
**POVERTY IMPACTS OF
AGRICULTURAL VALUE CHAIN DEVELOPMENT**

—

**EVIDENCE BASED ON POVERTY EXITS
IN RURAL KENYA**

VON DER FAKULTÄT FÜR GESCHICHTE, KUNST- UND ORIENTWISSENSCHAFTEN
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Some of us, like Blake said, are “born to sweet delight”, and “some are born to endless night”.

And let’s remember that people who are born to endless night did nothing to deserve their blighted condition. They are not imprisoned in destitution because of their crimes: they are imprisoned in destitution despite their innocence.

Addressing these staggering problems of global poverty is arguably our greatest moral challenge. Only an unacceptable fatalism could obscure our understanding of this important truth.

What is less clear is how best to address that challenge.

(Joshua Cohen, Stanford University, as quoted by BANERJEE 2007 p. ix-x)

SUMMARY

In Sub-Saharan Africa, more than two thirds of the poor live in rural areas and four out of every five households are making a living predominantly based on agricultural and livestock activities. Agriculture plays a major role in stimulating rural economic development and in driving rural households out of poverty. Hence, the sector experienced a revival in development cooperation and development research during the past decade. However, it is rarely analysed which agricultural strategies rural households undertake to successfully exit poverty.

In Kenya, agriculture is key to the economy, contributing 26 % of the GDP directly and another 27 % indirectly. The sector provides employment for more than 40 % of the total population and more than 70 % of the rural population. Since the Millennium, the sector experienced an average growth rate of 3 % per year, albeit high variances. Since then, many small-scale farmers in Kenya have integrated their economic activities into agricultural value chains, such as food crops, export horticulture or dairy. At the same time, rural poverty incidence reduced from 49.9 % to 40.1 %, but is still significantly higher than urban poverty. So what was the impact of value chain development on rural poverty reduction?

This research analyses why some rural households exited poverty and to what extent these poverty exits are explained by their agricultural activities. Based on a literature review of the pro-poor growth debate, of agricultural value chain development and of poverty research along the 'q-squared-paradigm', the results from three different schools are combined for the design of an empirical field survey in rural Kenya applying quantitative and qualitative methods. First, the ten-year TAMPA panel data set for 1275 rural households was analysed for the identification of poverty exiting households. These poverty exiters were then sampled again for qualitative follow-up interviews in order to specifically analyse their explanation for their upward mobility. 51 households were visited and interviewed for their agricultural life history in 2010.

The results are two-fold: first, even though the four wave panel data for all 51 households showed a clear upward trend, only 25 households turned out to have actually exited poverty between 1997 and 2007. The other 26 households had either never been poor or were still poor, or had progressed in their lifecycle and remaining resources were divided by fewer dependants. Thus, a number of conclusions are drawn for the interpretation and further use of such panel data. Second, the interviews with 'real' poverty exiters confirm that the integration into agricultural value chains can offer a stable pathway out of poverty, if the agriculture and livestock portfolio of the households is productive, receives investments and innovation, is commercially oriented and linked to markets. Against the common notion that specialisation in few activities usually marks this necessary productivity, here, a combined specialised and diversified pathway is observed to be most successful. Agricultural value chain development with a focus on horizontal cooperation and collective marketing of cash crops or dairy in combination with a diversified food crop portfolio seems to have been the most promising pathway out of rural poverty.

Both result areas provide recommendations for the implementation of future agricultural value chain projects as well as for future rural poverty research.

ZUSAMMENFASSUNG

Mehr als zwei Drittel der Menschen unterhalb der Armutsgrenze in Sub-Sahara Afrika leben im ländlichen Raum; vier Fünftel von ihnen erwirtschaften ihren Lebensunterhalt überwiegend durch landwirtschaftliche Aktivitäten. Somit spielt die Landwirtschaft eine herausragende Rolle in der ländlichen Wirtschaftsentwicklung und Armutsbekämpfung. Dem Sektor kam in der letzten Dekade wieder gestiegene Aufmerksamkeit durch Entwicklungsforschung und Entwicklungszusammenarbeit zu. Jedoch ist der Zusammenhang zwischen landwirtschaftlichen Aktivitäten und ihrem Beitrag zur Überwindung der Armut auf der Haushaltsebene („*poverty exit*“) kaum empirisch analysiert.

In Kenia trägt der Agrarsektor 26 % zum BIP bei, vor- und nachgelagerten Bereiche zusätzliche 27 %. Mehr als 70 % der ländlichen Bevölkerung arbeiten in der Landwirtschaft; landesweit sind das mehr als 40 % der Gesamtbevölkerung. Seit der Jahrtausendwende ist der Sektor im Durchschnitt um 3 % gewachsen, allerdings mit hoher Varianz. Seitdem haben sich viele kleinbäuerliche Haushalte in landwirtschaftliche Wertschöpfungsketten wie Exportgemüse oder Milch integriert. Gleichzeitig sank die ländliche Armutsrate von 49,7 % auf 40,1 %. Was also war der Beitrag der Wertschöpfungskettenentwicklung auf die ländliche Armutsreduktion?

Diese Arbeit untersucht am Beispiel Kenias, warum manche ländlichen Haushalte die Armut überwunden haben und welche landwirtschaftlichen Aktivitäten dazu geführt haben. Die Basis dafür bilden drei unterschiedliche Stränge in der Literatur: die *Pro-Poor Growth*-Debatte, die Wertschöpfungskettenliteratur, und die Armutsforschung entlang des sogenannten „*Q-Squared Paradigms*“. Elemente dieser drei Stränge bilden das analytische Gerüst für die empirische Analyse im ländlichen Kenia und kombinieren quantitative und qualitative Methoden. Zuerst wurde das ländliche Haushaltspanel „TAMPA“ mit 1275 ländlichen Haushalten über einen Zeitraum von 10 Jahren (1997-2007) nach Haushalten ausgewertet, die die Armut überwunden haben. Eine Stichprobe von 51 dieser Haushalte wurde im Jahr 2010 nachbefragt, um die spezifischen Gründe für den wirtschaftlichen Aufstieg zu analysieren.

Die Ergebnisse dieser Befragung lassen sich auf zwei Ebenen interpretieren und leisten daher zwei unterschiedliche Beiträge zur ländlichen Armutsforschung: erstens methodische Hinweise zur Datenerfassung und -interpretation ländlicher Haushaltspanele in Afrika; zweitens Erkenntnisse zu effektiven Strategien, wie die Integration in landwirtschaftliche Wertschöpfungsketten zur Überwindung ländlicher Armut führen kann. Das zentrale methodische Ergebnis liegt darin, dass obwohl die quantitativen Daten von vier Haushaltsbefragungen im Rahmen des Panels eindeutig eine Überwindung der Armut bei allen 51 Haushalten zeigen, nur 25 dieser Haushalt tatsächlich der Armut entkommen sind. Die anderen 26 Haushalte haben sich unterschiedlich entwickelt oder sind Messfehlern unterlegen. Die Lebensgeschichten („*life histories*“) der 25 Haushalte, die die Armut überwunden hatten, zeigen jedoch eindeutig, dass die Integration in landwirtschaftliche Wertschöpfungsketten tatsächlich einen sehr guten Entwicklungspfad aus der Armut bieten kann, wenn die landwirtschaftlichen Aktivitäten produktiv und marktorientiert sind und Investitionen und Innovationsadoption erfahren. Die Mischung aus Spezialisierung auf eine kommerzielle Wertschöpfungskette, die Elemente kollektiver Vermarktungsstrukturen wie Kooperativen aufweist, einerseits und risikominimierender Diversifizierung inklusive ernährungsrelevantem Eigenkonsum andererseits, scheint hierbei der erfolgreichste Weg aus der ländlichen Armut zu sein.

Beide Ergebnisbereiche führen zu Schlussfolgerungen, wie zukünftig landwirtschaftliche Wertschöpfungskettenförderung den Fokus auf Armutsreduzierung stärken kann und wie die Armutsforschung die Umsetzung solcher Projekte und deren Armutseffekte besser messen könnte.

ERKLÄRUNG

Hiermit versichere ich, dass ich die vorliegende Arbeit ohne unzulässige Hilfe Dritter und ohne Benutzung anderer als der angegebenen Hilfsmittel angefertigt habe; die aus fremden Quellen direkt oder indirekt übernommenen Gedanken sind als solche kenntlich gemacht.

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Die Arbeit wurde bisher weder im Inland noch im Ausland in gleicher oder ähnlicher Form einer anderen Prüfungsbehörde vorgelegt und ist auch noch nicht veröffentlicht worden.

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LIST OF ABBREVIATIONS

3ie	International Initiative for Impact Evaluation
ae	adult equivalent
AERC	African Economic Research Consortium
AEZ	Agro-ecological Zones
AFD	Agence française de développement (French Development Agency)
AFF	Agriculture, Forestry, and Fisheries
AFSI	L'Aquila Food Security Initiative'
AGRA	Alliance for a Green Revolution in Africa
BMZ	Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung (German Federal Ministry for Economic Co-operation and Development)
CAQDAS	Computer-Assisted Qualitative Data Analysis
CAS	Country Social Analysis
CBS	Central Bureau of Statistics
CGD	Center for Global Development
CGIAR	Consultative Group on International Agricultural Research
CIPEV	Commission of Inquiry into Post-Election Violence
CiReCa	Citizen Report Cards
CPAN	Chronic Poverty Advisory Network
CPRC	Chronic Poverty Research Centre Reports
DAC	Development Assistance Committee
Deval	German Institute for Development Evaluation
DFID	Department for International Development
ERS	Economic Recovery Strategy
EUDN	European Development Research Network
FAO	Food and Agricultural Organisation of the United Nations
FGD	Focus Group Discussion
FGT	Foster-Greer-Thorbecke
G7/G8	Group of Seven/Group of Eight
GDP	Gross Domestic Product
GIS	Geographical Information System
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German Agency for International Co-operation)
GOK	Government of Kenya

GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit (German Agency for Technical Co-operation)
HCI	Household Commercialisation Index
HDI	Human Development Index
HIPC	Heavily Indebted Poor Countries
IDS	Institute for Development Studies, Sussex
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
IIED	International Institute for Environment and Development
ILRI	International Livestock Research Institute
IMF	International Monetary Fund
IPC	International Poverty Centre
IP-ERS	Investment Programme for the Economic Recovery Strategy for Employment and Wealth Creation
KAMPAP	Kenyan Agricultural Monitoring for Policy Analysis Project
KEPIM	Kenyan Participatory Poverty Impact Monitoring
KES	Kenyan Shillings (during Survey: 1 EURO = 103 KES)
KfW	Kreditanstalt für Wiederaufbau (German Development Bank)
KIHBS	Kenya Integrated Budget Household Survey
KNBS	Kenya National Bureau of Statistics
KPIA	Kenya Poverty and Inequality Assessment
LED	Local Economic Development
LIFDC	Low Income Food Deficit Country
LSMS	Living Standards Measurement
MDG	Millennium Development Goal
MIT	Massachusetts Institute of Technology
MoA	Ministry of Agriculture
MPI	Multi-Dimensional Poverty Index
NARC	National Rainbow Coalition
NASSEP	National Sample Survey and Evaluation Programme
NDVI	Normalised Differential Vegetation Index
NONIE	Network of Networks for Impact Evaluation
NTA	National Taxpayers Association Kenya
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
OLS	Ordinary least square

OPHI	Oxford Poverty & Human Development Initiative
OPPG	Operationalizing Pro-Poor Growth Research Program
PEV	Post-Election Violence
Povnet	Network on Poverty Reduction
PPA	Participatory Poverty Assessments
PPA IV	Fourth Participatory Poverty Assessment
PPG	Pro-poor Growth
PRA	Participatory Rural Appraisal
PREM	Poverty Reduction and Economic Management
PRSP	Poverty Reduction Support Programmes
RCT	Randomized Control Trial
RNFE	Rural Non-Farm Economy
RRA	Rapid Rural Appraisals
RRA	Rapid Rural Appraisal
SAP	Structural Adjustment Programmes
SDC	Swiss Development Cooperation
SID	Society for International Development
SIDA	Swedish International Development Cooperation Agency
SOAS	School of Oriental and African Studies
SOP	Stages of Progress
TAMPA	Tegemeo Agricultural Monitoring and Policy Analysis Project
UN	United Nations
UNDP	United Nations Development Programme
UNICEF	United Nations International Children's Emergency Fund
UNMP	UN Millennium Project
USAID	United States Agency for International Development
VC	Value Chain
VCD	Value Chain Development
WCED	World Commission on Environment and Development
WDR	World Development Report
WMS	Welfare Monitoring Surveys
WTO	World Trade Organization
WUR	Wageningen University and Research Centre

1 INTRODUCTION

There has never been a more important time to address rural poverty in developing countries.

(Kananyo F. Nwanze,
President of the International Fund for Agricultural Development,
IFAD 2010 p. 10)

1.1 Research Background

This research is placed against the background of three different debates in three different worlds of literature and aims at connecting these different schools of thought for a fresh look at rural poverty reduction in Sub-Saharan Africa. The first is the pro-poor growth (PPG) debate among development economists since the Millennium; the second is the agricultural value chain trend in development cooperation since the mid-2000s; and the third is the methodological discourse on the measurement of poverty dynamics along the so-called ‘q-squared paradigm’.

Having taken these worlds of literature into account, the empirical research phase in Kenya was designed and undertaken as a qualitative follow-up survey of 51 poverty existing rural households from a rural household panel in order to better understand their poverty dynamics in relation to their agricultural activities.

1.1.1 Research Problem: Rural Poverty Reduction through Agricultural Value Chain Promotion

In Africa, the past 30 years have seen unanticipated economic and social changes in development: after 20 years of economic depression, African economies grew at a robust pace of 4.5 % a year, since the mid-1990s. Due to a number of factors¹, the overall narrative about Africa shifted from the

¹ For example, a decline in larger conflicts, better macroeconomic frameworks, improvements in governance, a commodity resource boom, the discovery of new natural resources, increased schooling rates and improved health care in some countries (see also BEEGLE et al. 2016 p. 21).

‘failed continent’, the ‘resource curse’ and the ‘growth tragedy’ to one of ‘Africa rising’ (see THE WORLD BANK 2014)².

The poverty rate in Africa fell from 56 % in 1990 to 43 % in 2012 (BEEGLE et al. 2016). Despite all efforts made to reduce poverty (and some countries have made remarkable progress), this rate could and should have declined more. And because of population growth, more people in Africa are poor today than 30 years ago (about 330 million poor in 2012, up from about 280 million in 1990; *Ibid.*, p. 9). Thus, poverty reduction in Africa significantly lags behind other developing regions in Asia and Latin America. And, what is important for this research: rural areas remain much poorer, even though the urban-rural gap has narrowed over time (see FAO 2017a).

So, despite this long spell of economic growth, a large share of the African population continues to struggle to survive with less than 1.90 USD per day. Yet, since the Millennium, a renewed poverty and growth debate dominated the development economics discipline, yielding mixed conclusions and recommendations on how to make poverty reduction progress and real for Africa today. How can economic growth and poverty reduction effectively work in Africa? And what is a suitable role of development cooperation in reducing poverty? These general questions frame the background against which this thesis is placed.

The more specific background is rural poverty in Africa. Rural poverty still constitutes the majority of all poor people worldwide with two thirds of all poor and the incidence of extreme rural poverty is highest in Africa (more than 60% of all poor live in rural areas). Whereas all other regions in the world managed to reduce rural poverty between 1988 and 2008, Sub-Saharan Africa seems to have stagnated (see IFAD 2010 p. 48). Why is rural poverty so pervasive in Africa?

Small family farms dominate the rural landscapes across Sub-Saharan Africa, accounting for up to 80 % of food produced and supporting the livelihoods of up to 600 million people (see IFAD 2016 and AGRA 2017). Yet, despite many years of economic and also agricultural growth, many of these farming households remain poor and only few seem to exit poverty over time. And many will remain poor, even though the agricultural outlook for the continent is generally positive with projected growth in production and demand (see OECD-FAO 2016).

² See TAYLOR 2014 or CARBONE 2015 for critiques of the ‘Africa Rising Discourse’.

It is known that multiple pathways lead out of rural poverty (see e.g. NARAYAN et al. 2009). Not surprisingly, agriculture plays a key role for rural poverty exit³ strategies in many countries and for many households. Yet, smallholder farming can only offer a route out of poverty if it is productive, commercially oriented and linked to markets (see HAZELL & RAHMAN 2014). But more so, agricultural activities stimulates the non-farm rural economy in a way that off-farm opportunities arise for those who are leaving agriculture as their main stay of living (see IFAD 2010). The diversification of rural economic activities is largely assumed to support rural development (see Ellis 1998 , HAZELL et al. 2007 or HAGGBLADE et al. 2010).

To tap the potential of the agricultural sector to enable pro-poor rural growth and poverty reduction, rural development initiatives experienced a revival in development cooperation as well as in development research. Since the early 2000s, a renewed interest in food security, and rural livelihoods was triggered by setting the UN Millennium Development Goal no.1 “Halving poverty and hunger by 2015” and the World Development Report 2000/01 (WORLD BANK 2000b). From then on, renewed interest in agricultural sector development led to a closer look at economically viable agricultural production and trade in developing countries, framing the (by then new) key term of agricultural value chain development (VCD; see KAPLINSKY & MORRIS 2001). The integration into global and domestic agricultural value chains was assumed to support pro-poor rural development and growth, especially where smallholder farmers in emerging and developing countries were involved (see GIBBON & PONTE 2005 , GEREFFI et al. 2005 , HENSON 2006 or ALTENBURG 2007).

Development agencies, governments and private sector hence invested a lot of resources to prevent the exclusion of smallholders from global markets and to integrate them in agricultural value chains (see e.g. MITCHELL et al. 2009 , HUMPHREY & NAVAS-ALEMÁN 2010 or RUBEN et al. 2006).

But what were the social and economic impacts of these development investments for African farmers? Had rural households exited poverty due to value chain integration? And if so, had they succeeded in improving their living standards by specialising in one or a few agricultural activities or by income diversification in the broader rural economy?

³ The term ‘poverty exit’ is used and understood in this research as the upward social mobility of a household that has been observed at various points in time and monitored vis-à-vis a poverty line. It is used synonymously for the terms ‘poverty escape’ or ‘poverty transition’.

This research states that even though agricultural VCD has been subject to a vivid debate among agricultural researchers and development practitioners alike, empirical evidence of value chain engagement and related poverty dynamics and pathways out of poverty were non-existent at the beginning of this thesis and are still hard to find today – even though by the very definition of development cooperation, the question how the poor can exit poverty over time should be at the very centre of development cooperation and research.

1.1.2 Motivation: Development Cooperation and Agricultural Value Chains

This research was strongly motivated by the divide between results from poverty and growth discourses in development economics and the practical work of development cooperation.

Agricultural value chain promotion became an ever more important concept and instrument in development cooperation during the 2000s and is up to today the established development concept for international agricultural development by bi- and multilateral agencies (see e.g. UNIDO 2011 or STOIAN et al. 2012).

The question how to integrate small-holder farmers into agricultural value chains has been widely discussed and analysed in many different case studies. As of today, a strong consensus has been reached that more differentiation is needed: not all small-scale farmers are fit for global value chains, not all agricultural or livestock products are equally conducive to small-scale farming, and value chain integration has to be inclusive to be relevant for poor small-scale farming households (see HAGGBLADE et al. 2012, SEVILLE et al. 2011 , or VORLEY 2013b). The instruments of agricultural VCD have been fine-tuned and well documented (see DONOVAN et al. 2013 for an overview or WEBBER & LABASTE 2010 , NORELL & BRAND 2012 , DENT et al. 2017 or SPRINGER-HEINZE 2018 as examples for agencies' manuals).

Yet, the fundamental question about the relationship between agricultural VCD and poverty reduction has not been answered satisfactorily – in fact, it had not even been asked by many development agencies by then, and not even today. Having worked in development cooperation in the agricultural

sector in the 2000s in Africa⁴, my specific interest was to understand what is known about the poverty impacts of agricultural development in general and for agricultural VCD in particular in order to apply results from the academic discourses to practical development work.

But during my work in Kenya, I found out that surprisingly little was and still is known about the measurement of poverty or poverty dynamics by agricultural VCD practitioners. First attempts to draw attention to this phenomenon within German development cooperation revealed – equally surprising – little interest in combining insights from contemporary poverty research into VCD (see ASCHE & HOEFFLER 2007)⁵. This was ever more surprising given that after more than a decade of decreasing funds and attention to the agricultural sector in development cooperation, agriculture and rural development experienced a sharp increase in public attention and aid allocations. The 2008 financial and food price crisis contributed to this renewed interest in the sector (see ASCHE & HOEFFLER 2011) that lasts until today.

Yet, the divide between what has been researched on the question of agricultural development and its contribution to poverty reduction and what is known about it and translated into practical development work remains stunning.

This gap formed a strong motivation to bring these different worlds of literature, of working and of thinking together. This research aims at placing agricultural VCD as integral part of sustainable rural poverty reduction and at putting VCD to test concerning its poverty impacts. This is also meant as a contribution to the debate about cost effectiveness of development aid, since a lot of development resources are allocated (again) to the agricultural sector; a lot of it in form of agricultural VCD – and thus, it should be useful to understand whether such agricultural VCD projects support poor rural households to move out of poverty.

⁴ Between January 2002 and April 2008, I was working for German Technical Cooperation (GTZ) in Kenya; most of the time as an adviser within the Kenyan Ministry of Agriculture to the Programme „Private Sector Development in Agriculture“ (PSDA).

⁵ Discussions during the conference “Value Chains for Broad-based Development” (30 May – 1 June 2007 in Berlin) revealed a certain ignorance towards the question of poverty relevance of agricultural VCD and associated methods of poverty impact monitoring among participants. These critical discussions became a strong motivator and ultimately the starting point for this thesis.

1.1.3 Relevance: Missing Poverty Impact Analysis for Agricultural Value Chain Development

The surprising lack of connection between practical VCD work and the booming poverty research scene since the mid 2000s that motivated this research could also be looked at from the perspective of poverty research: why did the poverty and growth debate around the Millennium not take a closer look at rural poverty and the role of agriculture? Indeed, the focus of the World Development Report 2000/01 (WDR 2000/01, see WORLD BANK 2000b) and the subsequent poverty reduction programmes was on social sectors not on productive sectors. Even though some development economists had highlighted the role of agriculture for rural growth and poverty reduction (e.g. RAVALLION & DATT 1999 or BEZEMER & HAZELL 2006)⁶, the poverty and growth debate largely ignored the role of agriculture or even openly questioned it (see e.g. BERDEGUÉ et al. 2000).

Yet, such scepticisms towards agriculture lasted only until the publication of the Word Development Report 2008 (WORLD BANK 2007b). This WDR, in particular the estimated poverty elasticity of agricultural development investments by LIGON & SADOULET 2007 , changed the discourse and focussed attention of development economists on agricultural development and rural poverty with renewed focus, more public attention and more and better data. Yet, the pro-poor growth debate did not actually zoom into the poverty assessment of such projects even though the relevance of poverty impacts of agricultural VCD was very evident, as also formulated by KRISTJANSON et al. 2002 : “*Investors in international agricultural development have the right to ask for the impact of their investments – i.e. the return on their investment*” (*Ibid.*, p. 74). However, donors as these ‘investors in development’ did not ask for such a ‘return on poverty reduction’ during the 2000s and poverty researchers did not deliver it.

Even the call by one of the most well-known veterans of poverty research, Erich Thorbecke was only partially answered: “*Before the development community can become more successful in designing and implementing poverty-alleviation strategies, within the context of growth, we need to understand better the conditions under which some households remain permanently (chronically) poor and how others move in and out of poverty.*” (THORBECKE 2004 p. 1). Among poverty researchers, the ‘persistence of poverty’ and ‘chronic poverty’ received much more attention than

⁶ It should be noted that some influential literature had also highlighted this before the Millennium; see e.g. BATES 1983 or ADELMANN 1984 .

the research of poverty exits and pathways out of poverty. Yet, both topics were equally important for policy makers and development agencies to make investment decisions since they required to understand, why so many poor were trapped in poverty and while some households and individuals had managed to exit poverty. The knowledge gained on poverty research should have supported public policies in identifying ways (i) to overcome poverty traps that kept too many chronically poor; and (ii) to replicate viable pathways out of poverty⁷. However, as stated also by SHEPHERD 2010, the in-depths analysis of rural poverty exits was a rare and rather recent phenomenon.

This parallelism of poverty and growth research on the one hand and agricultural development work on the other was only interrupted by the publication of the Rural Poverty Report in 2011 (IFAD 2010). For the first time, a large UN agency report provided the much needed basic global data on rural poverty and connected the dots between rural poverty and rural economic activities (farm-based and non-farm based)⁸. By stating that 70 % of the world's very poor people (about one billion people at that time) were rural, the report emphasised the relevance of addressing rural poverty: *"Neither of these facts is likely to change in the immediate future, despite widespread urbanization and ongoing or approaching demographic transitions across regions. Now and for the foreseeable future, it is thus critical to direct greater attention and resources to creating new economic opportunities in the rural areas for tomorrow's generations."* (Ibid., p. 70).

Since the Rural Poverty Report 2011, the relevance of agriculture for rural poverty reduction was less disputed, but was continuously debated. The question as it was posed by STAMOULIS & ANRÍQUEZ 2007 *"Is agriculture still key?"* led to a more fruitful inter-disciplinary look at the potential of the agricultural sector for rural development. It was concluded that particularly for rural areas in least-developed countries, agriculture was still the necessarily starting point for rural development. This was then followed by a whole new debate about the role of small-holder agriculture for poverty re-

⁷ As also emphasised by KRISHNA et al. 2004 :*"There are, however, some common threads running through most of these successful households' experiences, and they help illustrate the pathways that other households could take to escape from poverty in this region. Learning from these experiences, suitable public policies can be designed to facilitate other poor households' transitions out of poverty"* (Ibid., p. 212).

⁸ It should be noted that even though IFAD published a new Rural Poverty Report (IFAD 2016), the 2016 edition lacks most of the global data part of the 2011 report and thus, is of much lesser value for the analysis of global trends on rural poverty. The 2011 Rural Poverty Report is up to today for many variables the latest data source.

duction (see e.g. HAZELL et al. 2007 , WIGGINS & KEATS 2013 or LARSON et al. 2016). Yet, the laudable initiative of the Rural Poverty Report 2011 to substantiate this debate with global data and perspective was not continued; neither by IFAD (see also Footnote 101) nor any other international organisation or research institution.

Even though the recent FAO State of Food and Agriculture Report (FAO 2017a) underlines the relevance of the research topic at hand: “*Since the 1990s, poverty rates in sub-Saharan Africa have changed very little, and the absolute number of poor has increased. Instead of finding a pathway out of poverty, poor rural Africans who migrate to cities are more likely to join the already large numbers of urban poor. [...] the rural poor are more likely to escape poverty by remaining in rural areas than by moving to cities.*” (Ibid., p. xi), no significant empirical literature was added to the debate since 2010 – 12. Then, the World Bank had finished Narayan’s landmark series “Moving out of Poverty”⁹, IFAD had published the stand-alone publication of the Rural Poverty Report 2011 and the Chronic Poverty Research Centre (CPRC) came to an end in 2011 (see also 1.2.2 and Footnote 67). Since then, the international interest has moved on to questions of ‘rural transformation’ (see e.g. *Ibid* or IFAD 2016 and section 5.2.2). Yet, the quest for pathways out of rural poverty and the role of agriculture remains pertinent – as most prominently reflected in the Sustainable Development Goals (SDGs) that chose unanimously poverty eradication as SDG number 1: “*End Poverty in all forms everywhere*”¹⁰.

Concerning the case study country Kenya, the poverty impacts of agricultural VCD are still relevant today since rural poverty is still widespread and deep. Rural Poverty was a highly relevant topic when this research started in 2008: even though the country managed to reduce overall poverty levels from 52.6 % to 46.6 % between 1997 and 2005, this was largely achieved by urban poverty reduction. Overall rural poverty rates were only reduced by 3.4 % and stood at a staggering 49.7 % in 2005 (KNBS 2007a p. 44). Roots, causes and effects of rural poverty had been subject to national and international research, in particular with a focus on smallholder farmers. However,

⁹ This series is comprised of four volumes: NARAYAN & PETESCH 2007 (Vol.1), NARAYAN et al. 2009 (Vol. 2), NARAYAN 2009 (Vol. 3) and NARAYAN & PETESCH 2010 (Vol. 4).

¹⁰ See <https://sustainabledevelopment.un.org/sdg1> for all targets and indicators of SDG 1.

household strategies to overcome rural poverty received very little attention¹¹.

Yet, at the same time, agricultural VCD was a widespread development concept implemented by almost all donors and aid agencies active in the agricultural sector in the country. All these VCD projects set up their own monitoring systems and collected micro data sets to assess and evaluate their impacts. Yet, with the exception of the USAID funded Kenya Maize Development Programme, none of the VCD projects in the 2000s assessed its impact with regard to poverty dynamics. This lack of poverty exit analysis of VCD projects – in Kenya and elsewhere - underlines the relevance of this research.

1.2 Research Organisation

Measuring poverty in Africa remains a challenge.

(BEEGLE et al. 2016 p. 1)

1.2.1 Objective and Research Question

The objective of this research is threefold: (i) to develop a clearer picture about poverty impacts of agricultural value chain development; (ii) to contribute to the theoretical debate about effective cross-disciplinary research along the ‘q-squared paradigm’ (see 3.1.4) and subsequent interdisciplinary methodologies; and (iii) to create an example of how to use panel data for sectoral poverty impact assessment – in order to contribute to the debate about pro-poor rural growth with an in-depths empirical field survey.

These objectives are pursued by using rural household panel data from Kenya. Kenya has gained more than ten years of well-documented experiences in developing various agricultural value chains (i.e. tea, coffee, sugar

¹¹ Equally, assessing the national poverty situation received very little attention in the past ten years: It took the Government of Kenya (GoK) more than ten years to repeat the Kenya Integrated Budget Household Surveys (KIHBS 2005/06). The most recent national poverty assessment was undertaken as KIHBS 2015/16 and the results were published only in March 2018 when this thesis was finalised. They illustrate a continuation of overall poverty reduction from 46.6 % in 2005 to 36.1 % in 2015; however, the rural poverty rate still stood at 40.1 % (KNBS 2018 , see also 4.1.1).

or export horticulture, as well as domestic agricultural value chains such as dairy, potatoes, local vegetables or maize). The emergence of agricultural value chain promotion as a development approach flourished in the 2000s in Kenya and has helped to overcome a number of previous shortcomings in agricultural aid, particularly the orientation towards effective private sector engagement. However, what is usually referred to as a success story had not been subject to analysis as to whether the participating households have either sustainably improved their household incomes or their asset base through agricultural VCD. More empirical research was needed to inform the debate on pro-poor rural growth in Africa.

Since the critical question ‘How poverty-reducing is agricultural VCD?’ had not been satisfactorily answered and no precise evidence had been published to prove the poverty-reducing impacts in terms of ‘how many poor has this development approach lifted above the poverty line?’, these questions formed the research questions.

The *a priori* working hypotheses (see section 2.4) were designed to answer these questions. To verify (or falsify) these hypotheses, the case study in rural Kenya was planned as in-depths follow-up interviews with poverty-exiting rural households. The results were expected to help answer the following specific research question:

- (i) Does agricultural VCD contribute to rural poverty reduction?
- (ii) If so, how?
- (iii) And lastly: how could this contribution be supported by future agricultural VCD projects and how could it be measured and monitored?

1.2.2 Theoretic Framework: Three Worlds of Literature

In order to operationalise the research question of the ‘pro-poorness’ of agricultural VCD, three different worlds of literature provide the basis to answer these questions: (i) the pro-poor growth debate among development economists since the Millennium; (ii) the agricultural value chain trend in development cooperation; and (iii) the methodological discourse on the necessary combination of quantitative and qualitative measurements of poverty dynamics (the ‘q-squared paradigm’, see 3.1.4).

These different spheres of literature are reviewed with a historic perspective (since the Millennium until today) because it is important to understand where the poverty, growth and aid debates are coming from in order to un-

derstand the impact these different and largely separated discourses had on rural development in Sub-Saharan Africa. The WDR 2000/01 (WORLD BANK 2000b) and the Millennium Development Goals (MDGs) initiated the strong global poverty orientation. This sparked the economic debate about the right definitions of poverty and the pro-poor growth concept (see section 2.1.2).

At the same time, a growing body of literature analysed poverty measurement and poverty dynamics in general and chronic poverty in particular (notably by the Chronic Poverty Research Centre, see CPRC 2005 and CPRC 2009). Poverty traps, vulnerability and resilience against shocks became equally popular research topics (i.e. Hulme et al. 2001; Carter & Barrett 2006; ADDISON et al. 2009a). With the establishment of ever better household surveys (such as standard living surveys or demographic health surveys) and even panels, and with the advancement in data management software, the quantitative analysis of poverty dynamics boomed and produced a rich body of development economics literature (see 3.1.2).

And again simultaneously, the renewed focus on agricultural development and the advent of agricultural value chain development took place in development cooperation – largely independent from the PPG-debate and the poverty research boom. Here, the conceptual thoughts of KAPLINSKY & MORRIS 2001 were followed by the more practical side of case studies of how to implement VCD projects, but without any cross-reference to the poverty debate. Until today, clear methodological guidance on how to measure poverty impacts of agricultural VCD is missing, despite the wealth of literature and despite the new technical opportunities of processing micro data that could be fed into larger national sector monitoring (see 2.3.3).

Astounding as it may seem, during the 2000s, rural poverty reduction was not in the focus of agricultural VCD project implementation; the poverty dynamics debate was a domain of mainly social sectors researchers and the PPG-debate was one of economic advisers – and none of the obvious connections of these three worlds were addressed. Thus, these three worlds of literature form the theoretic framework of this research. And even though part of the literature and debates might seem outdated, this research was also driven by the impulse to give a historic contextualisation of these different worlds as they were towards the end of the first decade of the new Millennium, when agricultural development in Africa all of a sudden received renewed attention.

1.2.3 Data and Methodology

The data used for the Kenyan case study is the rural household panel data set called “Tegemeo Agricultural Monitoring and Policy Analysis Project” (TAMPA). This data set was originally sampled as a subsample of the 1997 Welfare Monitoring Survey (WMS). The main focus of analysis for the TAMPA project was to cover representative rural households in areas suitable for crop production. Based on the original 1540 households sampling frame, three consecutive survey rounds were completed for 1275 households in 2000, 2004 and 2007 (see section 4.2.1 for a detailed data description). This four wave panel was used to analyse poverty dynamics of different types of households according to their main sources of incomes. For the sub-sampling of this research, households with high off-farm incomes were excluded in order to focus the follow-up interviews as much as possible on households that exited poverty based on agricultural activities. So, out of the 195 poverty exiting agricultural households, 51 households were re-sampled for qualitative follow-up interviews.

The results of previous panel interviews were presented to the households and discussed, in order to establish agreement with the respondents over their household history and pathway. This was followed by open ended narratives about the households past 13 years following a life history approach. The interviews were concluded with a self-assessment of wellbeing using elements from Stages of Progress (SOP) methodology. The narrated reasons for change in household welfare over time were then analysed for their attribution to their agricultural activities using qualitative data analysis software.

The research methodologies used borrowed from three different schools: (i) from quantitative poverty measurement and poverty dynamics; (ii) from the ‘q-squared methodology’ of combining quantitative poverty analysis by qualitative research methods; and (iii) from social science methodological elements such as grounded theory, life history, and subjective self-assessments. A ‘q-squared’ approach following KANBUR 2003 seemed best suited for approaching the question why and how agricultural households have exited poverty in Kenya. Thereby, this research followed an interdisciplinary mixed-method approach.

The conceptual centrepiece formed the ‘poverty exit’ – since for poverty reduction as the main development goal, it should be of essential value to understand “*what determines whether households escape poverty or not*” as stated by

NARAYAN et al. 2009 , p. 26. In order to understand what drives social upward mobility for rural households in Kenya and what role agricultural VCD played here, a specific set of explanatory variables was formulated and tested (see 4.3.2). This research is thereby placed in line with the work of de Weerd 2010 in Tanzania and of DAVIS 2011a in Bangladesh. Concerning the use of the TAMPA panel, this research complements the work by RADENY et al. 2010 and MUYANGA et al. 2013 .

1.2.4 Research Organisation and Limitations

I worked as a practitioner in agricultural VCD in Kenya from 2003-2008, and this practical development work largely motivated the development of this research (as explained in 1.1.2). I started to develop my research question in exchange with other VCD colleagues, so the actual starting point was the practical problem of the missing poverty impact assessment of agricultural VCD projects. To place my research idea into the wider African poverty and growth debate, I spent the summer term at Universität Leipzig attending classes and course work at the Institute of African Studies in 2007. Back in Kenya, the Tegemeo Institute of Agricultural Policy and Development at Egerton University became the natural research partner: they commanded over the TAMPA rural household surveys and were increasingly approached by development agencies to use this data to monitor agricultural development projects or to collect new data.

This research was pursued in three phases: the research idea was developed in 2007 –2008. Then, field data was gathered and analysed in 2010 – 2011, and first results presented and discussed in various conferences (see HOFFLER 2009 , HOFFLER 2011c and HOFFLER 2011a) and doctoral colloquia¹². Different sections were written between 2012 - 2015 and finalised between 2015 - 2018.

Four areas of limitations to this research should be mentioned: first, the TAMPA panel has some well-known limitations with regard to its representativeness for rural Kenya (as discussed in 4.2.1) as well as limitations concerning the aging of the original panel households: people living in households grow older over time and household progress in their life cycle.

¹² Notably the 2008 Mansholt Graduate School PhD Day (Wageningen), the 2009 EUDN PhD Workshop (St. Catharine's College, Oxford), the 2012 SEPT Colloquium at Universität Leipzig, the 2016 Afrikanistik Colloquium at Universität Mainz, and the final presentation at the Afrikanistik Colloquium 2017 at Universität Leipzig.

These developments affect the fundamental equation used for analysing poverty dynamics: the division of all aggregated household incomes (expenditure based) by all persons living in the household measured in adult equivalents (ae). The relevance of these limitations of panel data are discussed in detail in section 4.4.

Secondly, the quantitative analysis of the poverty-exiting sub-sample couldn't be pursued as initially planned in the research collaboration¹³. This notwithstanding, my field survey expanded the existing methodological scope of TAMPA analysis and opened up new mixed-methods ways of poverty research in Kenya.

Thirdly, the methodology of the qualitative follow-up interviews suffers from the known limitations of self-reporting inducing a bias towards more positive presentation of the interviewee's life situation and the known unknown variables underlying a household's development which are not possible to analyse in such a survey since they touch upon too personal and private spheres. It should also be mentioned that the occasional translation from vernacular language to Kiswahili and all documentation of the interviews in English beard the danger of losing information. Section 4.3.2 and Box 4—2 describe how the research team addressed these challenges.

Lastly, the result that only half of the poverty exiting households by panel data were actually poverty exiting by their life history limited the representativeness of the sub-sample interviewed. The sampling assumption to interview one third of all poverty exiters (51 households out of 155) is thus weakened, since plausible poverty exit life histories were found only for 26 households. This notwithstanding, the analysis and results derived still provide plausible evidence to the research question.

All remaining flaws and limitations have to be attributed to the author.

¹³ Initially, this work was planned as a contribution to Tegemeo's 'Poverty Trend Research' according to the Research and Dissemination Plan 2009. The directors of Tegemeo provided me with access to the TAMPA panel data in order to add my qualitative view to the largely quantitative work Tegemeo had done so far. However, the initially assigned research partners at Tegemeo moved on with their careers and thus, joint publications with a stronger quantitative focus could not be realised.

1.2.5 Organisation of Thesis

The organisation of this thesis is as follows: Following this introduction, Chapter 2 provides a review of poverty and growth debates in the 2000s and how these debates influenced the aid debate - which then somehow bypassed the agricultural sector development discourse. The chapter provides the literature background against which the idea for this thesis was developed: the area of poverty orientation in development and the PPG-debate (2.1), and the missing link to rural poverty reduction (2.2) and the de-linked emergence of agricultural VCD as development concept (2.3).

Chapter 3 presents the main methodological approach of this work: poverty dynamics and poverty exits. First, the emergence of poverty research as a quantitative, qualitative and mixed-method discipline is presented (3.1). Second, the theory and evidence of poverty exit research is summarised (3.2).

Chapter 4 then zooms into Kenya by first summarising data and literature on poverty in Kenya (4.1). This is followed by a description of the data used for the field survey (4.2.) as well as the in-depths methodological considerations taken for the qualitative follow-up interviews (4.3). Sections 4.4 and 4.5 present two result areas from the field survey. Section 4.4 presents the meta-level results from the triangulation of the quantitative data during the follow-up interviews. These results proved to be highly important for panel data analysis and provide suggestions how to interpret some of the apparent poverty dynamics in the TAMPA panel as well as in other rural household panels in Africa. Section 4.5 presents the results on poverty exits in relation to agricultural VCD. Different groups of pathways out of poverty are summarised and the main explanatory variables highlighted according to a differentiation of household characteristics.

Lastly, Chapter 5 concludes with a summary of the importance of the conceptual understanding of poverty exits (5.1) and with different recommendations for the Government of Kenya (5.2.1), for Development Cooperation (5.2.2) and for further research (5.2.3).

2 POVERTY AND GROWTH DEBATES AND THEIR IMPLICATIONS FOR AID TO AGRICULTURE

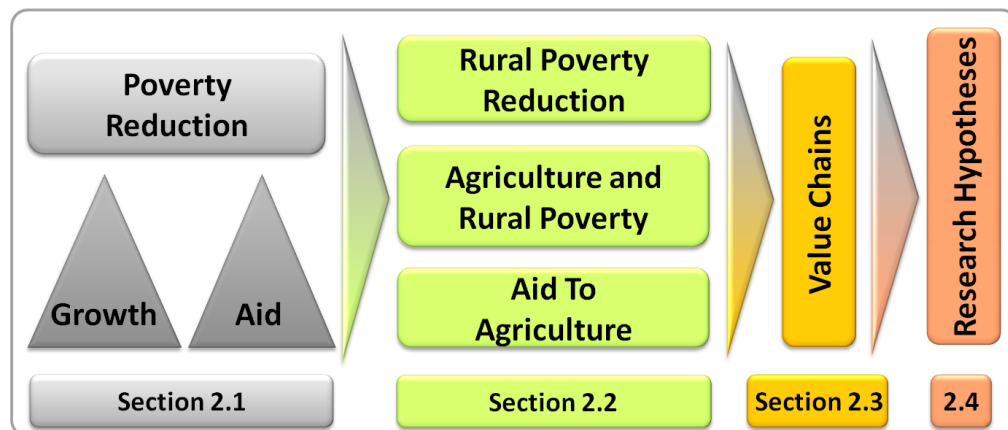
Research on poverty has never been as vigorous as it is now.

(ADDISON et al. 2009a p. vii)

This chapter provides a review of poverty and growth debates in the 2000s and thereby provides the literature background against which the idea for this thesis was developed. These international debates around the Millennium about poverty reduction in general and the dispute on how economic growth and development aid could and should contribute to poverty reduction in particular, have strongly influenced overall development research and poverty research in particular ever since.

As illustrated in 2.1, the different discourses about poverty reduction, Pro-Poor growth (PPG) and the role of aid lead to a closer look at the status of rural poverty and then zooms in on the research question analysed: how can agricultural value chains contribute to rural poverty reduction?

Graph 2—1: Content of Chapter 2



Source: own illustration

The chapter starts with setting the scene for the main schools of thought in the poverty debate (section 2.1.1), on the development of the PPG paradigm (section 2.1.2), and on the dispute about the role development aid could and should play for poverty reduction (section 0). This is followed by an overview on rural poverty: section 2.2.1 provides important facts and

figures on contemporary rural poverty. Section 2.2.2 discusses critical specificities of rural poverty, and the particular role agriculture plays for rural poverty reduction. The implications of these specific challenges on aid are discussed in 2.2.3, including a historic review of aid for agriculture (section 2.2.3.1). The emergence of agricultural value chain development (VCD) as a then new development concept is presented in section 2.3. This includes a critical look at conceptual omission and the missing link to rural poverty reduction. This chapter ends with a synthesis of the literature background and thereby leads to the formulation of the research hypotheses (see 2.4).

2.1 How to reduce Poverty?

The advent of the Millennium had produced an unprecedented international debate about ending poverty and hunger in the world. One decade after the end of the cold war and one decade into a wave of democratisation of several developing countries' regimes, a new optimism reigned the international community. Poverty, it seemed, could be ended by bundling major international support and by making renewed and more comprehensive efforts. Ending or at least substantially reducing poverty became a moral imperative for the modern world of perceived less political conflict and endless opportunities looming in dividends within the digital revolution to come.

The World Bank took a leading role in stimulating this debate by the publication of the combined 2000/2001 World Development Report (WDR) "Attacking Poverty" (WORLD BANK 2001). The report was produced by a large team of growth, aid and poverty experts and unlike other WDRs provided room for different opinions, schools of thought and of different methods (see for discussion of the methodology also section 3.1.3). This time, the usual preparatory process of academic consultations based on background papers and workshops was altered by the effort to portray poverty in a more illustrative way than the usual 'facts and figures'. Lead by Deepa Narayan, senior adviser in the World Bank's Poverty Reduction Group, the "Voices of the Poor" project collected data of more than 60,000 poor individuals from 60 countries in an unprecedented effort to understand poverty from the perspective of the poor themselves (see NARAYAN et al. 2000 and NARAYAN & PETESCH 2000)¹⁴.

¹⁴ Deepa Narayan later became the senior adviser to the World Bank's vice-president's office for the Poverty Reduction and Economic Management (PREM) Network.

In a practical way, the WDR 2000/01 and the “Voices of the Poor” backed the massive introduction of Poverty Reduction Support Programmes (PRSP) and respective Poverty Reduction Strategy Papers and Poverty Reduction Loans by the World Bank and the International Monetary Fund (IMF) worldwide¹⁵. (see e.g. ASCHE 2002 for an overview or CRAIG & PORTER 2003 as one of the many critiques).

At about the same time, the landmark Millennium Summit took place in September 2000. It was the largest gathering of world leaders in history. They adopted the United Nations (UN) Millennium Declaration, which committed all member nations to a new global partnership to reduce extreme poverty by setting targets for the eight Millennium Development Goals (MDGs), with a deadline of 2015¹⁶.

The UN Secretary-General followed the topic closely when he commissioned the UN Millennium Project (UNMP) in 2002. Headed by Jeffrey Sachs, Special Advisor to the Secretary-General on the Millennium Development Goals, the UNMP was an independent advisory body and recommended an action plan for the world to reverse the poverty, hunger and disease affecting billions of people¹⁷.

A number of Western governments began to pick up the issues of global development and poverty, particularly the British Prime Minister Tony Blair took up the case of African economic growth and poverty reduction. This is e.g. expressed in Blair’s remark at the 2001 Labour Party Conference: “*The state of Africa is a scar on the conscience of the world*” (as quoted in MOYO 2009 p. xviii). This led to the founding of the “Commission for Africa” in 2005 with their much debated report “Our common interests” (COMMISSION FOR AFRICA 2005). Mostly expressed as a humanitarian no-

¹⁵ Poverty Reduction Strategy Papers were introduced by the World Bank and the IMF as a new framework to enhance domestic accountability for poverty reduction reform efforts; a means to enhance the coordination of development assistance between governments and development partners; and a precondition to debt relief and concessional financing under the “Heavily Indebted Poor Countries” (HIPC) Initiative. A typical PRSP would have to set out a country’s macroeconomic, structural, and social policies and programmes to promote growth and reduce poverty, as well as associated external financing needs. Countries were typically meant to prepare a PRSP every three to five years in a participatory process involving a broad range of stakeholders.

¹⁶ See <http://www.un.org/millenniumgoals/> for the official overview.

¹⁷ See the final report “Investing in Development. A Practical Plan to Achieve the Millennium Development Goals” (UN MILLENNIUM PROJECT 2005); see also <http://www.unmillenniumproject.org/index.htm> for more details on the UNMP.

tion, the topic of global development gained more prominence during the early '00s. Based on public support by eminent persons, civil society activists, international celebrities¹⁸, and philanthropists¹⁹, the Group of Seven/Group of Eight (G7/G8) summits and the annual World Economic Forum meetings in Davos became events that first were heavily criticised by politically left-oriented anti-globalisation activists. However, later they became important spots of international debate about and lobbying for global development. Among other achievements lobbying led to the release of major multilateral debt of African countries during the G8 Summit in Gleneagles. It was also the reason for raising additional funds for food security during the G8 summit of L'Aquila in 2008²⁰.

To summarise, poverty - reducing, ending or making it history - became a central topic in the first decade of the Millennium. This was first and foremost an effective push for the cause and important for the topic to gain necessary international prominence. At the same time, it provoked further debate and critique and thereby opened the discussion for a broad spectrum of multiple opinions on the root causes for and remedies against poverty. While having shaped the development discourse in many ways, the debate has also been important for agricultural value chain promotion as shown below.

2.1.1 Explaining Poverty: The Debate about Poverty Traps

Academically, the discourse of how to reduce poverty was not new. Development economists had worked on this question as early as the first waves of development aid had. During the 1990s, many development economists had researched the impacts of economic growth on welfare and thus, dealt with the relationship between growth and poverty reduction. Such earlier

¹⁸ A quick overview on the involved personalities and topics can be found in COMMISSION FOR AFRICA 2005 or BRAINHARD & LAFLEUR 2007 .

¹⁹ The expression 'the new philanthropists' commonly refers to either wealthy business founders or previous heads of states and their foundations for global courses; such as Bill and Melinda Gates, George Soros, Mo Ibrahim, or Bill Clinton.

²⁰ At the G8 Summit in L'Aquila, Italy, in July 2009, 26 nations and 14 international organizations launched the 'L'Aquila Food Security Initiative' (AFSI). They pledged 20 billion USD over three years to help food insecure countries to implement their national food security strategies (see <http://iif.un.org/content/laquila-food-security-initiative> for more background).

works included FOSTER et al. 1984 , FOSTER & SHORROCKS 1991 , RAVALLION & DATT 1996 , DEATON 1997 or RAVALLION & DATT 2002 .

Much of this research was aimed at measuring the impacts of Structural Adjustment Programmes (SAP) of the World Bank and the IMF. SAPs were a widely used neoliberal set of macroeconomic tools aiming at reforming heavily indebted developing countries by drastic deregulation, liberalisation and privatisation during the 1980s. There exists a vast body of literature on the impacts of structural adjustment and surprisingly many debates among development researchers until today have been about the impact of SAPs. However, a fairly safe resume of the debate could be that most countries would not have economically recovered if they were not forced to reform their state, markets and currency regimes. Yet, it also needs to be taken into consideration that in many cases drastic public budget cuts in social sectors led to countless suffering, unnecessary deaths and drops in school enrolment rates (to name just a few of the negative impacts of SAPs).²¹

In essence, structural adjustment and subsequent liberalisation, deregulation and privatisation of markets and trade (via the formation of the World Trade Organization (WTO) in 1995 and its rapidly increasing membership) had put a strong focus on economic growth and trade expansion in development²². This caused a lot of frustration amongst development experts in development cooperation and in research, mainly amongst those dealing with social sectors. This frustration within bi- and multilateral development organisations might have been the prime reason for the window of opportunity that was opened by the WDR 2000/01 team and the UNMP, the Commission for Africa and other international initiatives²³, which triggered a whole new debate on how to reduce poverty and by lobbying for more development aid. Additionally, the leading economics professor, Chief

²¹ As mentioned before, a summary of the SAP debate cannot even be attempted here. It was however necessary to mention this debate and particularly its academic repercussions, in order to make the development of the Millennium development initiative more understandable. Concerning the relationship between SAP, economic growth and poverty, KRUEGER et al. 1992, VAN DE WALLE 2001 , WORLD BANK 2005b , MAXWELL 2005 , RODRIK 2006 , and NDULU et al. 2008 provide the range of the arguments.

²² The full set of economic stabilisation measures was called the 'Washington Consensus', comprising of a set of ten economic policy prescriptions considered to constitute the standard reform package by the Washington, D.C.-based institutions (see e.g. WILLIAMSON 1989).

²³ KIELWEIN 2005 gives a useful overview on the conceptual outline of the UNMP and Commission for Africa.

Economist and Senior Vice-President of the World Bank from 1997–2000 Joe Stiglitz fuelled the new debate about a ‘post-Washington Consensus’ that would have to have a stronger emphasis on the relationship between growth and poverty reduction in a globalised world by publishing his widely read book “Globalization and its Discontents” (STIGLITZ 2002).

This was followed by two schools of thought that formed rapidly around the opposite ‘poles’ in favour of or against more development aid, impersonated by William Easterley and Jeffrey Sachs. Both distinct American scholars and professors of development economics triggered the ‘aid debate’ that dominated numerous development discussions in institutions, newspapers, research publications and internet blogs. Their already existing public dispute culminated in their almost simultaneously published books: “The End of Poverty” (SACHS 2005) and Easterley’s “The White Man's Burden.” (EASTERLEY 2006)²⁴. Both authors analysed causes of poverty and expressed their opinion about the role aid could play in overcoming it

The questions whether the cause for widespread poverty was to be found in nations trapped by their macroeconomic failures and whether international aid was able to free developing countries from such a trap summarised two major conceptual differences among Sachs and Easterley. Sachs argued that developing countries were caught in low-level equilibrium traps that were impossible to overcome by own forces since the causes for the traps were so intertwined (a theory commonly known as ‘vicious circle’: people are poor because of hunger that forces them to work hard which leaves them out of school which denies less physical work etc.). Sachs had not been the first to emphasise the poverty trap but made the argument much more prominent that the role of international aid had to be the ‘big push’ moving these countries out of the low-level equilibrium and lifting them above the development threshold. For the countries themselves, it was important to generate ‘quick wins’ through aid, in order to emphasise potential political gains and a momentum of change.

In contrast, Easterley disputed the existence of poverty traps and hence the necessity for big pushes. He was already known as a strong aid critique when he published his book “The Elusive Quest for Growth: Economist’s

²⁴ A full review and comparison of both books and positions would exceed the purpose of this section. A very comprehensive overview of the entire debate is provided by ASCHE 2006 . A useful evaluation and conclusion of the aid debate is given by MILLER 2010 .

Adventures and Misadventures in the Tropics“ (EASTERLEY 2001). He explicitly called the big push an outdated fantasy of development planners that were not able to acknowledge developing countries realities. (see also EASTERLEY 2005). Such ‘planners’ would always stay behind in the run-up to explain development against what he calls the ‘searchers’. One chapter of “The White Man’s Burden” sets out by asking “*Why do ineffectual utopian plans dominate the debate on economic development?*” to underline his argument how misguided development aid distribution was from its beginning in the 1950s (EASTERLEY 2006 33). This illustrates his deep mistrust towards public policy solutions, scepticism of bureaucratic efficiency and his strong inclination to market and incentive-based solutions for development instead of aid, which was prominently echoed in the further debate.

Easterley was not alone with his critique. KRAAY & RADDATZ 2005 sought to find empirical evidence from cross-country regressions for poverty traps and concluded that direct evidence for different kind of traps was not very compelling²⁵. In addition to conceptual scepticism, many development economists felt uneasy with the pushes for more aid, simply by lacking the evidence how previous aid efforts had worked. Many of them were convinced that current aid flows were not visibly reducing poverty. As stated in the World Bank publication “Can Africa claim the 21st Century”: *„In the 1960s and early 1970s many prominent economists considered Asian countries with their vast, poverty-stricken populations and limited resources, to be caught in a low-level development trap. [...] The passing of time has shown how wrong such views were. The performance of other regions, the findings of cross-country studies, and the achievements of a number of African countries suggest that reversing the increase in poverty is possible.“* (WORLD BANK 2000a p. 12).

However, while the debate moved on, the aid critiques were getting less attention. The mainstream within the international organisations bought into the idea of a big push, in particular when focussing on poverty in Africa: *“If the problems in Africa are interlocking, so are the recommendations and actions to overcome them. [...] This is why the Commission has called for a ‘Big Push Approach’ to supporting Africa’s resurgence.”* (WORLD BANK 2000a p. 87).

²⁵ As summarised by KRAAY 2005 15 “*Poverty traps have captured the imagination of academics and development practitioners for many years. It is not hard to see why – there are very many plausible self-reinforcing mechanisms whereby countries, or individuals, that start out poor might remain poor. [...] Despite both the popularity and plausibility of poverty traps, there is relatively little empirical work testing for poverty traps, and much of this tends not to be very supportive of the poverty trap hypothesis.*”

Based on numerous growth research pieces from the Economics Department of the University of Oxford and the African Economic Research Consortium (AERC), Oxford economist Paul Collier refuelled this poverty trap debate by publishing his largely successful book “The Bottom Billion” (COLLIER 2007). Without wasting much time in placing his work into the recent literature and debate about poverty traps, Collier highlighted explicitly four development traps which developing countries of the bottom billion were not able to overcome by own forces: (i) the conflict trap, (ii) the natural resource trap, (iii) ‘Landlocked with bad neighbours’ and (iv) ‘Bad governance in a small country’. His four traps and what should be done to overcome them were powerfully narrated and underpinned by numerous econometric research pieces. Despite the many conceptual and methodological critiques²⁶, he managed to manifest the focus of the poverty trap debate on ‘the poor in the poorest countries’ – namely those 20 % of the world's poor, who live in the 58 poorest countries in the world “*that are falling behind and often falling apart*” (COLLIER 2007 p. 3) and thus, are trapped to constitute the bottom billion of human population. This bottom billion needed help from the rest of the world, since their leaders and institutions were not willing or able to develop an environment favourable enough for the poor to help themselves to gradually overcome their poverty.

2.1.2 Fighting Poverty: The Debate about Pro-Poor Growth

Much of the controversies around the aid debate were essentially based on different interpretations of patterns of growth or the lack of the same, particularly in African countries. BERTHÉLEMY & SÖDERLING 2001 and later on, the World Bank (WORLD BANK 2005c) and the AERC (NDULU et al. 2007) were intrigued by the different pathways African countries had taken in the post-SAP area. While some countries managed to sustain economic growth between 1995 and 2005, other African countries had stagnated and a notorious handful of countries seemed to be trapped in a rather downward economic trend (such as e.g. Eritrea, Somalia, the Central African Republic).

²⁶ See for example the summary of the “Bottom Billion Book Review Symposium” in *Development Policy Review*, 2008, 26 (1): 113-128; particularly the head article by Simon Maxwell (then Director of the ODI London) provides a comprehensive overview of commonplace praise and critique of the book.

The milestone publication from World Bank researchers David Dollar and Art Kraay “Growth is good for the poor” (DOLLAR & KRAAY 2002) contributed much to the prominence of debating (again) the growth and poverty nexus. Their main result was that “*when average incomes rise, the average incomes of the poorest fifth of society rise proportionately. This is a consequence of the strong empirical regularity that the share of income accruing to the bottom quintile does not vary systematically with average income*” (DOLLAR & KRAAY 2002 p. 195) was based on various data sets from 92 countries spanning 40 years of development and growth. As much as it was disputed and critiqued to be too simplistic and blind on inequality, the development mainstream largely bought into the fact that economic growth was a *conditio sine qua non* for poverty reduction or as Paul Collier put it “*Growth is not a cure-all, but the lack of growth is a kill-all*” (COLLIER 2007 p. 190). Even though most development practitioners might have thought of economic growth as a necessary yet not sufficient condition for poverty reduction, only a minority disputed that a focus on economic growth is generally helpful. The growth literature became the most influential in development economics and thus, also shaped much of the poverty reduction discourse²⁷.

While there was little dispute about the fact that high and sustained growth rates were eventually leading to income poverty reduction, the puzzle remained how to achieve such growth rates. The ‘Asian tigers’ seemed to limp a little after the new economy bubble burst in the late 1990s. Further, empirics of low income countries often showed slow, volatile or erratic growth rates with little sustained upward trend and were occasionally even negative. As stated in a major World Bank review exercise of growth performances during the 1990s: “*Some countries managed to sustain rapid growth with just modest reforms, and others could not grow even after implementing a wide range of reforms*” (WORLD BANK 2005b p. xii). The gap between the few strong growing economies (mainly in Asia²⁸) and the rest of the developing world was perceived to widen – even though Africa as a continent was achieving unexpected and unprecedented aggregated growth rates in the 2000s (see ROXBURGH et al. 2010 for a popular illustration of the optimism concern-

²⁷ Collier provides a quick review of the debate in his introductory chapter particularly under the subheading “The Role of Growth in Development” (COLLIER 2007 p. 8 ff.)

