tangga dan masyarakat)? Siapa yang bekerja lebih banyak? Mengapa demikian? Apa pendapat anda? → G3*

**Female Respondents only (hanya untuk perempuan):**

- *Apakah anda merasa kegiatan/gerak anda dibatasi/terbatas karena anda perempuan? → G4*
- *Apa perbedaan peran/posisi anda dalam rumah tangga anda antara dulu (pada waktu masih anak, ...) dan sekarang (sebagai isteri, ibu, nenek, ...)? Jelaskan! → G5*
- *Menurut anda apa perlu berubah di dalam relasi diantara perempuan dan laki-laki? → G6*

**Marketing (Block M)**

- *Di mana/bagaimana (sendiri, kelompok, ...) anda menjual/tukar komoditi anda? Jelaskan! → M1*
- *Berapa harga komoditi tersebut? → M2*
- *Apakah anda langsung menjual atau memproses dulu komoditi tersebut? → M3*
- *Kepada siapa anda menjual dan mengapa? → M4*
- *Apakah anda tahu komoditi tersebut dibawa ke mana? → M5*

- *Di mana dan dari mana anda memperoleh informasi tentang pemasaran (harga, transpor, ...)? → M6*
- *Apa masalah pemasaran komoditi yang anda tahu? → M7*
- *Menurut anda bagaimana bisa memperbaiki situasi pemasaran? → M8*

***Pilot Project***

- *Kenapa anda memutuskan ikut/tidak ikut pilot proyek tentang sertifikasi kacang mete? → PP1*
- *Kalau belum ikut apakah anda berkepentingan untuk ikut tahun depan? → PP2*
- *Bagaimana anda mengetahui pilot proyek ini? → PP3*

***Untuk anggota hanya:***

- *Bagaimana keputusan keanggotaan dibuat? → PP4*
- *Apa harapan anda untuk proyek ini? → PP5*
- *Apakah anda mengerti secara detil proyek ini? → PP6*
  - *Siapa membuat apa di dalam proyek?*
  - *Kenapa perlu komoditi organik?*
  - *Apa dampak dari sertifikasi organik?*
- *Bagaimana peran/fungsi kelompok tani organic (membuat keputusan, sangsi, pola pertemuan, ...)? → PP7*
- *Apa pendapat anda mengenai dukungan/bantuan YMTM, Bangwita, CCC, Swisscontact, ...? → PP8*
- *Apakah anda yakin kepada proyek ini? Jelaskan! → PP9*
- *Menurut anda di mana anda melihat masalah-masalah terhadap pilot proyek? Jelaskan! → PP10*

**Wawancara selesai jam:**

**Apabila dibutuhkan tanyakan kembali informasi tambahan dari responden:**

**Remarks:**

## Grid of Questions for Marketing Research

- Useful visualization tools:
- market path (from where to where, actors, ...)
  - market mapping
  - historical transect/trend analysis
  - timeline/seasonal calendar (trader, ...)

### *Product Aspects*

- From where to where?
- Sellers and buyers, producers?
- Quantities?
- Quality? Grading?
- Opinions and perceptions in terms of product quality?
- Perceived constraints/potentials in terms of product aspects?
- ...

### *Price Aspects*

- Seasonality?
- Trends on the world market?
- Influences on Price on local level?
- Value-added at each step within the marketing chain (buying vs. selling price, cost at each step)?
- General cost of the product (production costs, transport costs, other costs)?
- Perceived constraints/potentials in terms of price aspects?
- ...

### *Place Aspects*

- Marketing chain (geographical)?
- Perceived constraints/potentials in terms of place aspects?
- Infrastructural aspects (transport, roads, facilities on market place, ...)?
- ...

### *People Aspects*

- Actors and their roles along the marketing chain?
- Trust and relational issues between different actors?
- Perceived problems in terms of people aspects?
- Personal risk assessment?
- Risk coping strategies?
- Market information?
- Market share of different actors/companies?
- Perception of other people (fair, rich, ...) within the market system?
- Competition in the specific market segment?

- 
- People which are considered to be key actors (bargaining power, market control, ...)?
  - ...

***Institutional Aspects***

- Formal regulations/laws affecting the product marketing?
- Informal conventions/rules affecting the product marketing?
- Taxes, which have to be paid one each step?
- Documents, which are required?
- Role of police and other law enforcement bodies?
- Formal and informal groups, that are involved in the marketing chain (marketing groups on village level, cartel on trader level, farmer groups, ...)?
- Perceived problems in terms of institutional aspects?
- ...

***Historical Aspects***

- How has the price of cashew nuts changed over the past five years?
- How does the price of cashew nuts change within one year (seasonal)
- How has the overall market structure changed over the last five years (new actors, marketing chain, problems, ...)?
- ...

***Prognostic Aspects***

- Future market development?
- Potentials which need to be further explored?
- Potential for up-scaling?
- Possible interventions and best actors for this purpose?