²⁸ See for a list of such countries e.g. WORLD BANK 2005b , Country Note B “Lessons From Countries That Have Sustained Their Growth” or Country Note G “Africa’s Growth Tragedy: An Institutional Perspective”; particularly table G1. p. 275.

ing African Growth²⁹, NDULU et al. 2007 for a comprehensive discussion of African growth factors and ASCHE 2015 for a summary of the ‘third stage of African Growth Perspectives’).

Hence, the quest for the convergence of the poorer with the richer and stronger growing countries was and still is a main part of development economics (see e.g. RODRIK 2003 or BERTHÉLEMY 2006 for an overview). Compared to Asian countries, the growth record of African countries puzzled researchers, most famously summarised under ‘the Africa Dummy’: “[...] *initial studies found that a significant Africa dummy remained. Africa was growing inexplicably slowly. Subsequent research has focused on eliminating this dummy*”. (see COLLIER & GUNNING 1999 p. 64).

For development organisations, analysing and understanding the relationship between growth and poverty became pivotal. PPG became a central topic of the late 1990s and early 2000s as it was widely recognised that poverty reduction required economic growth. Yet, it was easy to observe that the high-growth countries had set on a path of rising inequality and thus, only relatively few seemed to benefit disproportionately from this type of growth. The poverty reducing impact at country level was lower than the growth rate had suggested. So, in contrast to the belief in general trickle-down effects that economic growth would create automatically, the distributional effects of growth and the impact of inequality on poverty reduction started to dominate the debate. With more and much better macroeconomic cross-country data sets (and improved IT tools and statistical software to handle and analyse the same) a fierce methodological debate about what PPG was understood to be since two different schools of thought defined PPG differently: PPG was either defined in absolute terms (“*Pro-Poor Growth is growth that reduces poverty*”) as stated by World Bank economist Martin Ravallion (see RAVALLION 2004b p. 2 and RAVALLION & CHEN 2003, mainly based on the findings of DOLLAR & KRAAY 2002) or by the relative definition of PPG: “*Pro-poor growth means that poverty falls more than it would have if all incomes had grown at the same rate*”, mainly argued for by Nanak Kakwani, Director of the UNDP International Poverty Centre (see KAKWANI & PERNIA 2000 and BAULCH & MCCULLOCH 2000). The

²⁹ The McKinsey Global Institute had framed the term ‘African Lions’ with reference to the strong growing Asian Economies in the 1990s, the so-called ‘Asian Tigers’. Despite a lot of debate about whether Africa really had such ‘lion economies’, the term survived and was picked up by scholars, including the title of an in-depth six-country analysis by UNU-Wider and Brookings Institute (see BHORAT & TARP 2016).

fundamental underlying dispute between these two different definitions of PPG and the related implications for development dealt with the importance of inequality: how much did inequality matter for poverty reduction ('very much' for scholars of Kakwani) or is any growth pattern that reduces poverty good for poverty reduction (as it was argued by Ravallion and his scholars).³⁰ Certainly, not all growth patterns benefit all poor at the same time, but as Ravallion summarised: "[...] *growth is typically pro-poor in that as a rule. [...] The real issue is not whether growth is pro-poor but how pro-poor it is. [...] The deeper challenge remains of explaining why poverty falls so much faster in some settings than in others. [...] More generally, the task of making poverty-reducing entails some combination of higher growth and more pro-poor distributions of the gains from growth. Both factors are influenced by the initial conditions, institutions and policies in specific country settings. While there may well be trade-offs between what is good for growth and good for distribution, it should not be presumed that this will always be the case; some of the factors that impede growth may also prevent the poor from fully sharing in the opportunities unleashed by growth. None of this says that inequality is unimportant.*" (RAVALLION 2004a).

The early debate about PPG dealt a lot with questions of definitions and methodology (see e.g. KRAKOWSKI 2004 , in particular KLASSEN 2004 for the methodology associated with growth incidence curves). Later on, the entire focus remained on the question of modelling the distribution of growth effects and whether economic policies that focus on growth were not increasing inequalities in incomes instead of decreasing inequality in the sense of the relative definition of PPG (see e.g. LOPEZ 2004 for the trade-offs between pro-growth and pro-poor oriented policies or KLASSEN 2004 for the debate between general *trickle-down effects* of growth versus economic policies with a *pro-poor bias*).

Despite the academic dispute, the interest of international aid and development institutions in PPG as a concept grew fast and resulted in a prominent, multi-agency research program called "Operationalizing Pro-Poor Growth Research Program" (OPPG), which organised a 14 countries comparative study on the topic between 2003-2005 (see WORLD BANK 2005d).

³⁰ It should be noted that the dispute between applying a relative or absolute PPG concept developed into a lively and fruitful academic debate with numerous publications that worked on the different concepts and tried to compare them. The academic discourse went into deep and methodologically fundamental questions of measuring growth, poverty and inequality and how such measures could be applied for tracking growth and poverty reduction in advising developing countries.

It was conducted and supported by a consortium of donors comprising the Agence française de développement (AfD), the German Federal Ministry of Economic Cooperation and Development (BMZ), the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), the Kreditanstalt für Wiederaufbau (KfW), the Department for International Development (DFID), and the World Bank. The major outputs of the project were published in THE WORLD BANK 2005, WORLD BANK 2005D, GRIMM ET AL. 2007 and BESLEY & CORD 2007. The latter summarised the results for eight countries that were considered to have relatively successfully delivered on the promise of PPG in their recent past³¹. The main messages of the cross-country comparison was that successful PPG happened where measures for rapid and sustained growth were implemented simultaneously, including “*macroeconomic stability, well-defined property rights, trade openness, a good investment climate, and attractive incentive framework, well-functioning factor markets, and broad access to infrastructure and education*” (CORD 2007 19). Needless to say, the findings were country-specific, and policies and results differed; yet the OPPG program contributed largely to an understanding of the necessary ingredients of “*good policies, stability and public goods*” (*Ibid.*, p. 19) that were needed to facilitate economic growth that indeed resulted in poverty reduction.

These research results framed donor policies for PPG, most prominently the Organisation for Economic Co-operation and Development (OECD)/Development Assistance Committee (DAC) Network on Poverty Reduction (Povnet), that published a widely recognised policy guidance for donors on ‘Promoting PPG’ during their High-Level Meeting in April 2006³². Bilateral donors followed to publish national concept papers that elevated PPG to a guiding development cooperation concept³³.

³¹ The list of countries was comprised of Indonesia, India, Bangladesh, Vietnam, Ghana, Uganda, Tunisia, and Brazil.

³² See <http://www.oecd.org/dac/povertyreduction/promotingpro-poorgrowthpolicyguidancefordonors.htm> for the various publications of this series.

³³ For Germany, this was the BMZ Special 146 “Pro-Poor Growth a focal point of development policy”, published in October 2006 (BMZ 2006).

2.1.3 Aid and Poverty: Shifts in the Debate

2.1.3.1 Aid, Growth, and Poverty: The Increase in Allocations

During the period of the Washington Consensus and afterwards, many development organisations and donor countries operated under the general assumption that ‘growth is good for the poor’ and that aid should foster growth. In particular the World Bank and the IMF facilitated a lot of development research analysing the impact of aid on economic growth in developing countries (see e.g. BURNSIDE & DOLLAR 2000, BURNSIDE & DOLLAR 2004 or CLEMENS et al. 2004 for an overview of this literature).

COLLIER & DOLLAR 2002 found in their analysis of aid effectiveness that aid allocations do lift poor people out of poverty, depending on the severity of poverty and the quality of policies applied. However, they conclude that the effectiveness could be doubled if aid was allocated more where it reduces poverty best: “[...] aid [...] is allocated inefficiently with respect to poverty reduction. At present, it is allocated partly as an inducement to policy reform and partly for a variety of historical and strategic reasons. This produces a pattern in which aid is targeted to weak policy environments and to countries which do not have severe poverty problems.” (Ibid, p. 1497).

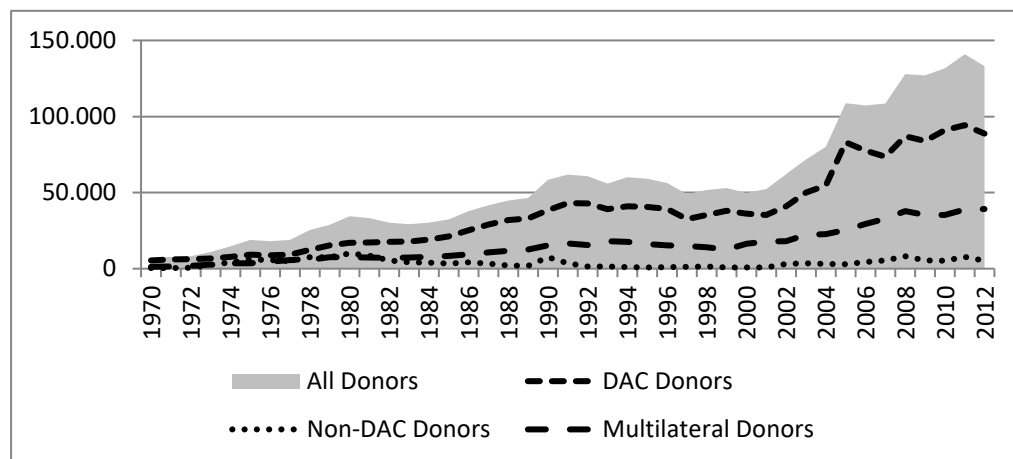
Others argued a lot about the distribution of aid, repeatedly concluding that the majority of the poorest people were not reached by the majority of aid for various reasons (see e.g. BAULCH 2003 for a discussion of ‘aid concentration curves’).

As much as there has always been a controversial debate about how much aid can influence development processes at all, one generalisation is possible from the aid and growth literature: the direct impact of aid on growth is difficult to isolate and at best minimal in empirical cross-country studies. This should not be mistaken as aid not being effective. In contrast: much of this research points to quite significant impacts of aid on development and even on growth. Yet, it depends a lot on the type of recipient country, the type of aid, the mode of delivery, the reliability and steadiness of aid flows amongst numerous other factors. However, a decomposition of growth determinants undertaken by Kraay using the large cross-country data of BURNSIDE & DOLLAR 2000 resulted that aid accounts for only 4 % of growth variability, whereby national policy factors account for 18 % and more than 60 % remain unexplained. As concluded by Kraay “[...] this simple variance decomposition underscores the observation that growth depends on much more than just aid. Thus while aid can contribute to poverty alleviation, over the medium to

long term where most of changes in poverty depend on growth, factors other than aid will be important“ (KRAAY 2005 9). In general, the ability of aid stimulating growth was judged to be modest at best and to be very context-specific.

Politically, the call for larger, more reliable and long-term oriented aid to the poorest countries has been widely accepted and implemented by most donors and led to a noticeable increase in general aid donations during the zero years by all types of donors. As depicted in Graph 2—2, the year 2000 marked the turn-around point: from then on, official development assistance (ODA) more than doubled from almost 50 billion USD to as much as 133 billion USD in 2012.

Graph 2—2: Total ODA to Developing Countries (all sectors by all donors in Mio USD in 2014 current prices)



Source: OECD online³⁴

At the same time as aid regained popular moral support (as summarised in section 2.1) and received more financial volumes, different aid critiques became more prominent for different reasons and have influenced the aid debate until today, as will be discussed in the following three subsections.

2.1.3.2 Is Aid dead? The Voice of Aid Sceptics

Aid has always been met with scepticism by aid critiques of different ideological origin: conservative and neo-liberal political forces saw aid as a mis-allocated waste of public money, others interpreted aid as a neo-colonial

³⁴ <http://www.oecd.org/statistics/> using the QWIDS-Query Wizard for International Development Statistics 18 February 2014.

way of economically influencing developing countries, others again as a machinery of well-wishers who create themselves their own aid bureaucracies, agencies and jobs. Political forces within donor and recipient countries have raised such concerns ever since aid was given from developed to developing countries. However, the described increase in attention to aid during the zero years triggered new voices of aid critiques. The more prominently publicised critiques came from younger, well-educated Africans, some critique came from former development practitioners. Some prominent ones are briefly mentioned in the following section as they had an impact on the debate about aid to agriculture.

First, the Kenyan economist James Shikwati who seemed to have no apparent direct link to aid and development economics himself, started to publish successful opinion pieces in large anglo-saxon and later German newspapers³⁵. He strongly argued for an end of all aid to Africa since aid only supported donor agencies, would pursue the donor's regional interests, corrupted the political elite, and would impair a market liberal and prosperous development of African economies. A second voice that was prominently raised and heatedly debated was the one of Zambian economist Dambisa Moyo. Oxford-educated Moyo ventured into private investment banking and based her successful book "Dead Aid: Why aid is not working and how there is another way for Africa" against her working experience at Goldman Sachs (MOYO 2009). Her main point of analysis is similar to the one of Shikwati: financial aid undermines country ownership and further corrupts already corrupt elites. A third one was the Ugandan journalist Andrew Mwenda, who mainly echoed Shikwati's and Moyo's radical call for an end to aid for Africa.³⁶ But instead of market liberalism, he advocated stronger for the freedom of speech and civil rights in African countries in order to induce political change. However, their rather radical call for stopping all aid immediately has met harsh criticisms not only from aid agencies, but more so from developing country civil society activists who envisioned a strong increase in poverty in a scenario of sudden absence of aid.

³⁵ See e.g. „*Wer Afrika helfen will, darf kein Geld geben*“ (in FAZ 04.04.2007): <http://www.faz.net/aktuell/wirtschaft/konjunktur/entwicklungspolitik-wer-afrika-helfen-will-darf-kein-geld-geben-1437005.html>); „*Streich diese Hilfe*“ (in Der Spiegel 27/2005: <http://www.spiegel.de/spiegel/print/d-40952573.html>) or „*Fehlentwicklungshilfe*“ (in Internationale Politik 4/April 2006: <https://zeitschrift-ip.dgap.org/de/ip-die-zeitschrift/archiv/jahrgang-2006/april/fehlentwicklungshilfe>).

³⁶ See e.g. his TED Talk „*Aid for Africa? No thanks!*“ (June 2007; see http://www.ted.com/talks/andrew_mwenda_takes_a_new_look_at_africa.html).

The other strain in the aid critique appeared to be the ‘re-orientation’ towards non-governmental micro-level interventions, as formulated e.g. in the German Appeal “A Different Policy for Development!” (“Bonner Aufruf”³⁷) by former senior German government staff from BMZ and the Ministry of Foreign Affairs. In opposition to large bi- and multilateral aid programmes and developing country governments these mostly pensioned ex-officials surprised the German development scene with a strong bottom-up rhetoric influenced by non-governmental activists such as Rupert Neudeck³⁸. The appeal and its supporters present a somewhat discouraged view from within the development system, as it has also been expressed by long-term World Bank staff Wolfgang Fengler in FENGLER & KHARAS 2010 or former German Ambassador Volker Seitz in SEITZ 2009 : for as long as these officials had worked on providing the necessary diplomatic and bureaucratic ground work for development aid to flow, they had in their perception neither seen poverty declining nor governance of developing countries improving or corruption declining.

As much as one might sympathise with some of their arguments, what they call for is systematically spinning back the wheel to the early aid years that had not produced sufficient results either³⁹. For aid to agriculture this would have meant many isolated project activities that deliver services directly to the poor, but without inducing structural transformation, without supporting national reform processes and lastly without achieving sustainable results of significant scale and replicability.

One of the most recent pieces of aid critiques came (again) from Easterley “The tyranny of experts, dictators, and the forgotten rights of the poor“, where he argues that aid was ignoring the missing economic and social rights of the poor to develop a more prosperous life (EASTERLEY 2014). The book however falls short on explaining how missing rights form the causal link to poverty, how increasing certain rights help overcome poverty and what development agencies should do to increase the rights of the poor. Yet, Easterley draws the attention towards the dilemma of giving aid

³⁷ See <http://www.bonner-aufruf.eu> for the full appeal.

³⁸ See also <http://www.gruenhelme.de/> (“Green Helmets”).

³⁹ It should also be noted that despite the occasional publicity, the aid critiques did not seem to have any impact on aid flows per se; with the advent of new large donors from private foundations and philanthropists, such as Bill and Melinda Gates and others, the aid flows significantly increased at the same time as shown in Graph 2—2.

to autocratic and totalitarian governments and concludes that a much stronger take on democracy should be pursued.

2.1.3.3 In Search for Better Aid: The Strong Call for Evidence

What the various voices of aid critiques achieved was a sensitisation within the development system that results and achievement ('impacts') of aid had to be traced more rigorously and demonstrated publicly in order to justify the effectiveness of aid. As stated by former World Bank President, Paul Wolfowitz: "[...] *Americans as well as other tax payers are quite ready to show more generosity. But one must convince them that their generosity will bear fruit, that there will be results*" (as quoted in CGD 2006 p. ii.).

In practice this meant a wave of new instruments for monitoring and evaluation of aid projects and programmes that impacted on the design of projects. For development research, it meant a high demand for methods of impact studies. The field that benefitted most from this was the appearance of experimental and behavioural economics within development economics. Copying the approach taken by microeconomic and psychological research, the idea was to compare the behaviour of target groups (e.g. poor rural households or individuals) in different quasi-experimental settings. This was firstly used in the analysis of social capital by experimental economists, e.g. by BARR 2003, FAFCHAMPS 2006 or FAFCHAMPS & SHILPI 2008.

These first applications of experimental settings by development economists was then followed by a methodological radial shift advocated by Abhijit Banerjee and Esther Duflo, both co-directors of the Abdu Latif Jameel Poverty Action Lab at the Massachusetts Institute of Technology (MIT). Their wealthy case study knowledge on their one particular method, the randomised control trial to prove effectiveness of (aid) interventions in target and control trials that are assigned totally randomly, is astounding and made important inputs for the academic debate. Borrowing this standard method for testing medicinal drugs for licensing, they innovated impact assessment for development research by claiming to provide proof of success or failure of a development intervention. They also influenced the academic debate of development economists in a way that re-directed academic mainstream from econometric models to enter micro-data in the form of experimental economics into development economics, which surely enriched the theoretic discourse.

However, when they entered the popular publishing world with a series of commentary contributions published by the Boston Review (later published as a “Making Aid Work” (BANERJEE 2007) and then their bestseller “Poor Economics” (BANERJEE & DUFLO 2011)) they did so under the slogan of “*institutional laziness*” calling for “*an end of lazy thinking in the design of aid programmes*” (see BANERJEE 2007 p. 7 ff.). They deliberately created resentment amongst development practitioners, even though few of them denied the need for more rigorous impact evaluation. Or, as Levine put it: “*We collectively lack the will to learn systematically from experience about what works in development programs*” (see BANERJEE 2007 p. 105).

Naturally, this attitude was met by strong and prominent critiques. As noted by Robert Bates “*By advocating the use of randomized trials to evaluate development aid, Abhijit Banarjee seeks to repel criticism from two camps: those who are sceptical of the way aid is spent and those who stress the fragile scientific foundations that justify its distribution.*” (BANERJEE 2007 p. 67). And one has to give Banarjee and Duflo credit for being aid optimists that actively and vigorously engage in the debate for ‘better aid’. Yet, they portrayed themselves so confident with their method that one wonders whether they might not suffer from the typical phenomenon of other ‘tool’ or ‘methodological’ innovators: if you have a hammer, every problem looks like a nail. Thus, the standard critique to their argument in the aid debate was not that Randomized Control Trials (RCT)s would not work or would not deliver highly relevant results, but that they are not useful and do not fit for a number of still relevant development research questions. RODRIK 2008 pointed out “*that the utility of randomized evaluations is restricted by the narrow and limited scope of their application*” (Ibid., p. 1). Or, as summarised by Angus Deaton “*There is no simple way to use randomized controlled trials to eliminate global poverty. They are expensive and technically and politically difficult to do well. We must be careful to apply them only where there is a good chance that the results will be applicable elsewhere. Otherwise, we will be gathering evidence, not knowledge.*” (DEATON 2007)

The debate about poverty impact assessment is ongoing. In essence, the pressure for more evidence that aid works and delivers results led to more rigorous analyses of impacts. This is believed to have contributed to a more honest and evidence-based learning about aid effectiveness and efficiency, as it was requested by the Center for Global Development (CGD) Evaluation Gap Working Group (CGD EVALUATION GAP WORKING GROUP 2006 p. 31 ff.). Another important outcome of this debate was the work of the former World Bank’s Independent Evaluation Group director Howard

White, who hence founded the International Initiative for Impact Evaluation (3ie)⁴⁰ in order to systematically improve impact evaluation of aid: *“There is an expanding toolbox of approaches to impact evaluation at the field level which can answer both questions of whether aid works, and, properly applied, why it works (or not, as the case may be)”*. (WHITE 2007 , abstract)

Ever more voices were raised to promote new evidence about what works and why⁴¹. However, few of these debates touched on the impact analysis of agricultural development interventions targeted to reduce rural poverty. Again, the poverty debate and resulting impact studies have largely focussed on social sector interventions, such as national health or education programmes, because they are more convenient to plan, to set-up, and to observe. As for RCTs, social sector or social security programmes are usually sequenced in their implementation, but universal and scalable in their design and are thus comparable between target regions (where such programmes were piloted) and control regions (that would implement the programmes at a later stage). However, productive sector development programmes received much less attention by researches looking for hard facts and evidence, and in particular the agricultural sector. This is due to rural development being a broad field as well as multi-sectoral and agricultural production being so diverse as well as multivariate. As a result, the sector provides too little favourable preconditions for the application of strong evidence methods, such as RCTs. This left agricultural aid for a long time in limbo on providing evidence for its developmental contributions.

⁴⁰ 3ie performs a dual role as funding agency and knowledge broker. Their work focuses on generating high quality evidence that contributes to effective policies for the poor. To do so, 3ie funds and methodologically supports systematic reviews of aid programmes and carries out impact evaluations (see also <http://www.3ieimpact.org>).

⁴¹ The most recent outcome of this debate is the World Development Report 2015 (WORLD BANK 2015), which elaborates in detail on the importance of understanding psychological facts on behaviour change for development cooperation (so-called ‘last mile research’). This is ultimately based on the work of Dufflo and Banerjee, who had prominently proven that the poor as well as many non-poor more than often did not behave in the expected way assumed by development projects.

2.2 How to reduce Rural Poverty?

Growth in agriculture makes a disproportionately positive contribution to reducing poverty. More than half of the population in developing countries lives in rural areas, where poverty is most extreme. [...] illuminating the links between agriculture, economic growth, and poverty reduction, [...] offers a timely and nuanced assessment of how and where agriculture can best foster development.

(Francois Bourguignon,
Introducing the WDR 2008 (WORLD BANK 2007c p. 3))

This section narrows down the poverty, growth, and aid debate and focuses on rural poverty. First, some relevant facts and figures about rural poverty are summarised (2.2.1) before discussing aspects, why rural poverty is different and why it requires special consideration for poverty reduction and for development approaches targeting agriculture. (2.2.2).

2.2.1 The Status of Global Rural Poverty

Most countries keep disaggregated data about rural and urban poverty and they do so for a reason: rural poverty differs in many ways from urban poverty and it is therefore important to analyse the different poverty rates and ratios in order to understand underlying causes and to design poverty reduction strategies.

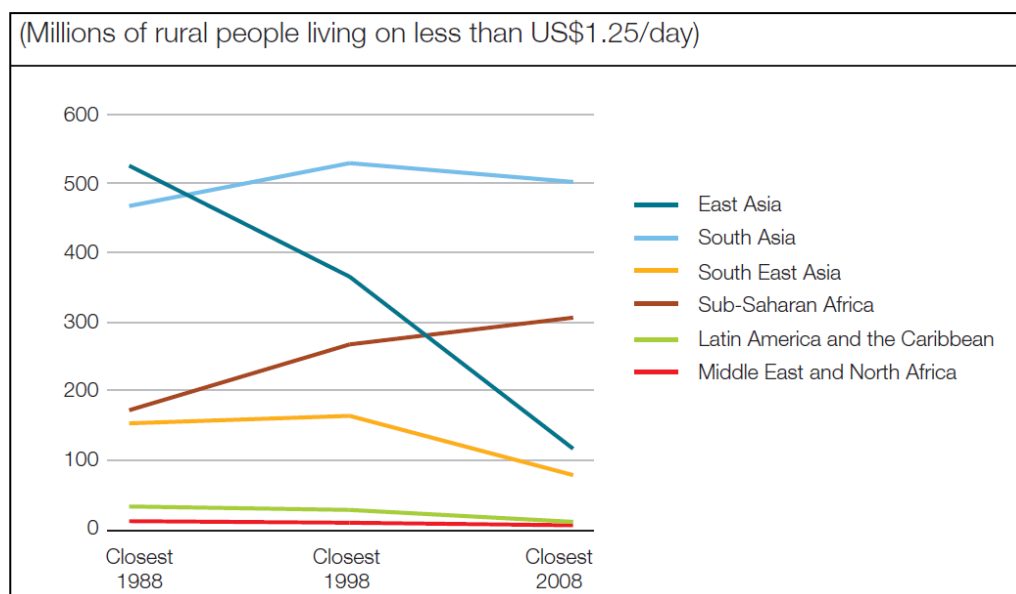
Most international organisations agree that the majority of the world's poor live in rural areas – the exact extent varies with the poverty definition that is applied. CHEN & RAVALLION 2007 stated that ”*About three-quarters of the developing world's poor still live in rural areas. [...] The share of the US\$1-a-day poor living in urban areas rose from 19 percent to 24 percent over 1993–2002 (whereas the urban share of the population as a whole rose from 38 percent to 42 percent over the same period).*” (Ibid., p. 3). 10 Years later, poverty rates had fallen worldwide, yet rural poverty was still almost double the rate of urban poverty (see IFAD 2016 , p. 17).

The landmark publication to shed more analytical light on rural poverty was the publication of the IFAD Rural Poverty Report 2011 (IFAD 2010). Since the previous Rural Poverty Report was published in 2001 (IFAD

2001), more than 350 million rural people had lifted themselves out of extreme poverty. But the 2011 report noted that global poverty remained a massive and predominantly rural phenomenon: *“At least 70 % of the world’s very poor people are rural, and a large proportion of the poor and hungry are children and young people. Neither of these facts is likely to change in the immediate future, despite widespread urbanization and demographic changes in all regions.”* (IFAD 2010 p. 16.). The report portrayed the status of global rural poverty in an unprecedented way: the good message was that it found an overall drop of extreme poverty (people living less on \$1.25 per day) in rural areas over the past decade from 48 % to 34 %. However, 70 % of the developing world’s 1.4 billion extremely poor people still live in rural areas, despite the progress made in East Asia, primarily in China, where the number of extreme poor fell by two-thirds during the past decade.

Today, rural poverty is acute in sub-Saharan Africa and South Asia. Sub-Saharan Africa has nearly a third of the world’s extremely poor rural people, whose numbers swelled from 268 million to 306 million during the last decade, as depicted in Graph 2—3 ⁴².

⁴² Graph 2—3 and Graph 2—4 are based on the data compiled in IFAD 2010 , Annex 1, p. 233. For all countries for which data was available, and for each decade, the latest poverty estimates of the decade were used in the estimations, using the population data from the World Development Indicators for 1989, 1998 and 2008. Where the data was not available for these years and time periods, incidences of poverty were based on a weighted mean for dates closest to 1988, 1998 and 2008, hence the x-axis reads “closest” for the years/decades. See *Ibid.*, p. 235 for more detailed methodological considerations.

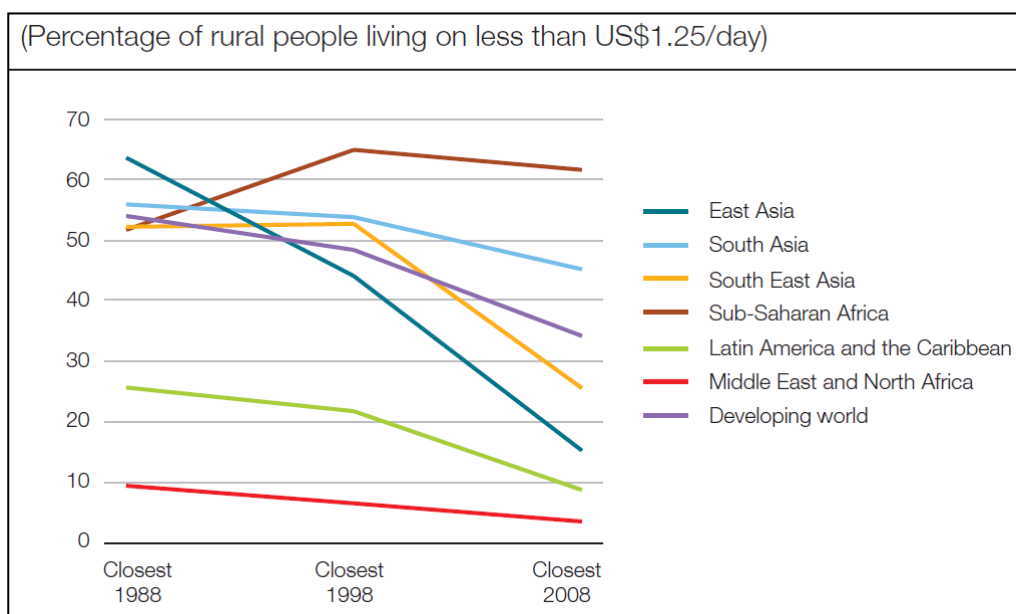
Graph 2—3: Rural People living in Extreme Poverty (by Continent/Region)

Source: IFAD 2010 p. 49.

In general, the share of the rural population living in extreme poverty (on less than 1.25 USD/day) declined from 54 % in 1988 to 35 % in 2008 (see developing countries as aggregate in Graph 2—4) and even further declined till 2011. This is largely attributed to the 50 % reduction in East Asia. Rural poverty rates dropped slightly in South Asia during the first decade of the Millennium, with still the largest absolute number of poor rural people of any region or sub-region (about 500 million in total). Southeast Asia, Latin America and the Caribbean, the Middle East and North Africa – all experienced significant reductions in rural poverty incidences, mainly as a result of the strong urbanisation trends there.

Sub-Saharan Africa stood out negatively: it was the only region that experienced an increase in rural poverty incidence between 1988 and 2008 – in both definitions, 2.00 USD/day or 1.25 USD/day. Even though the trend between 1998 and 2008 decreased mildly, the incidence of extreme poverty in rural areas remained the highest of any world region and experienced the slowest decline, if any significant decline at all (as depicted in Graph 2—4). Given the demographic dynamics in Sub-Saharan Africa, this is also the only region where the absolute number of rural poor has increased substantially⁴³.

⁴³ This trend looked more positive when taking the rural poverty figures for Sub-Saharan Africa into account provided by the Rural Poverty Report 2016 (IFAD 2016), where the 2010-2014 averages poverty headcounts indicate a decline of rural poverty in all

Graph 2—4: Incidence of Rural Poverty (by Continent/Region)

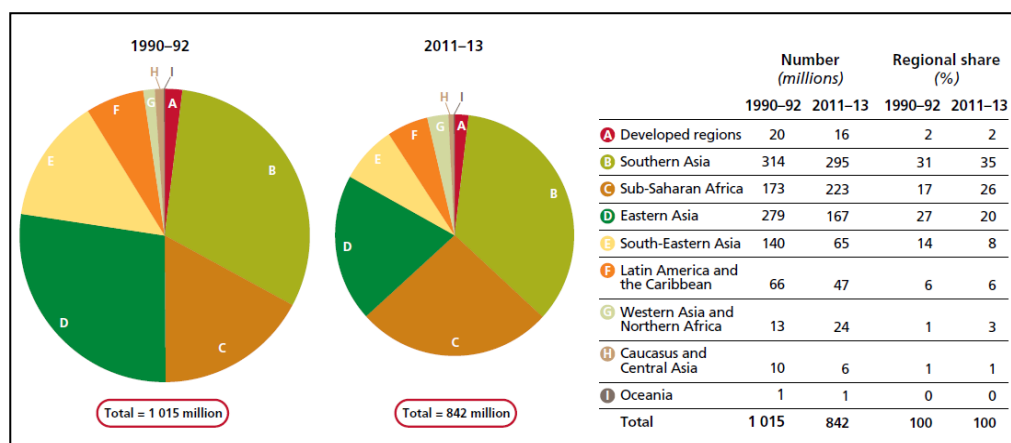
Source: IFAD 2010 p. 48.

This holds also true for the percentage share of hunger and malnourishment. Sub-Saharan Africa is the only region that has substantially increased its share of the globally malnourished percentage between 1990 and 2013 (see IFAD et al. 2013 and Graph 2—5). And worldwide Sub-Saharan Africa is (together with Oceania) the region that is the slowest in achieving MDG 1, target 1c (*“Halve, between 1990 and 2015, the proportion of people who suffer from hunger”*), see UN 2013 p. 10.

Within the developing countries, rural poverty is more prominent in landlocked countries; and within the group of landlocked countries, *“the highest rates of rural poverty (though not necessarily the largest numbers of poor rural people) are often found in remote, low potential, marginal or weakly integrated areas. These territories typically exhibit a combination of an unfavourable natural resource base, poor infrastructure, weak state and market institutions and political isolation – all of which result in a higher risk environment for poor rural people.”* (IFAD 2010 p. 52).

regions – but again, African regions lag massively behind Asia and Latin America (see *Ibid.*, Figure I, p. 37). And again, , the data sources and trends for African regions are more sketchy and less clear compared to the rest of the world (see *Ibid.*, p.369).

Graph 2—5: Distribution of Undernourishment in the World (in absolute numbers and in shares; 1990-92 and 2011-13)



Source: IFAD et al. 2013 p. 12.

It is also important to note that all large studies and reports stress the heterogeneity of rural poverty: across and within countries, the degree of rural poverty, its causes and effects are multidimensional and differ substantially – and thus require careful case by case analysis. Lastly, it is important even though rural poverty rates are depicted as they were linear developments in Graph 2—3 and Graph 2—4. However, poverty rates are highly dynamic, and a substantial number of households and individuals experience different degrees of well-being over time (chapter 3 will explore this in more detail).

2.2.2 Specificities of Rural Poverty

2.2.2.1 The Role of Agriculture in Reducing Rural Poverty

The rural poor are disproportionally engaged in a single economic sector, the agricultural sector. This sector has its own specificities that are important to note for rural poverty analysis. To name just a few, agricultural production is a riskier economic venture (due to weather dependency, in particular the rain-fed agriculture); is often capital-intensive with large economies of scale (yet mainly undertaken by poor small-holders); it suffers from highly volatile markets, while at the same time the supply is in the short-to medium run totally inelastic. Input markets and financing mechanisms are often poorly developed, which adds to the already risky economic environment (see e.g. HAGGBLADE & HAZELL 2010). The sector produces numerous external effects, both negatives and positives. Agriculture is em-

bedded into the rural institutional system of any society and depends for key production factors like land on cultural beliefs and customs (such as heritage laws; see e.g. BIRNER & VON BRAUN 2009). Once harvested, agricultural produce is often bulky and perishable and requires a minimum of public infrastructure (such as transport, energy) to be marketed efficiently (see WIGGINS & KEATS 2013).

At the same time, a number of positive social attributes are attached to the sector, e.g. the provision of food security and rural employment. Since the food price crises in 2008 and 2010, this argument has gained even more political attention and many developing countries reconsidered higher degrees of self-sufficiency in staple foods as essential policy targets. In addition, agriculture in most developing countries is labour-intensive and provides (at least seasonally) earning opportunities for unskilled labour. These additional factors attached to agriculture distinguish the sector from other productive sectors and often lead to institutional confusion, multiplicity of actors and interests, and a plethora of sector objectives that are hard to achieve and follow completely at the same time⁴⁴.

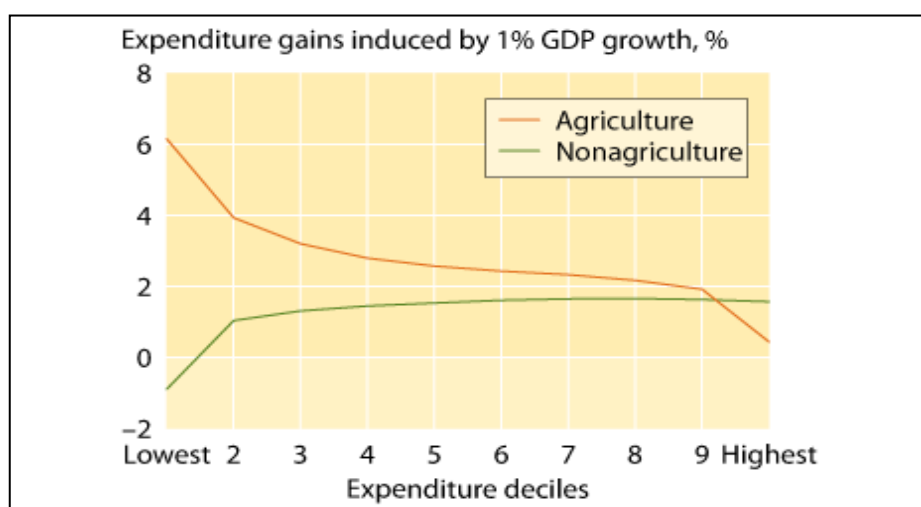
Nevertheless, it must be noted that agriculture achieves and performs such social functions as rural poverty reduction. The contribution of agriculture to overall economic growth and to poverty reduction has been the subject of numerous research. However, around the Millennium it became clear that the years of structural adjustment and political reform had not produced expected results in agricultural development, particularly not in Africa. As stated by LAWRENCE 2005 : *“The fundamental challenge for Sub-Saharan Africa is a lack of decisive structural change: agriculture in general has not been modernized, and manufacturing stalled around 15% of GDP (or 10% when subtracting South Africa), all through the 1960s to the 2000s, whatever policy prevailed”* (as quoted in ASCHE et al. 2012 p. 3). The field of rural poverty analysis enjoyed a revitalisation during the zero years, particularly by IFPRI researchers and by donor initiatives; see e.g. by DELGADO et al. 1998 , BINSWANGER & TOWNSEND 2000 , WOLZ 2005 , WORLD BANK 2005a , ROSEGRANT et al. 2006 , HAGGBLADE et al. 2007a , ELLIS 2010 and CHRISTIAENSEN et al.

⁴⁴ Agriculture is therefore called the ‘awkward sector’ by some scholars, see e.g. WIGGINS et al. 2013 p. xii :” *It is one thing to analyse technical and economic dimensions of the challenges of agricultural development; another to make policy and to implement it effectively and equitably. This would apply to any sector; but it may be all the more important for agriculture that can be seen as the awkward sector both in terms of what it is expected to achieve and in the conditions under which this takes place”.*

2011 . All these authors agreed on the somewhat forgotten role of agriculture for development, despite the proven record that agricultural growth is usually good for rural poverty reduction in agricultural-based economies. As summarised by a World Bank team of authors: *“In parts of the world (especially in Asia, through the green revolution), agricultural growth has a proven record of reducing poverty, hunger, and environmental problems. Agricultural growth has yet to make similar large strides in other parts of the world, but it remains fundamental to development in low-income countries (especially in Sub-Saharan Africa). The contribution of agriculture will depend on the specific context, however. Agriculture will contribute in different ways to countries that are at different stages of development and that practice different types of agriculture.* (WORLD BANK 2005a p. 1)

The eight country case study on PPG (also discussed in 2.1.2) was able to quantify the number of people lifted out of poverty by growth in the agricultural sector (see CORD 2007 p. 12 ff. for a summary). The relationship between agricultural growth, economic growth and poverty reduction was again analysed in particular for the preparation of the WDR 2008 by LIGON & SADOULET 2007 . Their key result is depicted in Graph 2—6: the cross-country analysis from 42 developing countries revealed that GDP growth based on agricultural growth proved particularly effective to increase the income of the lowest income deciles – thus, agricultural growth is a lot more ‘pro-poor’ for the lower half of the income strata than any other source of GDP growth (see WORLD BANK 2007c p.30, Box 1.2).

Graph 2—6: The Poverty Impact of Agriculture-based GDP Growth



Source: LIGON & SADOULET 2007 as cited in WORLD BANK 2007c p. 6.

In addition to the cross-country evidence, well researched country cases of China, India and Ghana show how agriculture-led growth has reduced rural poverty in relatively short time. As highlighted by TIMMER 2005 :*"Historically, the answer is clear. No country has been able to sustain a rapid transition out of poverty without raising productivity in its agricultural sector (if it had one to start - Singapore and Hong Kong are exceptions)" (Ibid., p. 3).*

Thus, it is nearly undisputed today that agriculture can be the lead sector for rural poverty reduction and overall national growth. It is characterized not only due to its economic importance in agricultural based economies, but more so by its contribution to food security and hunger reduction and by rural employment creation. Furthermore, primary agricultural activities enjoy a comparative advantage as tradable subsectors compared to the rest of the economy of most developing countries. However, the poverty reducing effects seem to be strongest in countries with relatively equal land sizes (ELLIS 2013). Powerful narratives from various country cases also underline the poverty reducing effects of agricultural growth via declining food prices for poor consumers and the increasing labour productivity impacting higher rural wage levels⁴⁵.

2.2.2.2 Small-scale Farmers, their Poverty Patterns and Dynamics

As stated in 2.2.1, about three quarters of the poor people globally live in rural areas, and out of them the vast majority earn their livelihoods from agriculture, fishing, forestry and ancillary activities; either as small-scale farmers, herders, or fisher folk or via hiring out their labour. *"Fully 70 per cent of the world's very poor people – around one billion – are rural, and a large proportion of the poor and hungry amongst them are children and youth"* (IFAD 2010 p. 70).

Many rural poor are affected by similar challenges contributing to their poverty that have to do with rural areas and agriculture-based livelihoods and thus, are necessary to understand when analysing rural poverty. Rural poverty is based on a bundle of factors the poor share across continents. (see e.g. HAZELL 2004 , SCOONES et al. 2005 , HAGGBLADE et al. 2007b , IFAD 2010 or HAZELL & RAHMAN 2014 for comprehensive overviews): Rural poor rely on subsistence for household food security. The remoteness and lack of infrastructure connecting them to output and input mar-

⁴⁵ See e.g. DORWARD 2013 or WIGGINS & KEATS 2014 with cases from Uganda, Kenya, Rwanda, South Africa, Benin, Tanzania, Nigeria and Zimbabwe.

kets is complemented by a poor social infrastructure in terms of health and education services. There is also relatively little involvement in the formal economy, and thus relatively little opportunities for the farmers to diversify their livelihoods. Bound to work and life on whatever small land is available, small-scale farmers often farm on already less fertile land and tend to degrade the same further due to a lack of crop rotation and the overuse of soil nutrients. They rely on few crops in mostly rain-fed production systems, which makes them vulnerable to weather and climate shocks. Small-holder farmers often depend on a depleting natural resource base and on unsustainable farming techniques. Many of them are chronically malnourished due to poor dietary diversity and lack of nutrients. Population growth, heritage laws and demographic developments further decrease the land sizes of the smallholdings and make farming more risky and less profitable in many places. They are faced with high transaction costs of farming, in particular in disadvantaged areas. Many of them belong to marginalised ethnic groups or are indigenous people and have little political voice and limited power to improve their livelihoods. Small-scale farming households are often poor because of specific gender roles: women are responsible for subsistence farming and therefore for feeding the families. Yet, women often lack the access to critical productive resources to do so sufficiently. As concluded in the Rural Poverty Report: *“Rural poverty is a multidimensional phenomenon that may result from lack of assets, limited economic opportunities, poor education and capabilities, and a variety of disadvantages rooted in social and political relations”* (Ibid., p. 70).

Another important feature of poor small-scale farmers is that they are not poor *per se*, but dynamically climb up and bounce back around poverty lines repeatedly. *“While chronic poverty also is present among rural households in all regions, often remarkably large proportions of people are poor only at specific points in time. Households primarily fall into poverty due to a range of types of shocks (e.g. ill health, poor harvests, debt contracted to face social expenses). Mobility out of poverty is associated with personal initiative and empowerment, and is highly correlated with household characteristics such as education and ownership of physical assets. Beyond the household level, mobility out of poverty is associated with economic growth and with the local availability of opportunities, markets, infrastructure and enabling institutions – including good governance. [...] Interlocking disadvantages hinder mobility out of poverty for any rural individual or group.”* (IFAD 2010 p. 70).

2.2.2.3 The Interlinkages with the Rural Non-Farm Economy

In addition to the specificities of agriculture and small-scale livelihoods, another set of factors impacts uniquely on rural poverty: the linkages of agriculture with the rural non-farm economy and private sector development.

All efforts to support rural development in developing countries have resulted in emphasising the role, private sector development plays for developing the agricultural sector, as well as the rural non-farm economy (see e.g. LANJOUW & LANJOUW 2001, HAGGBLADE et al. 2007b or HAGGBLADE et al. 2010 for good overviews). Hence, the prime sector that accounts for the livelihoods of the rural poor, agriculture, is attributed with three major additional specific challenges: first, the low agricultural productivity cannot provide a decent living for all rural poor. Thus, the sector is inevitably dependant on increasing labour productivity and in consequence, on releasing labour forces to the rural non-farm economy via the labour market. Yet, a thriving agricultural sector can sustain rural employment or create new jobs – even in situations where there might be few alternatives to farming as a large-scale source of jobs; see also HAZELL et al. 2007, WIGGINS et al. 2013 or YEBOAH 2018).

Second, for rural areas to further develop their agricultural and non-agricultural potential, public investments in rural infrastructure are inevitable. There has been broad consensus of development researchers on the impact of public infrastructure investments on reducing rural poverty and ‘closing the infrastructure gap’ has been on the agenda for years; though with varying degrees of implementation by governments and donors (see e.g. WIGGINS et al. 2013 section 2.1 for a summary of the argument and ASCHE 2006 p. 22 ff. for a deliberation on the infrastructure gap in development theory).

Third, as much as many rural development impulses can come from public policies and investments, agriculture remains largely a private sector venture, no matter whether large or small-scale. Therefore, appropriate market environments matter a great deal to let the agricultural sector develop and perform its growth and rural poverty reducing effects as described in 2.2.2.1. In combination with the rural labour market that goes beyond agricultural jobs, forward and backward linkages of the agricultural sector need to be developed into a thriving rural non-farm economy. Vital characteristics of it would be that it (i) provides more or less functional output and input markets for the agricultural sector; (ii) provides non-agricultural jobs as

labour productivity increases in agriculture and (iii) provides services to the agricultural and non-agricultural rural economy.

As much as the public sector can be supportive to economic development of rural areas by public policies and investments, ultimately the economy is driven by entrepreneurial individuals taking risks and investing in the rural economy. And this more than often has proven to be difficult, as summarised by HAGGBLADE et al. 2010 : *“Policy makers have high expectations for the rural non-farm economy (RNFE). Given high income shares, growing employment, and frequently low capital requirements, they see the RNFE as a potential pathway out of poverty for their rural poor. Yet available evidence suggests that pro-poor rural non-farm growth does not occur automatically. For the poor to benefit from rural non-farm growth, policy makers must stimulate buoyant rural economies, with robust non-farm income growth, not simply low-productivity employment. Moreover, the poor must gain access to growing market niches. Fluid labor markets provide one important bridge linking the rural poor to growing non-farm opportunities.”* (Ibid., abstract).

2.2.2.4 The Need for Private Sector Development

The concept to develop agricultural sectors as well as the rural non-farm economy all fall under ‘Private Sector Development’. The OECD/DAC orientations define the private sector as *“a basic organising principle of economic activity where private ownership is an important factor, where markets and competition drive production and where private initiative and risk taking set activities in motion”*. *The critical point is that it is markets, through the process of competition, that determine what is produced and consumed*“ (OECD / DAC 2004 p. 17). Concerning the actors involved, *“the term private sector covers all private actors - the poor and the rich, individuals and businesses – engaged in risk taking to earn profits and incomes. It applies to the smallholder farmer as well as to the very large, multinational corporation”* (Ibid., p. 18).

So, the term ‘private sector development’ evolved for a bundle of public support measures to the private sector; but less so as treating “private sector development” as a development sector, but more so as a set of principles and as a development approach⁴⁶. In development cooperation, a number of donors have strongly supported such market-led private sector development approaches; namely the United States Agency for International

⁴⁶ See also SIDA 2007 p. 3 ff. and also BRÜCHER 2007 chapter 2 for a detailed analysis of conceptual history of the private sector development approach.

al Development (USAID), the Swedish International Development Cooperation Agency (SIDA), DFID and the World Bank.

As for programme implementation in developing countries, the all-encompassing understanding of the private sector provides a blessing and a challenge to all public or donor supported private sector development activities: on the one hand, private sector development is inclusive of all economic actors involved, yet on the other hand this makes it difficult to particularly target certain private sector actors (i.e. poor workers or micro enterprises) without also supporting at least partly those private sector actors that did not need public support in the first place. However, vast experience exists with implementing such approaches – and not only in developing countries, but also in marginalised areas in developed countries (e.g. Eastern Germany post reunification).

For supporting agriculture, the prime private sector development activities have been the correction of the pervasive market failures in rural areas that pose a major hurdle in agricultural development (see e.g. WIGGINS et al. 2013). Here, private sector development has produced measurable impact: according to CORD 2007 : successful PPG strategies ensured “*that the private incentive framework for agriculture does not discriminate against the poor and delivers efficient market signals; that the property rights of the poor and in particular land rights are guaranteed and be transacted; that basic levels of physical and human capital are present in rural areas [...] to unleash private investment and facilitate access to labor, financial and product markets; and that risk is maintained at acceptable levels through investments in irrigation and flood infrastructure or the delivery of safety nets so as to protect basic incomes and support private investments in higher risk activities.*” (Ibid., p. 19-20.). The PPG literature has provided sound theory and empirical work that stresses the importance of private sector development for agriculture. Yet, how that is best delivered by public investments and aid remains to be debated. THURLOW & WOBST 2007 concluded by stating “*Agricultural growth still remains more pro-poor than industrial growth because it allows for greater participation of the poor in the growth process. [...] Growth in staple crops and food processing is most effective at generating rural growth linkages and raising rural incomes, especially amongst the poorest households.*” Yet, “*Formulating growth strategies for countries like Zambia requires a better understanding of markets and institutional behaviour [...]*” (Ibid., p. 238).

2.2.3 Implications for Aid to Agriculture

This section narrates part of the history how international development co-operation and aid donors responded to the challenge to reduce rural poverty by providing aid to agriculture and rural development. Section 2.3.1 summarises the history of aid flows, provides an overview on different ‘fashion waves’ of aid to agriculture and highlights some reasons why donors became disenchanted with agriculture during the 1990s. Section 2.3.2 presents the concept of agricultural value chain development. Some recent trends and shifts in the aid to agriculture debate are mentioned in 2.3.3.

2.2.3.1 Brief History of Aid to Agriculture

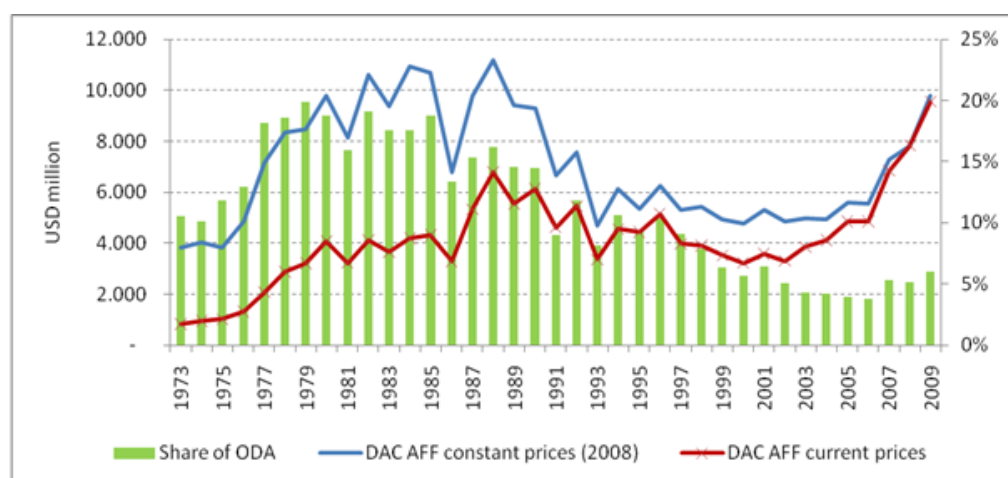
The importance of agriculture for the economic and social development of agricultural-based developing countries has never been really contested in the academic literature and in development circles. Given its significant contribution to the GDP, in many countries being the single most important source of foreign exchange earnings, the largest provider of domestic rural income and employment, and thus the dominant sector determining livelihoods of millions, agriculture and rural development had been in the spotlight of development aid from its beginning after World War II.

Consequently, in the history of development aid, the agricultural sector was a natural candidate for support and received strong support since the very beginning of development cooperation in the 1960s. Yet, the prominence of agriculture dwindled in the decades that followed. With the aid delivery and assumed impacts on rural development having experienced changes over time, the agricultural sector lost much of its initial importance for development cooperation and has only regained some prominence since the global food crisis in 2008.

2.2.3.2 The Decline in Aid Flows to Agriculture

Given the theoretically uncontested key role of agriculture, it is one of the most dramatic and paradoxical phenomena in the history of development aid that agricultural cooperation was sent on a long-term downward spiral for more than two decades, particularly with Sub-Saharan Africa. The basic statistical figures are well established and consolidated by a number of recent publications (see e.g. FAO INVESTMENT CENTRE 2009 , COPPARD 2010 , CABRAL et al. 2011 , or ASCHE & HOFFLER 2011).

Graph 2—7: Trend of ODA to Agriculture, Forestry, and Fisheries (constant and 2010 current prices and share of total ODA, 1973-2009)



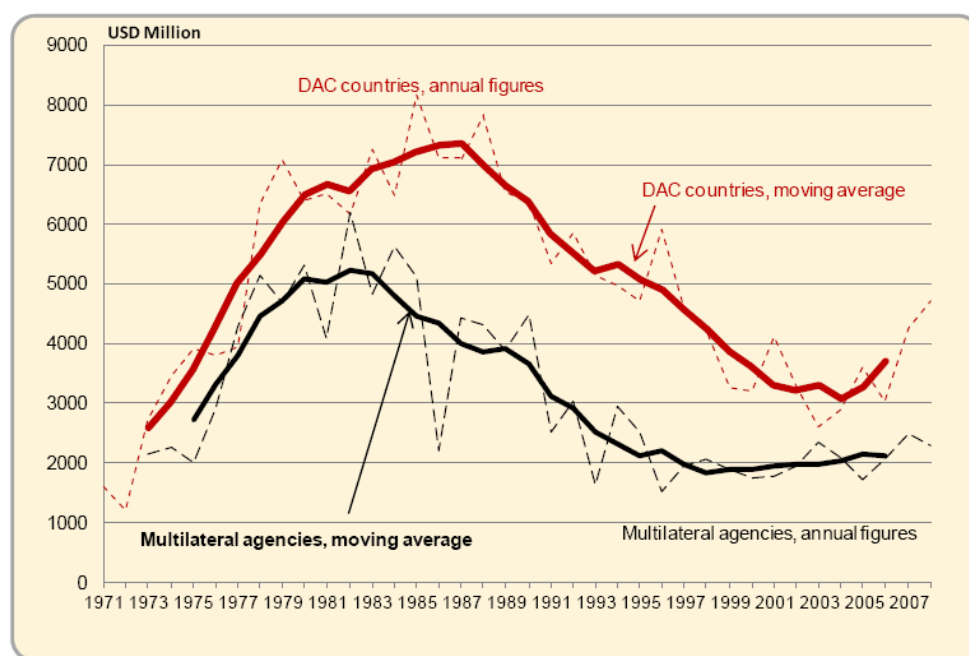
Source: CABRAL et al. 2011 Figure 1, p. 17.

The green bars in Graph 2—7 express agricultural aid as the percentage of all sector allocable aid. The percentage of aid to agriculture, forestry and fisheries as well as the absolute numbers increased during early aid years, peaked in the late 1970s, and only recovered meagrely from the low of less than five percent in 2005/06 until today. This dramatic decline was also not compensated by increasing aid to multi-sector programmes, such as rural development, rural governance, road infrastructure, water supply, and the like. Actually, the DAC figures as analysed in CABRAL et al. 2011 above exclude rural development (classified as multi-sector aid) and all forms of food aid. However, rural development at around the mid-2000s represented not more than about a fifth (for bilaterals) and a tenth (for multilaterals) of the still extremely depressed gross agricultural aid (OECD 2010). Thus, ‘rural development’ has statistically not taken over. The Montpellier panel⁴⁷ has shown that rural development in all aid followed the same trend as sector allocable aid since the mid-1980s, before indeed reaching the bottom line earlier and reversing the trend more clearly (MONTPELLIER PANEL 2010).

⁴⁷ The Montpellier Panel (2010-2016) was a group of African and European experts from the fields of agriculture, trade, ecology and global development which was chaired by Sir Gordon Conway of Imperial College London. The Panel was working together to enable better European government support of national and regional agricultural development and food security priorities in Sub-Saharan Africa. The Panel first met in Montpellier in March 2010. The successor of the Panel is now called the “Malabo Montpellier Panel”, see also <https://www.mamopanel.org/>.

Similarly, the decline of bilateral ODA to agriculture has not been compensated by multilateral aid. In total, agricultural aid from bilateral and multilateral donors decreased from over 1.2 billion USD annually in the late 1970s and early 1980s by more than half around the Millennium, whereby multilateral aid to agriculture had peaked earlier (around 1981) than bilateral aid (around 1987) and thus, multilaterals might have even set the downward trend (see Graph 2—8).

Graph 2—8: Trends in Aid to Agriculture (Commitments 1973-2008, 5-year moving averages and annual figures, constant 2007 prices)



Source: OECD 2010 p 1.

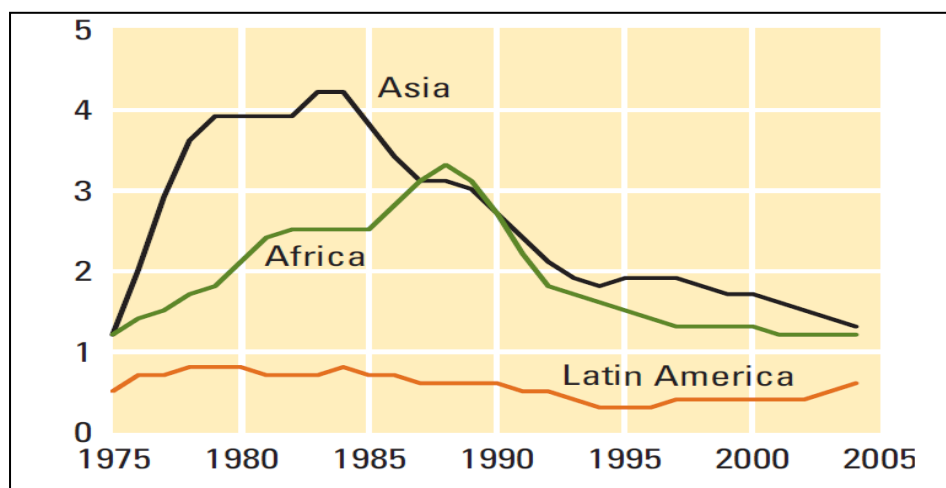
This trend might be explained by the multilateral agencies having seen their support to agriculture peak in the late 1970s and early 1980s, then experienced a sharp drop, while individual DAC countries still continued to augment their agricultural aid commitments, before getting on the bandwagon already on its downhill roll. The forerunners of the trend were most prominently the World Bank and the European Commission (as discussed by MORRISON et al. 2004 Table 4, p. 11).

To an extent, the global decline of agricultural support accompanied the general aid fatigue of the late 1980s and 1990s, though clearly more pronounced. This raised questions of mutual causality between general aid pat-

terns and sector-specific issues. Did problems in rural development contribute to aid fatigue or was it the other way around? Whatever the causal chain, agricultural aid did not participate in the positive trend reversal that ODA for Sub-Saharan Africa witnessed in the late 1990s, with an emphasis on poverty reducing strategies as required by the UN MDG initiative.

The decline continued unabated until it reached the all-time low of 4 % of sector-specific ODA of DAC countries to Sub-Saharan Africa in the mid-2000s. In parallel, national public expenditure in developing countries collapsed and according to World Bank figures, agriculture-based economies ended up spending on average 4 % of all public expenditure on agriculture (see WORLD BANK 2007c Table 1.3 p. 41). Consequently, the ‘double 4 % mark’ represents an ignominious all-time low for what should have been the mainstay of a solid international and national support system (see also ASCHE & HOFFLER 2011).

Graph 2—9: ODA to Agriculture by Region (in 2004 Bn USD)



Source: WORLD BANK 2007c Figure 1.8, p. 41.

Within the group of agricultural-based developing countries, the decline of support for agriculture was not specific to any region, as illustrated in : Aid to Asian agriculture peaked first, then Africa followed, whereby Latin America maintained a relatively low level of support.

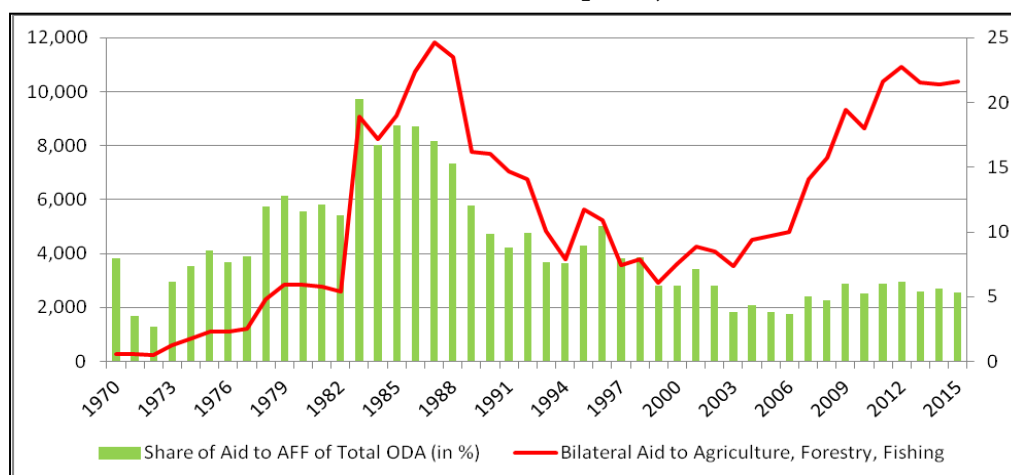
Beyond the general aid fatigue, a more precise hint on what motivated the demise of agricultural aid can be gained from the fact that other major sectors suffered from similar declines: transport infrastructure, communication and to a lesser extent also energy (OECD 2011 p. 13). For infrastructure,

the turning point was no earlier than for agriculture in 2005, with the World Bank somewhat suddenly (re-)discovering ‘the big African infrastructure gap’ (see WORLD BANK 2005c ; for a critique see ASCHE 2006).

Additionally, new aid topics and fashions had emerged since the 1980s, and agriculture had to stand stiff competition for the decreasing overall ODA. During the 1990s, notably good governance and decentralisation emerged as fashionable aid topics, particularly for those African countries that experienced democratisation processes at the time. Towards the Millennium, under the influence of the MDG debate, many donors shifted their focus from sectoral support to governance factors or general poverty alleviation programmes⁴⁸.

It should however be noted, that the tide turned again in 2006. As already depicted in Graph 2—2, aid allocations increased constantly since the Millennium and the share of bilateral ODA committed to AFF recovered from the 2005 low of slightly less than 4 % to 5,5 – 6 % in the following years. Given the overall increase in ODA, this meant a substantial increase in absolute terms in aid to agriculture as illustrated in Graph 2—10. Between 2002 and 2012, aid to agriculture roughly doubled and reached peak absolute levels compared to the mid 1980s.

Graph 2—10: Trends of Bilateral ODA (in Mio USD absolute and as share of total ODA; 1970 – 2015, 2010 current prices)



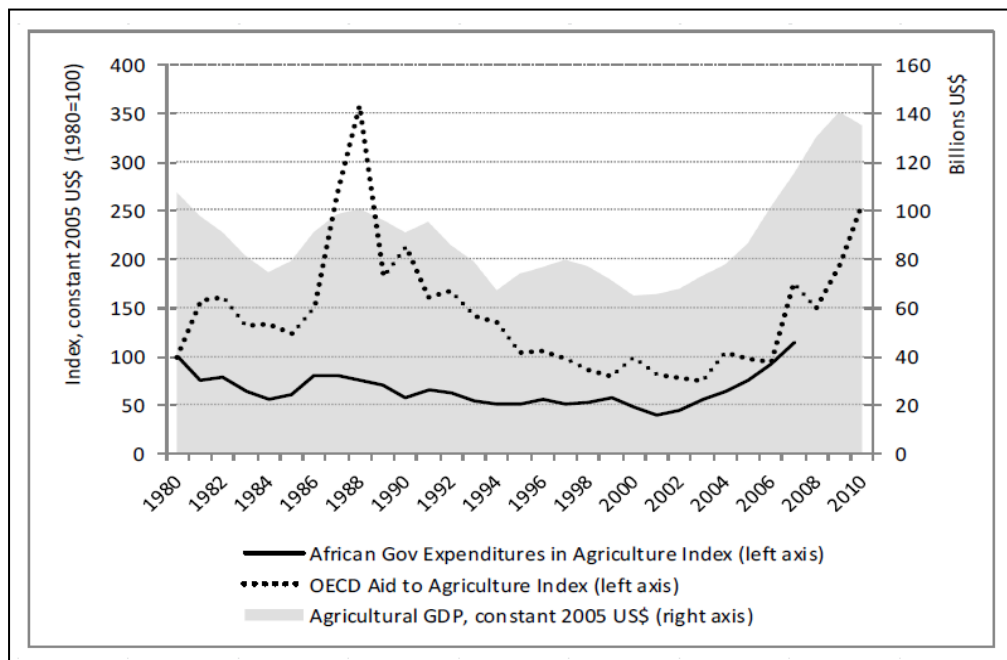
Source: own compilation using OECD online⁴⁹

⁴⁸ See also CHHOTRAY & HULME 2009 as cited in HOEFFLER 2011b p. 47.

⁴⁹ <http://stats.oecd.org/qwids> using the QWIDS-Query Wizard for International Development Statistics 13. March 2017.

At least for Africa, this turnaround also triggered more absolute aid to Agriculture: public resources started to be re-invested in agriculture as depicted in Graph 2—11. Interestingly, African governments seemed to have preceded that trend and OECD donors followed.

Graph 2—11: Change in Public Resources to African Agriculture (1980-2010)



Source: NIN-PRATT et al. 2012 based on OECD Data 2012, Figure 1.2, p. 3.

2.2.3.3 The Shifts in Aid Delivery to Agriculture

The concepts of aid and delivery modes changed with long waves of aid fashion, bringing old topics to the fore again in order to try them differently, as will be briefly outlined below. This, however did not change the situation described above: over time, the agricultural sector consistently lost much of its importance for development cooperation (see ASCHE & HOEFFLER 2011 for an in-depth discussion of shifting approaches).

The decline of aid to agriculture had far-reaching consequences. Within development agencies, whole agricultural departments were dismantled or reduced to minor roles⁵⁰. This had strong implications on *how* aid to agricul-

⁵⁰ The situation in the World Bank was probably most depressing, where agricultural experts for a long time became marginalized. The situation at Germany's technical agency GTZ (now GIZ) is another case in point: from an important general division

ture was delivered, since many specialists had to leave aid agencies. Career-wise, the less specialised staff had better chances to form the more territorial and governance-oriented approaches as opposed to agronomists, who were seen to be kind of outdated.

As mentioned before, sectoral aid to agriculture was partly turned into multi-sectoral aid for rural development. This coincided with a general shift from projects to programmes in the early 1990s. Similarly, and in relation to the project-programme cycles, aid to agriculture oscillated between sector ('agriculture') and territorial/spatial/regional ('rural') approaches until today (see as an illustration the main rationales for WORLD BANK 2007c and WORLD BANK 2008b).

In addition, agriculture as a sector has always suffered from fairly high expectations concerning its impacts on food security and rural development in general (see footnote 44). Such expectations formed the complicated interplay between agricultural projects and food (nutrition) security approaches and programmes, which at given times competed for dwindling overall funds.

Another line of antagonistic fashions could be found between rather technical, agronomic-productive projects and policy advisory approaches. Many donors had shifted from one to the other without much combining the strengths of both approaches and without seeing the need to complement policy advice with technical support on the ground. Applied research projects formerly implemented by aid agencies themselves were delegated to be undertaken by agricultural research institutions under the funding for the Consultative Group on International Agricultural Research (CGIAR). This led to a certain disconnect between development research and development project/programme implementation. Until today, agencies are still debating the appropriateness, effectiveness and necessity of technical innovations in agriculture (such as drought-resistance, irrigation, genetically modified seeds, seed-fertiliser packages, etc.) instead of recognising applied agricultural research, both public and private, as an integral part of aid to agriculture, which has offered a number of very viable development solutions.

(*Hauptabteilung*) that was cutting across the world regions, agriculture was downgraded to one sectoral department among many others (and certainly not the most influential); large specialised units like the ones on livestock and veterinary services were completely dissolved.

2.2.3.4 Reasons for Disenchantment with Aid to Agriculture

The changes in both, aid volumes and in aid modalities for aid to agriculture can at least be partly explained by a certain disenchantment with agriculture by major multilateral and bilateral donors (as discussed by ASCHE & HOEFFLER 2011). The sole big reason, why agriculture and rural development became so unfashionable in the late 1980s and thereafter was the lack of development results in the form of well-documented and plausible impact analysis. At least five good arguments could have always been brought up against increase of aid to agriculture: (i) the lack of sustainability, (ii) the unfavourable agricultural policy arena, (iii) the relatively low gains in productivity, (iv) the slow pace of rural poverty reduction, and (v) the comparable low degree of rural transformation⁵¹. Some reasons will be briefly summarised here; see CABRAL et al. 2011 or ASCHE & HOEFFLER 2011 for a more detailed discussion.

When in the late 1970s recognition spread that success in agricultural project approaches generally remained isolated and replication was very limited, let alone a self-sustained process, projects merged into integrated (regional) rural development programmes, (later: rural livelihoods programmes with a social focus), or local economic development (LED) programmes. By shifting the programme focus on several of the big challenges, it often centred on the territorial, decentral or communal governance regimes (like “*programmes de gestion des terroirs villageois*” in Sahel countries, which were often coupled with community-based natural resource management). Although overcoming limitations of earlier singular projects, the first generation programme approaches ran into the standard difficulty of limitation in geographical scope. There, former project islands turned into similar, yet larger ‘district development islands’. Another difficulty lay in the multi-disciplinary nature of rural development programmes. They often lacked political backing and ownership by one particular ministry or political driving force in centralised government structures. Consequently, different line ministry field offices competed for programme resources without clear guidance and management by the recipient countries. A number of such rural development programmes produced laudable results while operating, mainly in the

⁵¹ These arguments shall by no means be understood as if there were not any development results at all: numerous successes have been achieved by aid to agriculture, namely in the area of agricultural research, modernisation of extension services, natural resource conservation, development of participatory approaches, and food security. See e.g. HAGGBLADE & HAZELL 2010 for a comprehensive overview.

provision of rural services to poor rural communities, however, the overall sustainability of such programmes remained poor⁵². Only the second generation of agricultural sector programmes tried to tackle and overcome these constraints.

While turning towards comprehensive programmes was meant to address impact problems, their ambitions typically stopped short of tricky policy issues. In the beginning of the 1980s, aid agencies were not in a position to address policy failures which lay at the core of the slow rural development. They included artificially depressed producer prices, unfavourable internal terms of trade, indirect taxation of agriculture via rampant inflation, over-valued exchange rates and dysfunctional marketing boards – all expressions of the general anti-agricultural policy leaning as described in Lipton's 'Urban Bias' (LIPTON 1977) or Bates' analysis of tropical markets and states (BATES 1981). Such policy distortions were historically not tackled by agricultural cooperation, but by the implementation of SAPs imposed by the World Bank and the IMF (see e.g. HOEFFLER 2011b for further discussion).

Concerning low gains in productivity, the core indicator of agricultural development that had not improved at all in one continent compared to other regions in the world was staple food productivity in Africa. The overall picture is marked by a 1t/ha average yield for main cereal staples throughout Africa and the over-time sharply widening yield gap (as discussed in WORLD BANK 2007c Figure 7, p. 15). ASCHE & HOEFFLER 2011 concluded this to have constituted "*the single most important frustration that led to donor disenchantment with aid for African agriculture*" (*Ibid.*, p. 22).

Another important reason was the still high number of rural poor. Given the decrease in aid flows for agriculture, the past three decades provided quite some progress – but not enough to reduce rural poverty significantly. Since the Millennium, new pressure has mounted to support in particular

⁵² A number of post-programme impact evaluations revealed an appalling lack of continuation and gaps in service provision only months and few years after phasing out of the programme and donor support. The massive efforts and development investments were poorly maintained, managerial responsibilities for public service provision left pending and financial continuation of programme activities was simply not factored into public budgets. Particularly hardware investments suffered from unclear ownership and neglect in maintenance. However, it should be noted that capacity development of local programme and involved government staff had often important lasting impacts on future planning processes and managerial skills and that such impacts are very difficult to measure.

rural Africa, and progress has been made. However, the figures for some countries, that have received relatively large amounts of aid to agriculture are still appalling (see IFAD Rural Poverty Reports for figures and discussion; IFAD 2001 and IFAD 2010).

Lastly, the relatively low degree of rural transformation played a role when major donors turned away from support to agriculture and rural development. Even though slow rural transformation is hardly a singular problem caused by lack of aid investments in agriculture, much needed corrections of policy distortions are obviously still not working as engines of rural modernisation. The liberalisation of output and input markets has not achieved the vibrant rural economies, particularly not where basic infrastructure remains poor. The high risk of rain-fed smallholder agriculture, particularly in Africa, continues to lead to low levels of diversification and makes it hard to realise economies of scale for agricultural sector development and for delivering aid to agriculture. There exists no silver bullet in form of improved varieties or a standardised innovation package with large geographical coverage like the one of South Asia's Green revolution that could equally transform large parts of rural Africa. The single most transformative innovation for rural Africa has clearly been the development of mobile communication – and this experience has not increased the trust in agriculture as a driver of rural change.

2.3 The Concept of Agricultural Value Chain Development

Value chain analysis is well suited to understanding how poor people in rural areas of developing countries can engage, or improve their terms of engagement with, domestic, regional or international trade.

(MITCHELL et al. 2009 p. iv)

As described above, agriculture in general and rural Africa in particular became 'out of fashion'. It was only around the Millennium, that new pressure mounted to support rural areas, mainly because of the findings of the WDR 2000/2001 (WORLD BANK 2001), showing again that African poverty is predominantly rural. The UN Millennium Campaign and the declaration of

the MDGs with the prominent goal number 1 of halving hunger and poverty by 2015 directly triggered new interest in agriculture. Progressively, donors and aid receiving countries started to re-assess their concepts and instruments for agricultural development.

2.3.1 What was new with Value Chains?

Conceptually, donors did not show much willingness to revive the old projects and programmes, since regional rural development programmes and integrated food security approaches seemed to be outdated and not well fitting the new global contexts. At the same time, in particular African economies were increasingly confronted with changing agricultural markets, due to (i) the beginning of the global resource boom, (ii) globalisation and respective worldwide changing food and commodity markets, and (iii) due to domestic dynamics such as economic liberalisation and urbanisation. Subsequently, trade patterns, domestic market structures and consumer preferences, knowledge and information technology had begun to fundamentally change the face of African agriculture, whereby (globally) coordinated and integrated value chains gained increasing importance. Particularly the increase in the global demand for fresh vegetables, fruits, and fish changed the export patterns for many developing countries in a relatively short time (HUMPHREY 2005). This posed new opportunities but also challenges to small-scale producers, traders and processors along agricultural value chains. As for development aid, linking small-scale farmers to global export chains seemed to be a promising approach to effectively implement private sector development in agriculture (see e.g. OECD 2006 , HUMPHREY 2006 , MAERTENS & SWINNEN 2007 or HUMPHREY & NAVAS-ALEMÁN 2010).

Despite successful first examples of integrating small-scale farmers into global value chains (a prominent one being Kenyan export horticulture producers, see for instance VOOR DEN DAG 2003 or MUENDO et al. 2004 or MAERTENS & SWINNEN 2007 for the case of Senegal), the share of developing country smallholder producers in global supply chains was minimal and the potential exclusion of small-scale producers from global agricultural value chains put them in a general disadvantageous position (VAN DER MEER & KEES 2006). Therefore, the integration of poor smallholder farmers into agricultural value chains was increasingly seen as an important development framework, whereby rural economic development involved the transformation of agricultural based economies into more urban indus-

trial and service-based economies. A certain enthusiasm developed around a combination of private sector promotion for economic growth and of fostering agricultural activities for rural development and reducing rural poverty (see also HOEFFLER 2006).

The essentially new point was that this trend was overwhelmingly driven by market forces and the private sector. Development actors started to build on two critical observations: first, farmers should be helped to get a fair(er) share in value chains; second, smallholder farmers, even when integrated into value chains (e.g. via outgrowing schemes), typically had problems to comply with quality and quantity standards, both from lead firms in the chain and from public authorities in the export markets. While for some products this was a very old phenomenon (e.g. traditional cash crops such as cocoa, coffee, tea, tobacco, or cotton), entirely new food chains developed rapidly in the early years of the Millennium and became ever more demanding in terms of food safety regulations (see ASCHE & HOEFFLER 2011).

Despite the international challenges, a market-based and private-sector driven development approach also faced the challenges of agricultural market and policy failures in the developing countries. They included: the prevalence of monopolies, asymmetric information, inadequate infrastructure, lack of appropriate legal and regulatory frameworks, lack of a favourable business environment in general and more than often, massive capacity problems of farmers and farmer organisations, the private and public sector actors (see also RUBEN et al. 2006). Whilst traditional cash crops had established fairly organized supply chains, many suffered from political interventions. The newly emerging export crops on the other hand were often driven by foreign private companies who struggled to organise supply lines from many small-holder farmers. As for domestic food crops, they were yet to be taken seriously since they were projected to constitute the biggest future market for African agricultural producers due to increasing population and urbanisation (see AYIEKO et al. 2005).

2.3.2 Value Chain Promotion as Development Approach

Taking into account the above mentioned international trends and prevailing failures, the development of agricultural markets and the promotion of its involved actors (i.e. the predominantly rural and presumably poor producing farming population) was seen as the most promising development

path. In the line of rural economic development and poverty reduction (as described in section 2.1.2), the development of agricultural value chains gained rapid prominence as a development approach by many agencies in the beginning of the 21st century.

The approach was meant to overcome many of the agricultural sector problems that characterised the low competitiveness of many African agricultural value chain actors by collaborating with successful private sector actors. Among other things, they hoped to improve markets for farm inputs by providing adequate access, availability or affordability of farm inputs; to organise many scattered smallholder farming households along producer groups or collection centres. They also wanted to expand storage facilities and improve poor infrastructure in order to meet critical masses of produce at the right time with the right quality and quantity. This way they were able to support sustainable business linkages between producers and processors by fostering contract farming and outgrowing schemes and by building more capacities on trade standards. Where the absence of regulation and competition for products increased fraud and mistrust between farmers and traders, VCD was understood as a tool to build trust along the chain and to integrate the different stakeholders vertically and horizontally (HOEFFLER & MAINGI 2005).

By way of consequence, developing value chains and thereby supporting countries to better compete in global markets became an important work for most international aid agencies (as for critical reviews UNECA 2009 , HUMPHREY & NAVAS-ALEMÀN 2010 or WEBBER & LABASTE 2010).

Subsequently, many development agencies such as the DFID, USAID, GTZ, the Swiss Development Cooperation (SDC), the World Bank, or the International Fund for Agricultural Development (IFAD) began to design and implement projects and programmes for agricultural VCD. On the height of the ‘Value Chain Vogue’ in 2005, the pledging of 430 million USD by the Bill and Melinda Gates Foundation for their new Agricultural Development Programme underlined prominently the trend.

From the start, these projects were often accompanied by national and international research to assess risks, benefits and impacts. Main players from the start were the Institute for Development Studies, Sussex (IDS) and the Wageningen University and Research Centre (WUR) and associated researchers. They framed the conceptual literature on which most VCD pro-

jects were based on; with HUMPHREY & SCHMITZ 2000 and KAPLINSKY & MORRIS 2001 having provided the key reading⁵³.

When VCD projects were implemented in Africa, Asia, and Latin America, a dynamic field of applied academic research accompanied the projects. A lively scene of value chain experts formed networks of researchers and practitioners and entered a stage of intensive exchange of experiences with value chain promotion and capacity building⁵⁴.

In addition to the research networks mentioned above, a series of international conferences provided room for international exchange of lessons learned and first experiences made⁵⁵.

2.3.3 The Absence of Poverty Impact Assessment

All international conferences and expert meetings mentioned above generally assessed agricultural value chain promotion as a very promising development approach. Experiences in a number of countries and projects showed that the approach provided one key success factor: the re-definition of roles of public and private sector actors along the selected value chains. At a minimum, the public sector should provide an enabling rural business environment (legal, political, and economic) for the private sector to undertake (agri-) business activities; whereas the private sector needed to improve its efficiency and competitiveness. Farmers needed to strengthen their technical, organisational and collective action capacities to actively and

⁵³ Additional widely cited publications summarising first lessons from value chain promotion were GEREFFI et al. 2005 , GIBBON & PONTE 2005 , JAFFEE & HENSON 2005 and HUMPHREY 2005 .

⁵⁴ see e.g. IDS Sussex' Global Value Chain Initiative (<http://www.globalvaluechains.org>), Agro-food Chains and Networks for Development of University of Wageningen (http://library.wur.nl/frontis/agro-food_chains/index.html), the Donor Committee for Enterprise Development (http://www.value-chains.org/dyn/valuechains/bdssearch.home?p_lang=en), GIZ sector networks (<https://www.snrd-africa.net>) , or the DFID sponsored Making Markets Work for the Poor Initiative (MMW4P) (<http://www.springfieldcentre.com/wp-content/uploads/2017/11/2004-07-MMW4P-an-objective-and-an-approach-for-governments-and-development-agencies.pdf>)– just to name a few of the then formed internet fora and platforms.
See also for an overview http://www.weitzenegger.de/content/?page_id=3361

⁵⁵ E.g. “Making Value Chains Work for the Poor: Current thinking and future collaboration” in Gerzensee, January 2007; “Making Markets work for the Poor in Eastern and Southern Africa” in Cape Town, April 2007, or “Value Chains for broad-based Development” in Berlin, June 2007.

profitably integrate into (domestic and global) agricultural value chains. To achieve the expected rural growth, public, private and civil society actors needed to jointly develop economically efficient agricultural ventures. Thereby, the VCD concept provided a new framework for facilitating public-private-farmer (and others) collaboration or partnerships beyond the micro-scale and gained credibility and acceptance for such type of private sector cooperation (as also pointed out by RUBEN et al. 2006 and ALTENBURG 2007).

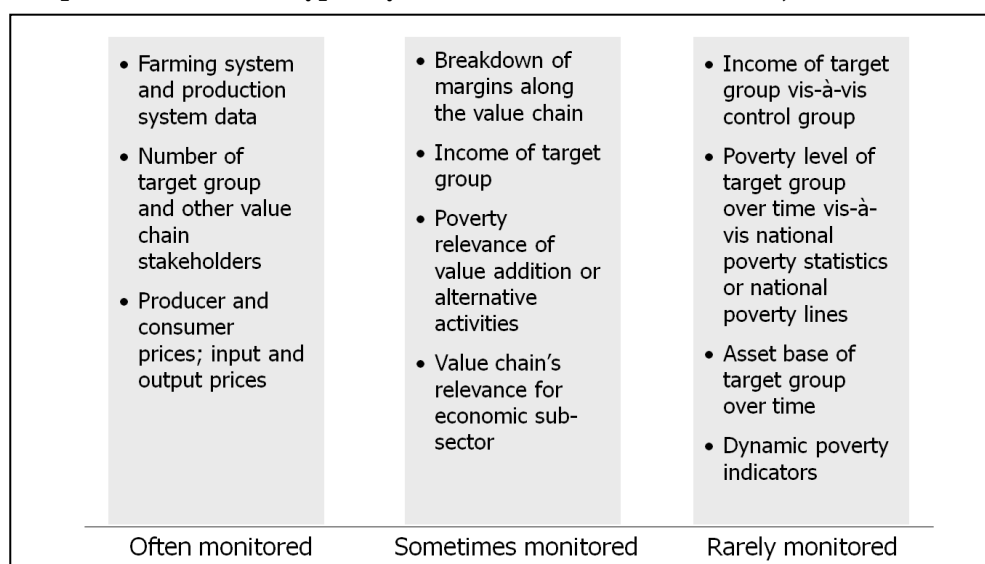
However, the fundamental question on how value chain promotion contributed to rural poverty reduction remained largely unanswered, even though many meetings had the aspect of poverty impacts of chain development more or less explicitly on the agenda and most concept papers and handbooks on value chain promotion mentioned the ‘poverty orientation’ of the approach; as stated e.g. in GTZ 2007 : *“The value chain approach contributes to reducing poverty if it [...] concentrates on targeting the poverty problem. [...] Often, it is necessary to combine value chain promotion with a livelihoods perspective, with local economic development or with vocational training so as to enable the poor to enter (and stay in) commercial markets. However, we need much better monitoring tools to guide pro-poor value chain promotion.”* (GTZ 2007 p. 19).

This illustrates the unease that existed among the community of practitioners that economically successful agricultural value chain projects did not seem to specifically target ‘the poor’ (e.g. poor smallholder farmers). Remarkably little had been published about how to identify the poor or how to measure their poverty, i.e. their moving out of poverty or lifting above the poverty line in the context of agricultural value chain integration in development projects. A common justification was given by a general increase in rural economic activities and trust in further trickle down effects such as rural employment creation. Yet interestingly, in projects where poorer rural target groups were involved, a number of similar difficulties seemed to prevail, such as the lack of horizontal coordination of farmers, mistrust among different chain actors and non-compliance with quality standards.

Direct impacts of agricultural value chain projects were usually monitored by the project implementers – yet, what exactly was regarded as an impact or outcome or result and how to measure success varied widely. Existing project monitoring data often focussed on participating actors only - and followed the logic of the objectives and the reporting line of the respective implementing agency. A lot of data could typically be found on how many

farmers were involved in a given chain promotion, how much they produced, at what prices they sold to how many middlemen or transporters or processors or exporters and so on. Detailed breakdowns of margins for the product of choice were already harder to find. Impacts on household income and welfare and more aggregated data on the performance of the product or sub-sector of choice as well as its strategic importance for the rural economy were almost absent.. Whereby many single projects seemed to be quite successful in linking a number of smallholder farmers into rather complex supply chains even for export markets, very little is reported about effective poverty impacts or a more comprehensive assessment of what actually changed for the respective region or country in terms of pro-poor rural growth, rural poverty reduction, growth of investment or increase in competitiveness (see).

Graph 2—12: What is Typically Monitored in Value Chain Projects



Source: own illustration based on interviews⁵⁶

In most project monitoring systems, no reference at all is made to national poverty levels or similar quantitative measures of wellbeing. This lack of

⁵⁶ This illustration depicts the author's impression based on personal interviews in 2007/ and 2008. Two main groups of resource persons were interviewed about their monitoring system in value chain development projects: (i) all relevant agricultural donors active in the sector in Kenya between 2005-2008 and (ii) all GIZ agricultural value chain development project managers present at the Conference "Value Chains for broad-based Development" (Berlin, June 2007 and those active in the ValueLinks Association (see <http://valuelinks.org/>) by then.

any aggregated poverty impact assessment of agricultural value chain integration of African smallholders is ever more surprising, since most practitioners are intuitively aware of its importance, since they have to report to agencies which are obliged to the overarching goal of poverty reduction in MDG 1. And these practitioners all know that engaging in a business activity such as e.g. an increase in export horticulture production in Central Kenya comes along with decision making, opportunity costs and changes in production patterns and livelihoods. These changes are positive as well as negative, they occur naturally in the dynamics of development. Some are anticipated, some expectations fail, and some impacts are totally unintended. Thus, monitoring results and impacts is a very important and interesting, yet often neglected task, because such monitoring requires resources. Even where financial resources are available, often the staff lacks the skills to undertake or commission such monitoring exercises⁵⁷. Whenever in-depths attempts are made, the observations seem to be fairly interesting, and worthwhile regarding⁵⁸.

However, during the same time that the value chain approach became popular, particularly for agricultural development scene, macroeconomic development efforts greatly improved national statistics in many developing countries, responding to the need of monitoring the national poverty reduction strategies (see also 2.1.1). Furthermore, the research areas of quantitative and qualitative poverty analysis developed a new academic sphere amid the PPG debate (as will be described in further detail in section 3.1). Most African countries, supported by the World Bank and others, have undertaken large welfare monitoring surveys and have produced rich national sets of poverty statistics. Yet, data and knowledge gained by national poverty assessments have not been used for measuring the poverty impact of sectoral development efforts like value chain integration of smallholder farmers.

⁵⁷ This again is based on the anecdotal evidence gathered in practitioner interviews with agricultural value chain project managers; see also footnote 56.

⁵⁸ See e.g. the surprising relation between expanding horticultural activities in Central Kenya and increasing witchcraft leading to mixed results for female household as described by DOLAN 2001 .

Box 2—1: Conceptual Development of Impact Assessment

Since the Millennium and the launch of the MDGs, a new debate about impact assessment was triggered, particularly with a focus on social development since social sectors like education and health received large attention and thus, funds and programmes, at the time. Yet, the impact of many of these programmes remained unclear and a growing concern about this knowledge gap was rising. In order to address this gap, the CGD convened the ‘Evaluation Gap Working Group’ in 2004. The group was composed of 20 eminent development researchers and charged to investigate why rigorous impact evaluations were relatively rare. The working group elaborated the landmark volume “When will we ever learn” (CGD 2006) calling for more funds and incentives for impact assessment and highlighting that a growing number of development experts were becoming “*impatient with ignorance*”. As much as the findings were acknowledged, the institutional change proposed by the working group was never implemented. Yet, Howard White, then a senior researcher at IDS Sussex, took up many of the issues raised and gained influence in how to close the knowledge gap; eventually by founding first NONIE (‘Network of Networks for Impact Evaluation’) and eventually the 3ie, which advanced the evidence base on impact assessment enormously (see e.g. WHITE 2007 , WHITE & BAMBERGER 2008 or WHITE 2009 , as well as www.3ieimpact.org).

As for agricultural development, the debate about impact assessment largely by-passed the project reality on the ground. Agriculture was underfunded and not in the focus (see ASCHE & HOEFFLER 2011). Only international agricultural research institutes picked up on the issue, championed by IFPRI researchers Michelle Adato and Ruth Meinzen-Dick who realised “*As the goals of international agricultural research move beyond increasing food production to the broader aims of reducing poverty, both agricultural research and studies of its impact become more complex.*” (ADATO & MEINZEN-DICK 2002 p. ii). They developed an interdisciplinary approach to assess the poverty impact of research programs under the CGIAR and used it in a multi-country study (*Ibid.*). They concluded that a combination of quantitative and qualitative methods was needed: “*Although this approach is more difficult for research than conventional single-disciplinary analyses, it leads to a more complete understanding [...]*” (*Ibid.*, p.iii). Within the CGIAR, this work was further developed and replicated by other agricultural research centres in order to prove that their research was reducing poverty. One example is the work by KRISTJANSON et al. 2002 , who worked at the Nairobi-based CG-Centres ILRI and ICRAF and who postulated that “*Poverty alleviation is a process*

that needs to be understood before impact can be measured.“ (Ibid., p. 73). The IFPRI Food Policy Report 2004 was dedicated to the same issue (MEINZEN-DICK et al. 2004), and an influential methodological volume for impact assessment of agricultural research was published (see ADATO & MEINZEN-DICK 2007 , in particular ADATO et al. 2007).

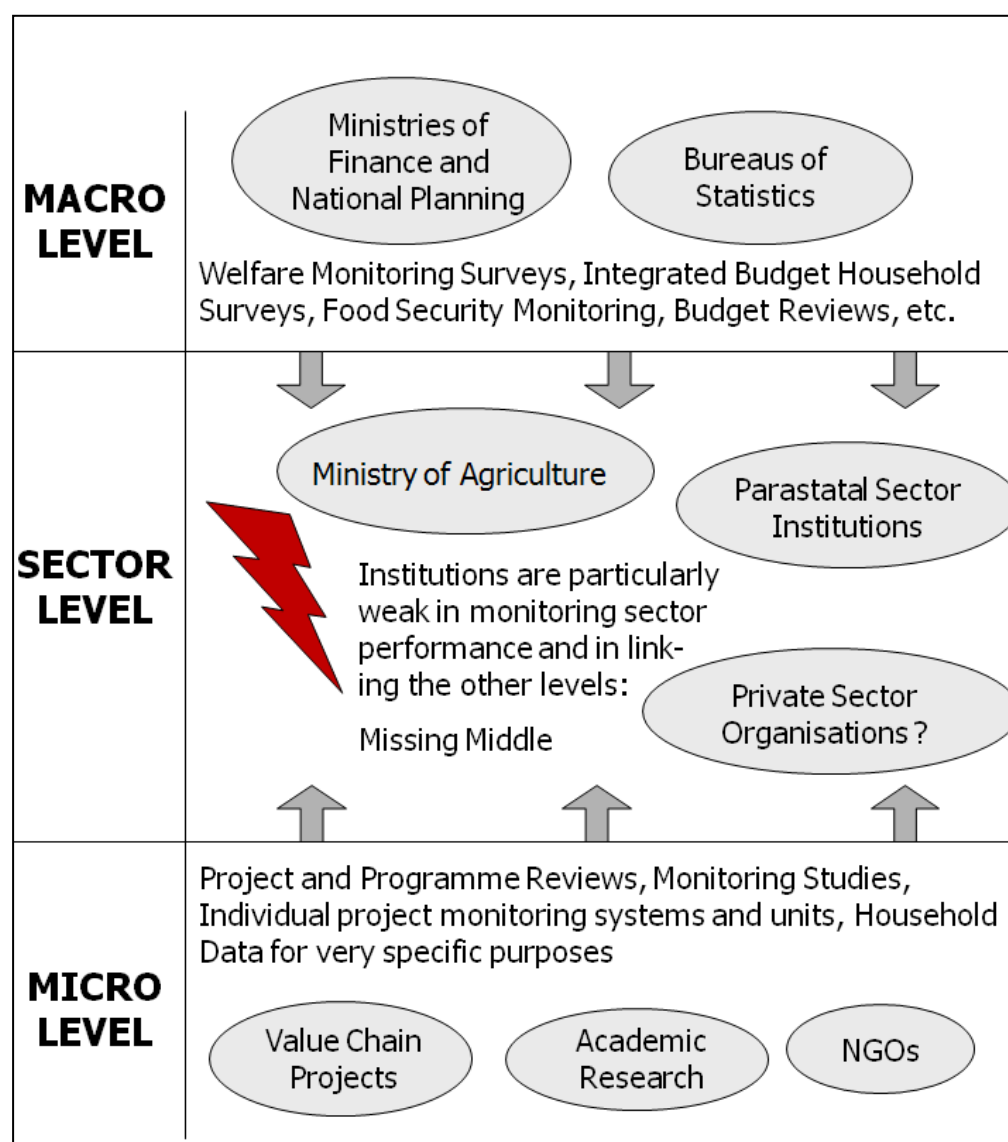
Yet, specific impact assessments of agricultural development programmes were the exemption at the time the approach of agricultural value chain promotion became ‘fashionable’ – and one might tend to think that a methodological routine for impact evaluation is still largely missing.

Thus, the problem remained for practitioners in development cooperation: How to address the described unease about not reaching the poor or not reaching the poor in adequate numbers (outreach) by agricultural value chain integration? The sole solution was to not only monitor the immediate results of support to a segment in a given chain in a narrow context, but to use more aggregated data for measuring impact on the welfare of stakeholders, performance and competitiveness of the respective sub-sector and industries, their growth and their trickle-down effects. Ultimately, any development effort could only be named successful, if its direct and indirect impacts on poverty would eventually be reflected in quantitative and qualitative poverty measures, such as national poverty statistics or participatory poverty assessments.

The debate on pro-poor rural growth and poverty reduction was dominated by isolated perspectives: the rather narrow focus of agricultural practitioners promoting selected agricultural value chains at micro level and the measurement of national poverty by large household surveys undertaken by macroeconomist at national (macro) level. Both levels and schools of thought could have largely benefitted from each other by consolidating and synthesising data for systematic sectoral impact assessment – but this did not happen at the time as illustrated below in for the case of Kenya based on the observations of the author⁵⁹.

⁵⁹ It should be noted that since then, value chain research has further developed, many more case studies and project reports have been documented and the understanding on how to integrate farmers into value chains has improved (not only for the case of farmers in developing countries, but also for industrial countries and emerging economies, see e.g. the monthly “Journal on Chain and Network Science” published by Wageningen Academic Publishers. Further, the development of agricultural value chains as business models has also deepened (see e.g. the work by REARDON 2015 ,

Graph 2—13: The Missing Middle in Agricultural Sector Monitoring



Source: own illustration⁶⁰

However, the governmental and parastatal institutions dominating the sectoral (meso) level have a tendency to be weak in monitoring the sector per-

GEREFFI & FERNANDEZ-STARK 2016 , MAERTENS & SWINNEN 2014 or HAGGBLADE et al. 2012).

⁶⁰ This illustration is again based on anecdotal evidence gathered by interviewing agricultural value chain practitioners between 2005-2008 of relevant donors in Kenya and GTZ ValueLinks Community (see also footnote 56) as well as GTZ project staff organised in the Sector Network Rural Development (SNRD) Africa. This assessment is mainly based on the example of the Kenyan agricultural sector, in which the author was working and well connected within the Kenyan agricultural donor group by then. However, discussions held within the SNRD network resulted in similar pictures to other African countries.

formance and lack the necessary skills in either disaggregating macro level data or in extrapolating/aggregating micro level data. Even though in some cases private sector organisations partially fulfil this function of sector performance via associations, think tanks or banks, the institutional failure to monitor sectoral poverty and growth trends can still be considered to have caused a ‘missing middle’ (see Graph 2—13).

Theories of impact assessment suggest that impacts can be monitored at different aggregation levels (see e.g. WHITE 2007). To analyse whether the impact of venturing into an economic activity as a country has been favourable for rural growth or poverty reduction requires not only data of participating farm households, but also higher aggregated data encompassing the entire economic sub-sector. Theories of PPG (section 2.1.2) and of poverty analysis (section 3.1) would have had a lot to offer for answering the impact question raised by agricultural value chain practitioners, but where by then not consulted or used⁶¹.

2.3.4 Expected Poverty Impacts of Agricultural Value Chain Integration

International attention will keep an even increased focus on the development of African rural areas, because of their high poverty levels. There is consensus that this needs to go along rural economic development. The importance of a vibrant private sector for rural development is widely acknowledged and today is an integral part of the development agenda. To foster rural economic growth, a mix of regional and commodity-based approaches is favoured: local economic development is used to strengthen the systemic competitiveness of rural areas whereby value chain promotion focuses on vertical and horizontal coordination of specific commodities, their production and up-and downstream linkages. VCD is viewed as an effective instrument to deliver the intended agribusiness development with the scope of private sector development in agriculture (as described in 2.2.2.4). Thus, development of agricultural value chains became a widely used approach in rural economic development for Africa.

The underlying hypotheses for the poverty impacts of agricultural VCD can be categorised into four types (see ASCHE & HOEFFLER 2007):

⁶¹ It was only years later that larger impact assessments were undertaken, see e.g. ADB 2012 for a larger review for Asia and the Pacific Region or ELBEHRI 2013 for West Africa.

1. *Integration of poor farmers into new agricultural value chains* (e.g. high-value agricultural products, horticulture, aquaculture, organic food products) and thereby creating production, income and employment opportunities for the rural poor.
2. *Broadening existing agricultural value chains* to include poorer and/or more poor producers and thereby increasing the outreach to the poor.
3. *Deepening existing agricultural value chains* by increasing poor producers' share in the overall income generated along the chain.
4. *Supporting the poor to move diagonally* to higher valued agricultural value chains, using knowledge gains for higher qualified production systems and thereby increasing income shares.

Agricultural VCD as an approach of economic development comes along with a set of rather defined interventions such as value chain identification, market research, participatory mapping of the chain, the analysis of margins, relationships, costs driver, competitiveness, product and process quality standards, trade barriers, customer relations, marketing arrangements, etc.. This set of instruments is implemented worldwide with similar direct interventions, mostly facilitated by private, public and donor agents. So far, big opportunities are that a number of agricultural value commodities can be produced in smallholdings (i.e. fresh produce horticulture) and thus, fit into the livelihood system of poor small-scale farmers in productive areas and can increase their income and employment opportunities. Such value chains allow small-scale farmers to capitalise their assets of land and labour. Secondly, many agricultural value industries are labour intensive and along the chain value can be added within African countries. Thirdly, foreign direct investments consolidate existing agricultural value chains, knowledge transfers take place and local capacities are built while value chains develop over time (see e.g. GEREFFI & FERNANDEZ-STARK 2016 p. 12 *ff.*). Big challenges exist in complying with ever increasing quality standards and decreasing comparative advantages of smallholder farms, as well as the general investment climate, low productivity and relatively high costs of production in rural Africa.

Monitoring of the social and economic impacts of agricultural value integrations had mostly focussed on project-related indicators like numbers of producers integrated, product and process quality enhancement and economic chain efficiency (as depicted in). Based on the practitioner interviews held, the impression remained that agricultural VCD did not fulfil its

promises on ‘pro-poorness’ and that the expected poverty impacts (as described by the four hypotheses above) are not achieved. Despite being successful in many country cases, a subconscious feeling of ‘being biased’ was growing among practitioners. They experienced that commercial or market-oriented approaches such as agricultural value chain integration (by tendency) rather targeted ‘winners’ than ‘losers’ in rural economies (problem of adverse selection); or they targeted the poor but kept the feeling that the business will not be sustainable (problem of subsidised business promotion). Another point of concern was that chain integration typically orientates its interventions along formal market structures – yet the majority of the poor tends to act on informal markets, which are rarely targeted directly (and only indirectly targeted by upgrading of a chain). This all led to the impression of not reaching the poor at all or not in adequate numbers (thus not achieving the outreach to the poor)⁶².

2.3.5 Value Chains and Development: Trends and Critique

As mentioned in section 1.1.2, the debate about the ‘pro-poorness of value chain promotion’ moved on during the time of writing this thesis. Thus, it felt important to mention at least some of the most important shifts in the debate since 2008 as well as trends in development cooperation and critiques.

The wave of enthusiasm in designing and implementing ever more agricultural value chain projects around the world during the zero years resulted in some conceptual consolidation towards the end of that decade. This is reflected in the vast number of practitioner manuals around the topic; most prominently the "Making Markets work for the Poor" (‘M4P’ Series; see M4P 2008), the World Bank’s compendium on ‘Building Competitiveness in African Agriculture’ (WEBBER & LABASTE 2010) and IFAD’s “Linking farmers to markets initiative” (see TORERO 2011).

Many developing agencies had accumulated cross-country experiences and published the lessons learned from the same (see WIGGINS & KEATS 2013 for a particularly interesting synthesis). The pertinent question that was elaborated from development practitioners as well as development re-

⁶² This was discussed and mentioned by many participants during the International Conference “Value Chains for Broad-based Development” 30 May – 1 June 2007, in Berlin, see also GTZ 2007 , in particular during the Working Group on ‘Relevance for the Poor’ (*Ibid.*, p. 17-18 and p. 30 *ff.*).

searchers was how to integrate smallholders into value chains. A prominent analysis was provided by the International Institute for Environment and Development (IIED) and IFAD (VERMEULEN & COTULA 2010). The authors analysed different business models that involve smallholder farmers in agricultural value chains and identified various factors that could support inclusive business models in favour of smallholder farmers. They stressed the need to develop more inclusive ways of including small farmers to avoid further income inequality in rural areas. *“Business models that include smallholders would seem to provide more effective local livelihood options that (a) do not preclude traditional nonmonetary income sources and (b) spread the benefits more widely among the population, rather than just the “lucky few” who get more skilled jobs. As the case studies attest, there is positive experience with more inclusive business models in providing new, reliable sources of income to participants. But in practice, “inclusive” business models like contract farming can also be exclusionary, as better-resourced farmers tend to capture the contracts, while poorer farmers work as labour on the contracted farms“.* (Ibid., p. 88).

Another trend was that ever more scholars and development agencies started analysing impacts of VCD on specific development aspects. The approach was not only seen as a holistic and handy approach for development projects by implementing agencies, but ever more as the framework for rural economic and private sector development that could incorporate ever more specific aspects of development, such as gender (see e.g. RIISGAARD et al. 2010 or LAVEN & VERHART 2011), employment (see e.g. HERR & MUZIRA 2009), sustainability (see e.g. FAO 2014), green economy (see e.g. CDED 2012 or GLACHANT 2013) or matters of organic agriculture (see e.g. VAN ELZAKKER & EYHORN 2010).

The question of how pro-poor VCD could be, remained largely unanswered. HUMPHREY & NAVAS-ALEMÁN 2010 concluded in their 30-Value Chain-Project synthesis study that *“the vast majority of projects did not carry out an impact assessment of their poverty alleviation objectives and it is therefore unclear whether the value chain intervention: (a) is responsible for the improvements observed; (b) benefits the poor disproportionately; and (c) is more cost effective than other alternative approaches. [...] There is a need to carry out systematic impact assessment at the programme level to develop a strong evidence base.”* (Ibid., p. 3).

The market and private sector led approach of value chains continued to raise concerns on whether it was at all possible to reach out to rural poor. The authors of the UNIDO 2011 Practitioners' Guide tried to address this

by stating: “[...] *value chain development initiatives may yield technical results translating into improved production and processing, but do not necessarily bring social benefits to poor and marginalised population groups.*” (*Ibid.*, p. 1). Their 25 guiding questions were explicitly compiled in order to help project implementers to overcome difficulties in designing VCD initiatives that focus on social benefits, especially poverty reduction and gender issues.

A similar contribution was made by MITCHELL et al. 2009, whose title, “Trading up: how a value chain approach can benefit the rural poor”, was most likely deliberately chosen as a reaction to the rather pessimistic outlook by GIBBON & PONTE 2005. The work by MITCHELL et al. 2009 reflected largely on positive Latin American experiences of upgrading poorer producers in international value chains and on the necessary trade and business environment, which was useful but mainly provided a reference framework for middle income countries rather than developing countries. PFEIFFER 2015 argues that the ‘buyer-driven’ nature of most agricultural value chains made it hard for smallholder producers to upgrade at all within the chain, yet, names some positive exemptions to that hypothesis (*Ibid.*, p. 3-4).

Important critical contributions to the poverty and value chain debate were delivered by Bill Vorley, principal researcher at IIED London. He researched poverty impacts of agricultural VCD and posed the pertinent question as title of one of his publications “*Under what conditions are value chains effective tools for pro-poor development?*” (SEVILLE et al. 2011). Vorley enriched the debate by differentiating support to agricultural value chains by different target groups represented in the model of different ‘rural worlds’ (SEVILLE et al. 2011 p. 5 ff.)⁶³. He criticised the narrow focus of VCD on small holder farmer integration and underlined, that often, smallholder farmers were not the rural poor. He argued that much more emphasis was needed on rural employment in the on- and off-farm sector to comprehensively analyse poverty impacts (*Ibid.*, p. 43 ff.). In subsequent publications, Vorley continued to provide arguments that only few smallholders would stand a chance to integrate in global value chains (VORLEY et al. 2012) and that the real market realities of rural poor and smallholders were often simplified and overlooked in VCD projects (see VORLEY 2013b). “*The develop-*

⁶³ The term ‘rural world’ was developed in the OECD-DAC report „Promoting pro-poor growth. Agriculture (OECD 2006) and illustrates the differentiation among rural populations amidst the realities of rural transition processes (see also WIGGINS 2014).

ment community has a recent history of rather dogmatically seeing only one side of the story – that of the inevitable march of modernisation. In this world view, smallholders must adapt to the strictures of modern value chains – whether for export or domestic markets – and rise to the challenge of higher market standards for quality, safety, and reliability. That view has been backed by large donor investments into value chain development, and calls to global agribusiness to apply inclusive business models in their procurement so that small-scale farmers can be partners in this new world of ‘high value’ markets. [...] In sub-Saharan Africa, it was difficult to fit the theory of value chain modernisation to a reality dominated by informal trade. Even in South Africa, where modern retail has captured a large market share, small-scale farmers were selling to informal markets and hawkers, in what is effectively a two-tier economy. [...] when we understand where smallholder farmers are, rather than where we want them to be, we find them making logical choices that often involve selling to informal or semi-formal trade. Their agency leads them in directions that challenge current theories of change. [...] Only a small subset of producers – perhaps 2 to 10 percent – can easily step up to commercial sales in modern value chains.” (VORLEY 2013a).

Vorley’s figure of ‘perhaps 2 to 10 %’ was highly welcomed by a group of non-governmental organisations that had opposed VCD from its beginning and had published strong criticism of market-based development approaches. Namely Oxfam, Via Campesina, FIAN and German church-based development organisation MISEREOR and Brot für die Welt continue to air strong resentments against working together with rural poor and smallholder farmers in value chains, i.e. via supermarkets or retailers until today. Here, VCD is mentioned as one of the many ‘too market-liberal’ and ‘too private sector friendly’ development approaches (see e.g. LUIG 2013)⁶⁴.

The debate eventually led the BMZ to commission a thorough evaluation of the VCD approach in German Development Cooperation to the newly founded German Institute for Development Evaluation (DEval) (see

⁶⁴ Even though this NGO-led debate did not yet contribute much evidence for wrongdoings of private sector development and value chain approaches nor did it present many practical alternatives to rural poverty reduction, this debate has to be seen in the context of the global food price crisis 2008 and 2010 and their aftermaths. The mentioned NGOs have produced a number of fundamental critiques to the G7/G8 initiatives to eradicate hunger, most vocally against the “New Alliance for Food Security and Nutrition”. The initiative was introduced in 2012 under the US-G8-presidency. Under the New Alliance, more than 54 large international agricultural corporations had agreed to invest more than 3 billion USD in African agriculture. This has received a lot of criticism by non-governmental organisations in Europe.

KAPLAN et al. 2016 for the full report). As much as the evaluation team found the approach to be effective to support the development of small-holder farming systems and other target groups in rural areas, they questioned that the poorest population groups could be reached at all, mainly due to high entry barriers to the targeted development model. However, they differentiated this by product type and value chain, highlighting that food value chains would have a potential higher poverty and gender impact than cash crops. Yet, this assessment itself is somewhat questionable since the authors acknowledge that “*a lack of ex-ante analyses, of value chain specific reporting and of monitoring and evaluation systems*” (Ibid., p. iv) were part of the ambivalent results of value chain promotion. Again, even this larger in-depths evaluation could not rely on proper poverty impact assessments.

2.4 Synthesis and Research Hypothesis

Having looked at the development of development approaches in the past two decades and the aid debate about growth and poverty reduction, implications of this debate for the agricultural sector and for aid to agriculture have been discussed. The emergence of agricultural value chain promotion as a development approach has indeed helped to overcome a number of previous shortcomings in agricultural aid, particularly the orientation towards viable public-private cooperation forms. However, the critical question ‘How poverty-reducing is agricultural VCD?’ has not been monitored and analysed sufficiently so far and thus, not been satisfactorily answered. At least, no precise evidence had been published to prove the poverty-reducing impacts of value chains in terms of ‘how many poor has this development approach lifted above the poverty line?’:

In consequence, this research aims at contributing to answer this question. The *a priori* working hypotheses were:

1. Agricultural VCD largely ignores modern poverty research by e.g. not taking poverty lines into account when identifying and addressing the target group.
2. Agricultural VCD projects do not measure their poverty impacts neither at micro nor at aggregated (sectoral) level.
3. Agricultural VCD promises pro-poorness, where it is highly unlikely to reach the poor directly or to achieve impacts that either disproport-

tionally benefit the poor or reduce the inequality gap (drastically speaking: the approach as a market-driven approach is not entitled to call itself 'pro-poor').

4. Value Chain projects do not measure their contribution to rural poverty reduction and if so lack to plausible explanation why they help poor rural households to move out of poverty over time by participating in VCD.

To verify (or falsify) these hypotheses, a case study in rural Kenya was planned. Results from that case study were expected to help answer the following specific research question:

- a) Does agricultural VCD contribute to rural poverty reduction?
- b) If so, in what way?
- c) And lastly: how could this contribution be supported by future agricultural VCD projects and how could it be measured and monitored?

The way to conceptualise these research questions was to review the different worlds of literature: first, the one on poverty and growth debates and on agricultural VCD (as in Chapter 2); second, the one on quantitative and qualitative methods for poverty analysis in order to identify a suitable method for this research question (as will follow in Chapter 3).

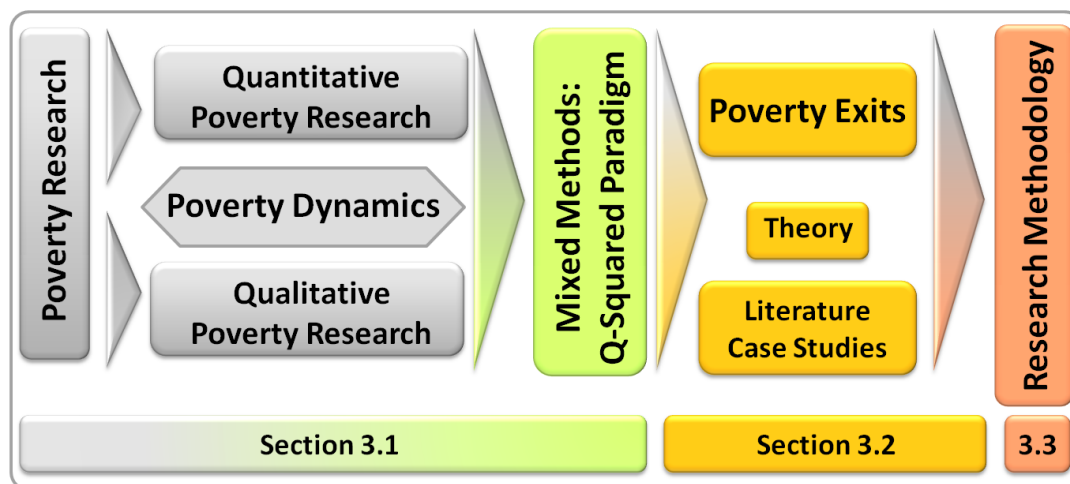
3 POVERTY DYNAMICS AND POVERTY EXITS: CONCEPTS, METHODOLOGIES AND CASES STUDIES

Most of the remaining unresolved issues in poverty analysis are related directly or indirectly to the multi-dimensional nature and dynamics of poverty.

(Erich Thorbecke in KAKWANI & SILBER 2007 p. 3)

In order to analyse the poverty impacts of agricultural VCD, a review of relevant literature on measuring poverty impacts was necessary. Thus, this chapter provides an overview on poverty research as an academic discipline. Yet, since the different methods available have a history of two very different methodological approaches, quantitative and qualitative, and since poverty research itself has undergone important changes, disputes, and innovations since the Millennium, the different methodological considerations are henceforth presented and analysed as depicted in Graph 3—1.

Graph 3—1: Content of Chapter 3



Source: own illustration

This chapter presents the origins of poverty research and discusses the important differences between quantitative and qualitative concepts to research poverty in section 3.1. Not only the different concepts and methodologies are summarised, but also the evolution of introducing time dimensions into poverty research are presented, which led to the development of ‘poverty dynamics’. Lastly, this section describes how more and more scholars from both schools worked on merg-

ing quantitative and qualitative methods into ‘mixed method’ approaches; in the case of poverty research, the so-called ‘q-squared paradigm’.

Section 3.2 then zooms in on the specific methodologies that are used to analyse poverty exits or ‘pathways out of poverty’ as the most relevant method for the research question at hand (see 2.4). Further, theoretic considerations of poverty exits are summarised and the most important case studies from the literature are presented and compared. The conclusion from the case studies leads to a synthesis of known and unknown factors contributing to pathways out of poverty.

The chapter concludes with a summary of implications for the research questions and proposes a methodology for the case study in Kenya (section 3.3).

3.1 Poverty Research as a Discipline

Poverty becomes what has been measured.

(Robert Chambers, as cited by HARRIS 2009 p. 211)

Researching poverty in human societies has always been part of development economics, as well as of various sociological, anthropological or ethnological disciplines. Poverty research has long played a major role for UN standard publications to monitor the progress of world development and welfare in countries worldwide.

3.1.1 The Evolution of Poverty Research

Poverty is perceived and experienced differently by different individuals, is often relative, and alternative ways of asking questions receive different responses.

(PLACE et al. 2005 p. 10)

As old as the need to monitor world development is the discussion about what indicator adequately expresses ‘wellbeing’ or ‘poverty’. From the growth debate (as presented in section 2.1), the most prominent measure was and still is the Gross Domestic Product (GDP) per capita as an indicator for economic growth at an aggregated national level.

However, as poverty research evolved as a discipline that started analysing households or individuals at micro-level, populations were easiest classified by binary indicators dividing any given sample into ‘poor’ and ‘non-poor’ households or individuals. Here, poverty was defined by poverty lines that distinguished between the poor and non-poor, who were located either above or below a poverty line. This line was typically measured by income or consumption of the households or individuals (hence called ‘income poverty’). Measuring consumption expenditure is based on the ‘basic-needs approach’, where a defined minimum consumption level for a household or individual classifies a person as ‘poor’ or ‘non-poor’ (see e.g. HAUGHTON 2007, Chapters 2 and 3 or DEATON 1997 p. 26-32). The consumption level needed to satisfy basic needs constitutes the absolute poverty line as a numerical cut-off point between poor and non-poor households or individuals. When using income as the indicator, the understanding is that the poverty line marks the cut-off point below which a poor person lacks the income to fulfil her or his basic needs (see also HAUGHTON & KANDKER 2009 p. 39 ff.)⁶⁵.

The concept of poverty lines was not new and the reference points in the literature are the three standard Foster-Greer-Thorbecke (FGT) poverty indices: (i) poverty incidence, (ii) poverty gap and (iii) poverty squared gap (see section 3.1.2) (FOSTER et al. 1984). However, research on income poverty lines remained a niche area until the World Bank pushed for the topic of measuring global poverty with its flagship WDR ‘Poverty’ and framed the universal poverty line of ‘a dollar a day’ in 1990 (see WORLD BANK 1990). It was based on the work by RAVALLION et al. 1991 and was further analysed and developed by a rather closed circle of economists within the World Bank during the 1990s. However, poverty research as a discipline did not become a mainstream activity to undertake or publish – neither in empirical economics, nor in social sciences. This only changed with the advent of the new Millennium: as discussed in section 2.1, the emergence of PRSPs as a bargain for debt relief, and of the MDGs with their prominent first goal to halve poverty by 2015, put poverty reduction on top of the international development agenda. This revived the entire debate about poverty measurement, about the impact of economic growth on poverty and, later on, about the distribution of income and respective inequality. In order to operationalise poverty reduction, there was a strong need to measure and to analyse poverty within countries, to compare it across countries and to do so over time.

⁶⁵ Another common understanding of a poverty line is that it may be thought of as the minimum expenditure required to fulfil the basic needs of a household or an individual (see HAUGHTON 2007 p. 43 ff.).

In order to quantify the defined development targets in the MDGs, a fresh debate on how to measure poverty, based on the FGT-measures, started. As justified by RAVALLION 1998 : “[...] *a credible measure of poverty can be a powerful instrument for focusing the attention of policy makers on the living conditions of the poor*”. (Ibid., p. 1). Several new methodological and econometric contributions as well as new and more empirical evidence inspired the debate about poverty research alongside the PPG debate (as also discussed in section 2.1.2⁶⁶). The new international poverty focus demanded more accurate methods of measuring poverty. HAUGHTON 2007 stated the four main reasons to argue for accurate poverty measurement: “*First, to keep the poor on the agenda; if poverty were not measured, it would be easy to forget the poor. Second, one needs to be able to identify the poor if one is to be able to target interventions that aim to reduce or alleviate poverty. Third, to monitor and evaluate projects and policy interventions that are geared towards the poor. And finally, to evaluate the effectiveness of institutions whose goal is to help the poor.*” (Ibid., p. 8).

Again, led by the World Bank, rigorous poverty research was initiated and supported in many developing countries. However, the question about how to define poverty resulted in many different ways to measure and study poverty. According to the WDR 2000/01, poverty was defined as “*pronounced deprivation in well-being*” (WORLD BANK 2000b p. 15). However, the “Voices of the Poor” (NARAYAN et al. 2000) had revealed that there are multiple views and dimensions to poverty and deprivation (see NARAYAN et al. 2000 chapter 2 p. 31 for in-depths illustration of poverty definitions and also NARAYAN & PETESCH 2002). Many development researchers engaged in new research projects and a number of development cooperation agencies were willing to fund new and more research on poverty⁶⁷. However, the core definitions of poverty varied widely and determined to a large extent how poverty was measured and analysed.

Today, poverty research as a discipline is still divided by this debate along quantitative and qualitative research methods and lines (see also 0). Different streams of poverty research fought fiercely about the ‘right’ definition. This mainly consisted of debates on whether income poverty as the most prominent quantitative indica-

⁶⁶ See RAVALLION & CHEN 2003 , RAVALLION 2004B , KRAAY 2004 and HAUGHTON 2007 for prominent contributions to this debate.

⁶⁷ See NARAYAN et al. 2000 and NARAYAN & PETESCH 2002 as described in section 2.1 “Voices of the Poor” was then followed by the “Moving out of Poverty” programme, (see NARAYAN & PETESCH 2007 , NARAYAN et al. 2009 , NARAYAN 2009 and NARAYAN & PETESCH 2010). The prominent research on chronic poverty was triggered by the DFID-funded Chronic Poverty Research Centre (CPRC), which was an international partnership of universities, research institutes and NGOs that completed its ten-year programme in 2011 (CPRC 2005 and CPRC 2009).

tor (used for FGT-poverty indices) was sufficient to analyse poverty or whether other aspects, namely qualitative indicators, would not be more important (as they were used in the WDR 2000/01 (WORLD BANK 2001) and the preceding “Voices of the Poor”.

The following sub-sections (3.1.2 and 0) outline the two different schools in poverty research before the interdisciplinary overcoming of the ideological divide (‘mixed methods’) is presented in 0.

3.1.2 Quantitative Methods of Poverty Research

By its nature, quantitative analyses must assume similar models of behaviour for all households.

(Place et al. 2005 p. 32)

For most welfare economists, there is hardly any question on how to define and measure poverty: there are quantitative methods to measure certain variables in large samples of households that can be econometrically analysed. The single most outstanding indicator that comes to mind when measuring poverty is income. However, since income in poor, largely informally working households in developing countries is often hard to measure, income is substituted by the assessment or estimation of household expenditure. In those instances expenditure is meant to express the consumption of a household and serves as a proxy for income, based on the ‘basic needs approach’ as described before. This conventional view was summarised by HAUGHTON 2007 as follows: *“So the poor are those who do not have enough income or consumption to put them above some adequate minimum threshold. This view sees poverty largely in monetary terms.”* (Ibid., p. 9). To measure it, national indicators of welfare such as income or consumption per capita need to be established. Information on welfare is then derived from stratified randomly sampled household survey data. Or as postulated by Martin Ravallion: *“Measuring poverty requires a feasible means of making inter-personal comparisons of individual welfare. This is typically done using measured household expenditure or income (adjusted for differences in household size and composition) from a sample survey.”* (RAVALLION 2003 p. 58).

The World Bank standardised this methodology based on the ‘Dollar-a-day’ definition of poverty (based on RAVALLION et al. 1991) and introduced the Living Standards Measurement Surveys (LSMS), which were widely introduced in many developing countries since the mid 1990s (see also RAVALLION 1992). They

went on with the need to standardise large surveys with representative sampling frames at country level. A standard overview on using household surveys for poverty measurement for the World Bank was developed by DEATON 1997 and served as standard reference material for more than a decade.

The conceptual key feature of poverty measurement is the construction of a national poverty line at country level, based on a national estimation of the costs for basic needs. The poor are those whose expenditure (or income) does not afford basic needs and thus, those are counted below the poverty line (the so-called ‘headcount index’). Based on standard household questionnaire interviews, the expenditure base of a household is (i) assessed, (ii) weighted by purchasing power and (iii) divided by the number of people living in the household expressed in standardised ‘adult equivalents’. A number of numeric indices are usually calculated from the indicators accounted for in the household surveys and with regard to the poverty line, they all follow the FGT-class of poverty measures (based on FOSTER et al. 1984):

1. The headcount index, which measures the proportion of the population that is counted as poor;
2. The poverty gap index, which measures the extent to which individuals fall below the poverty line as a proportion of the poverty line; and
3. The squared poverty gap, which measures the average of the squares of the poverty gaps relative to the poverty line (as a weighted sum of gaps, it can allow an interpretation of inequality among the poor, also called ‘poverty severity index’)⁶⁸.

Later on, the dollar-a-day poverty line was adjusted and lifted to 1.25 USD per day at purchasing power parity of 2008. In addition, the 2.00 USD per day poverty line was introduced and commonly used by critiques who argued that 1.25 USD per day was too low and could only depict extreme poverty⁶⁹.

In the debate about the outcomes of such poverty analyses, growing consensus was reached that gathering cross-sectional household data on income or expenditure alone would not suffice to measure poverty since it would neglect the existence of multiple other factors that contributed to ‘being poor’. So, an easy expansion of the consumption- or expenditure-based poverty measurement was to specify the type of consumption: someone might be food poor or health poor. These dimensions of poverty were then often measured directly, for instance by

⁶⁸ See e.g. HAUGHTON & KANDKER 2009 p. 67 ff. for an intensive explanation of these and other poverty measures.

⁶⁹ See e.g. KLASSEN 2013 for an advanced discussion about international poverty measures.

measuring malnutrition or literacy during general or specific household surveys (e.g. during standardised National Demographic and Health Surveys) or by the ‘food poverty line’ that reflected the necessary expenditure to purchase the minimum food basket for daily caloric consumption (HAUGHTON 2007 , Chapter 3).

Yet, this expansion of the FGT-poverty measures did not satisfy the critiques since they were still not able to measure the many other unaccounted factors and dimensions of poverty. Two important innovations have come out of this critique since the Millennium and have shaped important new strains in quantitative poverty research until today: (i) the recognition of multi-dimensional poverty measures and (ii) the need to introduce time variables into poverty analysis.

Since 2005, the OECD-DAC Povnet and other international institutions and networks had joined forces to widen the focus of poverty research from income only to include other indicators to measure poverty (see also OECD 2007). Since a growing body of work demonstrated that poor people were deprived in many more dimensions than only the monetary dimension, other dimensions needed to be factored into the measurement of poverty – namely indicators such as health status, education obtained, access to clean water, social rights, political participation, etc.. Here, poverty researchers benefitted from the work by Nobel laureate Amartya Sen, who was amongst those who initiated the annual assessment of the Human Development Index (HDI) per country since 1990 (see SEN 1999 and UNDP 1990). The HDI had been created to emphasize that human development was defined by a combination of indicators contributing to individual well-being and ultimately societal development. People and their capabilities were centre-staged as the ultimate criteria for assessing the development of a country, not economic growth alone. The HDI is a composite measure of average achievements in key dimensions of human development: (i) a long and healthy life, (ii) being knowledgeable and (iii) having a decent standard of living⁷⁰. It was the first measure to account for multiple dimensions of poverty (see Box 3—1 for the further development of multi-dimensional poverty research).

Simultaneously, the improved poverty data availability and the development of geographical data applications and Geographical Information Systems (GIS) allowed for the creation of ‘poverty maps’ since the early zero years. These maps were drawn to depict poverty geographically, which could guide the implementa-

⁷⁰ See UNDP 1990 or <http://hdr.undp.org/en/humandev> for more details and the full methodology of the HDI.

tion of pro-poor programmes according to where the poor were⁷¹ (see also 4.1.1 and Graph 4—2).

Box 3—1: The Multi-Dimensional Poverty Index MPI

The growing discontent with income-based poverty measures generated a stream of research geared to capture more dimensions of poverty quantitatively and ultimately led to the development of the Multi-Dimensional Poverty Index (MPI).

In 2007, the Oxford Poverty & Human Development Initiative (OPHI) at the University of Oxford was launched under the directorship of Sabina Alkire. Alkire had published intensively on methodological thoughts on how to manage the incorporation of different dimensions of poverty into aggregated poverty measures via specific indices (see ALKIRE & FOSTER 2011a and ALKIRE & FOSTER 2011b).

After four years of intensive testing of various indices and robustness methods for multi-dimensional poverty measures, the MPI was constructed according to the Alkire-Foster-Method and officially launched via its website in 2011. The MPI captures three dimensions of poverty: health, education and living standard. This is done by measuring ten so-called deprivation factors: nutrition, child mortality, years of schooling, children enrolled, cooking fuel, toilet, water, electricity, floor, and assets. In the analysis of the data, poverty is measured the following way: if an individual is deprived in more than a third of these ten weighted deprivation factors, the MPI identifies her or him as multi-dimensional poor. Furthermore, with measuring the number of deprivations any individual falls short at the same time, the MPI equals the product of the proportion of people who are multi-dimensionally poor as incidence, multiplied by the average number of deprivations the multi-dimensionally poor experience as intensity.

Today, the MPI is calculated for more than 100 countries, and OPHI has been supported by a wide network of UN and bilateral research and development agencies.

“The MPI can be used to create a comprehensive picture of people living in poverty, and permits comparisons across countries, regions and the world and within countries by ethnic group, urban/rural locations, as well as other key household and community characteristics.” (see www.ophi.org.uk). Academically, the method remains disputed, particularly the weights of the various factors (see RIPPIN 2011 for a methodological critique).

The other important innovation in poverty research was the development of poverty dynamics⁷². The theory of poverty dynamics describes the development

⁷¹ See the work on ‘Spatial poverty trends and traps’ e.g. by JALAN & RAVALLION 2002 , AYEERTEY & MCKAY 2007 , BURKE & JAYNE 2008 , or GRÄB & GRIMM 2009 .

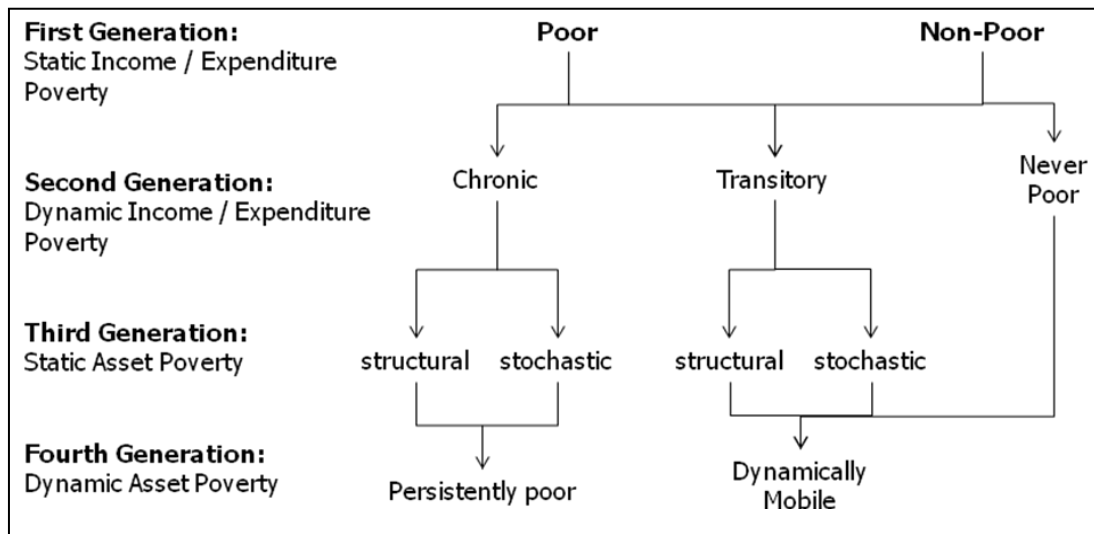
of poverty over time and has further developed and greatly influenced quantitative poverty research, mainly driven by the World Bank Poverty Reduction and Economic Management (PREM) Network (see e.g. KRAKOWSKI 2004 , HAUGHTON 2007 or NARAYAN & PETESCH 2007). This stream of poverty research was also promoted by technical improvements of large data processing programmes for econometric usage. Since the mid-zero years, standard software packages like SPSS or STATA had been substantially upgraded to handle much larger data sets and provided multiple new functions to analyse panel data. This was the advent of panel data for poverty research, when more and more researchers were able to not only analyse changes within a population over time via repeated cross-sectional surveys or cohort studies, but to analyse the net change in welfare or poverty for the same group of respondents over time. Thus, the construction of panel data sets on household welfare enabled poverty researchers not only to measure and describe change over time, but also to analyse explanatory factors (this will be further described in 3.2.1).

Based on such econometric tools for poverty measurement, household surveys in developing countries were more often repeated and thus evolved from static to much more dynamic cross-sectional time-series and in panels that were ready to be used for the analysis of poverty dynamics. It was such household panel data that allowed measuring how many households move into or out of poverty over time or stayed much the same on a larger scale. These results from early poverty dynamics then influenced the debate about the existence of ‘poverty traps’ as discussed in 2.1.1. because there was more evidence on the number of households that remained at their welfare level rather than improving it (see also ADATO et al. 2006).

The paper by CARTER & BARRETT 2006 summarised the research trend to introduce dynamic time dimensions into poverty analysis (see Graph 3—2).

⁷² Since the methodological details of poverty dynamics will be looked at in section 3.2.1, only the origins are briefly summarised here.

Graph 3—2: Evolution of Approaches to Poverty Measurement



Source: CARTER & BARRETT 2006 , p. 180

They illustrated comprehensively how poverty research moved from static analysis with one point in time cross-sectional data (first generation) to dynamic income panel data analysis (second generation). From there on, poverty analysis started to incorporate the analysis of other poverty-determining variables and dimensions (the debate about multi-dimensional poverty) and other poverty lines to measure poverty instead of income or expenditure only. This included aspects such as household assets and asset poverty lines (third and fourth generation; as depicted in Graph 3—2 and discussed further in section 3.2.1).

In summary, quantitative approaches to measure poverty had undergone a substantial evolution since the first FGT-measures and early 1990s United Nations Development Programme (UNDP) and World Bank discussions.

3.1.3 Qualitative Methods of Poverty Research

Qualitative research enables researchers to gain empathic understanding of social phenomena; facilitates recognition of subjective aspects of human behaviour and experiences, and to develop insights into group's lifestyles and experiences that are meaningful [...].

(NJERU 2004 p. 9)

As opposed to the monetary poverty definition often used for quantitative income-poverty research, poverty in its many dimensions was defined in a much broader and also a more context-specific way in the field of qualitative poverty

research. Mostly applied by sociology, ethnography, anthropology and other social science scholars, qualitative poverty research until today is much broader and less uniform in poverty definitions, research methods, and theoretical frameworks used than quantitative research.

Qualitative research methods from anthropology have been used to assess well-being and poverty in developing countries since the early 1970s (see e.g. BERNARD 1970 or NAROLL & COHEN 1970). However, they lived pretty much in a parallel universe to economic development research using quantitative methods. Some scholars like Frank Ellis or David Booth had analysed highly relevant case studies for poverty research (see e.g. ELLIS 1998 , BOOTH et al. 1998 or BOOTH et al. 1999), but were barely recognised at an international level for putting them into use for practical poverty reduction programmes prior to Nayaran's work for the WDR 2000/01.

Concerning the application of qualitative research methods in development work, agriculture and rural development as development sectors spurred three very distinguished streams of work. They were all mainly driven by English universities and research institutions, which influence qualitative methods until today:

- (i) Agrarian Change and Peasant Studies,
- (ii) Participatory Rural Appraisal (PRA) methods, and
- (iii) Rural Livelihoods Analysis.

'Agrarian Change' and 'Peasant Studies' were mainly taught at the School of Oriental and African Studies (SOAS), University of London⁷³. This work was placed in a theoretic context of a 'materialist political economy' in post-colonial states, strong anti-capitalism or Marxism, and applied quantitative methods to questions of power and class in rural areas in developing countries (with framing the key words of 'rurality' and 'peasantry' (see e.g. POPKIN 1980 , LERNARCHAND 1989 or BERNSTEIN 2010). 'Agrarian Change' was a term used for critical analyses about a progressing capitalisation of rural societies in developing countries, which was seen to destroy social relations and alternatives societal organisations in a number of rural societies in developing countries⁷⁴. Some interesting work on

⁷³ At the SOAS, the main organ for this school of thought was the former „Journal of Peasant Studies” (1973-2000); now called the „Journal of Agrarian Change”. “Agrarian Change and Development” is also the title of the respective research cluster at the University of London; see <https://www.soas.ac.uk/development/research/agrarian-change-and-development/>.

⁷⁴ This work was also partly used to lobby in the development debate against the Green Revolution and also against Structural Adjustment in the 1980s and 1990s (see e.g. GORE 2000 or HAVNEVIK et al. 2007).

questions of rural poverty related to land tenure and labour markets emerged from this school (see e.g. OYA 2010a , OYA 2010b , BERNSTEIN 2010 or DA CORTA 2010).

3.1.3.1 Participatory Rural Appraisal Methods

PRA methods (as well as the earlier ‘Rapid Rural Appraisals’ (RRA), see CHAMBERS 1980) had a much wider focus and had a much more applied nature for practical development cooperation than the largely theoretical work from the Agrarian Change school. Based on activist participatory research methods and experiences from applied anthropology, RRA and PRA methods found broad application in agro-ecological and farming systems research in the late 1980s and 1990s⁷⁵. Essentially, PRA methods evolved out of a frustration with formal (quantitative) surveys at the time, and the typical biases of sporadic qualitative impressions when doing field work. Thus, the research subject or the development target group was put at the centre of action. PRA required from researchers and development implementers alike to engage their target group more and let them participate in the research or development frame in order to enable them to actively influence the outcome. PRA and RRA (or parts of them) became somewhat of a standard set of methods for appraising and implementing rural development projects. It usually comprises a set of different participatory techniques and suggested a sequence of these techniques to form a participatory view on research and development topics for the given community⁷⁶. A number of projects and programmes, particularly in rural development, started to define and fine-tune a set of qualitative research methods for their participatory project planning, implementation and sometimes monitoring. They remain part of the methodological development repertoire until today⁷⁷.

3.1.3.2 Livelihood Analysis

In the late 1990s, when international development cooperation moved their focus away from agriculture and rural development (see also section 2.2.3.1), the methodological innovation of ‘Sustainable Livelihood Analysis’ gave a booster for rural topics, as well as for qualitative poverty research. Robert Chambers and Gordon Conway had framed the following definition already in 1991, based on their

⁷⁵ See CHAMBERS 1994 for a comprehensive historic overview.

⁷⁶ See e.g. NARAYANASAMY 2009 for a summary of PRA methods and applications.

⁷⁷ See CHAMBERS 1994 Note 2 (p. 964) for a list of development agencies that supported and applied PRA methods.

work on the International Advisory Panel of the World Commission on Environment and Development (WCED) (see WCED 1987): “*A livelihood comprises the capabilities, assets (stores, resources, claims and access) and activities required for a means of living*” (as cited by CHAMBERS & CONWAY 1991 p. 6). Thus, the livelihood concept built largely on Sen’s work on capabilities (see also section 3.1.3.2) and translated it into a framework for the analysis of rural households. The various dimensions of sustainability were added to the concept by saying “[...] *a livelihood is sustainable, which can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation; and which contributes net benefits to the other livelihoods at the local and global level and in the short and long term.*” (Ibid p. 6). By the end of the 1990s, IDS scholars Frank Ellis and Ian Scoones developed this conceptual idea into a development approach for aid, which was not exactly a brand-new concept, but a rather convincing, intuitive, and easy-to-apply conceptual framework, also for qualitative poverty analysis (see ELLIS 1998 and SCOONES 1998). The conceptual centrepiece was formed around the so-called ‘diamond’ of livelihood assets, depicting the five key assets of a household: (i) human capital, (ii) natural capital, (iii) financial capital, (iv) social capital and (v) physical capital. These assets were to be assessed against the vulnerability context of a household and influencing and transforming structures and processes (see e.g. DFID 1999 Introduction 2.1). Sustainable livelihood analysis became the guiding development framework for the British government (Ibid.) and strongly influenced the thinking about poor and rural livelihoods of many researchers, development workers and aid institutions⁷⁸.

PRA, Sustainable Livelihood Analysis, as well as most other qualitative research methods include interviews of either individuals, heads and/or members of households, or with groups of people as key research methodology. Information is orally obtained and it does not only matter what is said, but also how it is said, how the information is documented (transcribed), analysed and interpreted⁷⁹.

⁷⁸ See FAO 2008 and see STEPHEN MORSE et al. 2009 for an overview and a critical reflection on the use of sustainable livelihood analysis.

⁷⁹ It is important to note that many qualitative poverty researchers place their work on a cornerstone of empirical sociology, the ‘Grounded Theory’ as framed by GLASER & STRAUSS 1967 and as briefly presented in section 4.3 and Box 4—1. One important feature with relevance to qualitative poverty research is the strong believe in inductive methods as opposed to theory-oriented deductive methods. Here, Grounded Theory provides sociological research with hermeneutic approaches for the analysis of qualitative data in a way that tries to discover variables of explanatory value that have not yet been discovered by previous research (see also KLEINING 1995, p. 225 ff.).

3.1.3.3 Household Interviews

As for poverty research, the individual interview and the group discussions form the most important research methods that are largely applied and often combined. Similar to quantitative research, household interviews are the classical way to obtain information about the research subject. However, sampling frames are often less statistically rigorous in qualitative research and qualitative interviews are not (or only partly guided) by a pre-defined questionnaire, but are open-ended and allow for capturing the full view and perception of the interviewee. Thereby, qualitative interviews provide more space to reach out to the subject of research in a more open and inductive way. Again similar to quantitative household surveys, numerical data for assessing the socio-economic status of a given household is collected in qualitative research, too; such as number of household members, age of the head of household, years of schooling obtained, etc. However, huge differences occur with regard to the interview techniques. A wealth of anthropological literature points to the fact how much the interview technique defines the outcomes of the interviews (see e.g. CHIRBAN 1996 or RUBIN & RUBIN 2011).

Qualitative, as well as quantitative poverty research struggles with the definition of the unit under research. For a number of practical reasons, the 'household' is the easiest unit, since usually a head of household can be identified to conduct the interview with. But for obvious reasons, interviewing the head of the household on behalf of all members of the household comes with biases. As for a lot of quantitative data, these biases do not seem to matter as much for qualitative data – but this remains disputed. Gender studies offer a lot to learn from – since it usually matters a lot whether a husband or a wife are interviewed on their access to resources. Additionally, in many traditional societies, the definition of a household or family is not as straight forward as many Western or European-socialised researchers think and it is less clear, what group of people is referred to in 'a household' or which group of individuals are under the sphere of influence of a 'head of household' (see also NARAYAN & PETESCH 2007 p. 8 for a valuable critique of the family as a unit of analysis).

Individual Interviews

Thus, a very important qualitative research method that is almost absent in quantitative poverty research is the interview with individuals instead of households. Here, the more open the interviews are, the more one can learn from such rich individual stories – summarised under the heading of Oral History. In oral history, in-depth interviews are conducted and recorded with individuals about the subject under research and if necessary repeated. Here, the interviewing and nar-

rative techniques of interviewer and interviewee play an important role, as well as language (whether translation is necessary or not). Such depth interviews are a special form of an unstructured interview designed to produce narratives on specific topics – using direct and open-ended questions. The objective is to get ‘complete’ information – with emphasis on depth, detail, vividness and nuance⁸⁰.

Life History Interviews

A specific form of in-depth interviews is the (individual) ‘Life Story Interview’. As explained by ATKINSON 1998, life history has long been a primary methodology in anthropological field work. Out of the many functions a life story telling can fulfil, anthropologists are often focused on the cluster of ‘social functions’, where stories can “*affirm, validate, and support our own experiences*” (*Ibid.*, p. 10)⁸¹. Life histories can help the researcher to become more aware of the range of possible roles and standards that exist within the given community and put the research subjects into their social context. They can inform the researcher about a social reality existing for the subject. It can help explain an individual’s understanding of social events, movements, and political causes or how individual members of a group, generation or cohort see certain events and interpret them for their individual development – such as their perceived poverty status (see also STEWART 1994).

There are limitless applications for life story as a research tool and it has been used in poverty research – probably to a lesser extent in developing countries prior to the WDR 2000/01, but more so in developed countries (see e.g. KRISHNA et al. 2006a). However, the method to study the life of certain groups of people has evolved into a much broader used method, not only in ethnography or sociology, but also in broader social science. As for qualitative poverty research, ever since the WDR 2000/01 published so prominently the findings from the ‘stories’ of “Voices of the Poor”, more scholars were encouraged by Narayan’s insight that qualitative narratives can go beyond the static ‘snapshot’ cross-sectional data or even good panels provides. Qualitative narratives and life histo-

⁸⁰ See e.g. RUBIN & RUBIN 2011 for more detail.

⁸¹ In its pure form, a life story interview involves three steps: (i) planning the interview, (ii) doing the interview, and (iii) transcribing and interpreting it. It can also be followed by (iv) returning the draft back to the interviewee to validate. (as described by ATKINSON 1998 p. 26). The life story is always narrated in the words of the person telling it. It should follow a ‘stream of consciousness’. As for interpreting life stories, it is essential to state that stories are interpretations by themselves. People telling their story aim to make it clear what their lives are about and thus, are already interpretations of their life and their self-understanding. (see *Ibid.* p. 62 f. for more detail).

ries can give you the ‘movie’ (see also NARAYAN et al. 2009 p. 8 ff.). More development and poverty researchers were borrowing parts of this methodology in order to understand social contexts and social change better (see for example the work of BIRD 2007 , DE WEERDT 2009 , NARAYAN et al. 2009 Vol. 1 & 2, or MANGO et al. 2009 , as presented in 3.2.2.). However, using this approach alone for poverty and impact assessment has limitations (see e.g. DAVIS 2011b).

Focus Group Discussions

The other widely used qualitative research method is the Focus Group Discussions (FGD). A FGD is a structured discussion process organised by a moderator to obtain qualitative information, data and insight from a group of individuals about a topic of research interest. The purpose of a focus group is to collect information about people’s opinions, beliefs, attitudes and perceptions, not to come to consensus or reach decisions (see e.g. HENNINK 2014 for a comprehensive overview on the method). Most qualitative research on poverty uses FGDs, for a number of reasons: it is relatively easy to organise, it is a well-known instrument to many interviewees and most researchers, the group approach enables for triangulation with individual information, and it can be easily combined with other group-based qualitative exercises. In poverty research, such combinations often entail rankings or scales of poverty/well-being defining factors. These can be discussed within the focus group, visualised and used to rank importance or priorities among the factors. They can also be used to cross-check for reliability and consistency of answers within household or individual interviews or to assess group perceptions that are triangulated with existing other data (see e.g. BIRD & SHINYEKWA 2003).

Wealth Rankings

Specific wealth ranking methods of importance for recent qualitative poverty research are the “Ladder of Life” and the “Stages of Progress Methodology” (SOP).

The "Ladder of Life"-approach should be preceded by a group discussion to identify the factors that have facilitated and hindered prosperity in their community. Then, a ladder is constructed with steps representing different levels of well-being from the poorest of the poor (bottom) to the top step; each step receiving detailed definitions and characteristics of how households can move up or down.

It can then be used for a self-assessment where interviewees are individually or in the focus group are asked to locate themselves on the ladder⁸².

The SOP-methodology developed by Anirudh Krishna at Duke University (KRISHNA 2005) represents an equally important self-assessment tool for participatory wealth ranking. This methodology consists of several steps to be undertaken by a group of household representatives (ideally a complete community) and a research team. First, a locally accepted and collectively agreed poverty definition is reached⁸³. The attributed characteristics of poverty and well-being then mark the different stages a household can be identified with and each community member identifies by self-assessment his or her 'stage of progress' today. Additionally, a significant event in history can be used to contrast today's situation with one generation before – and thus establish a self-assessed poverty mobility (see KRISHNA 2004, KRISHNA et al. 2004 or KRISHNA et al. 2006b for village case studies and KRISTJANSON et al. 2010 for a summary of the method).

Despite fierce inter-disciplinary fights about the 'right' approach to analyse and understand poverty – either based on large and econometrically analysed quantitative data or based on smaller, but more in-depth qualitative case studies from interviews and FGDs, there is hardly anyone who disputes the importance and relevance of qualitative research for understanding poverty and for informing policy makers about poverty reducing strategies and programmes. As argued by SILVERMAN 1993: *"The value of ethnography for policy making lies in its flexibility. People are studied in their natural context, it can study processes as well as outcomes and it studies meanings as well as causes."* (Ibid., p. 170).

Among the various qualitative poverty research methods, the combination between interviews and FGDs seems to be the most promising avenue, since the combination of these two can bring out the necessary psychological or sociological depth of individual or household cases plus the validation of individual or household factors by context-specific focus groups. As summarised by DE WEERDT 2010: *"While focus group discussions and quantitative data emphasise fairly objec-*

⁸² According to NARAYAN et al. 2009 *"A typical ladder of life discussion group has 6-15 participants who are purposely selected to represent different positions in the community/society under research. [...] This exercise is then followed by individual interviews with households in the community; the main question asked to them is to locate them on the ladder of life today and in retrospect. After that, a Community Poverty Line is contracted according to the ladder dividing it into a context-specific poor and non-poor section (see Ibid., p. 14-15 for an example or DE WEERDT 2010 p. 336).*

⁸³ The questions to be asked here are usually: *"What does an extremely poor household do with the first bit of money that it acquires? Which expenses are usually the very first to be incurred? As a little more money flows in, what does this household do in the second stage? What does it do afterwards, in the third stage, in the fourth stage, and so on?"* (KRISHNA et al. 2004 p. 216).

tive economic changes by design, life histories allow for more subjective psychological states”. (Ibid., p. 337).

Despite the strong explanatory power that can be provided in qualitative research, qualitative work in poverty research has never received the scientific attention and translation into policy advice quantitative work has. Since qualitative research often provides small case studies, the interpretation of results lacked the credibility to generalise the results which was however given to large qualitative survey results. This led some qualitative researchers to open a debate about improving qualitative research by improving methodological standards and thereby, to align their research methods to qualitative arguments and techniques – such as using more econometric methods to sample for illustrative case studies or increasing sample size. However, such methodological developments were hotly debated among qualitative researchers, e.g. by BRADY & COLLIER 2004 : “[...] *increasing the number of N may push scholars towards an untenable level of generality and loss of contextual knowledge.*” (Ibid., p. 8 as quoted in NARAYAN & PETESCH 2007 p. 10).

In any case, qualitative research methods were revisited by their own research community. Strong calls for methodological rigour and accuracy of data analysis had been there before, as expressed by SILVERMAN 1993 : “*Contrary to the impression that in qualitative research “anything can go”, the issue of the “validity” or accuracy of our descriptions is vitally important, whether our methods are qualitative or quantitative.*” (Ibid., p. vii). These calls were re-emphasised alongside the rise of qualitative poverty research, as illustrated by PETESCH 2003 : “*Rigorous analysis of qualitative data often requires an iterative drafting process of constantly returning to the data to identify, and then cross-check key messages [...]. Our experience [...] has been very mixed. [...] Moving from the very large qualitative data sets that are generated in the field to a synthetic document requires extensive training in qualitative data analysis and report writing.*” (Ibid., p. 48).

In addition to this debate about the accuracy of the data and research methods, influential scholars called for standardising some qualitative techniques in order to improve credibility, plausibility, explanatory power, and outreach of qualitative work (see e.g. KING et al. 1994). For qualitative poverty analysis, KANBUR & SHAFFER 2007 argued particularly for strengthening the intersubjective reliability and comparability between different qualitative studies.

3.1.4 Mixing Methods: The Q-Squared Paradigm

Poverty is not only multidimensional but also multidisciplinary.

(KAKWANI & SILBER 2008b p. X)

Not only in development research, but probably much more so in general social sciences, the debate between quantitative and qualitative research methods and whether one is considered better, more precise, or closer to reality than the other has a history of dividing the disciplines and respective research communities deeply (see for example HAMMERSLEY 1992 in BRANNEN 1992 or KLEINING 1995 p. 122 *ff.* for a comprehensive account of the difficult history and complex relationship between the two research approaches). This is particularly puzzling since academically, the benefit of mixing quantitative and qualitative methods has long been established, especially in the discipline of empirical sociology⁸⁴). However, the ‘mixing of different research methods’ has received growing attention in social sciences since the beginning of the Millennium: “*Indeed, there is almost a sense that it has become a distinctive approach to the research process in its own right.*” (CRESWELL 2003 as cited by BRYMAN 2006 p. 5)⁸⁵.

The qualitative-quantitative divide was traditionally existent within and between international development institutions – namely within the World Bank (see PATESCH 2003 p. 48) or between the World Bank and the International Poverty Centre (IPC)⁸⁶. This notwithstanding, the number of development researchers that made an effort to overcome this divide and who followed a more pragmatic and less apodictic approach, grew since the Millennium. One possible interpretation, why this was possible in development and in particular in poverty research, can be seen in the pressure to deliver results that helped solving one of the most burning question of humankind - how to reduce global poverty.

⁸⁴ An early piece of work that is still quoted today as a best practice example is the so-called „Marientalstudie“ (LAZARFELD et al. 1933) which analysed social and psychological impacts of unemployment in an Austrian village during the World Economic Crisis.

⁸⁵ BRYMAN 2006 introduces a special issue of the Journal ‘Qualitative Research’, which provides a good methodological overview of the renewed thinking on mixing methods from the side of applied qualitative research (Qualitative Research Volume 6, Issue 1, February 2006).

⁸⁶ The IPC is one of the three global thematic facilities established by the UNDP. The protagonists of this inter-institutional controversy were Martin Ravallion (for the World Bank) and Nanak Kakwani (for the IPC). Their rivalry roots back in the basic understanding of PPG (see 2.1.2) and different analysis and interpretation of the role of inequality in growth and development (see KAKWANI et al. 2004 and RAVALLION 2004a for a summary of the controversy).

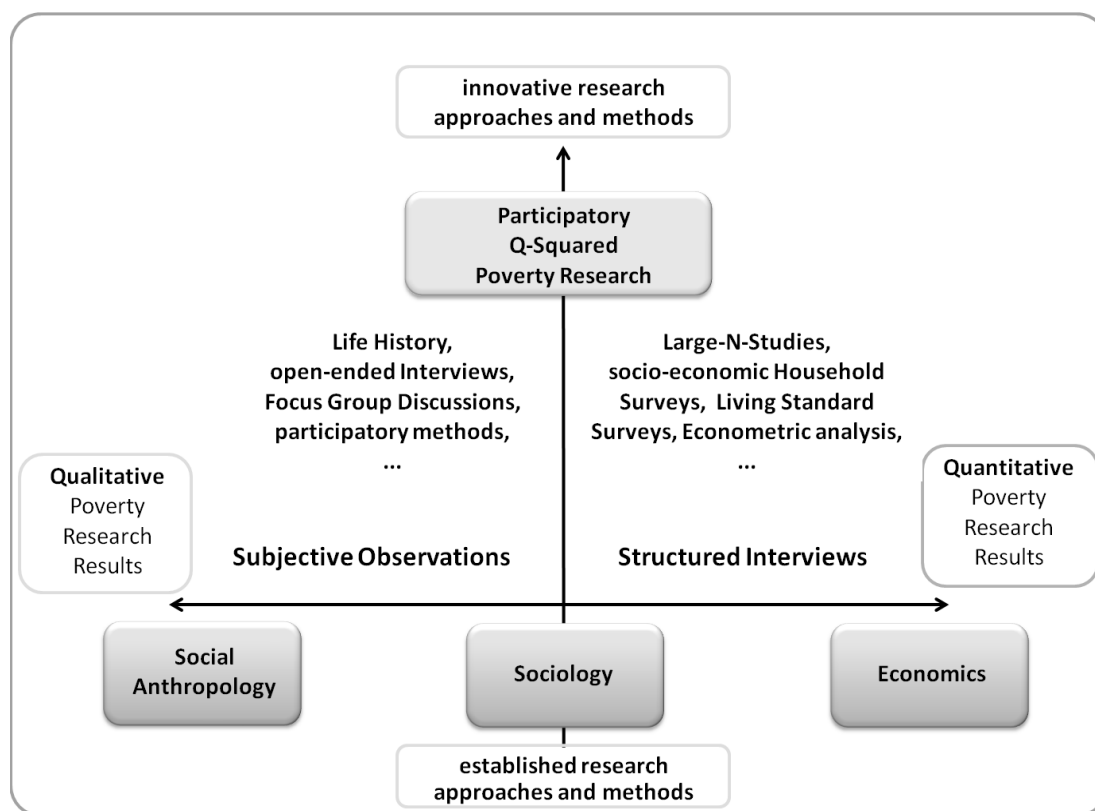
In the aftermaths of the WDR 2000/01, a wealth of empirical poverty analysis has fine-tuned quantitative methods of poverty measurement, particularly with the spread of available household panel data (see for comprehensive volumes and editions the CPRC Reports CPRC 2005 and CPRC 2009 , or KAKWANI & SILBER 2008a and KAKWANI & SILBER 2008b). However, many researchers reached a point where they felt that quantitative analysis alone would not give enough satisfactory explanations for a number of poverty phenomena they observed in their analyses. This also coincided with the rising recognition of the ‘multi-dimensionality of poverty’ (see Box 3—1).

Hence, some development researchers and practitioners started enriching ‘mainstream’ quantitative poverty analysis by various qualitative methods and instruments. Such integration of qualitative methods into quantitative work was spearheaded by Ravi Kanbur, an economics professor and former chief economist at the World Bank. Kanbur, with the support of the Poverty, Inequality and Development Initiative at Cornell University, had organised a workshop on “Qualitative and Quantitative Poverty Appraisal: Complementarities, Tension and the Way forward” (see KANBUR 2003 for the proceedings of this workshop). The workshop was attended by outstanding scholars from both research fields⁸⁷. It forms a reference point in the debate by formulating the need for acknowledging strengths and weaknesses of both approaches and by pointing to the large opportunities that lie in the complementarity of both research methods – despite all differences and critiques. The three basic options on how to combine quantitative and qualitative approaches as outlined by CARVALHO & WHITE 1997 served as a starting point:

- (i) Integrating the quantitative and qualitative methodologies;
- (ii) Examining, explaining, confirming, refuting, and/or enriching information from one approach with that from the other; and
- (iii) Merging the findings from the two approaches into one set of policy recommendations. (*Ibid.*, as quoted by KANBUR 2003 p. 25)

Many participants agreed with the potential benefits of such combinations. CHAMBERS 2003 went even further and strongly argued for the potential to create innovative research methods as future outcomes from ‘the best of two worlds’, see also his categorisation in Graph 3—3.

⁸⁷ Namely Christopher Barrett, David Booth, Francois Bourguignon, Robert Chambers, Luc Christiansen, Patti Patesch, Martin Ravallion and Erik Thorbecke (amongst others).

Graph 3—3: Dimensions of Research Interactions and Outcomes

Source: own illustration based on CHAMBERS 2003 p. 39.

Chambers illustrated that a fresh look at poverty research methods without the typical restriction of being either a quantitative or a qualitative researcher could overcome the disciplinary boundaries and subsequent traditions of social anthropology, sociology and economics in order to create this new and better informed q-squared research approach. His title ‘The best of two (or both) worlds’ became the slogan for what was labelled the ‘q-squared paradigm’ thereafter.

Even though his vision was not shared by all workshop participants, the workshop bore witness to the fact, that even though the two different worlds come from far apart disciplines (sociologic or economic), political affiliations (rather left or right wing orientated), and differ in the nature of their results (rather single in-depths insights versus large, general trend analysis), the future of poverty research would lie in the ‘mixing of methods’. As summarised by Kanbur: “*We have gotten probably as far as we can get at this level of generality – in characterising the key features of the two traditions, in enumerating strengths and weaknesses, and in beginning a discussion of the benefits and the pitfalls of integration and how to best attempt it.*” He put hope into “[...] “*sequential*” mixing, where the two traditions do their best within their own frameworks,

but try to learn and adapt from the lesson of the other. Such an exercise would be a worthy follower to this first Qual-Quant, or “Q-Squared” workshop.” (KANBUR 2003 , p. 21)

Indeed, the workshop found followers, who centred around mainly two research institutions: the CPRC founded in Manchester under David Hulme in 2001 (see also footnote 67) and the Canadian government funding availed to the Centre for International Studies of the University of Toronto and University of Trent with their working paper series “Q²”. Both triggered a rich stream of mixed method poverty research and a progressing debate about sensible combinations of quantitative approaches with qualitative methods (the most comprehensive overviews are provided by CPRC 2005 , CPRC 2009 , ADDISON et al. 2009a and SHAFFER 2013)⁸⁸.

In developing countries, government officials, national statistic bureaus, World Bank country officers and other donors involved in macroeconomic planning and poverty reduction felt encouraged to use different methodologies for poverty assessments and revived in some countries the implementation of Participatory Poverty Assessments (PPA) consisting of FGDs with respondents of household surveys; or instruments of individual assessment of public services, such as citizen report cards⁸⁹.

So, between 2000 and 2010, mixed method poverty research became more successful and widely applied and used. The more work was published, the more the weaknesses and opportunities of the q-squared paradigm became eminent and the debate about how to mix the methods remains a very prominent one, as stated by ADDISON et al. 2009a : “*There are three main fronts on which future research progress must be made if we are to dramatically deepen the understanding of why poverty occurs.*” One of these three fronts they call “*Cross-disciplinary, using the strengths of different disciplines and methods, and of quantitative and qualitative approaches to poverty analysis.*” (*Ibid.*, p. 3).

Even though a lot of progress has been made in terms of leaving the disciplinary trenches and pragmatically mixing and complementing qualitative and quantitative approaches (see e.g. HULME 2007 for a comprehensive comparison of differences between the methods), a lot is still to be done. The Q²-Initiative at the University of Toronto was set out deliberately to bring quantitative and qualitative research together, but difficulties to truly merge these two worlds are men-

⁸⁸ See for a complete list of Q²-Working Papers <https://www.trentu.ca/ids/faculty-research/q-squared-working-papers>.

⁸⁹ The Citizen Report Card is a simple yet powerful tool to provide public agencies with feedback from users of public services, see also <http://www.citizenreportcard.com/>.

tioned throughout the working paper series⁹⁰. On a positive note, BARAHONA & LEVY 2005 noted that *“There are more and more examples of successful communication and collaboration between those who see the world in terms of narratives and those who see the world in terms of numbers. As attitudes change, it is to be hoped that there will be increasing opportunities for studies which integrate the best of both worlds”*. (Ibid., p. 14).

Further, the complementary use of qualitative methods like case study analysis of sub-sets from quantitative surveys enabled the necessary deeper understanding of poverty, as called for by PLACE et al. 2005 : *“Case study analysis helped to explain changes in poverty indicators found in the quantitative analysis. The quantitative analysis was straightforward in examining levels of poverty and linking it to structural household factors. But the case studies identified drivers of poverty. By combining both, a greater understanding of poverty processes emerged.”* (Ibid p. 27-28). They argued for the case of Kenya that a number of important poverty-relevant variables explaining reasons for poverty status from the qualitative research would be difficult to be captured by quantitative analysis only; e.g. case study findings for poverty causes such as ‘no children to support me’ or ‘witchcraft’.

Yet, on a more sceptical note and for a number of very well argued reasons, NARAYAN & PETESCH 2007 titled their section on mixing methods ‘an uneasy marriage’ (Ibid., p. 10 ff.). They point to the deep mistrust between the disciplines, the different underlying intellectual orientations, and the strong position that quantitative research still holds in most development institutions (see also HULME 2007). In 2005, the conference on “The Many Dimensions of Poverty”⁹¹ had revealed similar perceptions of the divide (see KAKWANI & SILBER 2007).

And after ten years of intensive methodological debate, ADDISON et al. 2009a still pointed to the mixed method debate in the sphere of the q-squared paradigm as follows: *“Finally, it should be recognized that [...] the combination of qualitative and quantitative approaches, and indeed cross-disciplinarily, in a single study, or in studying the same specific problem, is relatively rare.”* (ADDISON et al. 2009b p. 13). And further: *“The present conversation about poverty dynamics reveals a divide, between economists and other*

⁹⁰ See e.g. for an account of practical problems in field research PLACE et al. 2005 p. 31: *“Of a more general nature, the quantitative specialists on the team were economists while qualitative specialists came from sociology backgrounds. These different backgrounds and disciplines meant we came into the project with different assumptions about poverty and its causes. We were able to understand each other’s different viewpoints as valid, but the differences still emerge in the write-ups - it is usually clear where an economist or sociologist was responsible for the drafting of different sections, and in some places these perspectives even appear contradictory. It is also important to consider how to build institutional capacity for undertaking mixed method research on an ongoing basis (outside of the context of the research team put together for this project), and an institutional culture supportive of this approach.”*

⁹¹ International Conference “The Many Dimensions of Poverty” in Brasilia 29–31 August 2005.

social scientists [...]. However, it also reveals that there is a strong desire and increasingly frequent attempts to bridge this divide.” (Ibid., p. 23).

At least, this seems to be established ‘state of the art’ now in poverty research, since more recent research programmes have incorporated a mixed method approach a priori in their framework: “*We consider a set of methodologies (quantitative and qualitative) to be implemented by NOPOOR in a range of countries. [...] Yet, the concept of poverty is intrinsically a philosophical issue that calls for methodological choices.*” (see Conceptual Framework of the NOPOOR research project⁹²).

3.2 Measuring Poverty Exits

[...] poverty exits are the product of opportunities being seized as well as downward pressures being coped with.

(DAVIS 2011a p. 22)

Within the evolving discipline of poverty analysis for development research, the question how poor people can overcome poverty and ‘move out’ or ‘up’ should have become the most important one to answer. As for development cooperation, a poverty exit would have constituted the ultimate impact to be achieved (see also Box 2.1 for the discussion on Impact Assessment). However, the empirical research and country cases undertaken do not seem to provide such a clear and uniform picture. Some years into the CPRC work and the q-squared Working Paper Series, two main trends became evident:

- (i) work on poverty dynamics with panel data revealed that many people seemed to live around poverty lines – sometimes up, sometimes down, and not too many people seemed to sustainably escape poverty in general, and
- (ii) that many poor people seemed to be trapped in poverty and for mainly humanitarian reasons research focussed to understand why the poor stayed poor (chronic poverty research).

⁹² NOPOOR was a five-years EU funded research programme involving more than 100 researchers in more than 20 countries between 2012 and 2017; see <http://www.nopoor.eu> for more details.

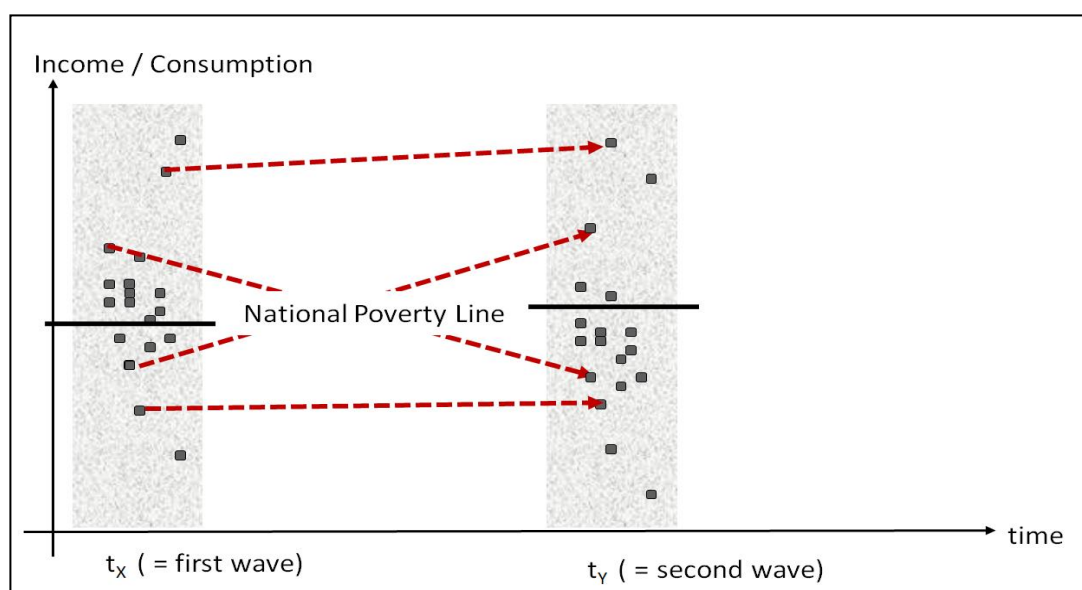
However, to guide this research, this section focuses on the concept of ‘poverty exits’ or ‘Pathways out of Poverty’ (3.2.1) and presents the most important respective country case studies (3.2.2). The section wraps up with what remains to be understood in terms of poverty exits (3.2.3).

3.2.1 Theory: Poverty Dynamics and the Concept of Exit

The theory of poverty dynamics has evolved from the improved tools for quantitative poverty research as mentioned in section 3.1.2. Based on these tools, poverty (or wellbeing) at household level has been measured in national surveys. At the heart of poverty dynamics lies panel data, because to assess the development of poverty or well-being over time, questionnaire surveys or semi-structured interviews are repeated with the same individuals at different points in time (‘panel waves’; usually after 2-4 years)⁹³. The so produced panel data can be used to analyse the mobility of households with respect to the set poverty line. The advantages are the immediate comparability between two points in time and thus, the resulting credibility of the data. The disadvantages can be seen in the relatively high costs, complex handling of data (depending on the number of repetitions) and, depending on the time in-between surveys, the interview fatigue by respondents and general sample attrition (see also ADDISON et al. 2009a p. 4 *ff.*).

⁹³ It is important to note that panel data can be constructed from quantitative as well as from qualitative research (see MOSER & FELTON 2009). However, as HULME & MCKAY 2008 have shown, out of the then available 28 panel data sets from developing countries, 26 assessed the poverty line in monetary terms of income or consumption and only 5 surveys offered a different, more qualitative wealth or poverty definition.

Graph 3—4: Stylised 2-Wave Panel Survey



Source: own illustration

From a two-wave panel survey, four main categories can be measured: how many households were (i) poor before and were not anymore (moved out of poverty), how many households were (ii) not poor before and were after (moved into poverty) and how many households remained (iii) poor and (iv) non-poor during both points of observing/interviewing them (as illustrated by the red dotted arrows in Graph 3—4. Thus, poverty dynamics describe the development of poverty over time (see e.g. HULME et al. 2001 , KRAKOWSKI 2004 , Carter et al. 2006, or Haughton 2007). The four basic categories are commonly illustrated in Poverty Matrices or Poverty Transition Matrices (see Table 3—1 for a simple version or HAUGHTON 2007 chapter 11, p. 14 for a quintile-differentiated version).

Table 3—1: A Stylised Poverty Transition Matrix

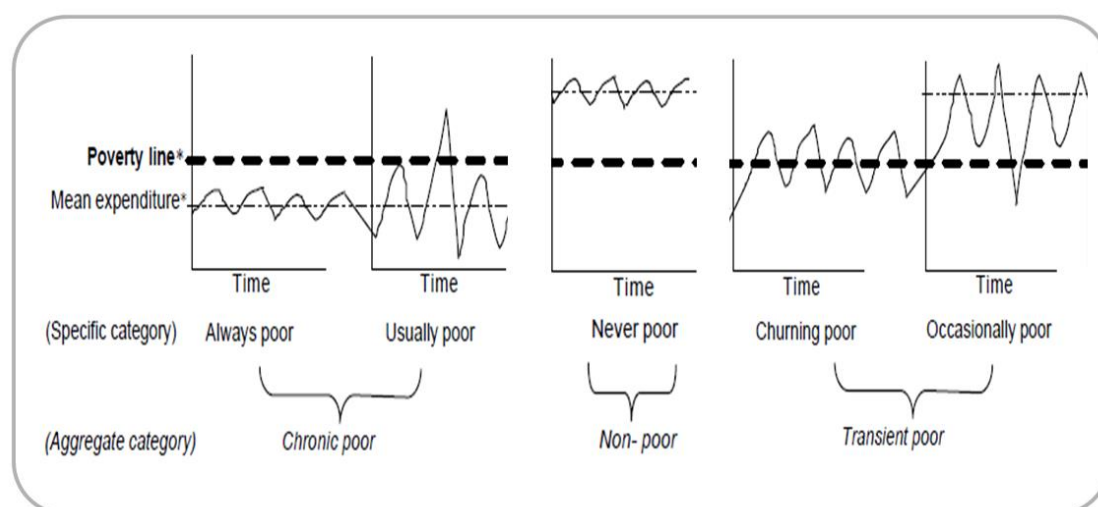
Movements in and out of Poverty			
Status in year x (panel wave 1)	Status in year y (panel wave 2)		total
	poor	non-poor	
poor	31 %	30 %	61 %
non-poor	15 %	24 %	39 %
total	46 %	54 %	100 %

Source: own illustration using data from DERCON & KRISHNAN 1998

Poverty Transition Matrices provide a quick, yet comprehensive overview on poverty mobility between two observations in time (either panel or cross-sectional data that is used as ‘quasi-panel’). Table 3—1 depicts the movements in and out of poverty whereby the headcount index of poverty declined from 61 % to 46 % between year X and Y. Despite this poverty reduction between the two points in time, half of those that were poor in year X remained poor in year Y (31 % out of 61 %). The other half of the population which was poor in year X had emerged from poverty by year Y. However, 15 % out of 39 % of the non-poor in year X had fallen into poverty by year Y. The data illustrates significant flows in and out of poverty, and the headcount improvement (poverty rate has fallen from 61 % to 46 %) is thereby added with information that the trend is not uniform and suggests that there might persist substantial vulnerability of the poor to stay poor and of the non-poor to descend into poverty.

Depending on the number of repetitions a survey would have, more poverty categories can be defined (see Graph 3—5).

Graph 3—5: Conceptual Classification of Poverty Dynamics



Source: HULME et al. 2001 p. 13⁹⁴

The basic classifications can be further specified, depending on the number of rounds of interviews in ‘usually poor’ (those who are always poor or on average poor, but occasionally escape poverty for a point in time), ‘churning’ or ‘oscillating’ poor (who oscillate around the poverty line) or ‘occasionally poor’ (who are most of the times non-poor, but occasionally slip below the poverty line).

⁹⁴ Similar categorisations had also been done earlier, e.g. by RAVALLION 1998 .

This dynamic analysis over time enables a deeper understanding on who the poor, the non-poor, and the transient poor were. Once the poverty dynamics are established, many other variables can be analysed and related to the households' level of wellbeing over time, e.g. what socio-economic characteristics they have, where they are and what economic activities they pursue. Despite problems of survey design and statistical biases, these instruments provide numerous opportunities for deepening the understanding of poverty (see for comprehensive discussions of survey designs e.g. THORBECKE 2004 , GRIMM & KLASSEN 2007 or BAULCH 2011 , who provide different perspectives on panel data in practice).

ADDISON et al. 2009a summarised the state of the art in poverty dynamics based on an important CPRC Workshop⁹⁵. They provide highly important reflections on the introduction of the time dimension into poverty analysis in general and conclude that poverty dynamics were the forefront to understand and to ultimately overcome poverty. They emphasised that more panel data (and life history methods) were needed to enlarge the number of datasets to be analysed and to be compared.

In general, poverty dynamic methods provided the potential to answer the question of poverty impacts in development cooperation (see also Box 2—1); at larger scale for entire country programmes with national survey data, and at smaller scale in tracking individual households over time. Thus, the methodology provided enormous potential to answer the prime question of how many people or households have made it above the poverty line in a given timeframe – and with plausible attribution – because of a development intervention, policy or programme. Dynamic poverty analysis should have naturally become the favoured impact assessment tool in development. Or, as stated by the Erich Thorbecke: *“Most of the remaining unresolved issues in poverty analysis are related directly or indirectly to the dynamics of poverty. Before the development community can become more successful in designing and implementing poverty-alleviation strategies, within the context of growth, we need to understand better the conditions under which some households remain permanently (chronically) poor and how others move in and out of poverty.”* (THORBECKE 2004 p. 1).

So, the analysis of poverty exits⁹⁶ provided the potential for development cooperation to learn from research results and to incorporate them into their pro-

⁹⁵ „Concepts and Methods for Analysing Poverty Dynamics and Chronic Poverty“, held at the University of Manchester, 23-25 October 2006 (see also ADDISON et al. 2009a Footnote 1 or www.chronicpoverty.org).

⁹⁶ The term ‘poverty exit’ is henceforth used synonymously for ‘poverty escape’ or ‘pathway out of poverty’. This also applies for ‘poverty transition’ where this term is used to describe a transition from poor to non-poor.

gramme and policy design, particularly for monitoring the target group and for evaluating poverty reducing impacts. The larger availability of panel data during the first half of the zero years also allowed for a more detailed definition of poverty exits. CARTER & BARRETT 2006 defined the important distinction between ‘stochastic poverty transition’ and ‘structural poverty transition’ (as also illustrated in Graph 3—2). They observed that “[...] *Individuals may appear to be transitorily poor [here: poverty exiting] in a standard panel study, moving from the poor to the non-poor state over time due to either of two markedly different experiences. Some may have been initially poor because of bad luck. Their transition to the non-poor state simply reflects a return to an expected non-poor standard of living (a stochastic poverty transition). For others, the transition may have been structural, due to the accumulation of new assets, or enhanced returns to the assets that they already possessed.*” (Ibid., p. 181).

For the development community, it should have been important to identify in particular the factors contributing to structural poverty exits and then to design programmes that would scale these up. Yet, such poverty exits were not commonly used to monitor poverty impacts by the development community – at least not to the extent as they could have been. Surprisingly, there is very little literature available that discusses this phenomenon, and it remains to be answered why poverty dynamics have been put to such little practical application in terms of poverty exits. One explanation is that due to the fact that many poverty dynamics case studies revealed that a lot of the poor stay poor, understanding and eventually addressing chronic poverty became more imperative for development cooperation (see e.g. the chronic poverty research and poverty traps discourse in CPRC 2005 or in CPRC 2009). Since many of the non-poor likewise seemed to be non-dynamic, even in very poor countries, the social implications of these results triggered a different debate, namely the inequality discourse (as mentioned in Footnote 86). Another stream of research evolved around the frequent result that with a growing number of more than two-points in time panels, the number of oscillating households or individuals seemed to grow. This resulted in an important discussion on how to reduce the vulnerability and/or to build the resilience to stabilise poor households or individuals by building their assets (vulnerability and resilience discourse).

Yet, poverty exiters were much less looked at, possibly because their numbers were smaller than those of other poverty categories. Possibly also because the research incentives were higher to contribute to either the chronic poor, inequality or vulnerability discourses. This is also illustrated by BAULCH 2011 : the volume claims to summarise some of the most important works under the CPRC on

poverty dynamics, yet the focus stayed purely on persisting poverty or downward mobility. Very few of the contributors eluded at all to poverty exits from their case studies – yet they arguably commanded over the largest selection of panel data case studies for developing countries for the purpose of poverty analysis at the time.

3.2.2 Application and Case Studies: What is known about Rural Poverty Exits

Despite the argument made above that poverty exits received less attention than other forms of poverty mobility, a handful of good case studies have been undertaken since 2004, e.g. in East Africa (including Kenya), in East Asia, as well as in the United States. This section provides a summary of these case studies with regard to the methodology used and results generated (see also Table 3—2 for the overview).

An early initiative was the LADDER research project and its respective working paper series. It was a research project funded by the Policy Research Programme of DFID and was designed to identify alternative routes by which the rural poor could exit poverty⁹⁷. However, the outcome of this early work stream on poverty exits is limited and only few results were published and recognised at all by the research and the development community and no systematic analysis of common factors contributing to poverty exits were identified⁹⁸.

Yet, towards the end of the decade of the zero years, two important volumes compiling research on poverty exits were published: NARAYAN et al. 2009 and IFAD 2010 . Both pieces of work are based on mixed method approaches. They systematically summarised factors contributing to poverty exits within and across countries, which makes them particularly important. NARAYAN et al. 2009 provides the “Moving out of Poverty” programme by the World Bank (as also mentioned in footnote 67). It was specifically designed to understand how people exit poverty around the world and is based on the voices of about 60,000 individuals,

⁹⁷ LADDER was working with nearly 40 villages and 1,200 households in Uganda, Tanzania, Malawi and Kenya to discover the blocking and enabling agencies in the institutional environment facing rural people that hinder or help their quest for better standards of living for themselves and their families (see e.g. FREEMAN et al. 2003).

⁹⁸ ODI still hosts a Website for the series, but only published one working paper there (ASHLEY et al. 2002 , see also <http://www.odi.org/node/12141>). Another useful case study was FREEMAN et al. 2003 . However, the original site for the series at the University of East Anglia with the complete list of papers is no longer available (formerly <http://www.uea.ac.uk/dev/odg/ladder>).

which were involved in ten different research methods, mostly household interviews, life history stories and FGDs (see Table 3—2 for more details). This impressive work summarised plausibly and without appearing to generalise too broadly that the outstanding factor explaining poverty exit was their ‘individual initiative’ concerning non-agricultural and agricultural economic activities. This was followed by subsequent ‘asset accumulation’, ‘hard work’ and ‘functional government’ (see *Ibid.*, p. 18 ff., in particular Figure 1.2).

The authors emphasised that individual occupation and land ownership seem to largely determine important stepping stones for poverty exits, namely accumulation of assets and savings. These were strongly influenced by a set of individual factors, such as inner strengths, faith, self-confidence, power, rights, and personal agency as well as to a lesser extent by collective factors such as rights, location, responsive local governments, and public services in form of local public goods (i.e. education, agricultural training and extension). These factors are particularly strong supporters of poverty exits when combined with collective action. The important collective factors named were usually ‘family’, ‘friends’, ‘community’, ‘agricultural marketing groups’, and ‘rotating savings and credit associations’ (*Ibid.*, p. 307 ff. and p. 340). It is important to note that external programmes (i.e. development projects) were rarely mentioned by poverty exiting respondents as a key determinant. The volume provides numerous other important results on other factors of poverty and social mobility, which are not in the focus of this research. Yet, for a general understanding it is worthwhile noting that the main individual reasons for falling into poverty were health related shocks in all country cases observed⁹⁹.

The Rural Poverty Report 2011 (IFAD 2010) confirmed many of the results from NARAYAN et al. 2009 . Mobility out of poverty is associated with personal initiative and empowerment, and again, is highly correlated with individual and household characteristics such as education and initial ownership of assets, namely land and livestock. Overall, poverty exits were associated with education levels and the availability of non-farm wage labour and subsequently, off-farm income complementing agricultural household income. Beyond the household level, poverty exits are associated with national economic growth and with the local availability of opportunities (such as markets, infrastructure and enabling institutions –

⁹⁹ The authors hereby confirm the already existing strong evidence that health-related shocks make the poor most vulnerable to falling (back) into poverty (see also DAVIS 2011b , QUISUMBING 2007 or KRISTJANSON et al. 2010).

including good governance)¹⁰⁰. SHEPHERD 2010 provided some additional thoughts on the IFAD results and compared them with other results on rural poverty exits. He argued that the function of asset accumulation and the role of rural non-farm income for agricultural households to exit poverty needed much more analysis and stressed the need for more qualitative research on this (*Ibid.*, p. 4). The Rural Poverty Report 2011 also emphasised that all these factors tend to be unequally distributed within and across countries, thus underlining the importance of the inequality discourse. And again, the social implications of shocks (again: ill-health is mentioned as ‘top shock’) were stressed (see *Ibid.*, p. 70 plus entire chapter 3, p. 80 *ff.*).

In addition to these two comprehensive volumes, about a dozen country case studies are of relevance for the research design of this thesis. The most important ones are summarised below and grouped according to their country of analysis, since the relevant case studies for this research have emerged mainly from East Africa and South Asia. The case studies from the United States of America are of methodological value.

The earliest work considered here has been undertaken by BIRD & SHINYEKWA 2003 as a micro-study in rural Uganda. They used a set of qualitative methods and focussed on downward mobility. They conclude that a combination of idiosyncratic and covariate shocks resulted for many rural citizens in such few options and choices that they were deemed to live a life in misery. So, not only a minority of vulnerable groups suffered from this. Additionally, the poorest of the poor suffered recurring composite shocks and personal tragedies. They had little to conclude on poverty exits, yet their finding for the non-poor was important: many better-off respondents had remained non-poor because of the absence of personal disaster and subsequently managed to keep assets together. LAWSON et al. 2006 confirmed most of these findings in their work on Uganda. Their mixed-method analysis underlined the importance of assets for poverty exits, as well as the level of education of the head of the household. The largest study for Uganda was undertaken by KRISHNA et al. 2006b. In a series of large country studies using the SOP-method (as described in 0), Krishna and his team for Uganda confirmed previous findings on poverty exits. Yet, they underline important geographical differences and a high degree of mobility – unfortunately the downward mobility was higher than the upward mobility. The importance of agricultural

¹⁰⁰ In their background paper “A Profile of the Rural Poor” to the Rural Poverty Report, (VALDÉS et al. 2011), the authors also noted household size, access to running water and electricity as well as agricultural and non-agricultural wage levels as key distinctive characteristics between the non-poor and poor.

productivity as driver for poverty exits varied much in accordance with land ownership and agro-ecological potential; whereas social behaviour varied largely between different ethnic and geographic clusters.

Krishna had published similar work for 20 villages in Kenya before (see KRISHNA et al. 2004 ; it was a comparative study also documenting similar work in India, see KRISHNA 2004). The results were not so different from the Uganda results but were the first set of results from larger qualitative poverty work in rural Kenya. Poverty exiting households attributed their upward movement to a large extent to their access to non-agricultural wage labour and to their entry into urban or peri-urban markets; to a much lesser plausible extent to their hard work and personal initiative. Since these factors are fundamentally different from those associated with falling into poverty, the authors suggest that two different sets of policies and programmes were necessary to promote poverty exits on the one hand (rural employment programmes) and to prevent further impoverishment on the other (health and social safety programmes (see *Ibid.*, p. 212 and p. 223-24). MUYANGA et al. 2010 largely confirmed these findings with panel analysis and life history interviews in rural Kenya, particularly for all health-related aspects. They were the first to plausibly link a rural households' agricultural performance and income over time to its health status. Further, they highlighted the role of intergenerational wealth transfers. Even though KRISTJANSON et al. 2010 came to similar overall findings with different household data, they stressed that many factors for poverty exits and descents differ across livelihood zones, and they provided an example of how regionally differentiated anti-poverty policies would need to be designed in order to address the multi-factorial poverty situation in a regionally diverse country such as Kenya.

An interesting study on poverty dynamics was undertaken by Krishna in four counties of North Carolina in the United States (see KRISHNA et al. 2006a). Despite the different absolute level of poverty compared to East Africa or South Asia, the similarity in poverty-related factors is striking: to a large extent, health-related shocks determine poverty descents, whereby employment accounts as number one factor related to poverty exits. The importance of their work is the evident inter-relation between employment and health-related shocks and how the absence of risk-reducing institutions, such as health insurances, compromises the fortune of almost a fifth of the population there. The body of literature on inter-generational poverty transmission was particularly enriched by Bird 2007 . Bird used panel data from the US to test different models of inter-generational poverty transmission. She thereby contributed to understanding the likelihood

that poverty is passed from one generation to another, and to understanding the potential pathways in and out of poverty for those growing up in poor households.

Another set of highly relevant research was undertaken by Peter Davis and Bob Baulch in Bangladesh (see e.g. DAVIS 2006 , DAVIS & BAULCH 2009 and DAVIS 2011a). DAVIS 2006 had already identified eight different types of life trajectories and patterns for poverty mobility and underlined how useful life histories could complement panel data. He also framed the term ‘structured disadvantage’ for a sequence of poverty-contributing factors. Yet, his subsequent work (DAVIS & BAULCH 2009) illustrated how qualitative and quantitative analyses of poverty dynamics for the same households could differ significantly. They suggested different ways of reconciling these differences by taking the life cycle of respondents into account and thereby offered an important critique on the plausibility of ‘standard’ quantitative as well as qualitative methodologies. DAVIS 2011a highlighted factors attributed to poverty exits and descents and drew attention to the phenomenon of inter-family cooperation; QUISUMBING 2007 presented similar factors and stressed from the quantitative analysis that the presence of significant ‘unobserved community effects’ suggested further q-squared analysis here.

The final important country studies were undertaken in Tanzania. DE WEERDT 2010 published the first panel data analysis that had combined initial household interviews with an individual qualitative follow-up interview of different household members. He also introduced a number of technical innovations to field survey implementation using tablet computers for real-time data entry for better data quality. Additionally, he used quantitative panel data to sub-sample households for qualitative follow-up interviews, a methodology discussed in more detail in section 4.1). Hence, this “Kagera Panel” received high attention in development research. Concerning his findings for rural poverty exits, two individual trajectories are dominant for agricultural households: (i) with sufficient agricultural endowment: diversified subsistence, cash crop and livestock mixed farming agriculture and (ii) without agricultural endowment, but with ‘connections’ in a not too remote place: business and trade. His results were pretty original since he pointed to a number of new factors in poverty analysis: remittances from children, the importance of geography for individual exposure (“to get an idea/connection of different opportunities”), and the strong case for agricultural diversification (this will be discussed again in section 4.5).

In addition to the findings from de Weerd, HIGGINS 2011 analysed poverty exits in different regions of rural Tanzania by follow-up FGDs and life history interviews with poverty exiters from the Tanzanian Budget Household Survey. He

confirmed the high importance of agriculture for upward mobility; but more so in combination with non-farm business; subsequent accumulation of physical assets, and favourable marriage. Multiple sources of income were best to overcome vulnerability to shocks in a sustainable way. Again, Higgins confirmed the importance to consider life-cycle factors and was the first to trace poverty exits to a particular age cohort: individual poverty escapes usually happened in the 20-30 years age group.

Table 3—2: Important Mixed-Method Poverty Exit Analyses

Source	Country(ies)	Methodology	Data	Prime Factors related to Poverty Exits	Prime Factor related to Poverty Descend
NARAYAN ET AL (2009)	MAL, MOR, SEN, TZ, UG, AFG, BAN, IN, SL, CAM, IND, PH, THA, COL and MEX.	Individual life stories, ladder of life, FGDs, Household interviews including regression analysis, livelihood analysis and others (see Appendix 3 for full list)	60,000 individuals in 15 countries	Individual initiative, non-agricultural and agricultural economic activities, asset accumulation, hard work, functional government, collective action.	Health-related shocks
IFAD (2010)	ALB, EGY, ETH, IND, NIC, RSA, UG, TZ and VN.	2-Wave Household Panel Regression Analysis and key informant interviews (for illustration only)	Global coverage; panel data for 9 countries: RIGA and RuralStruc plus 30 individuals	Personal initiative and empowerment, education, assets (land, livestock), education levels, availability of non-farm wage labour, national economic growth, local infrastructure, enabling institutions	Ill-health
BIRD & SHINYEKA (2003)	Uganda	LADDER data and Life history interviews and FGD	LADDER project data: 9 villages in 3 districts (Mbale, Kamuli and Mubende); 35 households per village, (N=215)	Absence of personal disaster (by good fortune and also by personal avoidance)	Idiosyncratic and covariate shocks; illness/medical costs, inter-generation poverty, inner-family, gender-related conflict
LAWSON ET AL. (2006)		Livelihoods Approach, Poverty Transition Analysis logit regression analysis	PPA Data, 2 UG Nat. household Surveys	Absence of individual, impoverishing factors (good health, no alcohol abuse), land and livestock ownership, education of the head of household, access to non-agricultural wage labour	Lack of assets, increasing household size / dependency ration, alcohol abuse
KRISHNA ET AL. (2006B)		SOP in FGDs / Community Meetings plus logistic regression	36 Villages in Central and Western UG; 2631 households	Improved agricultural productivity, household diversification of sources of income, access to non-agricultural wage labour	Health- and death-related expenses, social factors (household size, polygamy, alcoholism, laziness), and crop failure
KRISHNA ET AL. (2004)	Kenya	SOP in FGDs / Community Meetings	1706 households in 20 Villages in Western and Nyanza Province	Income diversification and access to non-agricultural wage labour, to a lesser extent hard work and personal initiative	Health-related expenses, HIV, high dependency ratios, orphanhood, alcohol abuse, and laziness
MUYANGA ET AL. (2010)		4-wave panel data analysis	1,275 rural households in 22 districts	Absence of health- and death-related shocks, male headed household, asset endowment, parental education level and asset accumulation.	Health- and death-related shocks, respective asset depletion, female headed households, low asset endowment
KRISTJANSON ET AL. (2010)		Qualitative–quantitative approaches and SOP	4773 households	Off-farm income	Health-related shocks
KRISHNA ET AL. (2006A)	USA	Households interviews	312 randomly selected households in 13 communities in 4 counties of North Carolina: Beaufort, Burke, Gates and Vance	Employment (full-time job or, more often, on account of taking up a second job or a third job), careful money management and budgeting, job promotion, starting a business, good budgeting, inheritance, family assistance, other types of regular earnings, marriage, paying off debts, marital cooperation, family network	Health-related issues, job loss and both factors interrelated; being single, divorced, or widowed

Source	Country(ies)	Methodology	Data	Prime Factors related to Poverty Exits	Prime Factor related to Poverty Descend
DAVIS (2006)	Bangladesh	Self-sampled life history interviews with individuals	200 Life History interviews	8 patterns in life-cycle perspective; only two categories which describe improvement: 'improving smooth' and 'improving saw-tooth'. The lack of other patterns reflects the difference between decline and improvement in general: declines are often steep but improvements are not. Long-term improvements are either slow and smooth (usually for the more resource rich) or they consist of slow improvements interspersed with sudden declines, which nevertheless are not serious enough to undermine an overall upward trend.	'Structured disadvantage' - illness, dowry, underemployment and low income, court cases, business failure, crop loss, divorce, household breakdown, violence, conflict and crime.
QUISUMBING (2007)		Econometric 3-wave panel analysis	IFPRI Survey 1787 households in 102 villages in 14 districts	Assets, education, number of children under 15 years, number of elder people in the households	Illness, dowry
DAVIS (2011)		Life history interviews	293 interviews from 161 households in 8 districts	Rural farm and non-farm-related businesses (some supported by loans); land asset accumulation, livestock production; remittances and support from sons' and (to a lesser extent) daughters' incomes; and crop production.	Illness and injury; dowry and wedding expenses; death of family members; division of household; theft or cheating; and weather-related events such as floods, cyclones and storms
DE WEERDT (2010)	Tanzania	4-wave panel data plus life history interviews with projected poverty exiters ('Growers')	World Bank Kagera Health and Development Survey (KHDS), 912 households in 51 villages in rural Kagera district, interviewed up to four times	Diversification of agricultural and non-agricultural activities: 2 common trajectories: (i) with sufficient agricultural endowment: diversified subsistence, cash crop and livestock mixed farming agriculture and (ii) without agricultural endowment, but with 'connections' in a not too remote place: business and trade remittances from children, continued good health, connectedness and exposure; good intra-marital relations; good marital cooperation	Health and agricultural shock, disabilities and chronic illnesses, alcoholism, bad intra-marital relations
HIGGINS (2011)		Q-Squared – follow up FGDs and life history interviews from Budget Household Survey; life-cycle diagrams	6 sites from TZ Budget Household Survey: 4 FGDs; 106 Life History Interviews, Key informant interviews	Agriculture in combination with non-farm business; accumulation of physical assets, salaried employment (via education) and favourable marriage Poverty escape usually happens in the 20s-30s; agriculture is a crucial trigger to get started, importance of life cycle	

Source: own compilation

3.2.3 Existing Gaps: What still needs to be understood

Better statistical analysis, combined with a careful contextual understanding of the economic and other circumstances constraining poverty mobility, will be essential to move this research forward.

(DERCON & SHAPIRO 2007 p. 109)

Despite the growing and developing body of q-squared literature on poverty exits as described in 3.2.2, three main gaps still exist:

- (i) more research on understanding upward mobility and poverty exits,
- (ii) the development of rigorous and standardised q-squared methodologies,
- (iii) consequent translation of poverty research results into development practice.

First, amongst the most experienced q-squared poverty researchers, particularly within the CPRC, the strong focus on persistent or chronic poverty and the humanitarian impetus to work on downward mobility did not leave enough room to produce good evidence on poverty exits (see e.g. BAULCH 2011). The work by CPRC ended and no similar influential poverty research programme has been started that would have addressed this gap, nor was the work by the IFAD Rural Poverty 2011 continued in that direction¹⁰¹.

Secondly, the establishment of better surveys and datasets and the quantitative analysis of poverty dynamics, chronic poverty, poverty traps, vulnerability and resilience against shocks have produced a rich body of development economics literature that estimates factors contributing to poverty over time. However, the in-depths analysis of poverty exits is still young and a methodological rigour to establish something like ‘standardised q-squared poverty analysis’ is still missing. Neither prominent qualitative researchers were satisfied with this situation (see e.g. DE WEERDT 2010 ; or DAVIS 2011a) nor prominent quantitative researchers, as stated by DERCON & SHAPIRO 2007 : “*In the last few years, many more panel datasets have*

¹⁰¹ The IFAD Rural Poverty Report 2016 did not continue to present the results of larger data surveys on rural poverty from the RIGA and RuralStruc Data or alike (see IFAD 2016).

become available from developing countries. A number have been used for the analysis of poverty mobility and its correlates. Most research has found that households and community endowments, such as assets and infrastructure, matter for allowing people to move out of poverty, while shocks and risk make and keep people poor. Nevertheless, it is difficult to generalize on which factors matter most in different contexts. Furthermore, many studies are not able to provide evidence that goes beyond correlates; rarely if ever has any causality been established convincingly.” (Ibid., p. 109).

Third and most importantly, the methodology, classification, findings and recommendations from poverty exits (as compiled by 3.2.2) do not translate into the development debate. This conceptual gap is almost as stunning as the still existing qualitative-quantitative divide since one might tend to think that given the strong focus on monitoring and evaluation in development cooperation, there are hardly any more important monitoring and evaluating exercises than measuring the impact of development policies, programmes and projects on poverty and respective exits. Yet, this is not the case to date despite the fact that the applicability of the method for poverty impact monitoring is potentially very high (as already mentioned in 3.2.1).

If at all, development programmes consider national households for their baseline data or large development programmes themselves to generate rich data sets that are then extensively used by development researchers¹⁰². But a sectoral application of poverty research in development cooperation is still not happening, as also lamented by SHEPHERD 2010 . And vice-versa: the agricultural development project sphere has not reached out to the wealth of poverty research - probably due to complex survey and questionnaire design, practical problems of attribution, limited monitoring and evaluation budgets and possibly also due to limited academic understanding of the methods and respective analytical skills. This is unfortunate, since poverty research offers a lot of explanatory values already for agricultural development and further opportunities are missed to bridge the micro-macro divide as discussed in (2.3.3). BARRETT 2006 had already expressed this: *“Feedback flows both from micro-to-macro and from macro-to-micro levels, with critical intermediation by meso-level institutions ranging from local governments to community groups to resource user associations to markets. (...) Efforts to capture the multi-scale*

¹⁰² The most prominent examples were the large cash transfer and social security programmes ‘PROGRESA/Oportunidades’ in Mexico and ‘Fome Zero’ in Brazil, see SKOUFIAS 2005 or DA SILVA et al. 2011 for comprehensive impact analyses on their rural poverty impacts.

spillover effects within systems – how macro-level phenomena affect meso-level institutions and thereby micro-level incentives and behaviours, as well as these linkages in reverse – remain in their infancy.” (see *Ibid.*, p. 8).

It is somewhat stunning to see that this gap still exists and one might add that this holds equally true for the concept of ‘pro-poor’ or ‘broad-based’ agricultural VCD as discussed in 2.3.

3.3 Synthesis and Implications for the Research Hypothesis

Finally, it should be recognized that [...] the combination of qualitative and quantitative approaches, and indeed cross-disciplinarily, in a single study, or in studying the same specific problem, is relatively rare.

(ADDISON et al. 2009b p. 13)

To summarise the discussion on poverty dynamics: as much as the research discipline had developed since the Millennium, and as much as most scholars acknowledged the qualitative-quantitative divide to be artificial and un-productive given the complex research question at hand, very little attempt had been made to overcome the divide. The q-squared paradigm was theoretically acknowledged, but did not succeed in the academic spheres: most of the case studies remained working papers, very little was published in the larger journals (as presented also in Table 3—2).

However, for approaching the research question (as presented in 2.4) why and how agricultural households have exited poverty in Kenya using the TAMPA panel data, a q-squared approach seemed best suited: the quantitative analysis could be used to identify poverty exiting households, and a qualitative analysis could be used to identify the factors driving the households’ poverty exit and their relation to agricultural VCD, since quantitative analysis alone could not deliver on the question of “how did agricultural VCD contribute to the poverty exit”¹⁰³.

¹⁰³ As also argued by NARAYAN & PETESCH 2007 : “[...] few of the large longitudinal studies conducted in developing countries provide causal analyses of mobility factors. Hence, their usefulness for policy is limited.” (*Ibid.*, p. 1).

Thus, the design of this research very much followed the ‘q-squared’ philosophy and aimed at combining ‘the best of both worlds’ as well as contributing to the ‘rare field’ as mentioned by ADDISON et al. 2009b as quoted above. This research is a contribution to increase the number of truly mixed-method and cross-disciplinary case studies on rural poverty – thereby contributing to the literature that acknowledged the notion that mixed methods across disciplines were needed to improve the understanding of a complex matter such as rural poverty¹⁰⁴.

¹⁰⁴ As pointed out by ADDISON et al. 2009a after a decade of intensive methodological debate: “*The present conversation about poverty dynamics reveals a divide, between economists and other social scientists [...]. However, it also reveals that there is a strong desire and increasingly frequent attempts to bridge this divide.*” (*Ibid.*, p. 23).

4 EMPIRICAL EVIDENCE: POVERTY EXITS IN RURAL KENYA

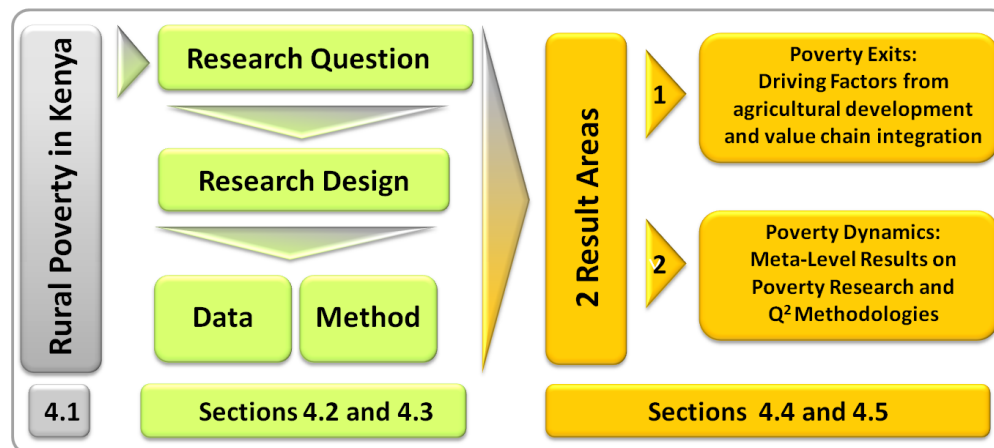
In 2005/6, almost 47 percent - or 17 million - Kenyans were unable to meet the cost of buying the [...] daily nutritional requirements and minimal non-food needs.

The vast majority - 14 million - live in rural areas.

(WORLD BANK 2008a , p. ii)

Kenya used to be one of the best researched countries with regard to poverty analysis. Even with regard to different methodologies (quantitative, qualitative and mixed-method research, see also Chapter 3), Kenya has been well researched and analysed due to its relatively rich data availability and conducive research environment. However, a number of open questions explaining rural poverty and pathways out of it, still remain. Given the data availability and institutional support by Tegemeo Institute of Agricultural Policy and Development, Kenya qualified perfectly as a country for the intended case study to test the hypotheses (see 3.3) of this research.

Graph 4—1: Content of Chapter 4



Source: own illustration

This chapter first summarises the situation of rural poverty in Kenya in 2008 as the reference year for the field work, it reviews the relevant literature, and identifies existing gaps (section 4.1). Afterwards, the research design of the empirical work is presented by describing data and methodology used (sections 4.2 and 4.3). Finally, the results are presented and discussed

in two result areas: section 4.4 summarises a number of meta-level results on poverty exits. These findings were derived from the field work around the meta-level research question (iv) and turned out to provide valuable methodological insights for the use of triangulation for future mixed method poverty research. Section 4.5 is dedicated to all findings related to agricultural factors as drivers of poverty exits, representing the answers to the specific research question.

4.1 Background: Rural Poverty in Kenya

*Today, Kenya is ranked among the 10 most unequal countries in the world
and the most unequal in East Africa.
For every shilling a poor Kenyan earns, a rich Kenyan earns 56 shilling!*
(Hon Prof. Anyang' Nyong'o (SID 2004 , p. iii))

4.1.1 Review of National Poverty Data

Kenya used to be relatively 'data-rich' compared to other African countries with regard to national poverty statistics. This section summarises the national poverty data exercises undertaken by the GoK between the late 1990s and 2009 - because of the effort with which the GoK publicly displayed (or disclosed) poverty data, the historical changes in government during this period of time are also reflected and thus, are of importance to understanding national poverty data.

Welfare Monitoring Surveys (WMS) were undertaken as early as in the 1970s in order to guide policy decisions aimed at welfare improvements of the nation. The GoK conducted such cross-sectional household surveys in 1975, 1982, 1992 (WMS I), 1994 (WMS II), and in 1997 (WMS III). Unfortunately, the direct comparability of these surveys and data sets has always been limited due to different timing of survey administration, questionnaire content, sampling and non-sampling errors, general improvement of the survey instruments and geographical coverage of the samples (see e.g. GOK 2000 p. 13 ff. or GAMBA & MGHENYI 2004 for a detailed discussion of WMS data quality). To overcome some of these weaknesses, the National Sample Survey and Evaluation Programme (NASSEP-III Frame) was de-

veloped by the Central Bureau of Statistics (CBS) in the late 1990s, to standardise future national welfare surveys.

At the same time, the Kenyan government in collaboration with the World Bank conducted three PPAs respectively in 1994, in 1998 and in 2001. These qualitative exercises followed three objectives: (i) to understand poverty from the perspective of the poor; (ii) to initiate a process of dialogue between government and poor constituents and (iii) to illustrate the value added of a PPA approach in order to complement the WMS (see NARAYAN & NYAMWAYA 1996). The GoK eventually compared the results from the WMS and the PPAs and concluded that they revealed over and above similar results: a poverty incidence of over 50 % of the overall population until the Millennium, with an even higher incidence of rural poverty (see Table 4—1)¹⁰⁵.

Table 4—1: Summary of Poverty Results in 1997

		% of Individuals
Rural Poverty	Food Poverty	50.6
	Absolute Poverty	53.1
	Hardcore Poverty ¹⁰⁶	34.9
Urban Poverty	Food Poverty	38.4
	Absolute Poverty	50.1
	Hardcore Poverty	7.7
National Absolute		52.6

Source: GOK 2000 p. 26.

The situation worsened with the looming political crisis of the governmental era of President Daniel arap Moi, as stated in the MDG Status Report 2005: „*The number of people living below the poverty line has risen from 44.7 % in 1992 to 52 % in 1997 and 56 % in 2002, whereby 82 % of them live in rural areas and 18 % in urban areas*“ (GOK 2006 p. 12).

¹⁰⁵ See GOK 2000 for a detailed description of the WMS methodology used, including the definition of the measures of ‘Living Standard’ and the composition of the food and non-food baskets used to assess the expenditures for basic needs.

¹⁰⁶ Households were defined to be hardcore poor if they could not afford to meet their basic food requirements with their total food and non-food expenditure. The percentage of hardcore poor in Kenya declined from 29.6 % in 1997 to 19.1 % in 2005/06. It is important to note that the percentage of hardcore poor has substantially declined in rural areas from 34.8 % in 1997 to 21.9 % in 2005/06; yet urban hardcore poverty increased from 7.6 % in 1997 to 8.3 % in 2005/06 illustrating the problem of an increasing super-impovertised urban population group (see KNBS 2007a p. 43).

It was also confirmed over and over again that Kenya did not only have a relatively high incidence of poverty compared to its GDP, but also a very unequal distribution of poverty incidence across the country, with Central Province and Nairobi always showing the lowest poverty rates and Coastal Province, Nyanza and parts of Western and Northern Kenya showing much higher average poverty rates and particular pockets of severe poverty incidence (GOK 2000). The MDG Report 2004/05 summarised: “*The main challenge [...] of equity and poverty reduction, is how to bridge the poverty gap occasioned by geographical variations among the Kenyan constituencies*” (GOK 2005 p. 12).

After the peaceful change of government in December 2002, the new National Rainbow Coalition (NARC) government under President Mwai Kibaki opened up for a more honest debate about poverty and inequality in the country and initiated some major political, economic and social steps of reform. These were also partly triggered by international organisations and the MDG developments (see also 2.1): (i) the World Bank and the IMF demanded stronger poverty and growth monitoring efforts in line with the Kenyan PRSP¹⁰⁷ and the associated development loans; and (ii) the UN MDG monitoring started to put Kenya into international comparison with other countries on their prospects to achieve the MDGs, which were very minimal at the beginning of 2003¹⁰⁸.

In 2003, the Kenyan Ministry of Planning and National Development and the CBS in collaboration with various donors started to consolidate its quantitative poverty monitoring efforts along the lines of the reformed

¹⁰⁷ The first Kenyan PRSP was only signed in 2003 and called “Investment Programme for the Economic Recovery Strategy for Employment and Wealth Creation (IP-ERS) 2003-2007”.

¹⁰⁸ “The 2003 report indicated that Kenya was unlikely to achieve most of the goals unless the policy environment was drastically changed. The Status Report for 2005 shows that the policy environment is changing faster than earlier envisaged. This is due the policies that the NARC Government has been putting in place since it came to power in December 2002. As a result of these measures, the economy grew from a mere 0.4 % in 2002 to 4.3 % in 2004. This is expected to increase in 2005 and thereafter. The Government unveiled the Economic Recovery Strategy (ERS) that is anchored on accelerating economic growth; poverty reduction through job creation, investment in people and social protection; improving governance and the physical infrastructure. The introduction of free primary education early in 2003 led to over 1.5 million children joining primary school. The government is realigning the budget process and strengthening the public expenditure management to address the activities in the ERS and the MDGs. The current increased budgetary allocations to health, agriculture, water, roads, tourism and environment are meant to accelerate the achievement of the above objectives.” (GOK 2006 p. 37).

WMS sampling frames¹⁰⁹. A new nation-wide representative Integrated Budget Household Survey was planned for in 2005 in order to produce much more detailed, reliable, representative and up to date household data for policy monitoring purposes.

Meanwhile, several quantitative poverty monitoring exercises were undertaken; e.g. the Kenyan Participatory Poverty Impact Monitoring (KEPIM) started, which used qualitative interviews to monitor the impact of several pro-poor policies at citizen level and thus provided useful information on rural poverty as well (see GOK 2002). This exercise was further used for implementing the PRSP when the GoK, with the support of the Social Policy Advisory Services project of the German Technical Cooperation, introduced the innovative tool of Citizen Report Cards (known as “CiReCa”). These CiReCas were designed to give users of public services an opportunity for organised feedback to the governmental institution responsible for the respective service provision¹¹⁰. The first CiReCa exercise focussed on the following four service areas: (i) agricultural extension, (ii) primary education, (iii) local health facilities and (iv) provision of water and sanitation (see GOK 2003). They provided the GoK and the donor community with a wealth of information, including which services mattered most for the poor and where service delivery to the poor was most in need^{111,112}.

¹⁰⁹ It should be noted, that the NARC government split the former Ministry of Finance and Planning into two ministries in early 2003: a Ministry of Finance (with the core functions around budgetary issues) and a Ministry of National Planning and Development (with core functions around social and economic reporting, e.g. MDG reporting). With this institutional reform, the former CBS was also reformed and named Kenya National Bureau of Statistics (KNBS) afterwards.

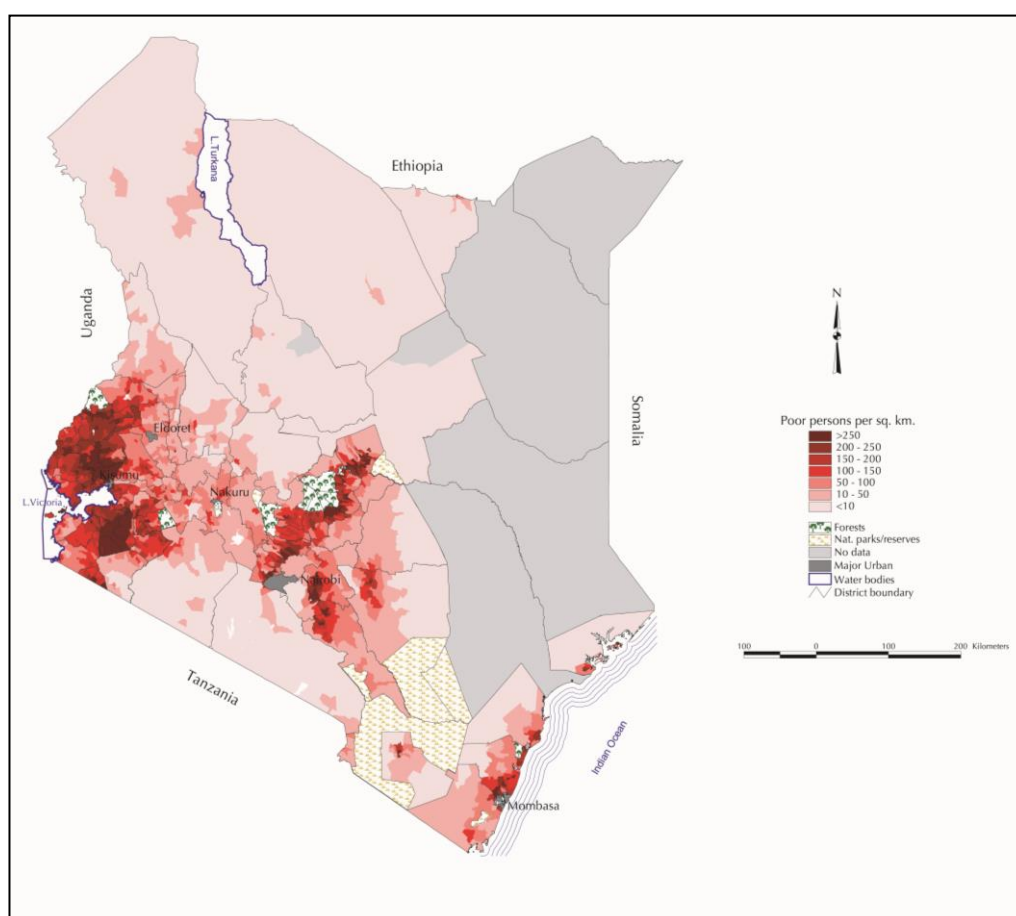
¹¹⁰ See GTZ-SPAS Kenya & Ministry of Finance and Planning 2002 for a comprehensive overview of the method.

¹¹¹ It should be noted that the CiReCa also provided unexpected positive feedback; i.e. on the provision of agricultural extension services. In contrast to conventional wisdom, public agricultural extension services were regarded as largely useful and still available and accessible by many rural citizens (see GOK 2003 for more details).

¹¹² It should further be noted that CiReCa exercises were since then numerously repeated in Kenya for various sectors of public service delivery and are now integral part of the work of the National Taxpayers Association Kenya (NTA) for accountability purposes. This is also due to the fact that citizen participation in governance is also mentioned as a key component of the public reforms instituted by Kenya's 2010 reformed Constitution. Article 1 (1) of the Constitution states that “*all sovereign power belongs to the people of Kenya. This power can be expressed through direct participation by the people or indirectly through their democratically elected representatives*”, Article 1 (2)”.

Another effort to avail more public data on poverty in Kenya was the exercise of producing the so-called “Kenya Poverty Atlas” (see GODFREY NDENG’E (CBS) et al. 2003). The World Bank, ILRI and the Rockefeller Foundation supported the CBS to overlay the then latest WMS and census data with newly developed geographical mapping software to illustrate poverty estimates at district and locational level. For the first time, the enormous regional disparity across the country was visualised, providing a difficult to interpret, yet powerful tool for policy makers and their constituents, particularly when looking at the 258 locations where more than 70 % of the population were estimated to live below the poverty line (‘Poverty Pockets’). However, the poverty maps with the highest explanatory power are the ones that are weighted by population density, since they add the magnitude of the respective poverty rate to the area (see Graph 4—2).

Graph 4—2: Poverty Density Map of Kenya



Source: NDENG’E et al. 2003 , p. 29.

The political window of opportunity of the NARC government between 2003 and November 2005 provided room for starting real social reforms: for the first time in Kenyan history, an honest and evidence-based debate on inequality in the country at government level was started. The Minister for Planning and National Development, Peter Anyang' Nyong'o lead this debate¹¹³ and supported the statistical rigorous publication of inequality of wealth and wellbeing country-wide with the so-called 'Inequality Report': *"The social phenomenon ordinarily known as inequality [...] sometimes stirs controversy, in Kenya and elsewhere [...] the public debate in Kenya on the subject is almost non-existent. This publication is intended to help break this silence and lay the foundation for a healthy and vigorous national debate on issues of inequality."* (SID 2004 p. iii). This aim was fulfilled, since the "Ten striking Features on Inequality in Kenya" (see *Ibid.* p. xiii) were widely debated and supported policy and law making to counterweight some of the most striking inequalities. As for rural poverty, this report statistically illustrated the regional inequality for the first time stating clearly that *"Inequalities in well-being often take a regional dimension. In Kenya, these differences are observed between urban and rural areas, and between defined administrative regions. Differences in regional or geographic well-being more often, but not always, coincide with ethnic identities because ethnic groups often reside in given geographical regions."* (*Ibid.* p. 13). It is important to note, that the data used here was still the one from the WMS 2000 and it illustrated a much stronger relevance of the ethnic divide for regional disparity compared to the explanatory power of rural-urban income disparities. This was confirmed by further work on inequality in Kenya, mainly supported by the Society for International Development (SID) East Africa (see SID 2006). As for rural poverty, ARGWINGS-KODHEK 2006 noted that inequalities in rural areas were high and of various types, whereby unequal access to land, water and agricultural public services such as extension and input provision, played a major role. He concluded that *"[...] a key element in the debate should be how, and how efficiently, and on which priority areas, should public expenditure be targeted to improve rural lives."* (*Ibid.* p. 286).

Finally, in 2005/06, a newly sampled nationwide Kenya Integrated Budget Household Survey (KIHBS) was undertaken by the GoK with substantial

¹¹³ Prof Peter Anyang' Nyong'o had worked as a political scientist and was actively engaged in the opposition of the Moi regime during the 1990s as a member of the Kenyan Parliament; i.e. he had spoken out repeatedly on corruption, misappropriation of public funds, and illegal land distribution before he became minister in the NARC government.

support from international donors (see KNBS 2007a and KNBS 2007b). More than 10,000 households were sampled according to five different livelihood zones and interviewed with standard questionnaires (including household diaries for consumption and expenditure assessment). For the first time ever, a welfare survey captured representatively all parts of Kenya, since the vast parts of rural arid and semi-arid Northern and Eastern Kenya had never been captured by previous WMS. The summary statistics of the KIHBS 2005/06 on various poverty incidences are depicted in Table 4—2.

Table 4—2: Summary of Poverty Measures KIHBS 2005/06

		% of Individuals	Δ WMS III
Rural Poverty	Food Poverty	47.2	-3.4 %
	Absolute Poverty	49.7	-3.4 %
	Hardcore Poverty	22.3	-12.9 %
Urban Poverty	Food Poverty	40.4	+2.0 %
	Absolute Poverty	34.4	-15.7 %
	Hardcore Poverty	8.3	+0.6 %
National Absolute		46.6	-6.0 %

Source: KNBS 2007a p. 44, Table 4.1.

The general decline of absolute poverty compared to the WMS data gathered in 1997 confirmed the general upward trend the country had followed since 2003. In particular, the drop in rural hardcore poverty of more than 12 % was a good signal for rural development in Kenya. Yet, the high economic growth rates the country enjoyed since 2003 had raised expectations that these should be felt more in poverty statistics and translate into real economic recovery and poverty reduction. The much anticipated ‘reward’ for a change in government since December 2002 could be partly seen, yet, the KIHBS basically confirmed that the country had recovered from a particularly anti-poor era and was not even back at same absolute poverty rate of 44.8 %, as it was assessed in 1992 (see for a comprehensive discussion GOK 2008 p. 5 *ff.*).

As an additional effort by the Ministry of National Planning and Development to qualitatively support the implementation of the PRSP, the Fourth

Participatory Poverty Assessment (PPA IV) was implemented alongside with the KIHBS 05/06 as “*a major building block in the Government’s poverty reduction dynamics and diagnostics*” (MINISTRY OF PLANNING AND NATIONAL DEVELOPMENT 2007 p. 5). Although the methodological potential of combining the KIHBS with qualitative data collection in the sense of a q-squared approach was not harnessed¹¹⁴, the PPA IV still provided useful explanatory patterns for some of the KIHBS statistics. In line with studies mentioned in 3.2.2 the statistics found that across all regions the main reason for falling into poverty were health-related problems; whereby the reasons for escaping poverty were much more diverse and showed strong regional divergence (see MINISTRY OF PLANNING AND NATIONAL DEVELOPMENT 2007 p. 22).

The most comprehensive interpretation of the KIHBS 2005/06 data was undertaken by the World Bank with the 2008 “Kenya Poverty and Inequality Assessment” (KPIA) (see WORLD BANK 2009b). Given the post-election violence in early 2008 in Kenya, the KPIA analysis was overshadowed by political events in the country and thus, its final publication in 2009 put the relevance of national poverty and inequality at the centre of the national conflict¹¹⁵. The KPIA gave a relentless interpretation of the of-

¹¹⁴ The implementation of field work lacked funding and thus, the sampling frame was substantially smaller than that of the KIHBS. One reason for the limited funding was the lack of trust in the PPA IV by influential donors like the World Bank, since PPA IV used mainly the SOP-method (see also 3.1.3) to analyse subjective poverty assessments and poverty dynamics. In the absence of comparability, the poverty dynamics were constructed only as a quasi-panel by recalling the SOP of each household interviewed compared to today (2005/06), 1997 and 1990. This method revealed some interesting and also KIHBS contradicting results (as in the sample, poverty had not reduced, but for the 12 % of households who had escaped poverty, another 20 % had fallen into poverty at the same time) – however, the methodological concerns against PPA IV, which are also addressed in the main report, degraded the work largely into rarely cited anecdotal evidence for some KIHBS findings. So, the value of the mixed method approach was not harnessed (own anecdotal evidence, but see also BARAHONA & LEVY 2005).

¹¹⁵ “*This assessment of poverty and inequality comes at an important juncture for Kenya. The December 2007 elections and subsequent pronouncements of the newly formed Grand Coalition have underlined the salience of these issues to ordinary Kenyans, and for policy makers. The violence in early 2008 highlighted the importance of addressing poverty and inequality as major goals in their own right, but also for instrumental reasons - as major goals in their own right, the persistent inequalities spark conflict, which is welfare reducing, and this conflict in turn will harm prospects for growth. [...] Cumulatively, these factors underline the value of appropriate diagnostics about the patterns of poverty and inequality in informing public debates, strategies and actions to overcome exclusion from the benefits of growth and development in Kenya as well as designing policies to minimize the impact of the current global crisis.*” (Ibid. p. i).

ten positively interpreted KIHBS data on national absolute poverty incidence by stating “*Almost 47 percent - or 17 million – Kenyans were unable to meet the cost of buying the amount of calories sufficient to meet their recommended daily nutritional requirements and minimal non-food needs. Many Kenyans are very poor - indeed almost one out of every five could not meet the cost of this minimal food bundle even if their entire budget is spent on food. The vast majority of the poor - 14 million - live in rural areas. Over the long term, little inroads have been made in reducing poverty - the officially estimated poverty rate was 48 percent in 1981. This disappointing record is not surprising in light of the weak growth performance over the long term, and high levels of inequality.*” (Ibid., p. x)

Even though some positive aspects on rural poverty exits were highlighted (mainly the increased opportunities for income diversification related to agricultural production), the prospect for a strong and sustained trend to reduce rural poverty was displayed as grim. This was due to the still high levels of inequality and the impact of the post-election violence on rural poverty¹¹⁶.

Additional depressing results for rural poverty in Kenya were provided by the World Bank’s “Country Social Analysis” (CAS) based on non-representative quantitative research in six rural districts in 2005. The report listed a number of factors eroding rural livelihoods, such as bad governance, agricultural market failures, insufficient access to justice etc. (WORLD BANK 2007a). This analysis of factors then led to a number of narrated collective responses and social impacts – almost all of them representing very negative trends for rural communities. With the exemption of ‘livelihood diversification of households’ which was widely observed and could explain economic and social improvement as well as mechanisms to counter increasing complexity and uncertainty, the research team was convinced that gender-based violence, alcohol and drug abuse, intergenerational conflict and crime in rural Kenya had increased to a threatening extent over the past years and were substantially eroding rural social capital in Kenya.

¹¹⁶ It took the GoK more than ten years to repeat the KIHBS. The next national poverty assessment was undertaken as KIHBS 2025/16 and the results were published in March 2018 (KNBS 2018 , see also 1.2.3).

4.1.2 Review of Literature on Rural Poverty Exits

*Rural poverty incidence remains high in Kenya.
The coexistence of strong macroeconomic growth and high rural poverty levels
underscore the fact that causes of poverty are complex.*

(RADENY et al. 2012 p. 1589)

Given the relative data availability as presented in 4.1.1, not surprisingly the literature body for rural poverty research in Kenya is comparatively rich. During the zero years, a number of national and international research projects put rural poverty into their focus and, as already discussed in section 3.2.2, even mixed method research on poverty dynamics had been conducted. Thus, this section only summarises the most relevant work with regard to explanatory value for rural poverty exits and with regard to the methodological questions raised in 3.2.3 on gaps in rural poverty exit research.

MANGO et al. 2009 was the only publication that had used the national sample of the PPA IV and related the work to the KIHBS 2005/06 data. Using the SOP- method (see also footnote 114), they identified poverty exiting households and categorised four clusters of poverty exiting reasons: (i) the diversification of income sources, (ii) crop-related reasons, (iii) livestock-related reasons, and (iv) social factors such as help from relatives, inheritance, etc. Yet, as discussed in 4.1.1, the PPA IV had methodological weaknesses and thus, MANGO et al. 2009 produced interesting, but relatively unsystematic anecdotal evidence on poverty exits¹¹⁷.

Similarly, a number of non-representative qualitative household surveys in various parts of Kenya produced evidence on pathways out of poverty namely MCCULLOCH & OTA 2002, FREEMAN et al. 2003, KRISHNA et al. 2004, MANGO et al. 2004, KRISTJANSON et al. 2004, and SWALLOW et al. 2005, (see Table 4—3 for an overview).

These studies agreed on two major results: (i) there are only few poverty exits observed and (ii) if observed, the single most explanatory factor was found to be the diversification of household income sources. Concerning

¹¹⁷ See e.g. this testimony as used also by MINISTRY OF PLANNING AND NATIONAL DEVELOPMENT 2007 p. 24, Box 3.1 „Philip Lagat – managed to escape poverty through diversification in farming“.

the nature of this diversification, no unified picture could be painted, but apparently the interplay between on-farm and off-farm activities was important, as emphasised by FREEMAN et al. 2003 : “*This finding reinforces the cumulative nature of becoming better off in rural Kenya [...]. Non-farm income enables the household to hire labour in order to undertake timely cultivation practices, and helps to fund the purchase of farm cash inputs; conversely, hiring out labour by poor households causes their own farm productivity to stagnate or fall. Livestock ownership plays a reinforcing role in virtuous spirals of accumulation, just as its absence contributes to the inability of poorer households to climb onto the first rung of the ‘ladder’ leading out of poverty.*” (Ibid. p. 17).

Some partial attribution to agricultural value chains activities were made (such as access to embedded services, organisation of irrigation, land and water governance) and a few agricultural value chains were mentioned (namely horticulture and livestock). However, the overall message was that poverty exits were mainly associated with the diversification of household income sources and non-agricultural and off-farm activities seemed to have played a more important role than diversifications in agricultural activities themselves, particularly with regard to jobs (see Table 4—3). This also supports the general hypothesis that diversification is a successful livelihood strategy to build resilience against shocks and that poverty exiters manage to either avoid shocks or build more resilience against their adverse effects¹¹⁸.

¹¹⁸ As also summarised by DE WEERDT 2010 for research in rural Tanzania: “*Diversification of agricultural activities mattered a lot for growers; plus diversifying agricultural and non-agricultural activities [...] There is nothing that can hit trade, stocks, the farm and the trees at the same time*”. (Ibid. p. 338).

Table 4—3: Poverty Exits in Rural Kenya – Qualitative Research Results

Source	Methodology	Data	Factors related to Poverty Exits	Poverty Exit linked to agricultural VCs?
MCCULLOCH & OTA 2002	Semi-structured hh interviews	263 hh interviewed in 2001; 40 packhouse workers and 42 non-packhouse workers; plus rural sample around Mt Kenya	Horticultural hh are better off than non-horticultural hh; indicating that horticulture lifted them up	Yes, partly But selection bias: better endowed farmers taking up export horticulture in the first place; enjoy steady incomes from farming or from their labour and further enjoy embedded services such as credit and extension services
FREEMAN ET AL. 2003	RRA and sustainable livelihood analysis	Suba and Bomet district; 5 villages each; 35 hh per village each; 350 hh	Diversification of the agricultural and particularly non-agricultural income base is key to exit poverty whereby a lack of cash hinders subsistence based hh to invest in diversification and thus to escape poverty. The highest quartile hh had triple the income from business and double the income from wages than the lowest quartile	Partly But not as the prime factor responsible for the poverty exit, yet provided access to resources for investments (agriculture and non-agriculture).
KRISHNA ET AL. 2004	SOP	20 villages in Western Kenya, (10 in Vihiga, 10 in Siaya); 1706 hh (ICRAF and USAID related); 816 in-depth hh interviews on reasons of poverty dynamics over 25 years	Diversification of hh income by adding wages – underlines the importance of jobs (formal and informal): small business in the village, private sector jobs, government jobs and self-employment peri-urban areas. Social capital is more important than formal (school) education and options are not equally distributed; barriers of business are high.	No
KRISTJANSON ET AL. 2004			Key role of diversification, not only into cash crops but also into livestock; and livestock as an asset for bride prices, but also loss of livestock due to dowry payment or slaughter at funerals; Livestock diversification and intensification through herd increases; cattle ranked highest	Partly But livestock in these areas is rather kept for socio-economic purposes than as an agricultural business activity
MANGO ET AL. 2004	Case study approach and community workshops / FGD	Vihiga, Baringo and Marsabit districts	Diversification in income generating activities both on-farm and off-farm were found to be the main strategy of poverty exiters; Investments in education that lead to jobs both in the public and private sector; informed choices about hh labour migration. Other strategies were diversification in on-farm and off-farm enterprises, having a wider social network for acquiring knowledge and information and engaging in cash crop farming. Other strategies of escaping from poverty included engaging in brewing local beer though illegal and outlawed, and belonging to an active women's group.	Partly But not predominantly and very systematically to VCs: some hh invested in crop production, irrigation, income from crop harvest was then reinvested in restocking livestock.
SWALLOW ET AL. 2005	Participatory wealth rankings and SOP, PRA; FGD, Livelihood Analysis	14 villages in Nyando Basin; 30 hh per village	Only few hh exited poverty and for those who do, the diversification of income is the key driver out of poverty; number of livelihood strategies employed by a hh; formal employment.	Only partly and indirectly Since the importance of land and water governance (mainly organisation of irrigation) is emphasised, VCD could support this

Source: own compilation

Compared to research in other countries, such as neighbouring Tanzania by DE WEERDT 2009 , remarkably little was said about social factors enabling poverty exits, such as social capital, support by relatives, inheritance, etc. This is surprising since observing these factors is usually the particular advantage of qualitative research methods¹¹⁹. Only KRISHNA et al. 2004 put some emphasis on social capital and access to options and ideas for the decisive diversification of income.

In addition to this qualitative analysis, different household data sets were used for quantitative poverty analysis; namely by GAMBA & MGHENYI 2004 , KRISTJANSON et al. 2005 , BARRETT et al. 2006 , BROWN et al. 2006 , MUYANGA et al. 2007 , BURKE et al. 2007 , SURI et al. 2008 , LAY et al. 2007 , SWALLOW et al. 2010 and RAO & QAIM 2011 (see Table 4—4 for an overview). Different econometric analyses were applied to either correlate poverty exiting factors to household characteristics, to predict poverty exiting households or to construct poverty exit probabilities (plus the geospatial analysis of KRISTJANSON et al. 2005). Poverty measures were either used as income poverty (GAMBA & MGHENYI 2004 and SURI et al. 2008), consumption-based poverty (LAY et al. 2007 and SWALLOW et al. 2010) or followed an asset-based approach (see BARRETT et al. 2006 and BURKE et al. 2007).

The picture of the explaining factors for rural poverty exits among these quantitative analyses was even less unified than the qualitative work and revealed partly contradictory results. The single one result that seems to be confirmed by all quantitative surveys concurs with qualitative research as well as with national statistics and that is the relative rarity of rural poverty exits in the observed data.

Again, the diversification of household income sources is frequently mentioned as a poverty exiting factor, yet there is less debate among the quantitative work about on- or off-farm diversification. Spatial and geographical factors are more often mentioned as decisive (see KRISTJANSON et al. 2005 and RAO & QAIM 2011) than in the qualitative work.

¹¹⁹ As stated by DE WEERDT 2010 : “*Characteristics that are unobserved by the econometrician include intra-marital relations, alcoholism, ambition and so forth. Repeatedly unobserved characteristics were stressed most in FGDs as reasons why people did not move out of poverty. [...] Ambition, moderate alcohol consumption and good marital cooperation were used to explain surprise growers.*” (Ibid. p. 340)

Table 4—4: Poverty Exits in Rural Kenya – Quantitative Research Results

Source	Methodology	Data	Factors related to Poverty Exits	Poverty Exit linked to agricultural Value Chains?
KRISTJANSON ET AL. 2005	GIS matching of poverty data with geo data (small area estimation procedures); construction of own variables by linear regression	Poverty Maps from Kajiado district + WMS 1997	Outstanding factors for poverty exits were geo-variables such as access to security (nearer police post = less theft = less poverty) and road network density and NDVI (→ Normalised Differential Vegetation Index; where it is greener, there is less poverty)	No
BARRETT ET AL. 2006	Ordinary least square (OLS) and logit regression	4 villages in Embu + 1 in Vihiga total 240 hhs (USAID Basic CRSP panel, 2000 and 2002)	Low poverty exit rates in general; poverty exit not correlated with agro-ecological potential or market access but the main exit factors mentioned were individual attributes (consistent with conditional convergence theory); evidence for poverty traps of asset-poor hh in less favourable areas	No
BROWN ET AL. 2006	Logit regressions to group hh, then to compare their livelihood strategies		Factors determining either high, medium or low returns on livelihood choice: geographic location, family size, farming experience, access to credit, remittances	No
LAY ET AL. 2007	Multi nominal logit regressions	Kakamega hh survey; 375 hhs	Non-agricultural activities are already very high – even for poorer rural hh. Difference between survival-led and opportunity-led diversification and: life-cycle implication: age of hh head corresponds with high and low return agricultural and non-agricultural activities; the older the more agricultural income → young men do not have the land to farm and need to find money elsewhere Agricultural income is the most equitable distributed income over all hh	No
RAO & QAIM 2011	Endogenous switching regression	402 farm hh in Kiambu (supermarket suppliers and traditional marketing channel); Farm Concern Project hh	Proximity to city, road network helps; off-farm employment and own means of transportation support participating in high value chain; land ownership less important (due to intensification by irrigation), livestock ownership was only significant for non-poor traditional farmers; specialised vegetable farmers dropped livestock;	Yes; But bias in the sample – VC participants deliberately sampled Result: project was useful, VCD worked
SWALLOW ET AL. 2010	OLS regressions	14 sample villages in the Nyando river basin	Diversification of livelihood activities is an important determinant of poverty dynamics. Diversity of agricultural activities was particularly important for households that started poor	Yes, partly Diversification into more marketable crop VCs plus hard work

Table 4--4: Poverty Exits in Rural Kenya – Quantitative Research Results (continued)

Source	Methodology	Data	Factors related to Poverty Exits	Poverty Exit linked to agricultural Value Chains?
GAMBA & MGHENYI 2004	Descriptive analysis of panel data	TAMPA panel 97, 00, 04 1441 hh	Agricultural productivity as one poverty exit factor	Partly But not attributable to particular crop activities
MUYANGA et al. 2007	Quantile-censored and non-parametric regressions and other quantitative estimates		Income diversification and crop diversification are important for poverty exit, yet unclear measurement of the exit	Partly But not attributable to particular crop activities
BURKE et al. 2007	Econometric analysis including probits; construction of Household Commercialisation Index (HCI); all poverty dynamics are asset-based poverty definitions		Few poverty exits and common pattern was to increase the number of income earning activities → diversification of agricultural and non-agricultural income portfolio Exiters increase off-farm income, but more lucrative and less diversified in nature. Diversification of agricultural and non-agricultural activities for poverty exiting hh depends on land size; small scale farm households engage in skilled formal employment; medium scale farm households engage in cash crop production and have a large share of livestock income; large scale farm hh staple crop production	Yes; Increased commercialisation of staple crops, increase in livestock income, particularly dairy
SURI et al. 2008	OLS and probit regressions		Factors associated with the probability of a poverty exit: total value of assets owned (+) – all other factors tested were negatively correlated, such as age of hh-head (-); female headed hh (-); secondary education, farm labour (-); Western Transitional (-); Western Highlands (-); acreage cultivated; fertiliser use (-). The emphasis is on geographical factors	Partly, But –not convincing many counter-intuitive results (e.g. fertiliser use being negative for poverty exit).

Source: own compilation

Agricultural strategies or linkages to agricultural VCD varied widely (as summarised in Table 4—4 last column): whereby in some work agricultural value chains were not mentioned at all, some explicitly identified value chains such as commercial staple crops and dairy (BURKE et al. 2007), as well as horticultural produce (RAO & QAIM 2011) as poverty exiting drivers.

The majority of explanations for poverty exits had some partial relation to agricultural diversification and thus, provided hints on value chain related activities that would foster successful agricultural pathways out of poverty. E.g. LAY et al. 2008 made a useful distinction between ‘survival-led’ and ‘opportunity-led’ diversification patterns; GAMBA & MGHENYI 2004 found the increase in agricultural productivity a decisive factor; and BURKE et al. 2007 highlighted the importance of different land sizes for poverty exiting strategies. However, this very mixed picture of factors related to poverty exits did not suggest a very clear understanding on how poverty exits happened and thus, did not provide particularly useful recommendations on how to support poverty exits, leave alone the role of agricultural VCD.

Yet finally, the work by RADENY et al. 2012 and MUYANGA et al. 2013 shed more light on the question at hand by following a q-squared approach. Both used the Tegemeo Agricultural Monitoring and Policy Analysis Project (TAMPA) panel data (see 4.2.1 for detailed description) for econometric analyses on poverty exits and in a second step constructed a sub-sample of households for qualitative follow-up interviews. Even though their findings are more convincing than any of the work presented in Table 4—3 and Table 4—4, they each come to pretty different results and conclusions (see Table 4—5 for a summary).

Both research teams confirmed the relative rarity of poverty exits as compared to poverty descends in their data and identified household characteristics and strategies that were observed for poverty exiters. But again, in line with previous research on rural poverty dynamics in Kenya, the number of convincing factors attributing to poverty and poverty descend is much higher and more consistent in the literature than the ones attributable to poverty exits.

RADENY et al. 2012 at least controlled for different agricultural value chains in their sample (see *Ibid.* Table 6, p. 1588) but could not establish a clear

pattern of livelihood strategies for the few poverty exits in their sample and thus concluded that “*Upward movements were largely stochastic.*” (Ibid. p. 1587).

MUYANGA et al. 2013 focussed on intergenerational wealth transmission and thus, added an important new dimension to the debate by comparing the initial asset endowment in the first panel years amongst all poverty groups. They found that the land size at the time of forming the household as well as the educational and economic status of the parents were among the five most decisive factors for poverty exits¹²⁰. No reference is made to the nature of the agricultural activities or the value chains participated in. Yet, indirectly their results underscore the importance of staying healthy in order to farm productively and to access input and output markets for a productive use of the farm together with the accumulation of social capital over time (see also Table 4—5 below).

Table 4—5: Poverty Exits in Rural Kenya – Q-Squared Research Results

Source	Methodology	Data	Factors related to Poverty Exits	Poverty Exit linked to agricultural Value Chains?
RADENY et al. 2012	OLS regression, asset-based poverty line construction, stochastic testing plus SOP and FDGs, plus ‘event histories’	TAMPA panel 97, 00, 04, 07 Community level FDGs in 2009	Generally few structural poverty exits and in this group no clear explanatory pattern; only the consistent absence of shocks and receiving remittances (including other sources paying school fees) were identified.	Partly, But no systematic link to crop/livestock VCs in the anyway small group of structural poverty exiters Dairy farming and trade
MUYANGA et al. 2013	Estimation of hh asset wealth dynamics, correlated random effect modelling; quantitative ranking of reasons for asset disposal and family history of inheritance	TAMPA panel 97, 00, 04, 07 84 follow-up interviews in 2008	General observation: high relevance of intergenerational poverty and wealth transmission hh rising out of poverty associated with (i) remaining healthy, (ii) less mortality, (iii) headed by a male; (iv) received relatively more land from their parents at the time the household was formed; and (v) had parents who were relatively well-off and educated. Ascenders were able to acquire more land, cultivate more land, and increase their use of fertilizer	Partly and indirectly, hh agricultural performance and earnings is related to their health status Proximity to markets and infrastructure Use of improved inputs Social capital in village and location

Source: own compilation

¹²⁰ “For the ascending households, the following factors mattered: gender and age of the household head; household size; number of wives of the initial household head; chronic illness during the panel period; loss as a result of other shocks; prior generation factors such as the main occupation of the father to the initial household head and land inheritance of the initial head from parents.” MUYANGA et al. 2013 p. 1370.

4.1.3 Existing Gaps and Research Question

The poverty research literature on Kenya (as presented in the previous section) has produced a lot of knowledge on factors leading into poverty and on factors explaining chronic poverty. The understanding of poverty traps, the role of shocks, assets and resilience as well as of the various impacts of inequality has been significantly deepened between 2000 and 2012.

To summarise what seems to be known on rural poverty exits in general, and in Kenya in particular (as presented in section 0) is that (i) there are few poverty exits, (ii) very few consistent results explaining poverty exits have been produced, and (iii) not much evidence has been gathered that would support the hypothesis that agricultural activities would have lifted poor households above the poverty line over time.

This account is in line with a lot of poverty research; e.g. SHEPHERD 2010 doubted the role of agricultural activities for poverty exits, since he summarised the multi-country experiences of the CPRC as follows: *“Among households substantially improving their asset positions (which were found to be well associated with incomes), however, acquiring land and livestock and other assets depended significantly on off farm earnings and savings. While increasing prosperity was intimately tied up with agricultural enterprise, in the sense that improving households typically acquired land and livestock, the factors influencing whether or not improvement happened were to do with: the gender of the household head, being able to avoid deaths and chronic illness, inter-generational wealth transfers, length of residence in the same place (an indicator of social capital), initial household land holding size, education, and location in high potential area.”* (Ibid. p. 4).

This view however somehow contradicts the fact that during the same time span (roughly the zero years) substantial efforts had been made by the GoK and international donors to overcome rural poverty by investing in small-holder agriculture (as discussed in section 2.3). Neither in Kenya nor in other Sub-Saharan countries was it conceptually debated that insights from the PPG-research (section 2.1.2), results from the rural poverty research (section 3.1) and results from poverty dynamics (section 3.2) were never jointly discussed and no effort was made to use these research results to inform or influence agricultural VCD investments.

Yet, as for Kenya, during the past 15 years, the integration in global export production and national (urban) income growth have changed food production and consumption patterns. Increasing incomes stimulate the de-

mand for higher value food items, such as dairy products, meat, fresh fruit and vegetables (AYIEKO et al. 2005). Yet, many agricultural value chains remained fragmented, characterised by little cooperation and integration, cartels, high transaction costs, deep mistrust, price inefficiencies and quality losses. Weak rural-urban linkages and poor rural infrastructure additionally contribute to the low competitiveness (see HOFFLER & MAINGI 2005). Agricultural value chain promotion had been high on the agenda of many development agencies and the GoK. Many projects, programmes and research work were implemented since 2002 to integrate poor farmers into agricultural value chains¹²¹. The development of the export horticulture, the dairy or the maize value chains were seen to be decisive engines for rural growth as outlined in various GoK strategies and had often been cited as successful examples for rural growth and pro-poor poverty reduction. The GoK itself invested heavily in public support programmes for smallholders, such as the “Njaa Marufuku Kenya” programme, which subsidised small seed and fertiliser packages. Alongside all these projects and programmes, numerous studies have been undertaken to analyse their income, employment, environmental and gender impacts. However, all these surveys tend to zoom into particular groups of farmers at one point in time. Not a single comprehensive study existed that analysed the impact of specific agricultural activities on rural poverty exits (see also section 2.3.3 on ‘missing middle’).

This gap between rural poverty research and agricultural value chain activities is ever more surprising, since in Kenya, the government and international agencies emphasised again and again the importance of agricultural growth for rural poverty reduction (see the ‘Strategy for Revitalizing Agriculture’ (SRA, GOK 2004) and the succeeding ‘Agriculture Sector Development Strategy’ (ASDS, GOK 2010) as well as the World Bank’s ‘Kenya Agricultural Policy Review’, which strongly emphasised that agricultural growth would still be very important for poor rural Kenyans, since rural

¹²¹ E.g. DFID-Business Services and Market Development Project, GTZ/GIZ- Promotion of Private Sector Development in Agriculture, various USAID Programmes, EU Livestock Support Programme, IFAD Mount Kenya Horticultural Smallholder Support Programme and Domestic Dairy Market Support Programme, Danida Agricultural Sector Support Project, SIDA National Agricultural and Livestock Extension Project, the World Bank Kenya Agricultural Productivity and Agribusiness Project - to name just a few.

and urban poor would over-proportionally benefit from a stronger agricultural growth path (see WORLD BANK 2009a p. 55 *ff.*).

Thus, the unclear impact of agricultural development on rural poverty exits formed the main rationale for this Kenyan case study on rural poverty exits.

The research question was formulated as follows (see also section 2.4):

- a) Does agricultural VCD contribute to rural poverty reduction?
- b) If so, in what way?
- c) And lastly: how could this contribution be supported by future agricultural VCD projects and how could it be measured and monitored?

4.2 Data

This work is placed in line with the work by RADENY et al. 2012 and MUYANGA et al. 2013 using the TAMPA panel data set.

4.2.1 Description of the TAMPA Panel

4.2.1.1 The Origin of the Panel

As mentioned in section 4.1.1, Kenya was relatively rich in household data compared to other developing countries. To improve the evidence base for the agricultural sector, the Tegemeo Institute for Agricultural Economic Research at Egerton University (Kenya) started planning for an in-depth rural welfare survey in the late 1990s. The sampling of a rural household data set in Kenya was based on research collaboration between the Tegemeo Institute and the Department of Agricultural Economics at Michigan State University. Financial support for this project was provided by USAID Kenya. The first collaboration project was called KAMPAP (Kenyan Agricultural Monitoring for Policy Analysis Project) and designed the rural household sample as a subsample of the 1997 WMS. The main sampling frame for the agricultural sub-sample was based on an equal representation of all Kenyan agro-ecological zones (AEZs) minus the arid dry lands.

A second round of interviews was conducted in 1998; the KAMPAP was then followed by TAMPA, again in collaboration with the Department of Agricultural Economics at Michigan State University and with financial support from USAID Kenya. TAMPA cleaned the 1997 KAMPAP sample, removed and replaced some households and undertook a full second round

of interviews in 2000. The 2000 sample was kept and rounds of interviews with similar questionnaires were repeated in 2004, 2007 and in 2010.

The sampling technique used for choosing the TAMPA panel households was similar across all the sites: within the designated area of study, all the villages/sub-areas were listed with the help of the administration or a chief. AEZ, population, and whether the district belonged to the 'original' KAMPAP (1997) districts (districts where Tegemeo had conducted much research before and had some supplementary data and information on) were some of the key factors in this exercise. The first step was to identify the spatial distribution of AEZ in the district. The idea was to capture as much of the diverse conditions as possible in the sampling. Each district was in turn divided into divisions, locations and sub-locations and then villages/wards. From the district level representative divisions were picked with the help of the agricultural district officers from the MoA, also taking into account population size and AEZ conditions. Because not all divisions within a district could possibly be visited, a random sample of these divisions for further follow-up was listed (a representative sample). At the division level, a similar exercise was carried out with the help of government officials. From here, the locations were selected randomly; similarly, sub-locations were chosen and then finally the village clusters. From this list of village clusters, a number of villages were randomly selected. For the selected villages, and with help from the administration and key informants, all household units within the village by head of household were listed. In most cases the list above exceeded the sample size requirements for the area. Accordingly, the 'universal' KAMPAP sampling technique to select households for interviews was applied¹²².

The main focus of analysis for the TAMPA project was to cover representative rural households in maize growing areas. Therefore, the original

¹²² "Universal KAMPAP sampling technique was based on the fact that most village elders or chiefs have a pretty comprehensive list of householders' names. Suppose Tegemeo had a total list of 76 households for a village or cluster from the chief (numbered from 1 to 76). Assume too that all Tegemeo needed was to interview 12 households from this village. The objective was to randomly select every sixth household to get the 12 we needed (approx $76/12=6$). The question was, on a numerical list of 1 to 76 where do you start the selection (is it 1,2,3,4,5 or 6)? Tegemeo wrote the numbers 1 to 6 on different pieces of paper of similar size, folded and mixed them up. Then a villager or the chief picked one of these papers and revealed the number. Suppose the number picked was 3; then Tegemeo proceeded to pick the households starting from the third on the list, i.e. 3,9,15,21,27 etc.. In conclusion, the samples were as random as was possible and the data is safely assumed to express this random nature" (see Tegemeo Data Guide and Policy; www.tegemeo.org).

sampling frame is only representative for those regions in Kenya that are relatively suitable for crop production; most semi-arid and all arid districts were excluded. The main research focus then was to understand agricultural productivity variables¹²³.

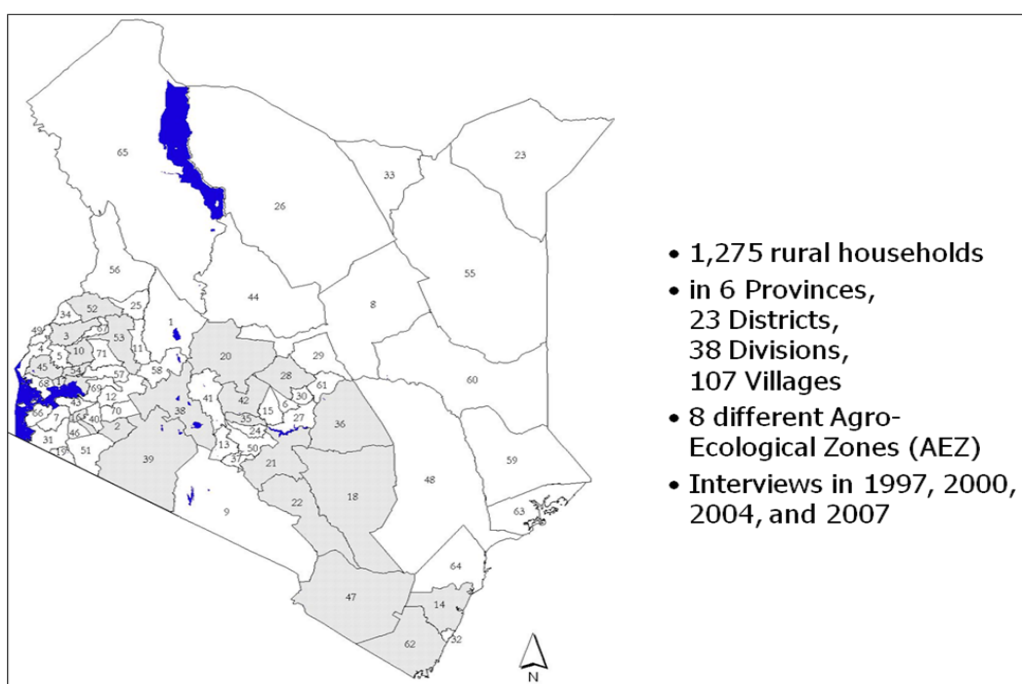
From the originally 1540 households sampled in 1997, the semi-arid households were excluded in the following survey years. Four consecutive survey rounds could only be completed for 1275 households. These households have been repeatedly interviewed in 2000, 2004 and 2007 using a detailed standard agricultural household questionnaire. The last TAMPA panel round was undertaken in 2010, but due to substantial attrition after the 2008 post-election violence the 2010 round is not fully seen in line with the other panel years. Each survey round also incorporated additional research activities and gathered data on specific topics of research interest¹²⁴.

The overall attrition rate of the '97-'07 panel has been estimated to be around 15 %; the annual attrition rate per AEZ was between 2.2 % and 4.1 % and thus assessed to be considerably low compared to other surveys in developing countries (see ALDERMAN et al. 2001). No attrition bias for the data was found by neither BURKE et al. 2007 nor RADENY et al. 2012 .

Graph 4—3 depicts the regional distribution of the TAMPA households.

¹²³ Numerous agricultural production aspects have been researched intensively with the data; i.e. fertiliser use, access to land and credit, adoption rates of improved seeds and fertiliser, etc. see www.tegemeo.org for all TAMPA research.

¹²⁴ E.g. in 2000 on tree crops for the World Agroforestry Centre; in 2007 on additional households that were involved in USAID funded projects; and in 2010 on general impacts of post-election violence.

Graph 4—3: Geographical Distribution of the TAMPA Panel Households

Source: own illustration

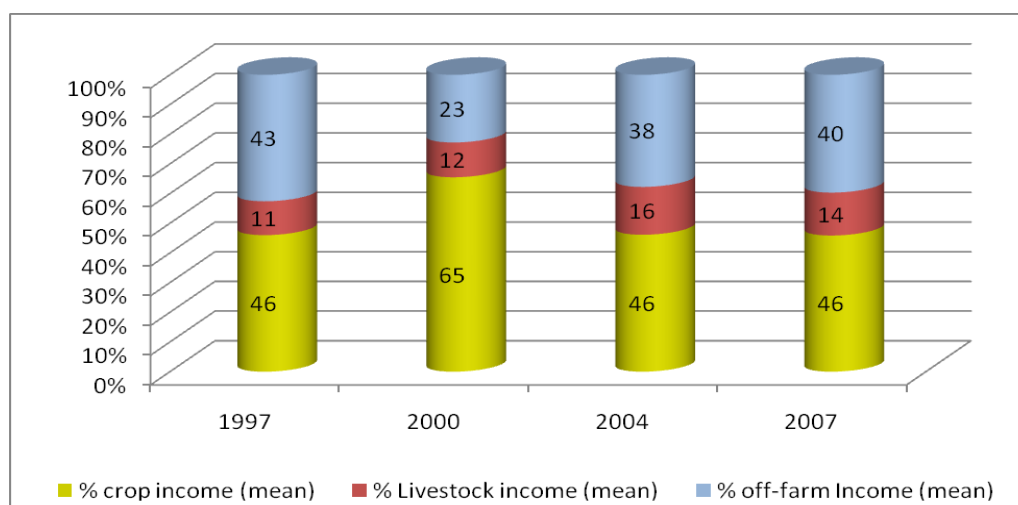
4.2.1.2 Summary Statistics on Poverty Dynamics in the Panel

Among the many variables that were consistently reported over the four panel years under analysis¹²⁵, the income variable was computed as a function of the sum of the following three bundles of variables: (i) all crop incomes plus (ii) all livestock incomes plus (iii) all off-farm incomes¹²⁶.

In line with the findings of LAY et al. 2007 and many others, the TAMPA data confirmed that off-farm income plays an important role as a source of income (on average 36 % of the total household income, as depicted in Graph 4—4), even for purely rural households.

¹²⁵ See Tegemeo's original questionnaires for all variables and questions and Tegemeo's survey documentation files for each survey year for additional comments on the variables.

¹²⁶ The bundle 'all crop incomes' and 'all livestock incomes' contain fairly complex variables, such as the gross values of crops produced and livestock kept and sold, price estimates for all inputs and outputs, consumer price index deflators per each survey year, etc.. 'Off-farm income' basically combined wages and salaries, informal business values and remittances and transfers.

Graph 4—4: Trends in Sources of Income for total Household Incomes

Source: own calculations

Interestingly, the percentages of crop and livestock income had remained pretty stable over the panel waves with 2000 being an outlier mainly due to extraordinarily good maize harvest resulting in increased crop income for many.

Within the off-farm income, the relative part of wages, salaries, remittances and revenues from businesses and informal jobs remained remarkably unchanged over the years (see TSCHIRLEY et al. 2008).

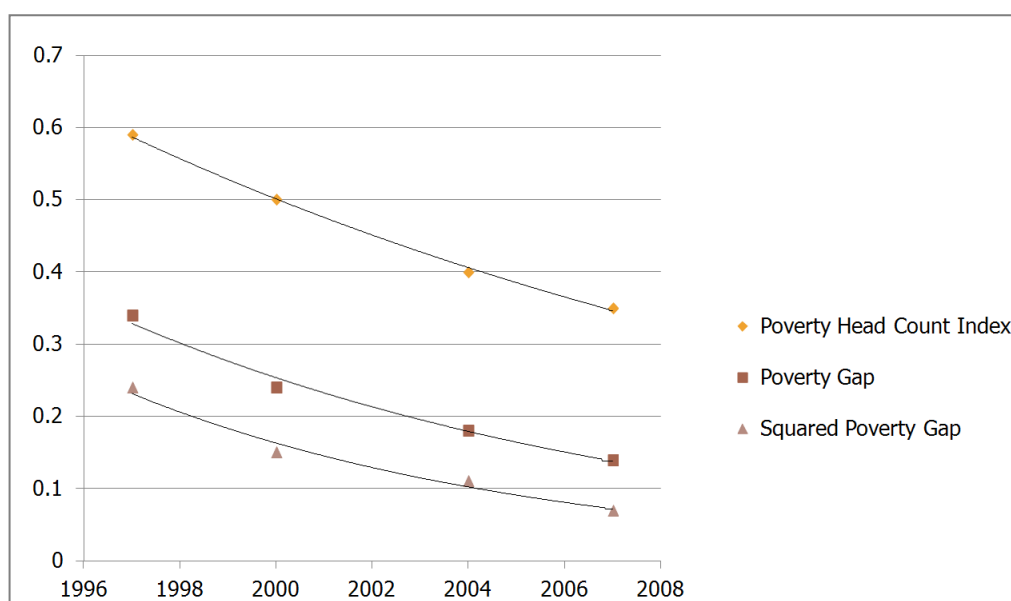
Using the income variable, the poverty status was calculated using an income-based approach. Nominal rural poverty lines for 1997, 2000, 2004 and 2007 were used as calculated by SURI et al. 2008 , who extrapolated the CBS official Kenyan rural poverty lines for 1997 and 2006 (which were KES 1239/month and KES 1562/month respectively; see also KNBS 2007b). These two lines were inflation-adjusted for each survey year; the resulting nominal poverty lines are presented in Table 4—6. To account for differences in the size of households, an adult equivalents (ae) categorisation was used as standardised by the World Bank (see DEATON 1997).

Table 4—6: Nominal Rural Poverty Lines (1997-2007) in KES

Survey Year	1997	2000	2004	2007
Nominal Rural Poverty Line in KES	1239/month/ae	1347/month/ae	1490/month/ae	1598/month/ae

Source: SURI et al. 2008 p. 6.

The household total income, divided by the number of ae reported to live all year round in the household per survey year, resulted in the poverty status: above or below the national rural poverty line of the respective survey year.

Graph 4—5: Foster-Greer-Thorbecke Measures (1997-2007)

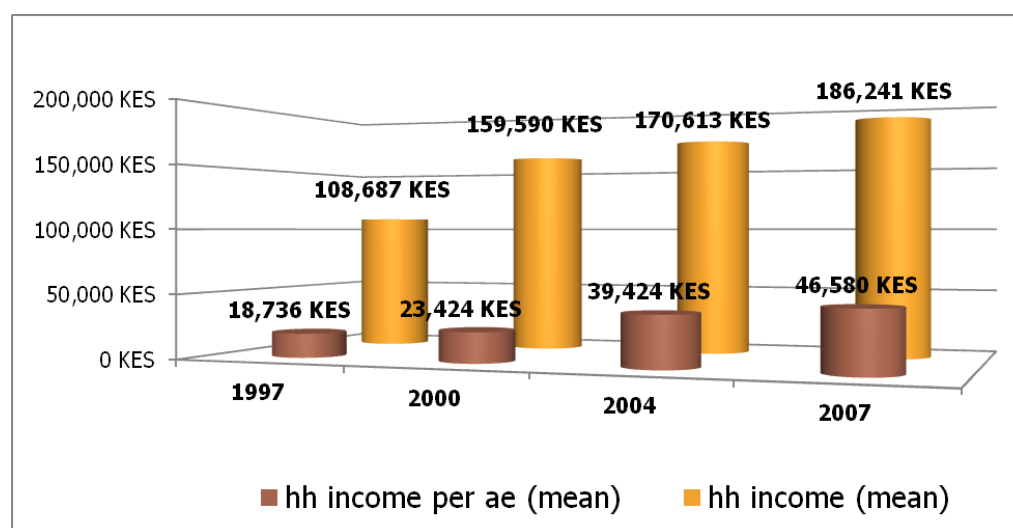
Source. own calculations

The respective FGT-measures (see also 3.2.1 for explanation) for the TAMPA panel are displayed in Graph 4—5. In line with the national WMS 1997 and KIHBS 05/06, poverty decreased between 1997 and 2007 by all three FGT measures. Poverty incidence fell from 0.59 in 1997 to 0.35 in 2007. This illustrates an over-proportional rate of poverty reduction compared to national data in the KIHBS 05/06 (see Table 4—2). The poverty gap was reduced from 0.34 in 1997 to 0.14 in 2007. This shows that the

proportion of poor households in the TAMPA panel falling below the poverty line (the poverty gaps) was reduced substantially. Lastly, the squared poverty gap (0.24 in 1997 and 0.07 in 2007) expressed a remarkable reduction of poverty severity. The summary interpretation of the TAMPA FGT-measures is that the sample shows an above national average poverty reduction during this period of time. This suggests that the TAMPA sample shows a substantial bias towards households that (i) managed to exit poverty (see poverty headcount index) and (ii) a bias towards poor households that managed to reduce their distance to the poverty line more than the average (poverty severity as displayed by the poverty gap and squared poverty gap).

These trends are respectively reflected by the mean annual incomes per ae or household as displayed in Graph 4—6.

Graph 4—6: Mean Annual Incomes (per hh and ae, 1997-2007)



Source: own calculation

As opposed to income trends, a number of descriptive variables in the panel did not change much over time. Table 4—7 presents some selected descriptive household statistics. The only remarkable change in household characteristics was that the percentage of female headed household increased over time from less than 10 % in 1997 to almost 25 % in 2007. This might illustrate the longer life expectancy of women and therefore, statisti-

cal increase in women outliving their husbands as head of households¹²⁷. Otherwise, household sizes, land owned or distance to tarmac roads stayed largely the same¹²⁸.

Table 4—7: Selected Descriptive Statistics for the TAMPA Panel (N=1275)

	1997	2000	2004	2007
Size of Households (ae)	6.6	6.5	6	5.8
Age of Head of Household (years)	49.2	53.7	55.2	58.7
Male Head of Household (%)	90.1	88.3	82.5	76.7
Land size owned (acres)	6.1	6	6	5.8
Distance to Tarmac Road (km)	8.2	8.1	7.8	7.6
Income/month/ae in (KSh)	1561	1952	3285	3882

Source: own calculations

For the categorisation of poverty dynamics, the following poverty transition definitions were used, following HULME et al. 2001 (as discussed in section 3.2.1):

persistent poor = below the poverty line each survey year

never poor = above the poverty line each survey year

poverty exiters = below the poverty line in '97 and '00;

above the poverty line in '04 and '07 or below the poverty line in '97; above the poverty line in '00, '04 and '07¹²⁹

descending poor = above the poverty line in '97 and '00;

below the poverty line in '04 and '07

oscillators = above or below the poverty line in '97 and the opposite in '00;

above or below the poverty line in '04 and the opposite in '07

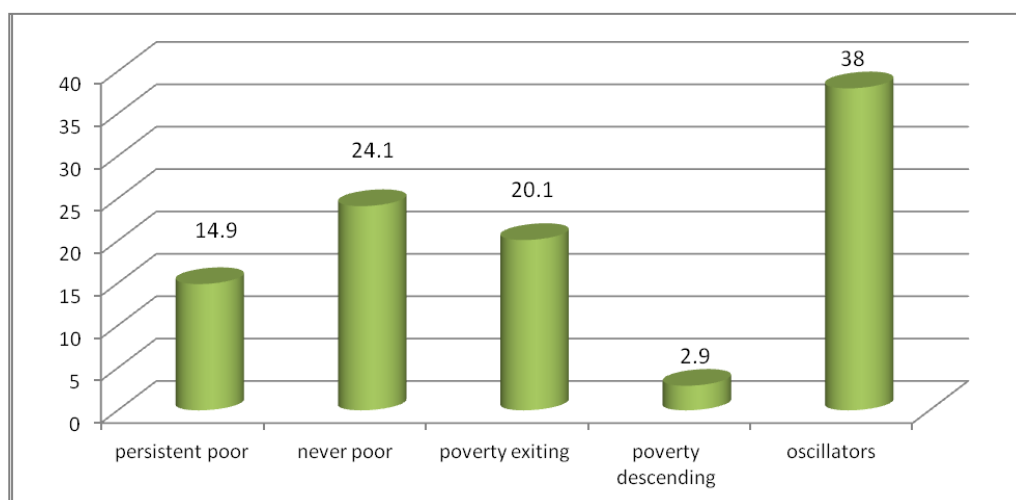
¹²⁷ Life expectancy at birth in 2007 for Kenya was estimated to be 60.4 years for women and 57.1 for men (see KNBS 2007a).

¹²⁸ The selection of characteristics could have been expanded; yet the relatively stable key descriptive statistics of the sample have been largely confirmed by e.g. TSCHIRLEY et al. 2008 or MUYANGA et al. 2013 .

¹²⁹ Thereby, poverty exiting households were defined for this research to be rather on the non-poor side than on the poor or oscillating side in order to assure a clear upward trend in income.

Graph 4—7 shows the overall poverty transitions of all TAMPA households over the survey years.

Graph 4—7: Overall Poverty Dynamics of all TAMPA hh (in %, 1997-2007)



Source: own calculation

Almost one quarter of the sample was never poor (24.1 %). The largest group were the oscillators (38.0 %) followed by the poverty exiters (20.1 %) and the persistent poor (14.9 %). The by far smallest group were the descending poor (2.9 %) which is consistent with the overall poverty declining trend in Kenya during these years (KNBS 2007b). Yet, it also confirmed the bias towards above average poverty reduction in the TAMPA panel. In essence, poverty reduction took place, but there are indications on the existence of poverty traps for the persistent poor and the high number of the oscillators.

In addition to the poverty status, households were then classified by their sources of income (crops, livestock or off-farm) into agricultural and non-agricultural households; the latter ones defined by realising higher off-farm income than their crop and livestock income combined. This is in line with other research results on household livelihood strategies in rural Kenya (e.g. BROWN et al. 2006 or BARRETT et al. 2006). This step divided the panel henceforth into 964 agricultural and 311 non-agricultural households; depending on which source of income had the higher contribution to overall

income. Table 4—8 shows the poverty transition matrix for agricultural and non-agricultural households compared to all households in the panel.

Table 4—8: Poverty Transition Matrix of TAMPA Households (1997-2007)

	all hh		ag hh		non-ag hh	
	No.	%	No.	%	No.	%
persistent poor	190	14.9	154	16.0	36	11.6
never poor	307	24.1	225	23.3	82	26.4
poverty exiters	256	20.1	195	20.2	61	19.6
descending poor	37	2.9	27	2.8	10	3.2
oscillators	485	38.0	363	37.7	122	39.2
Total No. of hh	1275	100	964	100	311	100

Source: own calculation

The percentage of the persistent poor was higher among the agricultural households (16.0 %) than among the non-agricultural households (11.6 %) and unsurprisingly, non-agricultural households had a higher percentage of never poor. However, little difference was seen between the percentage of the exiters, descending poor or the oscillators.

Therefore, the agricultural households were disaggregated further into crop households (with the predominant source of income being crop production); livestock households (with the predominant source of income being livestock production) and mixed households (with crop and livestock production contributing almost equally to the total agricultural household income).

Table 4—9: Poverty Dynamics of Different Agricultural Households (1997-2007)

	all ag hh		crop hh		livest hh		mixed hh	
	No.	%	No.	%	No.	%	No.	%
persistent poor	154	16,0	131	16,9	9	15,0	14	10,9
never poor	225	23,3	183	23,6	12	20,0	30	23,3
poverty exiters	273	28,3	217	28,0	16	26,7	40	31,0
descending poor	27	2,8	20	2,6	2	3,3	5	3,9
oscillators	285	29,6	224	28,9	21	35,0	40	31,0
Total No. of hh	964	100	775	100	60	100	129	100

Source: own calculation

The results in Table 4—9 suggest that mixed households were less often persistently poor and slightly more often exiting poverty than the average agricultural household – which goes in line with general observations of risk minimisation and strategies of diversification. Livestock households seem to have been more often oscillating around the poverty line than others, which confirms result from BURKE et al. 2007 .

To further shed light on the fact that compared to the relatively low rural poverty reduction rate in Kenya overall during the same time (as reported in Table 4—2), the TAMPA sample enjoyed substantial poverty reduction consistently from each survey year to the next (as shown in Graph 4—5). Since one possible explanation could have been the relatively favourable area these households were sampled in, spatial patterns of poverty mobility across the agricultural households were analysed as presented in Table 4—10.

Table 4—10: Poverty Transition Matrix of Agricultural hh (by AEZ, 1997-2007)

Agro-Ecological Zone (AEZ)	all ag hh	%	Persistent poor	Never poor	Poverty exiters	Descending poor	Oscillators
High Potential Maize	288	29.9	28.6	35.6	28.6	18.5	28.4
Central Highlands	207	21.5	4.5	47.6	21.2	7.4	11.6
Western Highlands	111	11.5	22.1	1.8	13.2	11.1	11.9
Western Transitional	135	14.0	14.3	5.3	14.3	40.7	17.9
Marginal Rain Shadow	24	2.5	0.6	1.8	4.0	0.0	2.8
Coastal Lowlands	20	2.1	1.9	0.9	1.5	3.7	3.5
Eastern Lowlands	80	8.3	4.5	5.3	7.3	14.8	13.0
Western Lowlands	99	10.3	23.4	1.8	9.9	3.7	10.9
Total	964	100	100	100	100	100	100
% of all ag hh	964	100	16.0	23.3	20.2	2.8	37.7

Source: own calculation

GAMBA & MGHENYI 2004 had already revealed unexpected results on the relationship between geography, natural resource endowment and poverty in the early TAMPA waves, since there seemed to have been very little evidence that poverty levels depended on agro-ecological zones – suggesting that the rural poor and the non-poor live geographically closer together than expected (*Ibid.*).

Table 4—10 indicates that poverty transitions according to AEZ did not give a clear picture or pattern. As one might have expected, the two high potential zones (High Potential Maize and Central Highlands) had the highest proportion of never poor households and more than average shares of poverty exiters, but they also showed unexpectedly high numbers of persistent poor and of descending poor. The areas of mid-level agro-ecological potential had low numbers of never poor and mean shares of poverty exiters yet the highest number of descending poor. The low potential areas showed surprisingly low numbers for persistent poverty and for never poor households; but as expected had low shares of poverty exiters. However, the picture of poverty transitions of agricultural households depending on their agro-ecological potential was less obvious than expected (see also HOFFLER 2011a).

Spatial aspects were further analysed by BURKE & JAYNE 2008 using the 11-year mean rainfall per location as presented in Table 4—11.

Table 4—11: Poverty Transition Matrix of Agricultural hh (by rainfall, 1997-2007)

11-year mean rain- fall quartile (1997 – 2007)	Poverty mobility group				
	Persistent poor	Never poor	Oscillators	Poverty Exiters	Descending poor
220 to 405mm	35.2 %	18.8 %	23.4 %	34.7 %	30.4 %
405 to 575mm	4.2 %	57.5 %	22.0 %	57.5 %	21.7 %
575 to 735mm	36.4 %	15.5 %	27.0 %	28.6 %	30.4 %
735 to 975mm	24.2 %	8.2 %	27.6 %	20.4 %	17.4 %
Total	100 %	100 %	100 %	100 %	100 %

Source: BURKE & JAYNE (2010).

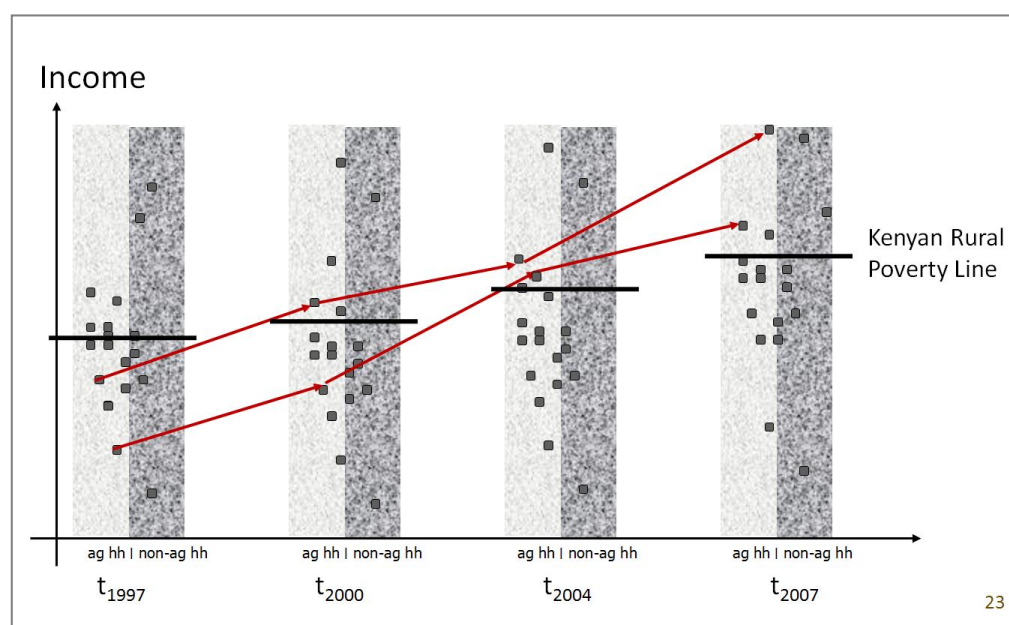
When looking at the 11-year mean rainfall per location of the households, poverty transitions again did not follow expected trends. Persistent poverty was highest in the second rainiest areas, whereby the highest share of never poor and poverty exiting households was located in the third driest category. Both variables, AEZ and rainfall have also been tested in multinomial probit regression for poverty exit, yet with equally non-concluding results (BURKE & JAYNE 2010).

The low explanatory power of the AEZ and rainfall variable was pretty surprising given the fact that almost all agricultural activities covered in the sample were rain-fed agricultural activities. However, it also contained a potentially good message for agriculture-driven poverty exits: even in drier and less favourable areas, agricultural households exited poverty during the 10-year period suggesting that also with rain-fed agricultural activities poverty exits could have been possible.

4.2.2 Description of the Sub-Sample of Poverty Exiters

In order to answer the research question whether agricultural VCD supported poverty exiting households in their upward mobility, a sub-sample of poverty-exiting households had to be identified for follow-up interviews. Therefore, all poverty exiting agricultural households were grouped according to their crop-livestock activities (see Table 4—9). It was envisaged to follow-up on roughly 50 poverty exiting households – i.e. 20 % of all poverty-exiting agricultural households and 5 % of all panel households.

Graph 4—8: Poverty Exit Definition of the Sub-Sample of Poverty Exiters



Source: own illustration

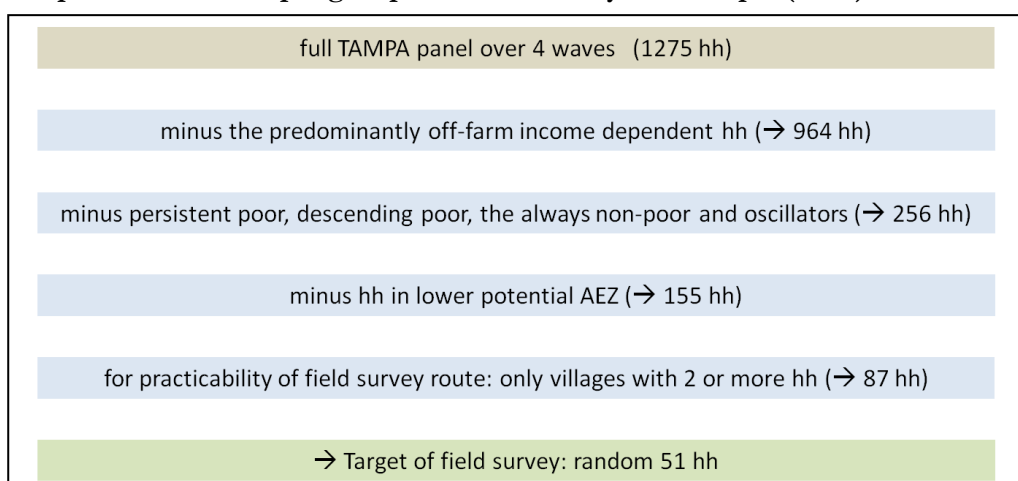
The idea for the sampling was to select out of the TAMPA panel those households, that were clearly dependent on agriculture as a source of income and were poor in 1997 and/or in 2000, but exited poverty by 2004 and 2007 (as depicted in Graph 4—8). This allowed for finding out what reasons they mentioned for their poverty exit and how much it was linked to their agricultural diversification or intensification (which will serve as proxy-indicators for VC activities)¹³⁰.

¹³⁰ Given the relatively small number of households in the sample that showed a clear upward or downward mobility, and given the assessment that the poverty line used in the first three spells of the panel is rather low compared to the rural poverty assessment provided by KNBS 2007b, only the following definition of poverty exit has been used: a household that was classified income-poor in 1997 and 2000 and classi-

Out of the 256 poverty exiting households from the TAMPA panel, the 195 poverty exiting agricultural households were identified and used as a new sampling frame. At least 15 % were targeted to be selected for follow-up interviews in order to understand the factors driving their poverty exit. For households that exited poverty with a predominantly agricultural income—according to geographic features (high potential AEZs only) – this would constitute half of the survey households. Yet, the stratification of the poverty exiting households to be selected needed to be aligned with survey logistics and resources and thus, needed to target certain geographic areas only for pragmatic coverage. Since these 195 agricultural, poverty exiting households were clearly geographically distributed in areas of higher agricultural potential, the study focussed on 155 households from the four agro-ecological zones showing the highest potential (representing 80 % of all agricultural poverty-exiting households). This sampling step followed the argument of KIMENJU & TSCHIRLEY 2009, that agricultural systems in the four higher potential zones might feel most of the impacts of policy and programmes reshaping agricultural marketing systems and value chains over the last 15 years.

Out of these remaining 155 households, only villages with two or more households were selected in order to stay in line with the survey budget and logistics. Out of the remaining 87 households, 51 were randomly selected for in-depths follow-up interviews as depicted in Graph 4—9.

Graph 4—9: Sub-Sampling Steps for Field Survey Sub-Sample (n=51)

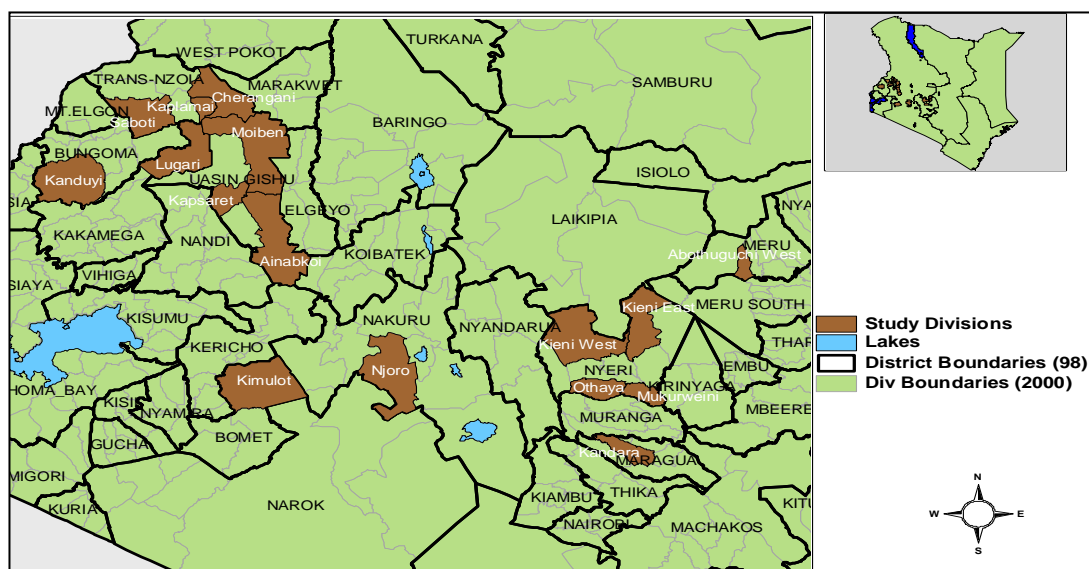


Source: own illustration

fied as non-poor in 2004 and 2007; or a household that was classified income-poor in 1997 and classified as non-poor in 2000, 2004 and 2007.

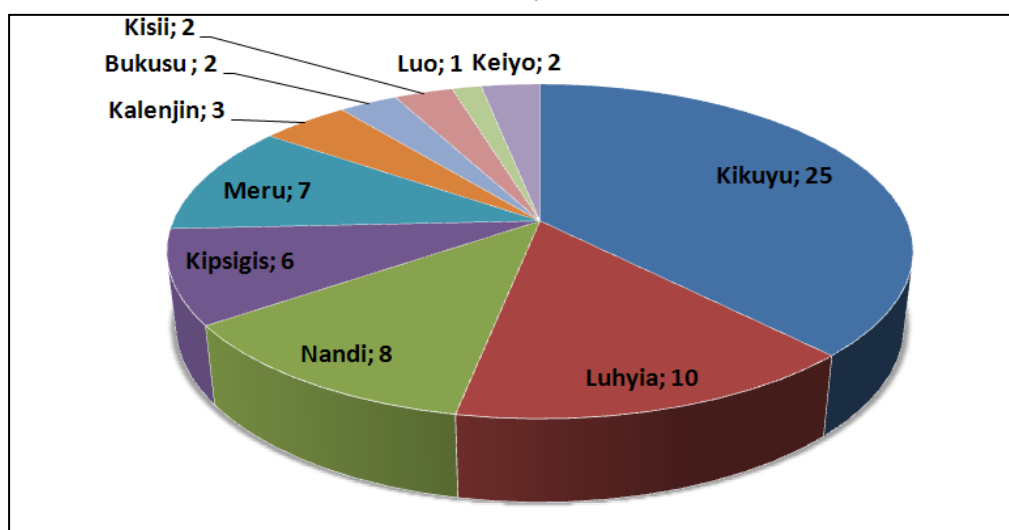
Graph 4—10 presents the final geographical location of sub-sample households, Graph 4—11 the ethnic composition of the respondents.

Graph 4—10: Study Sites for Life History Survey (by administrative Division)



Source: Tegemeo Data Base

Graph 4—11: Ethnic Composition of Survey Respondents



Note: the number of respondents (66) is exceeding the number of households (51), since 15 interviews were conducted with two respondents, in most cases spouses

Source: own data

The basic household characteristics of agricultural households that exited poverty did not differ very much from the overall TAMPA sample. Table 4—12 presents descriptive statistics for the sub-sample of 51 households.

Table 4—12: Descriptive Statistics of the Sub-Sample in 2007 (n=51)

Variable	Mean	Δ over all TAMPA
Size of Households (ae)	6.2	+0.4
Age of Head of Household (years)	58	-0.7
Male Head of Household (%)	72	-4.7
Education of Head of Household (years)	6	/*
Land size owned (acres)	7.3	+1.5
Distance to Tarmac Road (km)	5.2	-0.6

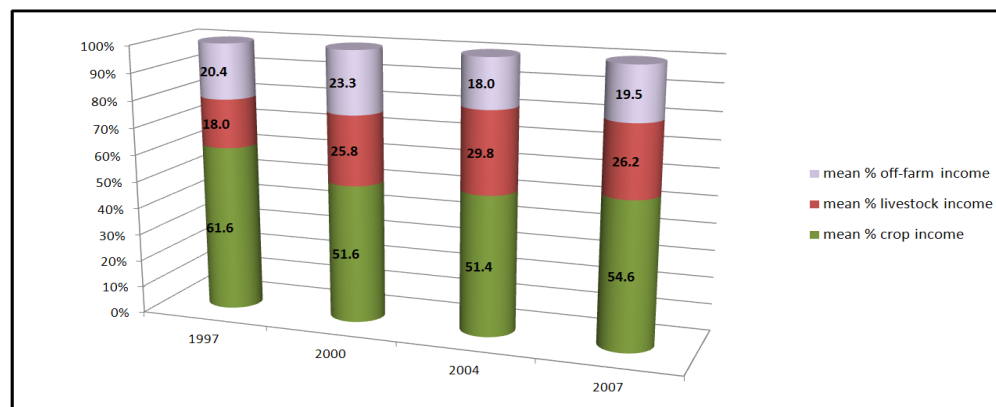
* Unfortunately, the number of schooling years of the heads of households were not recorded by the overall TAMPA panel and thus, cannot be compared here.

Source: own calculation

Compared to all TAMPA households, the mean size of the household of poverty exiters was slightly higher (-0.4 adult equivalents), the age of the head of household slightly lower (-0.7 years) and more often female headed (4.7 % more female headed households), the distance from tarmac roads and differences in income were negligible. The only variable that was significantly larger was land size owned: poverty exiting households had on average 1.5 acres more land (equalling 20 % larger land holdings).

As it was required by the sub-sampling, the households earned their living by predominantly agricultural income; the income from agriculture, as well as from livestock and off-farm sources remained remarkably constant over the pane years, as depicted in Graph 4—12.

Graph 4—12: Household Income Composition (Sub-Sample, n=51)



Source: own data

4.3 Methodology

The methodological idea of this work is placed in line with the work by RADENY et al. 2012 and MUYANGA et al. 2013 and largely follows their two step q-squared approach (as discussed in 3.2.2). After a quantitative analysis of the TAMPA panel years '97, '00, '04 and '07, qualitative follow-up interviews with poverty exiting households were conducted. They focused on the households' agricultural life history and their poverty self-assessment.

However, when working with Tegemeo Institute on the quantitative analysis of poverty driving factors in the panel data, it turned out that a number of the planned quantitative analyses had already been undertaken and had not yielded fruitful results or the explanation for poverty exits (particularly the probit estimations undertaken by BURKE et al. 2007). Thus, the highest interest for the Tegemeo Institute was to focus on the life history interviews as a new, qualitative angle to analyse their panel (as also mentioned in chapter 1).

Hence, in contrast to RADENY et al. 2012 and MUYANGA et al. 2013, the focus of this qualitative survey was neither on assets nor on self-assessments, but on agricultural life histories. Section 3.1.3 already described the methodology of life histories and 'SOP; section 4.3 focuses on the practical application of these methodologies to the TAMPA panel subsample and the implementation of the field survey.

4.3.1 Theoretical Background for Qualitative Follow-up Interviews

The quantitative follow-up interviews follow a deductive logic since they build on an existing set of data (and literature). However, by using this data and singling it into a sub-sample of households, new qualitative data was generated, which in turn informed the underlying theory. Therefore, this research added an inductive aspect to already existing work. Theoretically, the approach used borrowed many aspects of analysing qualitative data from hermeneutic approaches such as the 'Grounded Theory' (GT) (see Box 4—1) in the sense that it is tried to discover variables of explanatory value that had not been discovered by previous research¹³¹.

¹³¹ See also "Anwendung von Entdeckungsverfahren in regelgerechter Form". (KLEINING 1995 p. 225 ff.).

Thereby, this research proposed an innovative methodological approach to overcome the identified gaps in poverty impacts of agricultural VCD by using a q-squared approach with a qualitative part that builds on sociological research methods and on GT (see Box 4—1 and also Footnote 79).

Box 4—1: Grounded Theory

GT was launched and framed by GLASER & STRAUSS 1967 . It offered a vision of how to theoretically innovate research. The authors believed that theory could and should be stimulated through and grounded by empirical research and GT set out to show how this could be done in practice (see e.g. DEY 2004 or CLARKE 2007 in SEALE et al. 2004 for a comprehensive account of GT).

All the authors emphasised that GT should not be understood as a qualitative research method *per se* but rather as a research style or paradigm that combines a certain understanding of subjective-anchored theory building with some methodological implications. The theory does not aim at reconstructing reality as exact as possible, but at demonstrating recurring patterns of social phenomena.

‘Adaptive Theory’ as described by LAYDER 1998 follows similar premises – here, theoretical models act as ‘templates’ against which data is evaluated to see whether they fit into the conceptual scheme of the model (see *Ibid.*, Introduction).

In sociological research, the ‘closest relative’ to a q-squared approach is the school of multi-methods, whereby a multi-method approach is described in the following aspects: “(i) *quantitative and qualitative*; (ii) *deductive and inductive*; (iii) *objective and subjective*; (iv) *positivistic and interpretative*; (v) *unobtrusive and obtrusive*; (vi) *building on available and generating new data*” (see KLEINING 1995 p. 122).

These aspects fit very well to close the conceptual gap between the quantitative sub-sample data and the focused life history interviews with poverty exiting households. Also CARGAN 2007 recommended a multi-method approach “because the limitations of one method tend not to be the same as those for another” (*Ibid.* p. 55). As already emphasised in 3.1.4, the main reason and justification for mixing methods and logics lies in the simple and by literature backed insight that the explanatory power of one theory alone is not large enough for the research question under study (see also KANBUR 2003 or ADDISON et al. 2009a). In social science research, employing a multi-

method research can serve a variety of aims¹³². Yet, the most comprehensive justification to combine development economics and sociological approaches is described by HAMMERSLEY 1996 who suggested three methodological advantages to combine qualitative and quantitative research:

1. Triangulation – where one type of data is used to corroborate another type of data – i.e. to derive theoretical insights from one type of data and then test it with another one;
2. Facilitation – where collecting one type of data facilitates the collection of another type of data; and
3. Complementarity – where two different types of data sets are employed to address different but complementary aspects of an investigation.

The approach of using the TAMPA panel data set for follow-up interviews fulfils the aspects of ‘facilitation’ and of ‘complementarity’. The most interesting aspect for this research was the one of ‘triangulation’; not only because of the explanatory power behind the triangulation aspects of comparing quantitative with qualitative data, but also because of the methodological contribution this approach could bring to q-squared poverty research. Triangulation thereby helped to validate (or not to validate) the results of either one method and by way of mixing with the other method, improved the explanatory power of the results produced^{133, 134}.

By way of interviewing the selected households, this research used triangulation a lot; however, by coding the interviews and analysing the plausibility of hypotheses and results (see also section 4.3.2), the work went well beyond triangulation of quantitative data with qualitative results only.

SILVERMAN 1993 usefully quoted the three distinctive features of qualitative field research as defined by HAMMERSLEY & ATKINSON 1983, which were largely followed in the design and implementation of this field work:

¹³² See e.g. BRANNEN 1992 and BRANNEN 2004 for a useful account of mixing methods in sociological research.

¹³³ See also MORAN-ELLIS et al. 2006 for a full account of the potential and possible application of triangulation in social science research.

¹³⁴ This field research here also follows the notion of BRYMAN 2006 : “[...] *there is a general questioning of some of the better known notions with which mixed-methods research is associated. This is especially the case with the notion of triangulation. This idea, which derives from validity concerns in quantitative research, has been taken up by many researchers combining quantitative and qualitative approaches to the point that it is almost synonymous with doing mixed-methods research.*” (Ibid. p. 6).

1. *Field research can provide a broader version of theory than simply a relationship between variables: a theory should include reference to mechanisms or processes by which the relationship among the variables identified is generated.*
2. *At best, the flexibility of field research can allow theory development to be pursued in an effective manner,*
3. *Theorising from field research is not restricted to social scientists, no matter if we only try to report how people see things or try to understand the social organisation behind their perceptions.*

(see SILVERMAN 1993 p. 27-28).

In addition, KLEINING 1995 emphasised the importance of the ‘dialogue-principle’ in qualitative heuristic research and posed four important rules: “(i) the research subject needs to be open to be interviewed; (ii) the research object needs to be open to what he is been told by the research subject, even and in particular when this contradicts prevailing perceptions; (iii) employment of maximum research variability in discovering the research subject; and (iv) analysis for communalities of research findings.” (Ibid., p. 228). Rule (i), (ii) and (iv) were all followed in this research; the requested flexibility in methods (rule (iii)) did not need to be applied.

4.3.2 Design of Qualitative Follow-up Interviews

The specific research objective of this survey was to develop a better, meaning a qualitatively supported and more empirically grounded, understanding of household poverty dynamics in relation to their agri-food chain activities. So, in order to contribute to the overall research question ‘Which poverty impacts are achieved by value chain projects (and policies)?’, the following specific research questions were formulated to guide the field survey of poverty exiting households from the TAMPA panel:

- (i) Does the qualitative household survey confirm the quantitative poverty assessments? (Validation)
- (ii) Does the qualitative household survey confirm positive poverty impacts in relation to agricultural activities? (Attribution)
- (iii) Does agricultural value chain integration lead to broadening, deepening or diagonal movement of poor households over time? (Impact)¹³⁵

¹³⁵ See also the poverty impact hypotheses as developed in 2.4: (i) Integration of poor farmers into new agri-food chains (e.g. high-value agricultural products, horticulture, aquaculture, organic food products) and thereby creating production, income and em-

(iv) At a meta-level:

Can q-squared- methodologies contribute to future impact assessment of rural poverty reduction programmes in general and agricultural value chain promotion in specific? (Triangulation)

To operationalise these research questions, the following model on poverty exit of rural households was formulated:

$$\text{hh pov}_{\text{ex}} = \sum(1...w)\text{hh}_{\text{external factors}} + \sum(1...x)\text{hh}_{\text{internal factors}} + \sum(1...y)\text{hh}_{\text{agricultural factors}} + \sum(1...z)\text{hh}_{\text{non-agricultural factors}} + \varepsilon$$

whereby a rural household's poverty exit would depend on the sum of external factors, of household internal factors, of agricultural and non-agricultural factors plus a stochastic variable (ε)¹³⁶.

In line with the literature presented in Table 4—3 and Table 4—4, and in line with the modelling and factors used by IFAD 2010 (chapter 4), a set of potential factors was compiled for all four categories, see Table 4—13¹³⁷.

ployment opportunities for the rural poor; (ii) Broadening existing agri-food chains to include poorer and/or more poor producers thereby increasing the outreach and uplifting their income level; (iii) Deepening existing agri-food chains by increasing poor producers' share in the overall income generated along the chain; and (iv) Supporting the poor to move diagonally to higher valued agri-food chains, using knowledge gains for higher qualified production systems and thereby increasing income shares.

¹³⁶ The original idea to analyse these factors statistically using a PROBIT Model in order to estimate poverty exit probabilities and to test the relative impact of these factors was not realised, as explained in sections 1.2.4 and 4.3.

¹³⁷ These hypothetical internal and external factors were used for 'theory building' as described by Cargan 2007: "The basis of one's research is a unique event and for it to be useful, it is necessary that the research problem be formulated at a higher level of abstraction – the theory. The development of a theory leads in turn to the need to identify the hypotheses that will test the premises of that theory. Developing the hypotheses brings about the necessity of its framing. 'Framing the hypotheses' means making the hypotheses operational by devising their independent and dependent variables and defining their major concepts so that all is feasible and reliable." (Ibid. p. 26).

Table 4—13: Factors related to Poverty Exits at Household Level

hh external factors	positive or negative shocks affecting the hh welfare (droughts, floods, insecurity, mis-/bumper harvests, illnesses, etc.).
hh internal factors	hh demographics over time; hh welfare over time (Income Poverty dynamics and self-assessment); hh sources of income over time; major social events affecting hh welfare (deaths/births/marriages/diseases/remittances/ etc.);
hh agricultural factors	hh agricultural activities over time (numbers, type, intensity, diversification, revenues); hh assets including land over time; major hh external (agricultural) events affecting the agricultural activities of a hh over time (access to land, water, inputs, markets, prices, knowledge, innovations, etc.); agricultural value chain development activities if any; and
hh non-agricultural factors	changes in hh off-farm income sources, remittances, rural non-farm economy activities, etc.

Source: own compilation

These factors were then formulated as hypotheses in order to assess the explanatory importance of the factors for a household's poverty exit¹³⁸. Thus, all the above-mentioned factors were based on specific hypotheses concerning their impact on a household's poverty exit and formulated to be tested in the qualitative follow-up survey (i.e. 'Rural hh that have exited poverty did so because of a diversification of crop and/or livestock activities' or 'Commercialisation in hh agricultural activities is attributed to VC activities' etc.; see also Annex II).

In addition, the design and the implementation of the field survey (see also 4.3.3) allowed for ample open questions concerning the reasons mentioned for a household's poverty exit and how much it was linked to their agricultural value chain activities. It also left space for grounded factors (according

¹³⁸ It should be noted that the formulation of a hypothesis is of high importance in applied social science research. The shortest possible definition is: "*A hypothesis is a conjecture relationship between two phenomena*" (see VAN EVERA 1997 p. 9). According to CARGAN 2007 "[...] hypotheses are specific expectations deduced from the framework of a theory. They consist of a conditional assertion involving the relationship between two or more variables regarding social reality in a form suitable for testing via empirical research. The function then of a hypothesis is to suggest an expected relationship between variables and guide the investigation of other facts. In this manner, the hypothesis focuses the study by indicating the specific aspects of the research problem to investigate, guides the data that should be collected, and serves as a test of the theory from which it had been derived." (Ibid. p. 33). See also GOODE & HATT 1952 for the basics of hypothesis building.

to GT) that were not hypothesised *a priori*¹³⁹. Thus, the intention was not only to test hypotheses, but also to use the data for building new ones.

Following CARGAN 2007, categories of factors that are relevant to the research questions were developed and formulated¹⁴⁰ (see Table 4—14). In line with this, the potential internal and external household factors, grounded in their specific hypotheses, were then categorised and coded¹⁴¹ *a priori* for the design of interview guidelines (see also GIBBS et al. 2005). This was necessary in order to provide anchor points for the research question when analysing the life history *ex post* the interviews (as described in 4.3.4)¹⁴².

¹³⁹ According to a narrow social science definitions, this research thus followed a rather positivistic approach than an interpretive one (see for the two different two schools of social science, positivism and interpretive social science, see e.g. SILVERMAN 1993, p 21 ff. and p. 90 ff).

¹⁴⁰ Such categories need to be mutually exclusive and exhaustive – and this categorisation is referred to as ‘coding’ since one is classifying the material according to the conceptual framework. (see also CARGAN 2007 p. 61).

¹⁴¹ ‘Coding’ is the process of marking passages of text (or parts of images or sections of a video recording) that are about the same thing, say the same thing or discuss things in the same way. Coding involves identifying words/phrases/lines/sentences/passages of text in a document or an image or part of an image that represents an idea or concept. This is then linked to a named code that represents that idea or concept. This shows that it shares the characteristics indicated by the code and/or its definition with other similarly coded passages or texts. All the passages and images associated with a code can be examined together and patterns identified (see also GIBBS et al. 2005). Codes support a thematic analysis of the content of the text (or images) and enable the rapid retrieval of text that represents common ideas, themes, rhetoric and approaches (see also KELLE 2004 p. 448 ff.).

¹⁴² This design of codes largely follow LEWINS & SILVER 2007, who discuss adaptive theory and implications for coding in more detail in their chapter 5. Content wise, the *a priori* codes developed here were adapted to the rural Kenyan context in line with MOPND & ILRI 2007.

Table 4—14: Code Categories for Poverty Exiting Factors

Category	Sub-Categories	Example of Sub-Sub Category*	Example of Code
B1 Demography	increasing size of hh	gains by birth	B-DEMOG-BIRTH
	decreasing no of hh members	losses of children	B-DEMOG-LCHILD
	head of hh	male headed hh	B-DEMOG-MHHH
	age of hh	hh led by aging generation in good condition,	B-DEMOG-AGE
B2 Land	increasing / decreasing size of land		+/-LAND
	decreasing size of land	due to subdivision	B-LAND-SUBDIV
	stable size of land		B-LAND-CONST
B3 Crops	Intensification	due to favourable market/price development	CROP-INTPRICE
	Diversification	due to vc project/programme	CROP-DIVPROJ
	Specialisation	due to price developments	CROP-SPECPRICE
	Commercialisation	due to new crop marketing opportunities	CROP-COMMNEW
B4 Livestock	Diversification	due to favourable market/price development	LVST-INTPRICE
	Intensification	due to vc project/programme	LVST -DIVPROJ
	Specialisation	due to price developments	LVST -SPECPRICE
	Commercialisation	due to vc project/programme	LVST -COMMPROJ
B5 Income	increasing /decreasing Income	/	+/-INC
B6 Assets	increasing /decreasing set of assets	/	+/-ASS
D Self-Assessment	better/same/worse off	/	+/-SELFA
D SOP	above the prosperity line	/	SOP-PROS
E Future of Farming	staying fully in ag production	/	FUT-AG

*note: the number of sub-sub-categories was substantially larger, see Annex IX for the full list of a priori and ex-post codes.

Source: own compilation

4.3.3 Implementation of Qualitative Follow-up Interviews

All 51 qualitative follow-up interviews were undertaken in March 2010¹⁴³. They were based on the evaluation of the data from all four preceding TAMPA survey rounds. The results of previous panel interview rounds were prepared for each household prior to the interview. All interviews were jointly implemented by three members of the research team¹⁴⁴.

With that preparation, all interviews followed the same, jointly developed sequence and protocol of the research team (see also Box 4—2). The first step was to locate the household, to communicate to household members the request for an interview and fixing the appointment. It was always requested that the ‘heads of household’ who had previously answered TAMPA interviews would also be available for this interview. Ideally, they were the two best informed members of the household and male and female. The second important preparatory step was to prepare the interview documentation sheet for each household that showed the results from the previous quantitative interviews in summary tables¹⁴⁵ (see also Annex II).

Table 4—15: Structure of Qualitative Follow-up Interviews

Section A: Cover Sheet
Section B: Results from Previous Interviews
Section C: Focused Life History Interview (1997 –2010)
Section D: Welfare Self-Assessment and Stages of Progress
Section E: End of Interview
Section F: Meta Protocol:

Source: own compilation

¹⁴³ Between January and March 2010, the field research team was assembled (the author, one principal field research coordinator, four interviewers). The research team spent time together in preparing the interview guidelines, training the interviewers, pre-testing the interviews and pre-testing the documentation of interviews with audio recording, transcription and paraphrasing.

¹⁴⁴ The research team split into two groups of three with the assigned roles of one principal interviewer, one person to document (audio recording and note taking), and one observer. The first team covered the districts of Meru, Nyeri and Muranga (18 interviews); the second team the districts of Kakamega, Bungoma and Nakuru (17 interviews); and the third team covered the districts of Uasin Gishu, Trans Nzoia and Bomet (16 interviews).

¹⁴⁵ The key variables were: income trends, demographic development, land, agricultural activities, and all other potential sources of income, such as off-farm activities, remittances, land expansion, number of livestock changes and changes in assets, as well as the household poverty self-assessment from 2007.

The interviews themselves were then started by a clear introduction of interviewers and of the research purpose in order to gain confidence¹⁴⁶. It was clearly communicated that the data gathered would be treated with guaranteed anonymity, privacy, and confidentiality. This was followed by obtaining consent to being photographed and audio-recorded.

The interviews then started with a presentation of the summary data gathered in the TAMPA survey rounds. The results were discussed with household members, in order to establish agreement with the respondents over their household history and pathway (see 4.4 for results). Thereby, it was explained that one reason for interviewing the households again in 2010 was to confront the households with the results from the quantitative analysis and to check for plausibility as to whether their improved welfare situation can potentially be attributed to agricultural value chain activities (or other reasons).

This was followed by a focussed life history narrative about the households' past 13 years (as described by ATKINSON 1998 and DAVIS 2006, see section 3.1.3.2). The semi-structured questionnaire allowed the focus on agriculture while the anchor points for the redefined categories of factors provided space for open-ended questions on reasons for welfare developments and poverty dynamics. Here, given explanations and reasons for developments were probed in-depth in the conversation¹⁴⁷.

These life histories formed the centrepiece of the qualitative follow-up interviews and truly allowed to gain a subjective understanding of a household's history (fully in line with DE WEERDT 2010, who stated that "[...] while focus group discussions and quantitative data emphasise fairly objective economic changes by design, life histories allow for more subjective psychological states" (Ibid. p. 337).

¹⁴⁶ The importance of setting the scene for the interviews cannot be emphasised enough. The researcher were conscious about the danger of poor interview situations and how more successful and result-oriented situations can be created, as discussed by MEUSER & NAGEL 2002 in BOGNER ET AL. 2002.

¹⁴⁷ For example, if a major fortune or misfortune occurred, it was important to understand what came first (e.g. 'lack of money' – 'animal died of disease' or the other way around or both; chronological order was established where ever possible). It was also important to ask for more concrete reasons behind abstract ones, e.g. to ask follow-up questions after abstract statements such as "*God was good to me.*" (we then asked "*what was it God was good to you?*"). These insights followed the experiences by KRISHNA 2005, p. 31.

The life history was followed by a self-assessment of the household's wealth level using elements from SOP research in Kenya (as presented in Table 4—16).

Table 4—16: Stages of Progress for Household Self-Assessment¹⁴⁸

Stage	Average across all Rural Livelihood Zones	Lines
1	purchase Food	
2	purchase clothes	
3	repair house	
4	primary / pre-primary education for children	
5	invest/start small businesses	
6	purchase small livestock	poverty cut-off line
7	increase livestock (in numbers and also larger animals)	
8	rent or even buy more land for cultivation	
9	secondary education for children	
10	build a semi-permanent house	
11	expand businesses	prosperity line
12	build a permanent house	
13	buy a vehicle	
14	expand businesses and rent out property	

Source: own compilation based on MANGO et al. 2007 and KNBS 2007b

The interviews were concluded with a last question concerning the future prospect of the household with regards to its agricultural activities. Finally, the interviewees were given the opportunity to add aspects they felt were omitted or left out during the interview.

The average duration of an interview was three hours; with a range of two to five hours. Several additional methodological considerations were taken into account are summarised in Box 4—2. It was attempted to only do one interview per day in order to allow instant documentation of interviews (see also following section).

¹⁴⁸ We used the explanation of the stages of progress methodology as described by step 7 and 8 according to Krishna 2005 and MANGO et al. 2009, following a subjective and relative self-assessment along the categories of 'worse off', 'better off', or 'the same'. We explained the poverty cut-off-lines and asked for a self-assessment of the hh, taking into account that this method has a tendency to create higher poverty figures than income or expenditure poverty line figures (see also MANGO ET AL. 2007).

Box 4—2: Methodological Considerations for the Interviews

The research team developed a code of ethics prior to the field survey. It was agreed that the key to getting the best interview was in flexibility and being able to adapt to the specific circumstances. It was agreed that in qualitative research, there was no such distinction between correct or wrong answer. Yet, this did not mean that there was no need for truth and reality in the answers gathered. However, it was more important to get a consistent, plausible story than a factual correct one.

The researchers role was basically to listen closely and engage the interviewee as much as possible ('to be a good listener'), since qualitative research can unfold the unexpected, hidden factors that pure numeric cannot always detect. The curiosity and interest of the researchers were conveyed to the interviewees and the researchers tried to allow for reflection during the interviews and not to nudge too soon for continuation. It was taken into consideration that the interviewees must be ready and willing to tell their story. It was necessary to notice signs of apprehension or reluctance and identify their cause: intimidation? embarrassment? personal uncertainty? Once identified, the researchers tried to respond adequately.

The questions were kept as short, simple and unbiased as possible. Only one question at a time was asked. Close attention was paid to avoiding common pitfalls in interview situations, such as formulating ambiguous questions, suggestive questions, anticipations that may lead interviewees to advocate a certain position (thereby skewing responses) or using too complex language (largely following CARGAN 2007 p. 95 or NEUBERT 2001 , p. 29).

Since validity is one of the most important measures of control for the internal consistency of a life history, extra questions were scattered within the interview similar to the essential questions, but different in wording to allow for cross-checking and validation. In case of conflicting answers, the researchers tried to formulate probing questions or tried to offer a comparison to previous or later facts that were agreeable (as suggested by CARGAN 2007).

This process of 'proofing research results' followed the proofing categories as described by KLEINING 1995 , in particular reliability and validity of data (see *Ibid.* p. 273 ff. and also ATKINSON 1998 p. 58). Validation of data can basically be done by either comparing different kinds of data of different surveys with similar respondents or by taking the survey findings back to the respondents and let respondents clarify, verify or nullify the results (triangulation). The research team

was confident that the data was well validated and triangulated. More so, rigorous authentic data was produced¹⁴⁹ by following SILVERMAN 1993 : “*Good researchers go back to the subject with the tentative results and refines them in the light of the subject reactions without being fearful.*” (Ibid. p. 156 ff.).

4.3.4 Analysis of Qualitative Follow-up Interviews

The documentation of the interviews followed a clear procedure: the audio and picture files were labelled and saved by the documenting interviewer. All interviews were documented directly after the interview by the interviewing team. The main documentation of the interview was then to key in the notes while using a predefined and pre-formatted word file. Particularly interesting sequences were transcribed from the voice recorder and were clearly marked in the text as original quotes¹⁵⁰.

The interviewer proof-read the documentation immediately after and added and commented¹⁵¹. The focus of the proof-read was on validation of credibility and plausibility of the story narrated. It was measured and assessed as ‘consistent’ (see the meta-protocol and scale in section F of the questionnaire in Annex II). Each completed word file was then quality checked by

¹⁴⁹ As stated by SILVERMAN 1993 : “*Authenticity rather than reliability is (too) often the issue in qualitative research. The aim is to gather an authentic understanding of people’s experiences and it is believed that open-ended questions are the most effective route towards this end. In gathering life histories or in in-depths interviews, people may simply be asked “tell me your story”. Qualitative interview studies are often conducted with small samples and the interview-interviewee relationship be defined in political rather and scientific terms.* (p. 10) *But as I have argued, the issue of validity is appropriate whatever one’s theoretical orientation or use of qualitative or quantitative data. The Social science methodological imperative is more than “hang out” and return with “authentic” accounts of the field.*” (Ibid. p 156).

¹⁵⁰ Thus, the documentation strategy for this survey was a mixture between paraphrasing and transcription. Word-by-Word transcription from audio-recording would have been the documentation method of choice by any anthropological researcher. However, given the resource constraints of this survey, a full transcription was not possible, but partial transcription was used to generate original quotes of very important, highly explanatory and outstandingly logical information.

¹⁵¹ It must be noted that most interviews were conducted in Kiswahili language, some even in part or fully in other Kenyan vernacular languages such as Kiluya or Kikuyu. Whereby a number of interesting quotes were left in the original language, the paraphrasing of the interviews was only done in English.

the author and then saved as concluded case per household. It took at least four hours to document each interview¹⁵².

The narrated stories were then analysed for their attribution to change in household welfare (i.e. its poverty exit). The main tool for the interview analysis was the computer-assisted qualitative data analysis software (CAQDAS) atlas.ti¹⁵³. The total number of 51 documented interviews thus formed the ‘hermeneutic unit’¹⁵⁴ for the analysis of this research. The following analytical steps were taken:

- 1) Consistent coding of all interviews according to the categories of codes and variables of the poverty exit model (see Table 4—14 and Annex IV);
- 2) Establishing trends and common features over all households interviewed;
- 3) Verifying or nullifying the research hypotheses by cross-referencing households that follow similar patterns – either by (i) similar welfare dynamics, (ii) similar agricultural activities, or (iii) similar reasons of welfare and dynamics.
- 4) Singling out consistent agricultural activities and poverty factors that told plausible stories about their hh welfare dynamic and its links to agricultural activities; and
- 5) Contextualisation of all hh interview results against the background of the country’s agricultural sector performance and poverty dynamics.

The results were then organised using two common tools of qualitative data analysis: ‘Concept Mapping’ and ‘Network Analysis’, in order to illustrate the contribution of the various factors contributing to the poverty exit of a household.

¹⁵² The qualitative data produced by this research was preserved in a way that it can be followed up – either by critics or by other scholars. The data is documented according to the minimum standards as by CORTI & THOMPSON 2004 p. 310 and ÅKERSTRÖM ET AL. 2004 .

¹⁵³ See KELLE 2004 for a comprehensive overview of CAQDAS.

¹⁵⁴ ‘Hermeneutic unit’ is the term used by atlas.ti for one set of data in a given research project. It is based on the term ‘Hermeneutic’ which is the study of meaning or of meaningful things and actions such as those found in literature and culture (see e.g. the Glossary of the very useful online learning platform for qualitative data analysis (QDA) <http://onlineqda.hud.ac.uk/index.php> .

As mentioned by CARGAN 2007 , concept mapping is a useful tool to visualise applied theories and concepts. A concept map can be used to display what is implicit in a research theory and thus, helps identifying contradictions or inconsistencies in the theory and or even illustrate unexpected connections (*Ibid.* p. 32).

Network analysis is a particular feature within the atlas.ti software and produces clusters of factors or groups of categories that indicate common characteristics. Networks allow for theory building and analysis based on any of the objects in the hermeneutic unit (codes in primary documents, quotations or memos). They appear as nodes in the network and can be linked by a variety of relations illustrating the connections between these objects and construct explanatory hierarchies between codes and categories of codes¹⁵⁵.

4.4 Results I: Observations on the Accuracy of Panel Data

The most valuable fieldwork/data collection is the field work/data collection that produces surprises, data that do not conform to preconceptions, what we think we know.

(HARRISS-WHITE & HEYER 2010 , p. 4)

Section 4.4 and 4.5 present the results from the follow-up interviews with the sub-sample of poverty exiting households, as they were described in 4.2.2. Among the many interesting and relevant results derived from the interviews analysed, two main methodological results stand out: the different level of data accuracy over the panel waves and the discrepancy between what appears to be a poverty exiting household by panel data and what in fact proved to be a ‘real’ poverty exiting household by qualitative narrative.

Therefore, these two surprising results and their important methodological considerations are discussed first (in 4.4.1 and 4.4.2), before section 4.5 dis-

¹⁵⁵ see also the atlas.ti tutorials on the network feature (<https://atlasti.com/de/training>). A useful application of a network analysis in the context of qualitative poverty research is given by BIRD & SHINYEKWA 2003 p. 15 .

cusses the results that refer to the research hypotheses on agricultural VCD and poverty exit.

4.4.1 Validation: Agreement and Disagreement with Panel Data

This section presents the results from the comparative part of the follow-up interviews (validation of data), since the disagreement with household data by households themselves was so significant that it could not be ignored in the data analysis.

As described in 4.3.2 and in Box 4—2, validation of the data was an important objective of the interviews in order to answer the first research question (i) (see 4.3.2). It was neither intended to question the TAMPA panel data in general nor to systematically search for survey errors in the panel, but to cross-check for validity in order to assess the explanatory power of the data for the research question at hand¹⁵⁶.

As described in 4.3.2, the interviews were prepared by compiling selected data on household demography, crop and livestock activities, income portfolio and assets (including land) for each household prior to the interview. Every interview thus started (after a standard introduction) with a joint look at the results recorded from previous interviews from the panel waves (see Annex II, Section B). This data was then discussed with the respondents; in most cases the head of the household, who had participated in the panel interviews before.

Prior to the field survey, the reason to start the interviews with a validation of previously gathered data was thought to be a good entry point for the life history interviews (according to the questions as listed in Annex III). However, this Section B turned out to take quite some time and interest on the side of many interviewees and produced unanticipated disagreement with some part of the data recorded in the panel set. Therefore, the results of this validation provide methodological results in their own right for fur-

¹⁵⁶ Potential survey errors are well known (see e.g. MATHIOWETZ et al. 2001 , HAUGHTON 2007 or DAVIS & BAULCH 2009) and are to some extent unavoidable when doing social research, particularly in developing countries. The follow-up interviews revealed the following potential sources for general survey errors within the TAMPA panel: time pressure and logistics for the side of the interviewers; recall problems and problems of understanding on the side of the interviewees; different understanding of the questionnaire by different surveyors.

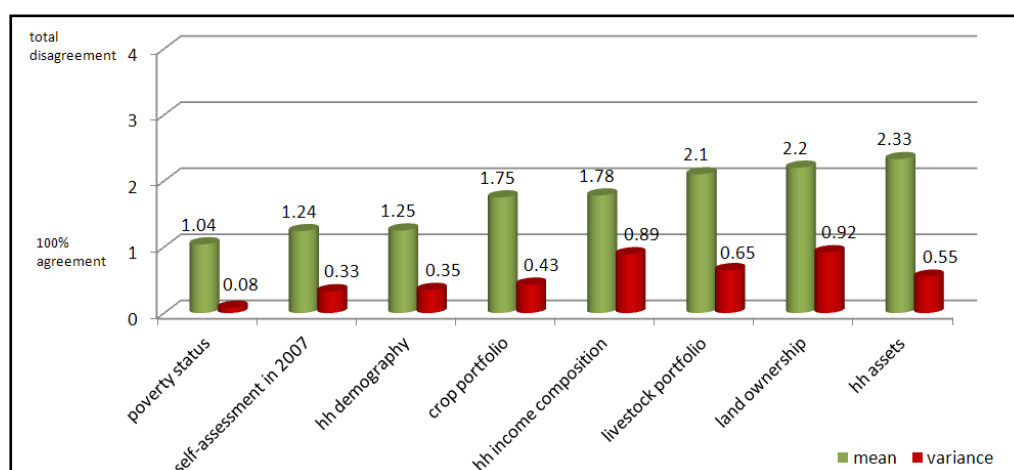
ther panel research as well as for the interpretation of the TAMPA panel data.

Since the participating households had never seen any results from the previous panel interviews, the validation of Section B was a very useful exercise to warm up the interview situation. The general fact that the respondents got for the first time a chance to see what type of data had been gathered during the previous interviews was much appreciated. Almost all interviewees were curious to see the data recorded for their household, but more so, it added a participatory research element of cross-checking to the data validity.

The different data categories (such as demography, land ownership, crop activities of the four panel years) were presented and discussed one by one and then ranked for their correctness and corrected, where necessary. It turned out, that there was often need to correct previously collected data.

By assessing the degree of agreement with sections of captured data, this survey gave the respondents a chance to correct the data from their subjective view on a scale from 1 ‘total agreement’ to 4 ‘total disagreement’ (see again Annex II, Section B). From these perceived realities, we could clearly establish that some parts of the TAMPA data are more valid and thus, more reliable than others as presented in Graph 4—13.

Graph 4—13: Levels of Agreement with Data recorded during Panel Waves



Source: own data

It is important to note that the calculatory poverty status of the households (income calculation based on all data gathered and classified as poor or non-poor according to the Kenyan rural poverty line) received the highest

agreement. This provides remarkable support of the use of an income-based estimation of poverty levels, since many poverty researchers argue more in favour of either expenditure or asset-based poverty classifications. Similarly, the poverty self-assessment in 2007 was largely confirmed and seemed to support that such self-assessments are generally reliable and valid (subjectively).

A little surprising, household demography seemed to be captured fairly correct, which is very important for income-based poverty assessments at household level, since the demography data provides the input for the calculation of the adult equivalent that is then used as denominator for the household income and thus, has strong mathematical weight in the poverty outcome per household. Demographic data in household surveys is not an easy observation to record, since it touches on private information of the respondent. As for household surveys in rural African, the degree of complexity of demographic data is often even higher and so are the chances of misreporting, for a number of socio-cultural reasons¹⁵⁷. Yet, the TAMPA panels seems to be pretty accurate in capturing household demographics, which is not only mirrored in the high agreement with the demography records, but also in the high agreement with the poverty status given the mathematical importance of the correct number of adult equivalents per households.

Two sections of panel data received mixed validation: the crop portfolio and the income composition. Concerning the crop portfolio, no particular pattern for misreporting could be identified and the disagreements were rather occasional, yet then strong, suggesting misunderstandings about what was planted when, reporting errors on the side of the interviewer, and possible recall problems on the side of the respondent¹⁵⁸.

¹⁵⁷ For example the following situations are rather common and need to be consistently interviewed and recorded; i.e. the question of how a niece or nephew of the head of the household is counted, who tends to live within the household for various times of a year; or the question of how to count step children, that are fed within the household, but counted by male heads of households as a different family; the question of how to count children in boarding school, or the question of how to count the male head of household in a polygamous setting.

¹⁵⁸ For example in one household, it became evident that many different vegetables were counted as commercially grown, yet they were mostly only grown in the kitchen garden for home consumption and thus, were overrated in the crop portfolio.

Concerning the income composition, some households reported substantial disagreements, which are underlined by the rather high variance of the validation feedback for this data. The main source of disagreement here were sources and amounts of off-farm incomes. The pattern that seemed to explain most of the discrepancies here was the fact that we talked to either the head of the household or the spouse and that in previous panel interviews, the other had been interviewed and that there is often either no joint understanding of the sources and amounts of off-farm income or no shared knowledge about these things among the spouses. Further, remittances, particularly from children who had left the house, may have been misreported and downplayed by elderly male heads of households because of shame to be supported by their own children, whereby women seemed to have a tendency to report more freely (or proudly) about their children supporting the household. In essence, the self-reporting of off-farm income is prone to inaccuracies, might need more rigorous definitions and explanations on the side of the interviewer and might vary between different household members, since in some households spouses are not fully informed about the off-farm incomes of each other¹⁵⁹. Thus, the data presented in Graph 4—4 is likely to be not very accurate.

Concerning the stronger disagreements, it became pretty evident that the data capturing livestock, land ownership and assets were rated most often as invalid or incomplete or non-consistent for different reasons. The most common disagreement concerning the livestock portfolio was that the panel data had reported the ownership of grade cows, whereby in the interviews it became evident that the household had never owned graded cows, but always kept local or mixed breed cows. This suggests an unclear understanding of the interviewers of the different breeds and would need correction in the future, since it leads to partly strong overrating of livestock values of the households. In some cases, livestock from the father of the head of the household was counted, yet clearly belonged to the old people's household and thus again, overrated livestock asset values.

¹⁵⁹ This gender discrepancy between spouses was observed in at least 13 interviews, see e.g. the exemplary expression by the male head of a polygamous household: „*Kuku ni ya wanawake bata sijui na sishuguliki nayo kwa sababu bata hawanipi mayai. Nikiuliza mayai wananiambia walinunua nayo sabuni?*” [Chicken is for women. I don't know even and I don't bother with them because they don't even give me eggs. When I ask for eggs, they tell me they sold the eggs and bought soap.] Household 343; Quote:12.

Land ownership showed striking disagreements, which was not totally unexpected given the complex nature of land ownership in rural Kenya and the high social and monetary value attached to land. However, land ownership is crucial data for agricultural development research and should deserve higher accuracy. The two most common mistakes on land reporting we found were the following: the respondents had either owned more land than recorded but only the land that was farmed around the homestead was captured; or the respondent owned substantially less land because the household had subdivided the land during the panel years to their sons but it was still captured as belonging to the initial parental household. In some cases the land ownership was totally wrong and in a number of cases slight changes in landownership were noted down over the years whereby the respondents confirmed to us that the landownership had remained constant throughout all years. Another reason for misreporting seemed to have been misunderstandings between surveyors and respondents on land cultivated and land owned.

All these potential errors can be partly explained by talking to different people in the household. However given the number of households that report complicated and conflicting histories concerning their land, and given the importance of land as social as well as productive asset, more rigour is required in capturing that variable and therefore in framing the questions capturing landownership in the standard TAMPA questionnaire. Also, more training of the interviewers in posing cross-checking questions concerning the common development of either sub-division or further land appropriation in different locations should be considered. The often used 'land' variable in TAMPA panel analyses (e.g. in MUYANGA et al. 2013 or JAYNE et al. 2016) should probably be interpreted with more critical discussion.

Least agreement was established around the recorded household assets (agricultural assets and consumer goods) from the panel interviews. Here, recall problems and talking to different persons per household automatically yielded different results; but in the case of TAMPA it could be clearly noted that different surveyors classified assets differently, hence a number of reporting errors on assets must be attributed to the interviewers or their inaccurate training on asset identification¹⁶⁰. It should also be noted, that the

¹⁶⁰ As examples, we found that often hand-dug wells were recorded as boreholes; cheap used steel drums were counted as expensive water tanks; stores, poultry sheds and

TAMPA questionnaire mixes under assets agricultural equipment as well as consumer goods, which is not the state of the art understanding of household assets. A separation of the two is necessary to analyse development in either consumption or in agricultural investment and innovation over time. In general, household asset values were overrated due to the survey errors. The implication of this inconsistent asset recording is to be cautious when calculating asset values from the panel; in particular asset-based poverty indicators for TAMPA households, since this data seems to be least valid and reliable.

In summary, these results from the validation exercise show that the validation of panel data is important for the further use and interpretation of the panel, as well as for correcting questionnaires and surveyor trainings when undertaking next interview waves.

Data accuracy for rural household surveys can never be 100 %, yet better accuracy can be achieved when taking the above presented results into account. The known complexities of key variables such as land ownership and off-farm income deserve better interviewing techniques, more validation and more rigorous definition.

4.4.2 Triangulation: Poverty Pathways and Life Cycle Factors

This section presents the unexpected result that after the qualitative interviews it became clear that only half of the poverty exiting households from the panel could really be classified as poverty-exiting; either by self-assessment, by SOP or by general assessment of the life history and the homestead. The magnitude of deviation (a 50 % error rate) from the calculated pathway from panel data in the sub-sample was so big that it forms a second methodological result in its own right. Thus, a triangulation of the panel data with the three qualitative methods mentioned above was undertaken. The insights derived from the interviews of the 26 ‘non-poverty-exiting’ households will be presented in this section. Results derived from the 25 ‘real’ poverty exiters are discussed in the following section 4.5.

The process of sub-sampling poverty-exiting households from the panel data (as described in 4.2.2) was thought to be as rigorous as possible to

granaries were counted as houses; etc. Additionally, agricultural equipment such as spray pumps or irrigation tubes were counted differently by different surveyors and thus, distorted the results on asset values.

identify truly upward mobile households¹⁶¹. However, after interviewing the 51 households it turned out that only 25 could be classified as ‘real’ poverty exiting meaning that the four wave panel survey was found to be accurate to classify poverty dynamics only for 50 % of the households interviewed. How could the triangulation with qualitative data explain this?

When using the poverty measure poor/non-poor by a given poverty line without using the poverty gap or squared gap, naturally neither the depths of poverty (or non-poverty) nor the exact trends per household can be captured (e.g. the case that a household is above the poverty line in three consecutive years, but descending every time a little closer to the poverty line). Hence, some variation from an exemplary upward pathway was expected for some of the poverty-exiting households. Yet poverty exits, defined by the quantitative data as households that move from poor to at least two times non-poor status, turned out to be insufficient for categorising half of the sample households’ pathways. 26 households showed different patterns. After triangulating the qualitative data with the panel data, three main patterns were observed as summarised in Table 4—17.

Table 4—17: General Pathways of 51 Rural Households

51 Rural Households (poverty exiters by panel data)		
clear upward mobility	stagnant or slightly oscillating	downward trend
25	14	12

Source: own data

When listening to the life histories of the respondents, special emphasis was laid on understanding their general welfare trends and their self-assessment about their pathways relative to previous years and relative to the rest of their communities. These narratives and self-assessments form the basis for the categories presented in Table 4—17: half of the households were upward moving (25, see section 4.5), but roughly one quarter of all interviewed households was experiencing a downward social mobility, whereby another quarter exhibited either oscillating moves or a rather constant level

¹⁶¹ Since many poverty researchers found that in general, not too many households at all seemed to exit poverty and confirmed that oscillating poverty dominated as a pattern in panel survey data, and given that national poverty lines are often set rather low, the definition of a poverty exit when drawing the sub-sample took the deliberate risk of defining poverty exit to be rather on the non-poor side (see also 4.2.2).

of wellbeing without any particular direction up or down. These latter 14 households had never been poor (at least not when the panel survey started in 1997). These households oscillating or displaying constant wealth developments could be further divided into two categories (see also Table 4—18): those that were non-poor even before the panel years and had remained at constant wealth level or even improved (five households); and those that seemed to have stagnated or oscillated all those years slightly above poverty level (nine households).

As for the 12 households with a clear downward trend, three life cycle factors were identified and occurred to all of the households, sometimes in multiple and cumulative ways: loss of wealth due to old age, gender-based loss of assets, or health shocks. What turned out to look like one upward mobility pattern by panel data turned out to be three different patterns with eight different categories.

Table 4—18: Pathways of the ‘Non-Poverty-Exiting’ Households (n=26)

26 rural households not showing a poverty exit pattern						
stagnant or slightly oscillating				downward trend		
14				12		
constant at prosperous level		oscillating slightly above poverty line		downward trend		
5		9		12		
never poor	exited poverty before 1997	lifecycle challenges mostly met	lifecycle challenges still ahead	mainly age-related	mainly gender-related	health shocks related
3	2	7	2	6	3	3
main reasons for misreporting / miscounting as poverty-exiters						
omitted sources of off-farm income in first panel rounds and misreporting of land ownership		only ‘non-poor’ in last panel rounds because fewer are in denominator, but less productive	upcoming investment in education not reflected in the panel data	loss of manual labour and lack of inter-generational support	deprivation of women of their productive assets	depletion of household cash

Source: own data

Several reasons explain the deviation from the expected poverty-exiting pattern of these 14 households: in the case of the five prosperous households, all of them seemed to have been wrongly calculated by omitting sources of income (mostly relevant off-farm incomes) in the first two panel rounds in 1997 and 2000. Three of them had certainly never been poor; two might have been poor during the 1970ies or 1980is but had reached considerable wealth already by 1997. Three of the prosperous were basically large-scale farmers, whereby two had ventured into medium scale non-farm businesses (one as an urban property developer; one as a rural transport entrepreneur).

The lower level oscillators were found to be mainly aging families who farmed for their subsistence, continued with one or two lines of commercial agricultural production, but largely also depended on the remittances by their children or other sources of off-farm income. At the same time, fewer people lived in the household and consumption levels had gone down, resulting in a calculatory non-poor status, giving the household a false upward trend in the data.

Two households were found at crossroads with unclear destination, since they still had a number of life-cycle challenges ahead, namely the education of their numerous children or a generally high number of dependants.

As for the 12 households with a clear downward trend, the three predominantly negative life cycle factors (impoverishment due to old age, gender-based loss of assets and health shocks) were explicitly expressed and had strong explanatory power why the misreporting as poverty exiters had happened. Half of the downward moving households provided strong evidence that old age is an important factor potentially driving especially agricultural households into poverty. This is surprisingly little acknowledged in the literature on rural poverty (see Table 3—2). However, it will be an increasing problem due to two facts: life expectancy is fortunately increasing in most parts of the world and farmers are getting older while at the same time rural youth flee the rural areas (see e.g. IFAD 2014).

For Kenya, the remarkable increase of life expectancy during the panel survey period¹⁶² is visible in the ageing survey households. Older age was of course also expected from a sample that was gathered in 1997 and since

¹⁶² According to UNDP, overall life expectancy at birth in Kenya increased from 52.6 years in 1997 to 58.8 years in 2007. The past ten years have seen again a sharp increase with estimated 67.3 years in 2017 (see Kenya Country Profile Health on <http://hdr.undp.org/en/countries>).

then had aged, which is also expressed in the average age of the respondents of 58 years in 2010. However, social norms on how to deal with old age seemed to be less clear in a number of households as traditional norms and customs like inter-generational wealth transfer in the form of land subdivision to the sons is at threat by either longer life expectancy of the parents or ever smaller land sizes or both. In a number of interviews, this conflict was talked about and different households talked about different ways of handling this. Once more, intra-family cooperation turned out to be a decisive factor here to avoid either a situation of keeping the sons waiting for too long for their own farm land (and risking that they might leave the profession of agricultural or the home rural areas for good) or of subdividing too soon so that the parents would not have an appropriate farmstead for themselves. But where families cooperated and found a way of managing the inter-generational transfer (at least with the first-born or all sons), the households seemed to be non-poor (most of the seven oscillating households that had met most life cycle challenges would fall under this category). This concurs with the findings from DE WEERDT 2009 .

Where inter-generational wealth transfer failed and intra-family cooperation and mutual support was lacking, poverty due to old age could be witnessed. This confirms the results by MUYANGA et al. 2013 on inter-generational wealth transfer. A set of factors contributing to what is classified here as ‘age-poverty’ could be established based on the interview analysis of at least eight households. This set constitutes of aging heads of households that had lived their farming lives, raised their children, even managed to pay for their education in many cases, yet they experienced a deteriorating income base and an occasional shortage of food even though they lived a life of minimal consumption. This was most often due to a shortage of labour which prevented the household from undertaking enough subsistence farming and minimal commercial farming for accruing cash income. This shortage of labour had three main root causes: either the loss of own physical strength due to old age, or the departure of farm working children from the household, or the lack of money to pay farm workers (“*kibarua*”) as well as the irresponsibility or unreliability of casual farm workers, as also illustrated by the following quotes:

“*Uzee ukiingia hauwezi fanya kazi ngumu.*”

[When old age sets in, one can not do much manual work.]

Household 1162; Quote:31

“Chai ni kelele tuu kama mtu anazeeeka na watoto hawataki kuangalia. Ni taabu tu, ukiveka watu wa kibarua, hawajali kufanya kazi nzuri”

[Tea farming is cumbersome as one grows old especially if children do not want to take up the duty of managing. The casual labourers do not care.]

Household 1038; Quote:55

These aging couples (or widowed singles) depended on transfers from their children by remittances, which can work very well as a family safety net, if the children are themselves prosperous enough and intra-family cooperation is exercised, as illustrated by one widow-headed household:

“Si mbaya, ingawa nguvu zangu zinaendelea kupungua bado nitafanya nivezalo nikitemea watoto pia.”

[Not bad, even though my strength is going down I will try to do what I can as I also expect assistance from children.]

Household 336; Quote:45

However, not all children from the households we interviewed were either able or willing to support their aging parents till their death; and if these expected off-farm sources of income as remittances dry out while children move on with their life, these older-aged persons are becoming poorer, notwithstanding their farm assets recorded in the panel data.

“Kila mwezi niko na hakika nitapata shilling elfu mbili kutoka kwa msichana wangu anayefanya kazi ya secretary Kisumu, lakini sijui akioleka kama ataendelea kunitumia hizo pesa.”

[Every month I am assured of 2000 Shillings from my daughter, who works as a secretary in Kisumu, but I am not sure if she will continue sending me that money when she gets married.]

Household 1466; Quote:40

These situation got even worse if children had died and left aging couples or widows with their grandchildren to care for (which confirms finding from BAULCH 2011 and DAVIS 2011b). Such households are extremely vulnerable to health shocks and if depending on subsistence, very vulnerable to covariate shocks such as droughts. The age-related loss of farm labour cannot be captured by panel data that only counts people in the household and converts them into adult equivalents. This result illustrates a strong weakness of the panel method for establishing poverty dynamics for

agricultural households in Sub-Saharan Africa, in which manual labour still is a key production factor.

The three households interviewed headed by divorced or widowed women explained their downward trend by the gender-related loss of productive assets (or the threat of the same). Since patriarchal traditions constitute a major social problem for rural women, it was expected to find divorce and widowhood as poverty-driving factors for female-headed downward movers (see also VALDÉS et al. 2011). However, living without a male head of household didn't seem to be the problem *per se* (this confirms results of SURI et al. 2008). It was rather problematic that male relatives (in one case the own brother, in one case a brother in-law) appropriated the productive assets of a female head of household, thereby depriving the women and their children of their livelihood. One other case included falling into disfavoured with a polygamous husband preferring another wife over her and her children, illustrating particular gender-related problems in polygamous marriages. Additionally, in two of the oscillating households another gender-related poverty risk could be witnessed: the return of a divorced or runaway daughter to her original family household who had fled abusive marriages; thereby putting an additional burden to the household¹⁶³.

Health shocks are well known to be a very important determinant for household welfare. Rural households in Africa are vulnerable to these idiosyncratic shocks and their resilience is often very low. So these results concur with results by KRISTJANSON et al. 2010 , DE WEERDT 2010 or KRISHNA et al. 2004 . Health shocks can hit a household as one big shock (usually death of a breadwinner and provider of manual family labour; two cases here) or by the need to treat a household's member's chronic disease or injury and thereby deplete the household cash and assets over time¹⁶⁴.

¹⁶³ The burden resulted not only in an additional mouth to be fed (that could be counterweighted by the labour of the daughter), but in shame and associated loss of social capital as well as in strong depletion of assets since the before received bride price had to be paid back. These cases illustrated the risk and pressure under which young rural girls and women can become without own fault, given that 23 % of all Kenyan girls are married before their 18th birthday (see UNICEF 2016) and given that more than 40 % of all rural women in Kenya experience domestic gender-related violence (see KNBS 2010 p. 245 ff).

¹⁶⁴ For example, in one case, an up-country bus accident injured a son and the subsequent costs of hospital treatment impoverished the household. Despite all efforts, the son had died. So in addition to the emotional tragedy, the hospital bill and the fu-

The grim and in some cases depressingly poor life situation of these twelve households might have been further negatively biased by the preceding drought year (2009) and the negative external factors in 2008, such as the food price crisis (see e.g. HOEFFLER & OWUOR 2009) and post-election violence (see Box 4—4). It is however undisputable that this group of twelve households cannot be classified as poverty exiters, despite the panel data and none of them looked likely to exit poverty in the near future.

So in summary, what looked by panel data as one pathway (poverty exit) turned out to be eight different pathways, whereby seven were not poverty exits. This leads to the conclusion that despite all the progress made in poverty research and the useful advantages of standardisation and comparability of general trends, the methodology to repeatedly assess households incomes and to divide these by the number of adult equivalents living on that income and to compare this figure vis-à-vis a poverty line in order to derive a poverty pattern (as described in 3.1.2 and Graph 2—5) provides many imperfections that are rarely admitted or even discussed.

In addition to the already validated survey errors in 4.4.1, the here presented triangulation of the poverty status described by either self-assessment, SOP, or life history gave a clear answer to research question (iv) on whether q²-methodologies can contribute to impact assessments (see 4.3.2): triangulation using q²-methodologies not only can, they should guide any poverty impact assessment at household level in order to obtain reliable data and plausible narratives.

Further, the need to improve poverty research by factoring-in life cycle factors into the panel analysis became evident. Two important disadvantages were found to distort the poverty pathway of the Kenyan rural households mainly engaged in agriculture in this sample:

- i) the ignorance of rather common life-cycle challenges and thereby an over-simplification of the equation consumption divided by adult equivalents, thereby ignoring e.g. the ‘aging’ of the households over the survey period and thus, the variation in ‘quality of the adult equivalents’ with regard to their manual labour for farm work;
- ii) the inability to account investments made, particularly investments in education of the children. Yet, Kenyans invest a lot to send their chil-

neral costs added to a severe economic crisis of a formerly prosperous farm household.

dren not only to primary, but also to secondary school¹⁶⁵. This high value placed on education stresses household resources during the peak of the life cycle, but can pay high returns when children get jobs outside the family farm and will remit in future, as also illustrated in the quote below:

“Hata kuna wengi nimewashinda mbali sana kwa sababu wako na mapato lakini hawajapeleka watoto shule. Mimi nikimaliza kusomesha watoto, nitakuwa mbele sana!”

[In fact, there are some that I am far much ahead of because they have income but they have not taken children to school. When I finish educating my children. I'll be very much ahead!]

Household 343; Quote:12

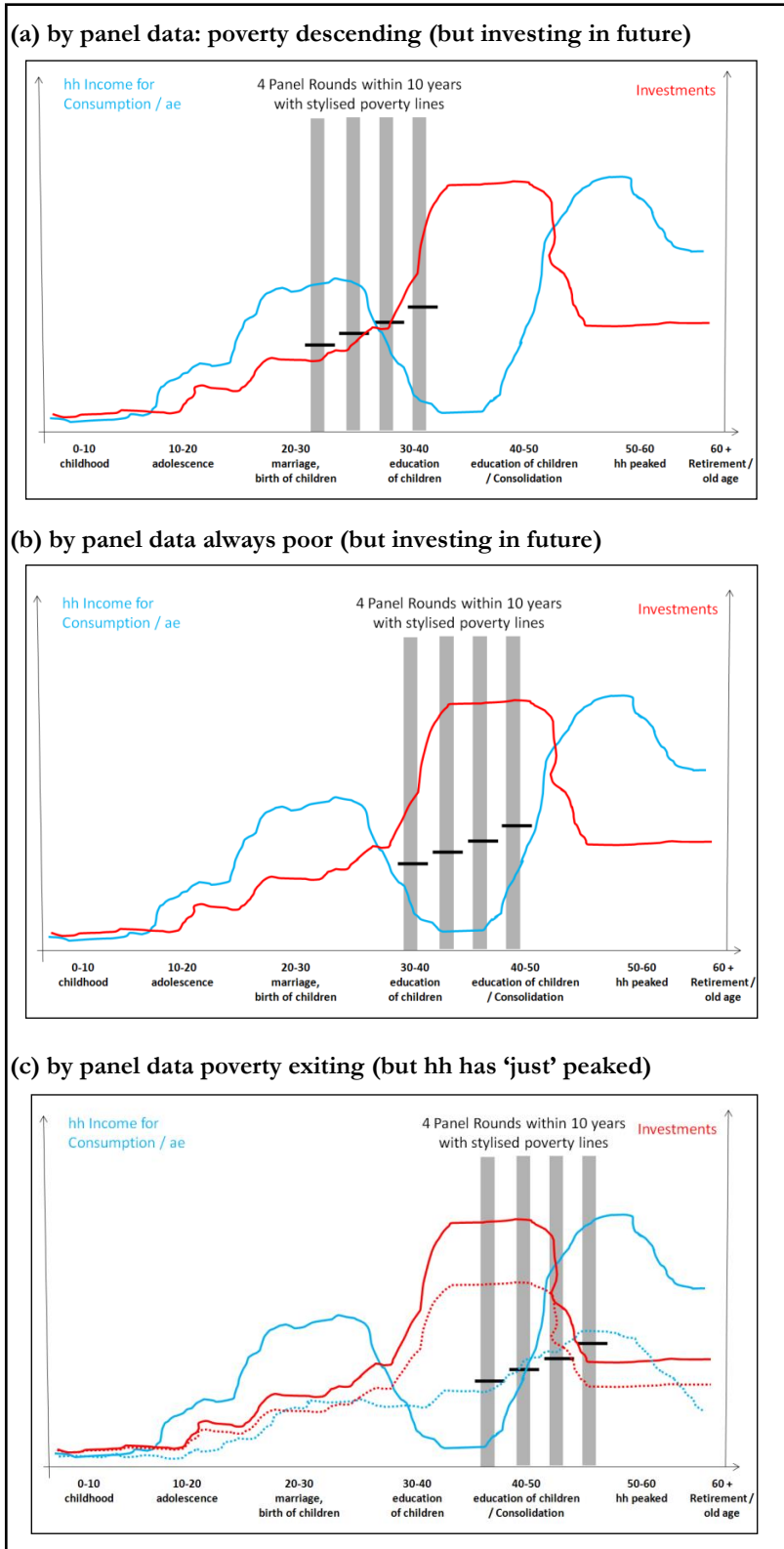
These imperfections impact on how to use and interpret the data from these household panels. As much as the q-squared paradigm supports the need to mix methods (as discussed in 3.1.4), hardly any literature exists about methods for triangulation of poverty dynamics (DAVIS & BAULCH 2009 and CPRC 2015 being the exemption). Yet, the qualitative follow-up interviews revealed that such triangulations are needed in order to correct surveys errors (as outlined also in 4.4.1) and to triangulate poverty statuses beyond the income per adult equivalent equation.

A critical reflection of the data collected, the respondents and the interviewing technique are essential for panel data interpretation. Even if not every individual case can be valued when general trends in agricultural development are to be analysed, the assessment of ‘hard facts’ such as land ownership need to improve when land subdivision plays such a big role in the household system.

Additionally, it cannot be stressed enough that the gender of the respondent matters for qualitative and quantitative interview results and should be reflected more critically when analysing the data. Investments in family (like education of children) and the farm as well as savings need to be adequately factored into the equation of the available income at a given time. And last but not least, the phase of life during the time of the interview also matters and should be factored in (see Graph 4—14).

¹⁶⁵ Kenya shows some of the best education results in all Sub-Saharan Africa; e.g. an adult literacy rate of 86.5 %, a net primary enrolment rate of 81.5 % and a net secondary enrolment rate of 49.1 % (see UNDP 2010 , p. 194).

Graph 4—14: Stylised Life Cycles and different Time Spans for Panel Interviews



Source. own illustration

Box 4—3: Suggestions for Incorporating Life-Cycle Factors in Panel Surveys

An individual's or a family's need for income and expenses as well as productive-ness in generating income for consumption, savings or investments are not static and change over life time. As much as life cycles differ individually, certain patterns and sets of life cycle factors can be established for similar livelihoods, such as agricultural-based rural households in productive AEZs in Kenya. A stylised life cycle would most certainly agree to a low level of consumption till the teenage years, an increase in income and consumption during the twenties (while starting to earn own money and starting an own family) which then, given average number of children per household and the average number of schooling years and costs, result in a steep increase in income needed for education during the thirties and forties of average parents.

In Kenya, these investments in child education are often undertaken by support from extended family members in form of remittances that need to be captured more accurately in surveys. Since this investment in a household's future is important, it makes a big difference in the assessment of the income situation of such a household when interviewed during this phase of life because the household appears poorer than it is (the same also holds true for non-agricultural investments that are difficult to capture and for savings). To the contrary, a household that manages during the peak years of 30-50 just to be self-sufficient with basic needs and oscillates slightly above the poverty line becomes automatically non-poor when some dependants leave the home - yet not much might have changed for the aging heads of household, since without the labour of the children, they produce less crops or keep less livestock (but appear to be poverty exiting).

Graph 4—14 illustrates the difference it makes when a stylised household is interviewed during its late twenties to thirties (a), between the thirties and forties (b) and the forties and fifties (c). If old age appears to be a poverty-driving factor due to the loss of manual labour while at the same time children leave the household (decreasing the denominator), the household will still look like poverty-exiting (as depicted in (c), dotted lines).

It should be possible to model stylised life cycles and thus, to factor in the age of respondents and the phase of life they are in during the first interview of a panel series and weigh some factors in during subsequent panel rounds, such as investments in school fees. And it should be possible to record manual farm labour more accurately than by just counting adult equivalents, since their physical strength as well as their general availability (particularly for tending for livestock) is essential to small-holder farm productivity.

Concerning the incorporation of life cycle factors for household surveys, Box 4—3 and Graph 4—14 provide some thoughts on what other factors beyond the used survey data a future mixed method triangulation for poverty research could take into account. The CPRC 2015 had started to develop some ideas on when in life policies to tackle chronic poverty should be accessible to the poor (see *Ibid.* p. 5, Figure 3 or DAVIS 2011b p. 271 *ff.*). These ideas should be expanded conceptually.

Further, ‘Family Life Cycle Theory’ and related psychological fields (see e.g. VANKATWYK 2003 or MCGOLDRICH et al. 2010) as well as behavioural economics around the ‘Life Cycle Hypothesis’ (see e.g. MODIGLIANI 1966 or DORNBUSCH et al. 2004 p. 339-343) might have methodological support to offer for future poverty research and should be explored further.

4.5 Results II: Observations on Poverty Exits

“Kutegemea kilimo is what has helped me out.”

[To depend on farming is what has helped me out.]

Household 753; Quote:38

This section summarises results from the interviews with 25 households classified as ‘real’ poverty exiters (poverty exiters by panel data and by life history). Section 4.5.1 presents the different pathways taken by these 25 households with a particular focus on the role of off-farm incomes. The bundle of common internal and external factors of these households will be presented in 4.5.2. Section 4.5.3 then presents the relevance of agricultural factors and VCD for poverty exits. The section ends with a summary answer to the research hypotheses and specific research questions.

4.5.1 Poverty Exits Driven by Off-farm Incomes

The 25 households classified as ‘real’ poverty exiters (poverty exiters by panel data and by life history) do not show one common pathway out of poverty base on agriculture; and those, who did exit poverty due to agriculture, did not provide evidence for a similar agricultural portfolio or strategy that led them exit poverty since 1997. This confirms the results by SHEPHERD 2010 that the reasons for poverty exits are divers. In analogy with the analysis of patterns in section 4.4, different pathways could be established for the 25 poverty-exiting households (see Table 4—19 below).

Table 4—19: Three Main Pathways of ‘Real’ Poverty Exiters (n=25)

‘Real’ Poverty Exiters					
25					
agriculture			agriculture + off-farm income		off-farm diversification
13			11		1
small- scale SPEC	medium- scale DIV	large- scale DIV	agriculture + self- employ- ment	agriculture + wage employment	self-employment
6	4	3	6	5	1

Source: own data

Half of the households attributed their poverty exit purely to agricultural activities (13); 11 had over the years engaged in significant off-farm activities that complemented their agricultural income in a way that they moved upward; and only one household had basically stopped farming and diversified into the rural-non-farm economy (by selling land and investing into a kiosk, a small guesthouse, and a barber shop).

The importance of off-farm income is underlined by 12 narratives that give account of upward mobility mainly based on off-farm income generating activities. This result confirms the importance of growth in the rural non-farm economy as also stated by e.g. LANJOUW & LANJOUW 2001 or LAY ET AL. 2007 . However, in terms of validation of data, these results suggest survey errors in underreporting of off-farm incomes and again suggest that off-farm income shares should be significantly higher, as also mentioned in 4.4.2.

When analysing the pathways of the 11 ‘agriculture + off-farm’ group of households, it turned out that the type of off-farm employment incurring the off-farm income was decisive: five households (‘agriculture + wage employment’) attributed their poverty exit to one member securing a wage labour job while the rest of the family continued farming as a mainstay; six

households ('agriculture + self-employment') had redirected household resources from farming to rural enterprises. These stories confirm the importance of regular employment as a reason to escape poverty (rated the second most important reason in the Fourth Participatory Poverty Assessment (see MANGO et al. 2007 p. 23). The narratives also emphasise the need to further develop rural labour markets for poverty reduction (see also CPRC 2015 or JAYNE & YEBOAH 2018)¹⁶⁶.

The six households that had successfully shifted resources from agriculture to invest into self-employed off-farm activities had all invested into their rural economy by trading agricultural produce (mainly grains and vegetables), or by providing services to their rural communities (carpentry, radio repairs, construction work). Their stories illustrate the trickle down effects of general economic growth during the survey period, particularly the rise of rural centres in the high potential agro-ecological zones of Kenya. Their agricultural portfolio is largely characterised by diversified subsistence agriculture coupled with moderately diversified commercial crop and/or livestock activities. The division of labour between farm and off-farm work is done between spouses and inter-marital cooperation played a particularly strong role for the success of these families (see also 4.5.2). Agriculture plus off-farm activities were also described as a risk-spreading strategy, as illustrated with the quote below:

"There is nothing that can hit trade, the farm and the trees at the same time."

Household 159; Quote:35

The five households that had attributed their poverty exit to one member securing a wage labour job could be further divided by the wage amount earned. Two had secured high paid wages (one female head became an insurance broker, one husband started working as a medical assistant). These two households could not be classified as 'agricultural households' anymore since their off-farm income today was substantially higher than their agricultural income; agriculture was pursued either by tradition by the spouse or as an economic sideline. The three other wage labour jobs were all relatively low-paying jobs (one school bursar, one nursery teacher, one agricultural

¹⁶⁶ Recent insights from 19 West African countries illustrate the role that agri-food chains are likely to play in rural and peri-urban job developments, particularly for women and youth (see OECD 2018).

input store keeper). It is important to note that none of the wage jobs mentioned were on-farm jobs as agricultural labourer (*'kibarua'*), supporting the evidence that casual agricultural wage labour is usually not a promising avenue out of poverty since it is often very low-paying (see also OYA 2010c). They all continued farming as a mainstay, however their steady upward move was fuelled by small, yet reliable, monthly off-farm income. This result confirmed the findings from DE WEERDT 2010 who had found that: *"those who combined farm and non-farm activities did even better. [...] we found that people who diversified were those who had exposure to life outside their village, providing them with crucial ideas and networks. It is not that those who diversified were simply 'lucky' that their strategy paid off; rather, they had the basics in place to make the right activity choices."* (Ibid., p. 19 ff.)

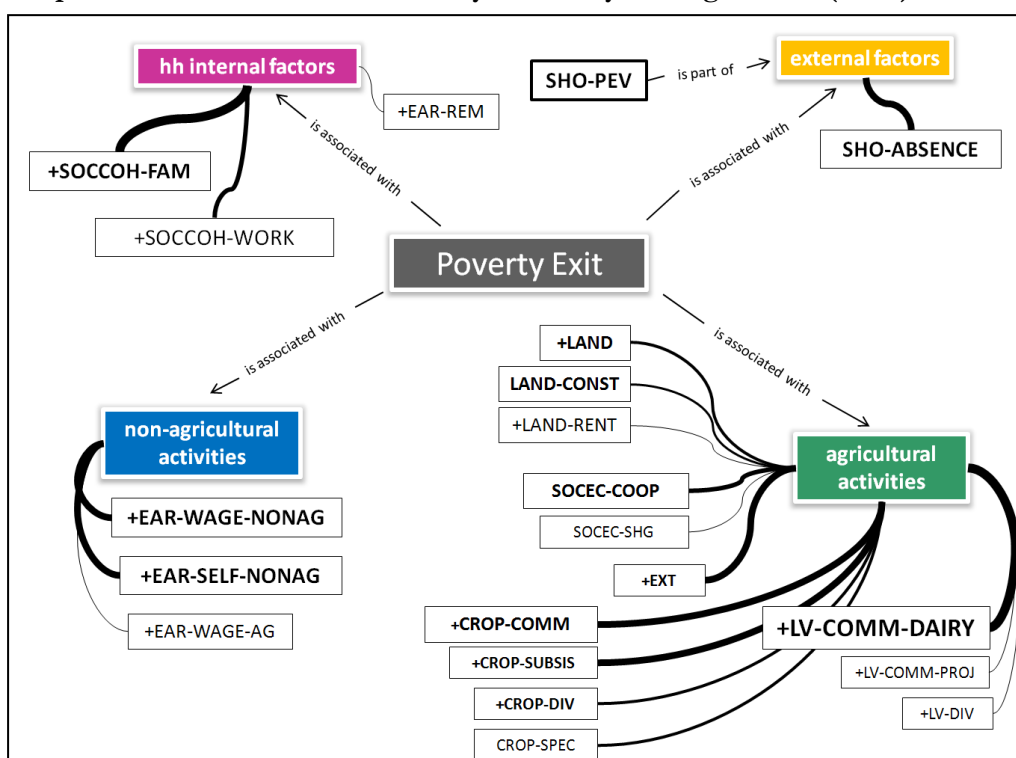
4.5.2 The Set of Joint Household Factors for Poverty Exits

Beyond the question whether the narrated poverty exit was mainly attributed to agricultural or to non-agricultural factors, the coding of the interviews (see 4.3.2) with the 25 'real' poverty exiters revealed unexpected similarities in the external factors and the household internal factors of these households.

This set of joint factors was the result of the co-occurrence analysis of the used codes and is illustrated in the network diagram below (see Graph 4—15)¹⁶⁷.

¹⁶⁷ The co-occurrence explorer is an analytical tool in atlas.ti. Once coding of the original quotations of the interviews was completed, naturally certain codes showed a higher frequency than others. These codes were further analysed for their groundedness (number of quotations given to a code; a high number resulting in a well-grounded code) and their density (the number of links between a code with other codes (in this case the link of all code factors with the code 'POVEX')). This density serves as an expression of the code underlying hypothesis and can be displayed in the network diagram with stronger or weaker links (see atlas.ti tutorials as linked in Footnote 155 for further information).

Graph 4—15: Co-Occurrence Intensity of Poverty Exiting Factors (n=25)



Source: own data

The network analysis showed that all four categories of factors were relevant for poverty exits. So beyond the already discussed importance of the non-agricultural activities (see 4.5.1) and the relevance of agricultural activities for poverty exits (see 4.5.3 below), a number of external and household internal factors displayed both, a strong groundedness in all of the 25 poverty exiting life histories as well as clear co-occurrence of links with the code 'POVEX'.

Three common factors were mentioned by almost all poverty exiting households to be associated with their poverty exits. The first one was positive social cohesion and intra-family cooperation ('+SOCCOH-FAM'), including both, good intra-marital as well as inter-generational relations. This result underlines how much poor households depend on social cohesion and family solidarity to overcome poverty over time. This confirmed again finding of DE WEERDT 2010 and HIGGINS 2011, who had emphasised that good intra-marital relationships accounted for many of the poverty exits, particularly from individuals that were very poor and had in the early survey

round very little prospect for upward mobility. However, this result is also telling for those individuals who are bound in households without positive social cohesion: they are prone to poverty or likely to be deprived of upward opportunities and there was robust evidence for that in the life histories of the 12 households with a downward trend (as discussed in 4.4.2).

The second most frequent common code presented an external factor; it was the absence of intrinsic shocks ('SHO-ABSENCE'). This was often mentioned during the SOP exercise and the self-assessment vis-à-vis others in their community; more in comparison to those, who were stuck in poverty due to a shock (most often, health shocks were mentioned). This didn't mean that none of the poverty exiting households had ever experienced shocks during the survey period; however, the ability to cope with a shock (i.e. resilience) was strongly associated with their poverty exit. This result confirmed findings from RADENY 2011 and most of the literature strengthening the topic of resilience building for poverty reduction (e.g. BIRD & SHINYEKWA 2003, CPRC 2009 or CPAN 2014) as well as the importance of affordable health care and related insurances (e.g. QUISUMBING 2007 or KRISTJANSON et al. 2010).

The third most frequent common code assigned was hard work ('+SOCCOH-WORK'). Even though some caution should be applied when self-reporting of hard work is used as explanation for upward mobility, the self-assessment often lead to this topic when comparing to others and explain the difference, why this household was better off than others. Even though this is a variable that is even hard to 'measure' by qualitative research methods, there were highly plausible life histories that illustrated how personal ambition, individual initiative or even passion for agricultural activities (in three cases the strong love for dairy farming) changed the household life, as also illustrated by the quote below:

"Mtu akianza kazi ya ukulima, asifuate maderewa wengi na awe mvumilivu, nilikuwa mtu asiyejiweza lakini kupitia ukulima, najiona mtu ambaye anaweza kusaidia wengine."

[Anyone doing farming should avoid many advisers and should be patient and persevere. I started as a poor person but I see myself able to assist others from my farming effort.]

Household 150; Quote:43

One code that occurred often was not associated with the households' poverty exits, but was mentioned during Section F of the life history (the future of the farm, see Annex II) was the code 'SHO-PEV'. The accounts coded here often described the still deeply rooted fears from experiences made during the Kenyan 'post-election violence' (PEV) in early 2008. PEV affected almost all households in the sample and the topic of PEV came up very often and thus, could not be ignored as a shock experience that impacted on rural peoples' life as an external factor (see also Graph 4—15). Despite the ethnic diversity of the respondents (as presented in Graph 4—11), experiences with PEV were described rather uniformly by a set of common sentiments: the very fundamental fear of losing life, of the homestead, of land, or of livestock, which sat deep with some households and in at least four cases had also occurred.

But even without direct involvement in PEV, the experience of severely interrupted agricultural input and output markets and the general break down of transport, communication and remittances had impacted deeply on some respondent's confidence in the future of their farm. This fear resulted in lower investments in agriculture and in activities with a higher spread of risk (e.g. in one case in the purchases of land in a different location); see also the quotes below: The impact of PEV on agricultural production is summarised in Box 4—4.

“Sitaki mifugo nitaweka tu zile niko nazo (because of what happened after elections). Watu bado wameogopa!”

[I do not want more livestock, I will only keep the ones I have (because of what happened after elections). People are still afraid!]

Household 71, Quote:52

“Majirani bado wako na fitina, wanapita hapa wakisema mtahama hapa siku moja.”

[Neighbours still envy my household and they gossip/rumour monger that we shall be forced to leave this place one day.]

Household 172, Quote:45

Box 4—4: The Impact of the 2008 Post-Election Violence on Agriculture

The PEV after the disputed presidential and parliamentary elections in Kenya in late December 2007 lasted until March 2008. PEV brought Kenya on the brink of civil war and had devastating consequences: 3,561 people were injured, 117,216 instances of property destruction were recorded, and at least 1,133 deaths were counted, half of them estimated to be extra-judicial killings by Kenyan Police and Security Forces (see TRUTH JUSTICE AND RECONCILIATION COMMISSION 2008¹⁶⁸); up to 500,000 people were internally displaced and unaccounted cases of gruesome sexual violence were perpetrated (HUMAN RIGHTS WATCH 2008).

2008 was therefore a troublesome year for the entire Kenyan economy, but for the agricultural sector in particular because of the additional international crisis of high food prices (see HOEFFLER & OWUOR 2009).

Given the deep roots of conflict around land (see HUMAN RIGHTS WATCH 2008 p. 12 *ff.*), agricultural production was severely interrupted in 2008 due to missed land preparation, unavailability of seed and fertiliser, and insecurity amounting over land possessions and land rented-in for crop production. In consequence, agricultural productivity decreased in 2008. In some areas, farmers showed reluctance to invest further in agriculture due to insecurity and perceived risks even in the years after.

These impacts of PEV on agricultural production confirm the strong importance of peace and security for poverty reduction and rural development, as also stated in FAO 2017b “*The vast majority of the chronically food insecure and malnourished live in countries affected by conflict*” (see *Ibid.*, p. 29) and Kenya is still categorised as ‘a country in protracted crisis’ (see *Ibid.*, Table A2.1 p. 103).

¹⁶⁸ The Commission of Inquiry into Post-Election Violence (CIPEV) was established as an outcome of the Kenya National Dialogue and Reconciliation Accord of February 28, 2008, which was negotiated by Kofi Annan and the Panel of Eminent African Personalities with Kenyan President Mwai Kibaki and opposition leader Raila Odinga. The CIPEV is often referred to as the ‘Waki Commission’, after Chairman Philip Waki, by then Judge at Kenya’s Court of Appeal.

4.5.3 The Relevance of Agricultural Value Chain Development

In section 4.5.1, Table 4—19 already displayed agriculture as a pathway out of poverty for 13 households. All these households attribute their poverty exit exclusively to agricultural activities (and inter-household cooperation including moderate remittances from children in some cases). For these agriculture-based poverty exiters, not one single common agricultural strategy was identified, but the network analysis revealed three different strategies, depending on initial resources and assets in 1997-2000, mainly on land ownership. The codes displayed in Graph 4—15 were the ones with the highest groundedness and co-occurrence to poverty exit and are presented by their frequency in Table 4—20 below.

Table 4—20: Agricultural Factors explaining Poverty Exits (n=13)

Code	Frequency			
	overall	large-scale DIV	medium- scale DIV	small-scale SPEC
+LAND	8	3	4	1
LAND-CONST	5	0	0	5
+LAND-RENT	3	2	1	0
CROP-COMM	13	3	4	6
CROP-SUBSIS	10	1	3	6
+CROP-DIV	8	3	4	1
CROP-SPEC	6	0	0	6
LV-COMM-DAIRY	13	3	4	6
+LV-DIV	6	3	3	1
+LV-COMM-PROJ	3	1	2	0
SOCEC-COOP	12	3	4	5
+EXT	8	2	3	5
SOCEC-SHG	7	1	2	4

Source. own data

Land ownership played an outstanding role in all agricultural life histories and provides the prime production factor for agriculture, particularly for crop production. Given the high groundedness and contextualising the nar-

ratives against the background of other surveys, the agricultural poverty exiting households were grouped according to their land ownership in 2010 as follows: small-scale farmers (with less than 3 acres), medium-scale farming households (with 3-10 acres), and large-scale farming households (with more than 10 acres).

Contrary to expectations and evidence from other surveys, these households were not exclusively located in the highest potential AEZs¹⁶⁹. However, as already presented in 4.2.2, poverty exiting households had larger land ownership. The four medium-scale and the three large-scale households had been able to expand their land assets by either buying more land (+LAND) or by renting in land (+LAND-RENT) over the survey period. The six small-holder poverty exiting households mentioned that it had been very important to them to keep the land size constant (LAND-CONST) and to intensify production with extension and innovation over the survey period. This confirmed the general high importance of access to land and land expansion for agricultural poverty exits as also stated by JAYNE et al. 2016 ; however, it did not confirm the findings from MUYANGA et al. 2013 who stated that “[...] *households rising out of poverty more than doubled their land-holding size.*” (*Ibid.*, p. 1370), since half of the agricultural poverty-exiters had not expanded their land size, but had followed a different strategy.

This finding lead directly to the debate about whether agricultural development was driven by specialisation or diversification. When categorising the 13 households by their land sizes, the poverty exits could be explained by three different strategies: small-scale specialisation, medium-scale diversification, and large-scale diversification see also Table 4—19).

When listening to the six small-scale households, it was evident that these farmers didn’t have any other alternative than specialising in few activities. It turned out that all six small-scale specialisers were seriously involved in one cash-crop which they had intensified in commercial production over the years (+CROP-COMM). These cash crops were either perennial crops like coffee, tea, sugar or export horticultural crops – all commodities that enjoyed substantial sub-sector growth during the survey years – and all

¹⁶⁹ Evidence from the 13 households rather suggests that the micro-climate and other natural resources available to the farm household location mattered more than the AEZ, particularly the access to water by streams, ponds or irrigation schemes. However, this does not question the relevance of natural resource endowment for productive farming, as also discussed in HOEFFLER 2011a).

these cash crops were characterised by a high degree of co-operative (SOCEC-COOP) or collective marketing via self-help groups (SOCEC-SHG). The difference collective marketing makes over selling at the farm gate or at spot markets is illustrated by the quote below:

“Hapa mambo ya bei inaamuliwa na brokers. Wakitangaza bei ya vyakula/mabindi, tunawauzia kwa hiyo kwa sababu maruno yetu ni kidogo na hatuwezi kukomboa malori kwenda kuuzza mbali ambako bei inaweza kuwa juu.”

[Here, the price is normally determined by the brokers. When these brokers come, and they tell us for which price they are buying the maize, we just sell to them – because my produce is very little, we cannot afford to hire lorries to transport this maize elsewhere and sell for a better price.]

Household 153; Quote:24

In addition, five of the six small-scale specialisers emphasised how much extension services had enhanced their skills and knowledge about crop production (CROP-EXT), how markets had developed favourably and how much market infrastructure (for inputs and outputs) had improved (+CROP-COMM), thereby confirming the findings about diversification and commercialisation in the Fourth Participatory Poverty Assessment (rated the third and fifth most important reasons to escape poverty (see MANGO et al. 2007 p. 23).

But despite the successful commercialisation of few agricultural value chains, all of the small-scale households continued to grow subsistence crops (CROP-SUBSIS) and all held at least one dairy cow to supplement crop income and household diet (LV-COMM-DAIRY). The agricultural success stories here tell of good agricultural practices, intensive mixed-farming, successful extension and vertically integration into commercial value chains.

The four medium-scale and three large scale farmers showed different strategies; all had diversified their agricultural portfolio over the years (+CROP-DIV; +LV-DIV). This confirms the pathway that was described as ‘opportunity-led diversification’ by LAY et al. 2008 . But it is important to note that these households also attributed their upward movement mainly to hard work and strong family cooperation. All of them were engaged in at least one food cash crop (maize, beans and wheat) and in dairy production.

A recurring pattern was observed for households that were located at tarmac road sides and thus connected to small rural centres: these households had diversified into the growing markets for domestic vegetables (+CROP-DIV): ‘*sukuma wiki*’, tomatoes, onions, carrots, indigenous leafy vegetables and cabbages were frequently mentioned as beneficial to them. Particularly the medium-scale farmers also emphasised their subsistence production (CROP-SUBSIS).

Collective marketing for crops played a less important role for these households, yet the importance of daily milk sales via dairy cooperatives cannot be emphasised enough for poverty exits (SOCEC-COOP). All seven medium and large-scale households were members of dairy cooperatives, and three of these cooperatives had developed over time into veritable medium-size rural business entities that also provided important forward and backward linkages for their members, such as livestock extension and veterinary services.

Many also had diversified their livestock activities by adding broilers, layers or small ruminants to their livestock portfolio (+LIV-DIV). Three households had been exposed to this diversification by either GoK or donor development projects (+LIV-DIV-PROJ) and all confirmed the positive impact of livestock diversification, as illustrated below:

“*Kondoo inazaana na kukunwa haraka ikiangaliwa.*”

[Sheep multiply and grow fast if well taken care of.]

Household 392; Quote:43

Further, being able to keep more (small) livestock enabled the medium and large-scale households to use these animals as a mechanism of savings for future needs such as school fees or agricultural investments. The respondents frequently mentioned that this comforted them, lowered their risks and provided opportunities for further farm investments.

The seven successes seemed to be mainly based on expansion of their agricultural production, strong commercialisation and diversification into new, upcoming agricultural opportunities and products with growing elasticity of demand and to integrate into respective value chains by commercial and sometimes collective marketing. None of these households had particularly specialised in only one or few agricultural activities and some explained in length that such a specialisation was too risky and that they would rather be able to spread the risks. This was probably particularly prominent given the

recent experiences with interrupted agricultural markets due to PEV and high food prices in 2008, and the drought in 2009. As one respondent illustrated, it was always good to fall back on other cropping alternatives, in particular for the food security and subsistence of the household, when inputs for commercial crops got too expensive or were not accessible at all, as also illustrated by this quote:

“Wakati wa njaa ukienda hapo huwezi kosa kitu.”

[During food scarcity, if you go there you can't miss something -
Meaning: you can never go wrong with cassava and sweet
potatoes since they withstand drought.]

Household 49; Quote:10

In summary, the narratives of 13 agricultural poverty exiting households did not confirm the notion that upward mobility and agricultural professionalisation would lead inevitably to a specialisation and that modernised medium to large-scale farms would eventually all specialise in one crop to serve growing urban markets (as stated by KIMENJU & TSCHIRLEY 2009), but they confirm the relationship between specialisation and small land size, as stated by BURKE et al. 2007 .

KRISHNA ET AL. 2004 and KRISTJANSON ET AL. 2004 emphasised the importance of income diversification strategies, showing that diversification out of agriculture (into additional rural off-farm income) and into new agricultural ventures (cash crops but also into livestock) was beneficial to poverty exiting households. SWALLOW ET AL. 2005 also confirmed that diversification was key for the better off: they conclude that the number of livelihood strategies employed by a household was the main factors for poverty exits (poor households were typically characterised by fewer options and thus, fewer livelihood strategies at higher risks). Five years later, they reaffirmed their diversification argument by saying *“This study finds that diversification of livelihood activities is an important determinant of poverty and poverty dynamics. [...] Diversity of agricultural activities was particularly important for households that started poor”* (Ibid., p. 10). KRISTJANSON et al. 2010 confirmed this, again with a strong focus on livestock diversification.

All in all, the poverty exiting household stories could not fully confirm the finding from KIMENJU & TSCHIRLEY 2009 that agricultural transformation first leads to diversification, then to specialisation, since the seven medium and large-scale households didn't seem to intend specialising any time soon

and hadn't done so during the survey years. This however might not mean that they would never ever specialise but might rather indicate that the time span between an opportunity-led diversification to a re-specialisation into few activities might be longer than 10-15 years. It could well be that within the time span of one generation, these households will focus their farming on fewer activities. This would support the rural transformation pathways for small-scale farmers as described by e.g. WIGGINS 2014 .

The contribution this research has to offer for the 'specialisation versus diversification debate' is that different strategies emerged from different sets of productive assets, mainly the land sizes. The unifying factor shown by all poverty exiters was the successfully integration in at least one commercial crop activity and in keeping at least one dairy cow while being member of at least one marketing group or cooperative. And, in addition, favourable household internal factors, which suggests that diversification or specialisation might not be the most decisive factors for a poverty exit.

It was evident from many interviews that household lifecycle factors might be equally or more important to overall poverty exit than the agricultural strategy pursued – or the mix of these factors as stated below:

“Mimi niko kwa position ya wale wa katikati wale hapana mbaya, wale hawawezi kushindwa na kulisha nyumba zao. Kutoka 2007 nimesonga mpaka leo niko juu sana kwasababu mimi nilikuja anza kukaiza chai tena naona watoto wanaanza kumaliza shule na hapana mbaya, niko juu.”

[I am in the position of those people in the middle, those not bad, those who cannot be defeated to feed their families. From 2007 I have moved, today I am so much up because I put more effort on tea and I can see my children are now finishing school and it is not bad, I am up.]

Household 1042; Quote:39

All 13 agricultural households gave evidence of the importance of collective marketing action, thereby confirming the high significance of group membership as also found by RADENY et al. 2012 and MUYANGA et al. 2013, RADENY et al. 2012 . The life histories impressively illustrated what had been stated by IFAD 2010 :*“There is an ongoing need to strengthen the collective capabilities of rural people, particularly through their membership-based organizations. These organizations give people confidence, security and power – all invaluable attributes for overcoming poverty”* (Ibid. p. 10).

The aspect of membership in cooperatives, contract farming schemes or other forms of vertically integrated value chain marketing could clearly be confirmed to benefit particularly the land-constraint small-scale farmers. In addition to the production and marketing advantages, particularly the membership in dairy cooperatives illustrated the benefit of participating in processing and value addition, since some of the dairy cooperatives were well functioning entities that seemed to pay significant dividends to their members.

In summary, all 13 poverty-exiting agricultural households as well as the 11 'agriculture plus' households narrated stories of structural upward mobility over time, based on their agricultural activities and the combination of intra-household and other factors. Thus, this research does not confirm the findings from RADENY et al. 2012 who had stated that "*Upward movement were largely stochastic*" (*Ibid.* p. 1587). And contrary to BARRETT et al. 2006, who had not found any evidence for a correlation of rural poverty exits and agricultural activities, these 24 poverty exiting households still engaged in agriculture provided clear evidence that this was possible.

So this answered the specific research question (ii) positively with a 'yes', the qualitative household survey confirmed positive poverty impacts in relation to agricultural activities (see 4.3.2).

Concerning the specific research question (iii), whether agricultural value chain integration lead to broadening, deepening or diagonal movement of poor households overtime, the answers could also be answered as summarised in Table 4—21 below.

Table 4—21: Verification of Research Hypotheses

Hypothesis	Verification	Explanation
1. Integration of poor farmers into new agricultural value chains	yes	Integration into new value chains were popular by the medium-size and larger farmers, particularly horticultural crops for export and fresh vegetables for the growing domestic market.
2. Broadening existing agricultural value chains	partly	Broadening could not be consistently proofed; the portfolio of many of the 13 ag households was rather constant, yet expanding where land was expanded.
3. Deepening existing agricultural value chains	partly	Evidence could be found in the benefits from dairy cooperative membership where farmers as co-operators not only sold their milk, but also benefitted from milk processing and hence the value addition.
4. Supporting the poor to move diagonally to higher valued agricultural value chains	yes	Strongest evidence provided by members of dairy cooperatives that had ventured into milk processing. Clear evidence also found for the use of knowledge to gradually invest in higher qualified production systems on farm and for the diversification into the rural non-farm economy by the 'ag plus' households thereby clearly increasing their income shares of the economic activities.

Source: own data

This survey thereby confirmed that agricultural VCD can support poverty exits of rural households. However, the common development hypothesis that VCD should support farming households to specialise could not be fully confirmed. Rather, the successful agricultural households told life histories of careful diversification, and strong commercialisation over time, balancing household and family food needs with commercial expansion of crop farming and intensification – plus the fact that all poverty exiting agricultural households kept dairy cows. They might specialise on fewer activities within the next generation.

The steady daily income from milk sales played a major role in household welfare, as well as the social and economic capital built over time in successful dairy cooperatives. Some of these cooperatives provided impressive examples of how collective action can help professionalise production and

deepen the value chain engagement of farmers by investing in farmer-owned transportation systems, collection points and even processing units¹⁷⁰.

So it can be concluded that VCD can promote poverty exits. Activities like extension services, technical and managerial trainings, exposure to innovation, improved access to output and input markets, support to collective action, etc. are all typically part of value chain development and particularly the six small-scale specialisers demonstrated that value chain promotion had reached out to them and had triggered or supported their poverty exit.

All of the 13 ‘real’ poverty exiting agricultural households contradict LAY et al. 2007 who had postulated that high-return agricultural activities were “*almost strictly pro-rich*” (*Ibid.* p. 25). In contrast, in particular the six small-scale households gave plausible testimony to the fact that agricultural VC integration had worked for them very effectively to escape poverty. However, it mattered for all of them not to be stuck at the far production end of a commodity that is purely sold as a raw cash crop but that they had a diversified portfolio of activities on which they intensified¹⁷¹.

However, value chain promotion has to take the farming system into account. A development strategy based on one crop or livestock activity singularly is not likely to be most effective, since only very few households in the survey had strongly specialised in one or two value chains only.

In addition, the 11 ‘agriculture plus’ households provided highly plausible evidence that this was a promising avenue for many, particularly under the pressure of rural transformation in Africa (see e.g. WIGGINS 2014). VCD should take this into account and work on ‘value chain development plus’ paying tribute to the importance of diversification options into the rural non-farm economy. DE WEERDT 2010 stated that diversifying farm activities or taking on additional non-farm activities were the most important

¹⁷⁰ These findings around dairy cooperatives concur with the history of cooperative agricultural marketing all over the world which dates back to the days of founding father Friedrich Wilhelm Raiffeisen, who started together with Hermann Schulze-Delitzsch the cooperative movement in Germany in 1848 (see e.g. THEURL 2018).

¹⁷¹ This concurs with findings from ASCHE 2018 who found that in the case of Ghanaian cocoa farmers the specialisation in cocoa as often the single cash crop sold as raw produce could not provide a convincing pathway out of poverty based on cocoa production, no matter how the value chain was promoted, since farmers as far end raw material producers were simply economically excluded from the value addition along the chain.

ways in which the most successful respondents in his survey managed their agricultural risk. This further stressed the need for support to rural diversification, also a strategy to build resilience.

Lastly, section E in the questionnaire (see Annex II) asked questions about the future of farming. Many of the successful farming households gave indications that for their future agricultural activities, technological innovations and digitalisation were likely to play a decisive role, since they already had experienced major innovations with mobile phone technology, as illustrated by the quotes below:

“Bila simu wewe si mtu.”

[Without a mobile phone, you are nobody.]

Household 1169; Quote:1

“Siku hizi mtu analima na kidole.”

[These days one farms with a finger.]

Household 76; Quote:50

So future VCD needs to take social and technological innovations more serious and most should also analyse which role VCD can play to promote such innovations that benefit particularly poorer and small-scale farmers.

As for the medium-term future for these households, the prospect looked like farming will continue to play a strong economic role for these families, even though for many, agricultural activities will provide an ever decreasing share of the overall household income due to diversification into the rural non-farm economy. This prospect confirmed the projection by WIGGINS et al. 2013 that roughly half of the small-scale farming households in rural Africa are likely to be farming families in 25 years, undergoing gradual transitions from full-time to part-time farming, but maintaining agriculture as a life style as illustrated below:

“Mimi nitaendelea na kilimo mpaka nikufe na jembe.”

[I will continue with farming until I die with the hoe in my hand.]

Household 71; Quote:49

5 CONCLUSIONS AND RECOMMENDATIONS

*Poor People are already working to change their world.
They hope, they work, they challenge, they take initiative, they fail,
and they try over and over again to make the world better –
for themselves, their children, their families, their communities, and their countries.
Despite their experiences, poor people still believe
in markets and governments that are equitable and just.
What can we do to make this a reality?*
(NARAYAN ET AL. 2009 , p. 341)

5.1 Conclusion: Our Understanding of Poverty Exits Matters

The results from the field survey in Kenya illustrate the gap between the different worlds of literature mentioned as research background in Chapter 1: rural poverty is analysed at macro level by governments, national statistic bureaus, and development agencies such as the World Bank country office with nation-wide surveys. Rural poverty is also addressed by multiple donors and development agencies working in a country. And rural poverty is researched by numerous individual and institutional research projects and institutions. Very little of this is connected, most of the initiatives are hardly aware about one another. Ever better national data are produced, ever more diversified micro-data sets are collected, but aggregated agricultural sector data that would help analyse rural poverty impacts of agricultural programmes and sector performance is still missing.

In Kenya (and elsewhere), too many different development initiatives (government or donor-driven) for rural and agricultural development are ongoing without taking note of poverty research results. The change of the constitution in 2010 with the devolution of national governance into 47 semi-autonomous counties is not likely to improve neither the coordination of government nor of donor initiatives. Too little is done to broaden the un-

derstanding of rural poverty dynamics and the multiple pathways that can lead out of poverty and how to support these pathways most effectively.

On the one hand, a deeper understanding of the national welfare surveys at hand by agricultural development practitioners is needed to target the poor better. Yet, many agricultural practitioners lack the skills to apply poverty research results. On the other hand, macroeconomists from national bureaus of statistics have not managed to provide their data to sector specialists in ready-to-use formats and relevant applications. The three worlds are probably less apart than ten years ago; however, these worlds are still far enough apart to not answer the poverty impact question of agricultural VCD. The understanding of rural poverty exits has stagnated.

Research institutions such as Tegemeo have improved their outreach by engaging more international research partners and by publishing more work. They have professionalised their policy advisory formats and engage more with development agencies to increase their audience and recipients of their TAMPA research results. They trained their partners on some of the most important results from the many quantitative analyses of the TAMPA panel undertaken with regard to poverty trends – upward as well as downward mobility. However, the results as presented in section 4.4 show how fragile some of these poverty trends from the panel data are when life cycle factors of the households over time are not taken into account and when some of the prominent reporting errors are not corrected. The methodological understanding of poverty exits still provides room for improvement.

In order to understand rural poverty exits properly and with larger country-wide representation, more coordinated efforts are needed and more training on the data available is mandatory. If ongoing and future agricultural VCD projects in Kenya are still aiming at targeting poor households and at supporting them to enter a pathway out of poverty, it is absolutely key to broaden the understanding of what is known about poverty exits. Consequently, all rural development programmes and efforts should be coordinated in a way that they replicate the poverty exiting factors of an ‘agriculture plus VCD approach’ in order to foster upward mobility for more poor rural households at a larger scale. Otherwise, we will not learn from previous research efforts and will not effectively contribute to rural poverty reduction in future. Thus, our understanding of poverty exits matters!

5.2 Recommendations

5.2.1 Recommendations for the Government of Kenya

It took the GoK ten years to repeat the KIHBS 2005/06. The next national poverty assessment was undertaken as KIHBS 2015/16 and the results published only in March 2018 (KNBS 2018, see also 1.1.3). The results are generally encouraging: absolute poverty rates in Kenya have been reduced by over 10 % between 2006/06 and 2015/16 and over-proportionally so in rural areas. This means, rural poverty exits did happen. However, too many people still live in rural poverty, even though hardcore (extreme) poverty was more than halved, 84 % of the hardcore poor still live in rural areas and geographically concentrated in areas of weak infrastructure and harsh environmental conditions. There remains work to be done: (i) to analyse how these poverty exits have happened, and (ii) to further analyse what needs to be done to support the remaining poor to also find a pathway out, at least for the next generation. The GoK should make this its prime development task and should be held accountable to it.

In doing so, the GoK should further concentrate national data collection at central government level and at the KNBS. As for the meso-level application of macro data, more user-friendly public user files are needed and sector specialists need to be trained in using them for poverty assessments of development projects and programmes.

At least, a coordination of existing monitoring instruments for agricultural value chain projects should be established by strong donor coordination across counties. This in turn could enrich also the national macro data. Furthermore, specific agricultural surveys could be designed and if repeatedly undertaken in future, could be used to answer poverty impact questions from many agricultural development interventions and rural economic activities, as well as policy reforms.

The analysis of poverty exiting factors (as depicted in Graph 4—15) suggests that particularly the future development of a more flexible land market might be of support as well as vertical and horizontal integration into profitable commercial value chains such as dairy or vegetables.

Beyond agricultural factors, supporting the poor to build their resilience against shocks – in particular health shocks – remains a priority policy task for the future. And, as illustrated in Box 4—4 on PEV, political stability is

an absolute prerequisite for prosperous rural economic development and poverty reduction.

5.2.2 Recommendations for Development Cooperation

This research states that even though the risks and benefits of global chain integration for African smallholder farmers have been subject to a vivid research debate, a comprehensive analysis of social and economic impacts of agricultural VCD is rarely undertaken. Even where value chain projects are monitored closely, the scope is often too narrowly focussed on factors important for donor reporting on this particular project, instead of contributing to joint learning at country level. And often, the number of baseline or monitoring interviews is small and not randomly sampled. Even though this research could draw plausible lessons from relatively few households interviewed, great opportunities for learning are missed by not developing a minimum standard for project monitoring at country level. In order to aggregate different monitoring data to a more stratified or even representative picture on rural development across the country, from which future projects and programmes could extrapolate. Development agencies are neither encouraged by the GoK to coordinate their monitoring efforts nor given incentives to contribute to national sector monitoring. Yet, digital developments might provide easier technical solutions for future ‘crowd monitoring’ and could be further explored by donors.

Due to these shortcomings in data and incentives, systematic meso-level data on aggregated poverty impacts of agricultural development is still missing in project monitoring and in the form of rigorous impact evaluations. Hence, often articulated statements about either the ‘pro-poorness of value chain integration’ or the ‘risks of excluding and further impoverishing smallholders’ cannot be verified or falsified. Caution should prevail with respect to the lack of empirical evidence.

Development Agencies should train their staff on the basics of poverty dynamics and alert them to continuously monitor the targeting of their development activities. This does not mean that only the poorest of the poor should be targeted, but as has been shown by the results in section 4.5 and others, VCD needs test proper poverty reducing hypotheses and implement their activities accordingly. Here, the findings from NARAYAN et al. 2009 should be taken into account: that poor people still strongly believe in the

function of markets; they want to participate in markets and want to do business; even when faced with enormous entry barriers. So, pro-poor rural development needs to “*transform markets so that poor people can access and participate in them fairly*” (Ibid., p. 42).

Donors and development agencies should take note of the clearly established factors that work for agricultural and rural development in general (such as investments in rural public goods like infrastructure etc., see WIGGINS et al. 2013) and for agricultural VCD in particular (as summarised in 4.5) and then stick to their implementation over predictable courses of time.

Still, as the life histories tell us, VCD will not be the silver bullet to lift all rural poor out of poverty: political and economic stability, the absence of shocks, and individual choices will always be important for exiting poverty as well. The results here confirm SHEPHERD 2010 who emphasised that poverty exits were diverse, but that the gradual improvement of even small farms by diversification, commercialisation and intensification had its own right as one possible pathway out of poverty. So agricultural development cooperation should take note of that and support what evidently works in VCD: support diversification beyond single VC approaches; modernise input and output markets for commercial agriculture (crop and livestock activities); develop capacities for cooperative marketing, mobilise collective rural action; support the development of the wider rural non-farm economic development; and provide extension, research and access to knowledge and innovation as public goods.

As for the future, development agencies should also take the dynamics of rural transformation (see e.g. WIGGINS 2014 , IFAD 2016 or FAO 2017a) into account for future agricultural VCD. The success of future projects will depend on the ability of the involved actors to bring together the insights of rural poverty research, of agricultural market dynamics, and of rural transformation processes. Two important insight from the transformation debate are the agricultural employment structures (see JAYNE & YEBOAH 2018) and the changing land sizes of smallholder farmers (see JAYNE et al. 2016 or MUYANGA et al. 2013). The latter one stated for Kenya: “*Agriculture remains the most likely engine that could catalyze such long-term growth processes in rural Kenya given the fact that agriculture constitutes the main source of livelihoods for the majority of rural households.*” (Ibid., p. 1372). Development cooperation needs to conceptually factor these insights in and respond to them.

5.2.3 Recommendation for Further Research

Since national poverty and welfare household surveys were improved in many countries, there is untapped potential to use poverty analysis as a methodology for impact monitoring. To further develop this, joint efforts between academia, governments, development agencies and private sector actors are necessary. Development economists (who conduct national household data from statistical institutions or Ministries of Finance or National Planning) need to come closer to sector specialists (such as agricultural analysts from academia or administration) and should practice more openness to mixed methods and cross-disciplinary work. Development economists should collaborate much more with social sciences in order to operationalise aggregated national panel data for systematic assessments of poverty and other development topics over time.

The rural transformation agenda (as spelt out by IFAD 2016) will provide the framework for future research on rural development. As for poverty research, the questions of income and employment generation via agricultural VCD will remain important and fresh looks and innovative methods will be needed to assess these impacts. In order to do so, academia need to further improve poverty research methods. Starting from the collection of data and, the accuracy of household panel data can and should be improved; first and foremost by more rigorous definitions of key variables (such as household demography or farm land) and by stronger efforts in training interviewers as illustrated in section 4.4. Manual labour as important production factor in small-scale farming systems needs a better recognition in rural household data, particularly with aging rural populations. In addition to household income, household investments, particularly in education, need to be better depicted in the data and taken into account for analysis. To do so, cross-disciplinary perspectives and mixed method approaches still provide ample opportunities, as discussed in 4.4. Triangulation of panel data with SOP and life history methodologies can provide methodological innovations that will improve the quality of rural household data and ultimately lead to more reliable and valid research results. The opportunity of ‘q-squared approaches’ as presented in section 3.1.4 are still existing and largely untapped, probably because respective academic incentives seem to be lacking. Here, academic institutions and networks should try new research efforts and lobby for research funding.

Furthermore, the research agenda will have to attend more to questions of inequality as a poverty determining factor in many countries: access to land, access to productive assets, access to input, output and labour markets, gender-disaggregated access to basic health care and education will determine the future pathways of many rural poor.

As for Kenya, poverty exits take place, yet the time dimension and life-cycle factors of poverty dynamics (as suggested in Box 4—3 and Graph 4—14) are the research frontier to be explored further – particularly since the perspectives of rural youth in Africa are so high on the contemporary political agenda (see YEBOAH 2018). The question of how to engage the next generation in productive agricultural VCD and how to overcome social norms and traditions that are still prohibiting energetic, innovative and productive young men and women from participating in food and agricultural markets (such as the acquisition of livestock or land) will provide interesting and highly relevant future research questions.

REFERENCES

- ADATO, M., M. R. CARTER & J. MAY (2006): Exploring poverty traps and social exclusion in South Africa using qualitative and quantitative data, *Journal of Development Studies*, 42 (2): 226 - 247.
- ADATO, M. & R. MEINZEN-DICK (2002): Assessing the Impact of Agricultural Research on Poverty Using the Sustainable Livelihoods Framework, IFPRI FCND Discussion Paper 128, Washington, D.C., IFPRI.
- ADATO, M. & R. MEINZEN-DICK (2007) (eds): *Agricultural Research, Livelihoods and Poverty - Studies of Economic and Social Impacts in Six Countries*, Baltimore: John Hopkins University Press for the International Food Policy Research Institute.
- ADATO, M., R. MEINZEN-DICK, P. HAZELL & L. HADDAD (2007): Integrating Social and Economic Analyses to Study Impacts on Livelihoods and Poverty: Conceptual Frameworks and Research Methods, in *Agricultural Research, Livelihoods and Poverty - Studies of Economic and Social Impacts in Six Countries*, ed. by M. ADATO, and R. MEINZEN-DICK. Baltimore: John Hopkins University Press for the International Food Policy Research Institute.
- ADB (2012): Support for Agricultural Value Chain Development Independent Evaluation: EK-3 INDEPENDENT EVALUATION DEPARTMENT, Asian Development Bank, Manila.
- ADDISON, T., D. HULME & R. KANBUR (2009a) (eds): *Poverty dynamics: interdisciplinary perspectives*, Oxford: Oxford University Press.
- ADDISON, T., D. HULME & R. KANBUR (2009b): *Poverty Dynamics: Measurement and Understanding from an Interdisciplinary Perspective*, in *Poverty Dynamics: Interdisciplinary Perspectives*, ed. by T. ADDISON, D. HULME, and R. KANBUR. Oxford: Oxford University Press.
- ADELMANN, I. (1984): Beyond export-led growth, *World Development*, 12 (9): 937-949.
- AGRA (2017): African Agriculture Status Report 2017. The Business of Smallholder Agriculture in Sub-Saharan Africa, ALLIANCE FOR A GREEN REVOLUTION IN AFRICA (AGRA), Alliance for a Green Revolution in Africa (AGRA), Nairobi, Kenya.
- ÅKERSTRÖM, M., K. JACOBSON & D. WÄSTERFORS (2004): Secondary analysis of archived data, in *Qualitative Research Practice*, ed. by C. SEALE, G. GOBO, J. F. GUBRIUM, and D. SILVERMAN. London Thousand Oaks New Delhi: SAGE Publications 297-313.
- ALDERMAN, H., J. BEHRMAN, H.-P. KOHLER, J. A. MALUCCIO & S. WATKI (2001): Attrition in Longitudinal Household Survey Data: Some Tests for Three Developing-Country Samples, *Demographic Research*, 5 (4): 79-124.

- ALKIRE, S. & J. E. FOSTER (2011a): Counting and Multidimensional Poverty Measurement, *Journal of Public Economics*, 95 476-487.
- ALKIRE, S. & J. E. FOSTER (2011b): Understandings and misunderstandings of multidimensional poverty measurement, *Journal of Economic Inequalities*, 9 (2): 289-314.
- ALTENBURG, T. (2007): Donor approaches to supporting pro-poor value chains, Donor Committee for Enterprise Development.
- ARGWINGS-KODHEK, G. (2006): An Inequality and Welfare Analysis of Kenya's Agricultural Sector, in *Readings on Inequality in Kenya. Sectoral Dynamics and Perspectives*, ed. by SID EAST AFRICA. Nairobi, Kenya: Regal Press Kenya Ltd.
- ASCHE, H. (2002): Poverty Reduction Strategy Papers and Pro-Poor Growth. Policy Options in African Partner Countries., GTZ, Eschborn.
- ASCHE, H. (2006): Durch einen Big Push aus der Armutsfalle? Eine Bewertung der neuen Afrika-Debatte, Discussion Paper 5/2006 German Development Institute, DIE, Bonn.
- ASCHE, H. (2015): Down to Earth Again: The Third Stage of African Growth Perspectives, *African Spectrum*, 50 (3): 123-138.
- ASCHE, H. (2018): Whose Cocoa?, Occasional Paper, Bonn, Exposure- und Dialogprogramme e.V..
- ASCHE, H. & H. HOEFFLER (2007): Direct Interventions to strengthen the ability of the poor to participate in the economy, paper presented at: Value Chains for Broad-based Development, Berlin, 30 May-1 June 2007.
- ASCHE, H. & H. HOEFFLER (2011): Up and down and up again: a historic perspective on development aid for agricultural policy reform in Africa., paper presented at: ECAS 2011: 4th European Conference on African Studies African Engagements: On Whose Terms?, Uppsala, Sweden, 5-18 June 2011.
- ASCHE, H., N. PHILIPP & M. MATTEO (2012): Economic diversification strategies: A key driver in Africa's new industrial revolution, Development Policy, Statistics and Research Branch Working Paper. Issue Paper for the Round Table for the Africa Region at the General Conference Fourteenth Session, 28 November- 2 December 2011 2/2012, Vienna, Austria, UNIDO.
- ASHLEY, C., N. MDOE & L. REYNOLDS (2002): Rethinking wildlife for livelihoods and diversification in rural Tanzania: a case study from northern Selous, LADDER Working Paper No.15.
- ATKINSON, R. (1998): *The Life Story Interview*. Thousand Oaks, CA: Sage.
- AYEERTEY, E. & A. MCKAY (2007): Growth with poverty Reduction, but Increased Spatial Inequality: Ghana over the 1990s, in *Determinants of Pro-Poor Growth*, ed. by M. GRIMM, S. KLASSEN, and A. MCKAY. Hampshire and New York: Palgrave Macmillan, 57-80.

- AYIEKO, M. W., D. L. TSCHIRLEY & M. W. MATHENGE (2005): Fresh Fruit and Vegetable consumption Patterns and Supply Chain Systems in Urban Kenya: Implications for Policy and investment Priorities, Working Paper No. 08/2004, Nairobi, Tegemeo Institute of Agricultural Policy and Development.
- BANERJEE, A. V. (2007) (*eds*): Making Aid Work, Cambridge, MA: MIT Press.
- BANERJEE, A. V. & E. DUFLO (2011): *Poor economics: a radical rethinking of the way to fight global poverty*. New York: PublicAffairs TM.
- BARAHONA, C. & S. LEVY (2005): The Best of Both Worlds: Producing National Statistics using Participatory Methods, Q-Squared Working Papers 11, Toronto, Centre for International Studies.
- BARR, A. (2003): Trust and expected trustworthiness: experimental evidence from Zimbabwean villages, *The Economic Journal*, 113 (489): 614-630.
- BARRETT, C. B. (2006): Poverty Traps and Agricultural Research: Improving Policies, Institutions and Technologies to Support Sustainable Poverty Reduction, in *Report of the Science Forum on CGLAR Priorities: Science for the Poor*, ed. by R. CHAPMAN: CGIAR Science Council Secreariate, 53-62.
- BARRETT, C. B., P. P. MARENDA, J. MCPEAK, B. MINTEN, F. MURITHI, W. OLUOCH-KOSURA, F. PLACE, J. C. RANDRIANARISOA, J. RASAMBAINARIVO & J. WANGILA (2006): Welfare dynamics in rural Kenya and Madagascar, *The Journal of Development Studies*, 42 (2): 248-277.
- BATES, R. (1981): *Markets and states in tropical Africa: The political basis of agricultural policies*. Berkeley: University of California Press.
- BATES, R. H. (1983): *Essays on the Political Economy of Rural Africa*. Cambridge: Cambridge University Press.
- BAULCH, B. (2003): Aid for the Poorest? The distribution and maldistribution of international development assistance, CPRC Working Paper No 35, Manchester, Chronic Poverty Research Centre.
- BAULCH, B. (2011) (*eds*): Why Poverty Persists - Poverty Dynamics in Asia and Africa, Northampton, MA: Edward Elgar Publishing Inc.
- BAULCH, B. & N. MCCULLOCH (2000): Tracking Pro-Poor Growth, ID21 Insights, Institute of Development Studies, Sussex.
- BEEGLE, K., L. CHRISTIAENSEN, A. DABALEN & I. GADDIS (2016): Poverty in a Rising Africa, The World Bank, Washington D.C.
- BERDEGUÉ, J. A., T. REARDON, G. ESCOBAR & R. ECHEVERRÍA (2000): Policies to Promote Non-farm Rural Employment in Latin America, Natural Resource Perspectives 55, London, Overseas Development Institute.

- BERNARD, H. R. (1970): *Research Methods in Anthropology. 4th Edition Qualitative and Quantitative Approaches*. Lanham, New York, Toronto, Oxford: AltaMira Press.
- BERNSTEIN, H. (2010): *Class Dynamics of Agrarian Change*. Black Point, Nova Scotia: Fernwood Publishing.
- BERTHÉLEMY, J.-C. (2006): Convergence and Development Traps: How Did Emerging Economies Escape the Underdevelopment Trap?, in *Growth and Integration. Annual World Bank Conference on Development Economics*, ed. by F. BOURGUIGNON, and B. PLESKOVIC. Washington, DC: World Bank, 127-156.
- BERTHÉLEMY, J.-C. & L. SÖDERLING (2001): *Emerging Africa*. OECD Development Centre, Paris.
- BESLEY, T. & L. J. CORD (2007) (eds): *Delivering on the Promise of Pro-Poor Growth - Insights and Lessons from Country Experiences*, Washington DC: Palgrave Macmillan and the World Bank.
- BEZEMER, D. & P. HAZELL (2006): *The Agricultural Exit Problem: an Empirical Assessment Background Paper for the World Development Report 2008*, Rimisp - Latin American Center for Rural Development.
- BHORAT, H. & F. TARP (2016) (eds): *Africa's Lions: Growth Traps & Opportunities in 6 African Economies*: Brookings Institution Press.
- BINSWANGER, H. P. & R. F. TOWNSEND (2000): The Growth Performance of Agriculture in Sub-Saharan Africa, *American Journal of Agricultural Economics*, 82 (5): 1075-1086.
- BIRD, K. (2007): The intergenerational transmission of poverty: An overview, ODI Working Paper 286 / CPRC Working Paper 99, London / Manchester, ODI / CPRC.
- BIRD, K. & I. SHINYEKWA (2003): Multiple shocks and downward mobility: learning from the life histories of rural Ugandans, CPRC Working Paper 36, Chronic Poverty Research Centre.
- BIRNER, R. & J. VON BRAUN (2009): Decentralisation and public service provision - a framework for pro-poor institutional design, in *Does Decentralisation Enhance Service Delivery and Poverty Reduction?*, ed. by E. AHMAD, and G. BROSIO. Cheltenham: Edward Elgar.
- BMZ (2006): "Pro-Poor Growth" a focal point of development policy, Special Paper BMZ, Bonn.
- BOGNER, A., B. LITTIG & W. MENZ (2002): *Das Experteninterview: Theorie, Methode, Anwendung*. Wiesbaden: VS Verlag für Sozialwissenschaften / GWV Fachverlage GmbH.
- BOOTH, D., J. HOLLAND, J. HENTSCHEL, P. LANJOUW & A. HERBERT (1998): *Participation and Combined Methods in African Poverty Assessment: Renewing the Agenda*, Social Development Division, Department for International Development (DFID), London.

- BOOTH, D., M. LEACH & A. TIERNEY (1999): Experiencing poverty in Africa: perspectives from anthropology, Background Paper for the World Bank Poverty Status Report 1999 1(b).
- BRADY, H. E. & D. COLLIER (2004) (*eds*): Rethinking Social Inquiry: Diverse Tools, Shared Standards, Landham, MD: Rowman and Littlefield.
- BRAINHARD, L. & V. LAFLEUR (2007): Making Poverty History? How Activists, Philanthropists, and the Public are Changing Global Development, paper presented at: Brookings Blum Roundtable 2007, Brookings Global Economy and Development, The Aspen Institute, August 1-3, 2007.
- BRANNEN, J. (1992): *Mixing Methods: Qualitative and Quantitative Research*. London: Gower (reprinted).
- BRANNEN, J. (2004): Working qualitatively and quantitatively, in *Qualitative Research Practice*, ed. by C. SEALE, G. GOBO, J. F. GUBRIUM, and D. SILVERMAN. London Thousand Oaks New Delhi: SAGE Publications 282-296.
- BROWN, D. R., E. C. STEPHENS, J. O. OUMA, F. MURITHI & C. B. BARRETT (2006): Livelihood strategies in the rural Kenyan highlands, *African Journal of Agricultural Resources Economics*, 1 (1): 21-35.
- BRÜCHER, J. (2007): Private Sector Development and Poverty Reduction. A Case Study of Kenya with Emphasis on Kakamega, Universität Leipzig, Leipzig, Fakultät für Geschichte, Kunst- und Orientalwissenschaften Institut für Afrikanistik, Thesis submitted: 21. August 2007.
- BRYMAN, A. (2006): Editorial, *Qualitative Research*, 6 (1): 5-7.
- BURKE, W. J. & T. S. JAYNE (2008): Spatial Disadvantages or Spatial Poverty Traps: Household Evidence from Rural Kenya, MSU International Development Working Paper No. 93 2008, Michigan, Michigan State University, Department of Agricultural, Food, and Resource Economics.
- BURKE, W. J. & T. S. JAYNE (2010): Spatial disadvantages or spatial poverty traps Household evidence from rural Kenya, ODI Working Paper 327 CPRC Working Paper 167, Overseas Development Institute (ODI), London.
- BURKE, W. J., T. S. JAYNE, H. A. FREEMAN & P. KRISTJANSON (2007): Factors Associated with Farm Households' Movement Into and Out of Poverty in Kenya: The Rising Importance of Livestock, MSU International Development Working Paper 90, East Lansing, Michigan, Michigan State University.
- BURNSIDE, C. & D. DOLLAR (2000): Aid, Policies and Growth, *American Economic Review*, 90 (4): 847-868.
- BURNSIDE, C. & D. DOLLAR (2004): Aid, Policies and Growth. Revisiting the Evidence, Policy Research Papers 3251, Washington, D.C., The World Bank.

- CABRAL, L., J. HOWELL & G. BAUDIENVILLE (2011): Aid to agriculture, rural development and food security // Unpacking the aid flows for enhanced transparency, accountability and aid effectiveness, Platform Knowledge Piece #2, Global Donor Platform for Rural Development, Bonn.
- CARBONE, G. (2015): *Africa: still rising?* Milano: Italian Institute for International Political Studies (ISPI).
- CARGAN, L. (2007): *Doing social research*. Plymouth: Rowman & Littlefield Publishers, Inc.
- CARTER, M. R. & C. B. BARRETT (2006): The Economics of Poverty Traps and Persistent Poverty: An Asset-Based Approach, *The Journal of Development Studies*, 42.
- CARVALHO, S. & H. WHITE (1997): Combining the Quantitative and Qualitative Approaches to Poverty Measurement and Analysis, World Bank Technical Paper 366, Washington, DC, The World Bank.
- CDED (2012): Green Value Chains to Promote Green Growth, DCED Fact Sheets, ILO, Geneva.
- CGD (2006): When Will We Ever Learn? Improving Lives through Impact Evaluation, Center for Global Development, Washington DC.
- CGD EVALUATION GAP WORKING GROUP (2006): When Will We Ever Learn? Improving Lives through Impact Evaluation, Washington DC.
- CHAMBERS, R. (1980): Rapid rural appraisal: Rationale and repertoire IDS Discussion Paper No. 155, Brighton, IDS Sussex.
- CHAMBERS, R. (1994): The Origins and Practice of Participatory Rural Appraisal *World Development*, 22 (07): 953-969.
- CHAMBERS, R. (2003): The Best of Both Worlds, in *Q-Squared: Combining Qualitative and Quantitative Methods in Poverty Appraisal*, ed. by R. KANBUR. New Delhi: Permanent Black.
- CHAMBERS, R. & G. R. CONWAY (1991): Sustainable rural livelihoods: practical concepts for the 21st century, ISA Discussion Paper 296, IDS.
- CHEN, S. & M. RAVALLION (2007): The Changing Profile of Poverty in The World, 2020 Focus Brief I. 2020, IFPRI, Washington DC.
- CHHOTRAY, V. & D. HULME (2009): Contrasting Visions for Aid and Governance in the 21st Century: The White House Millennium Challenge Account and DFID's Drivers of Change *World Development*, 37 (1): 36-49.
- CHIRBAN, H. T. (1996): *Interviewing Depth: The interactive-relational approach*. London: Sage Publishing.
- CHRISTIAENSEN, L., L. DEMERY & J. KUHIL (2011): The (evolving) role of agriculture in poverty reduction—An empirical perspective, *Journal of Development Economics*, 96 (2): 239-254.

- CLARKE, A. E. (2007): Grounded Theory: Critiques, Debates, and Situational Analysis, in *The Sage Handbook of Social Science Methodology*, ed. by W. OUTHWAITE, and S. P. TURNER. Los Angeles London New Delhi Singapore: SAGE Publications Ltd.
- CLEMENS, M., S. RADELET & R. BHAVNANI (2004): Counting Chickens when they hatch: The Short-term Effects of Aid on Growth, Working Paper, Center for Global Development.
- COLLIER, P. (2007): *The Bottom Billion. Why the Poorest Countries Are Failing and What Can be Done About It*. Oxford. New York: Oxford University Press.
- COLLIER, P. & D. DOLLAR (2002): Aid allocation and poverty reduction, *European Economic Review*, 46 (2002): 1475-1500.
- COLLIER, P. & J. W. GUNNING (1999): Explaining African Economic Performance *Journal of Economic Literature*, 37 (1): 64-111.
- COMMISSION FOR AFRICA (2005): Our Common Interest. Report of the Commission for Africa, London.
- COPPARD, D. (2010): Agricultural Development assistance: a summary review of trends and the challenges of monitoring progress, Development Initiatives and One, London.
- CORD, L. (2007): Overview, in *Delivering on the Promise of Pro-Poor Growth - Insights and Lessons from Country Experiences*, ed. by T. BESLEY, and L. J. CORD. Washington DC: Palgrave Macmillan and the World Bank.
- CORTI, L. & P. THOMPSON (2004): Secondary analysis of archived data, in *Qualitative Research Practice*, ed. by C. SEALE, G. GOBO, J. F. GUBRIUM, and D. SILVERMAN. London Thousand Oaks New Delhi: SAGE Publications 297-313.
- CPAN (2014): The Chronic Poverty Report 2014-2015, Chronic Poverty Advisory Network, ODI, London.
- CPRC (2005): The Chronic Poverty Report 2004 - 05, Chronic Poverty Research Centre (CPRC), Manchester.
- CPRC (2009): The Chronic Poverty Report 2008 - 09, Chronic Poverty Research Centre (CPRC), Manchester.
- CPRC (2015): The Chronic Poverty Report 2014-2015, Chronic Poverty Research Centre (CPRC), Manchester.
- CRAIG, D. & D. PORTER (2003): Poverty Reduction Strategy Papers: A new Convergence, *World Development*, 31 (1): 53-69.
- CRESWELL, J. W. (2003): *Research Design: Quantitative, Qualitative, and Mixed Methods Approaches*. Thousand Oaks, C.A.: Sage.
- DA CORTA, L. (2010): The political economy of agrarian change - Dinosaur or phoenix?, in *The Comparative Political Economy of Development: Africa and South Asia*, ed. by B. HARRIS-WHITE, and J. HEYER. Abingdon and New York: Routledge.

- DA SILVA, J. G., M. E. DEL GROSSI & C. G. DE FRANÇA (2011): The Fome Zero (Zero Hunger) Program - The Brazilian Experience, MINISTRY OF AGRARIAN DEVELOPMENT, Brasilia.
- DAVIS, P. (2006): Poverty in time: Exploring poverty dynamics from life history interviews in Bangladesh, CPRC Working Paper 69, Bath, Department of Economics and International Development, University of Bath.
- DAVIS, P. (2011a): Escaping poverty: patterns and causes of poverty exits in rural Bangladesh, CPRC Working Paper No. 194, Bath, Social Development Research Initiative.
- DAVIS, P. (2011b): Exploring the long-term impact of development interventions within life-history narratives in rural Bangladesh, *Journal of Development Studies*, 3 (2): 263-280.
- DAVIS, P. & B. BAULCH (2009): Parallel realities: exploring poverty dynamics using mixed methods in rural Bangladesh, CPRC Working Paper No. 142, Bath.
- DE WEERDT, J. (2009): Defying Destiny and Moving out of Poverty: Evidence from a 10-year Panel with Linked Qualitative Data from Kagera, Tanzania, paper presented at: CSAE Conference 2009 Economic Development in Africa, Centre for the Studies of African Economies, University of Oxford, St Catherine's College, Oxford, 22nd - 24th March 2009
- DE WEERDT, J. (2010): Moving out of Poverty in Tanzania: Evidence from Kagera, *Journal of Development Studies*, 46 (2): 331-349.
- DEATON, A. (1997): *The Analysis of Household Surveys: A Microeconomic Approach to Development Policy*. Baltimore and London: The John Hopkins University Press.
- DEATON, A. (2007): Evidence-Based Aid Must not Become the Latest in a Long String of Development Fads, in *Making Aid Work*, ed. by A. V. BANERJEE: MIT Press, 60-61.
- DELGADO, C. L., J. HOPKINS & V. A. KELLY (1998): Agricultural Growth Linkages in Sub-Saharan Africa, IFPRI Research Report IFPRI, IFPRI, Washington DC.
- DENT, B., J. MACHARIA & A. ALOYCE (2017): Value Chain Thinking: A Trainer's Manual, World Vegetable Center, Shanhua, Taiwan.
- DERCON, S. & P. KRISHNAN (1998): Changes in Poverty in Rural Ethiopia 1989-1995: Measurement, Robustness Tests and Decomposition, Discussion Papers Series DPS 98.19, Centrum voor Economische Studiën Katholieke Universiteit Leuven.
- DERCON, S. & J. S. SHAPIRO (2007): Moving on, Staying behind, Getting lost: Lessons on Poverty Mobility from Longitudinal Data, in *Moving out of Poverty*, ed. by D. NARAYAN, and P. PATESCH. Washington DC: Palgrave Macmillan.

- DEY, I. (2004): Grounded theory, in *Qualitative Research Practice*, ed. by C. SEALE, G. GOBO, J. F. GUBRIUM, and D. SILVERMAN. London Thousand Oaks New Delhi: SAGE Publications 80-93.
- DFID (1999): Sustainable Livelihoods Guidance Sheets, DFID, London.
- DOLAN, C. (2001): The 'Good Wife': Struggles over Resources in the Kenyan Horticultural Sector, *The Journal of Development Studies*, 37 (3): 39-70.
- DOLLAR, D. & A. KRAAY (2002): Growth is Good for the Poor, *Journal of Economic Growth*, (7): 195-225.
- DONOVAN, J., M. CUNHA, S. FRANZEL, A. GYAU & D. MITHÖFER (2013): Guides for value chain development. A comparative review, CTA & World Agroforestry Centre, Wageningen, The Netherlands.
- DORNBUSCH, R., S. FISCHER & R. STARTZ (2004): *Macroeconomics (Ninth ed.)*. New York: McGraw-Hill Irwin.
- DORWARD, A. R. (2013): Agricultural labour productivity, food prices and sustainable development impacts and indicators, *Food Policy*, 39 (April): 40-50.
- EASTERLEY, W. (2001): *The Elusive Quest for Growth: Economist's Adventures and Misadventures in the Tropics*. Cambridge, MA: MIT Press.
- EASTERLEY, W. (2005): Reliving the 50s: the Big Push, Poverty Traps, and Takeoffs in Economic Development, Center for Global Development Working Paper Number 65.
- EASTERLEY, W. (2006): *The White Man's Burden. Why the West's efforts to aid the rest of the world have done so much ill and so little good*. Oxford New York: Oxford University Press.
- EASTERLEY, W. (2014): *The tyranny of experts, dictators, and the forgotten rights of the poor*. New York: Basic Books.
- ELBEHRI, A. (2013) (eds): Rebuilding West Africa's food potential: Policies and market incentives for smallholder-inclusive food value chains, Rome, Italy: IFAD and FAO.
- ELLIS, F. (1998): Household Strategies and Rural Livelihood Diversification, *The Journal of Development Studies*, 35 (1): 1-38.
- ELLIS, F. (2010): Strategic dimensions of rural poverty reduction in sub-Saharan Africa, in *The Comparative Political Economy of Development: Africa and South Asia*, ed. by B. HARRIS-WHITE, and J. HEYER. Abingdon and New York: Routledge.
- ELLIS, F. (2013): Topic Guide: Agriculture and Growth, Evidence on Demand, London.
- FAFCHAMPS, M. (2006): Development and social capital, *The Journal of Development Studies*, 42 (7): 1180-1198.
- FAFCHAMPS, M. & F. SHILPI (2008): Subjective welfare, isolation and relative consumption, *Journal of Development Economics*, 86 (1): 43-60.

- FAO (2008): Socio-Economic & Livelihood Analysis in Investment Planning, FAO, Rome.
- FAO (2014): Developing sustainable food value chains - Guiding Principles, FAO, Rome.
- FAO (2017a): The State of Food and Agriculture - Leveraging Food Systems for Inclusive Rural Transformation, Food and Agriculture Organization of the United Nations, Rome.
- FAO (2017b): The State of Food Security and Nutrition in the World 2017. Building Resilience for Peace and Security.
- FAO INVESTMENT CENTRE (2009): Rapid Assessment of Aid Flows for Agricultural Development in Sub-Saharan Africa, Investment Centre Division Discussion Paper FAO, Rome.
- FENGLER, W. & H. KHARAS (2010) (eds): Delivering Aid Differently. Lessons from the field, Washington, DC: Brookings Institution Press.
- FOSTER, J. E., J. GREER & E. THORBECKE (1984): A Class of Decomposable Poverty Measures, *Econometrica*, 52 (3): 761-766.
- FOSTER, J. E. & A. F. SHORROCKS (1991): Subgroup Consistent Poverty Indices, *Econometrica*, 59 (3): 687-709.
- FREEMAN, H. A., F. ELLIS & E. ALLISON (2003): Livelihoods and Rural Poverty Reduction in Kenya, LADDER Working Paper No.33, Norwich, University of East Anglia.
- GAMBA, P. & E. MGHENYI (2004): Rural Poverty Dynamics, Agricultural Productivity and Access to Resources, Tegemeo Working Paper 21, Nairobi, Egerton University, Tegemeo Institute of Agricultural Policy and Development.
- GEREFFI, G. & K. FERNANDEZ-STARK (2016): Global Value Chain Analysis: A Primer, 2nd Edition, Duke Center on Globalization, Governance and Competitiveness at the Social Science Research Institute Duke University.
- GEREFFI, G., J. HUMPHREY & T. STURGEON (2005): The governance of global value Chains *Review of International Political Economy*, 12 (1): 78-104.
- GIBBON, P. & S. PONTE (2005): *Trading Down: Africa, Value Chains, and the Global Economy*. Philadelphia: Temple University Press.
- GIBBS, G. R., N. FIELDING, A. LEWIS & C. TAYLOR (2005): Online QDA - Learning Qualitative Data Analysis on the Web, Huddersfield: University of Huddersfield.
- GLACHANT, M. (2013): Greening Global Value Chains: Innovation and the International Diffusion of Technologies and Knowledge, Green Growth Papers, OECD, Paris.
- GLASER, B. G. & A. L. STRAUSS (1967): *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Chicago: Aldine.

- GOK (2000): Second Report on Povert in Kenya Volume I: Incidence and Depth of Poverty, Ministry of Finance and Planning, Nairobi, Kenya.
- GOK (2002): Kenya Participatory Impact Monitoring (KePIM) Key Findings, Human Resources and Social Services Department, and Central Bureau of Statistics in the Ministry of Finance and Planning, Nairobi, Kenya.
- GOK (2003): Kenya citizens report card on service delivery : are services being delivered to the poor?, Human Resources and Social Services Department and the Central Bureau of Statistics, and with the assistance of GTZ Social Policy Advisory Services, Nairobi, Kenya.
- GOK (2004): Strategy to Revitalize Agriculture (SRA 2004-2014), Ministry of Agriculture, Nairobi, Kenya.
- GOK (2005): Poverty Reduction Strategy Annual Progress Report 2003/04, Ministry of National Planning and National Development, Nairobi, Kenya.
- GOK (2006): MDG Status Report for Kenya 2005, Ministry of National Planning and National Development, Nairobi, Kenya.
- GOK (2008): MDG Status Report for Kenya 2007, Ministry of State for Planning National Development and VISION 2030, Nairobi, Kenya.
- GOK (2010): Agriculture Sector Development Strategy (ASDS 2010-2020), Ministry of Agriculture, Nairobi, Kenya.
- GOODE, W. J. & P. K. HATT (1952): *Methods in Social Research*. New York: McGraw-Hill.
- GORE, C. (2000): The Rise and Fall of the Washington Consensus as a Paradigm for Developing Countries, *World Development*, 28 (5): 789-804.
- GRÄB, J. & M. GRIMM (2009): Spatial inequalities explained: Evidence from Burkina Faso, Working Paper 468, The Hague, Institute of Social Sciences (ISS).
- GRIMM, M. & S. KLASSEN (2007): Findings and Challenges in the Measurement and Analysis of Pro-Poor Growth, in *Determinants of Pro-Poor Growth*, ed. by M. GRIMM, S. KLASSEN, and A. MCKAY. Hampshire and New York: Palgrave Macmillan, 1-19.
- GRIMM, M., S. KLASSEN & A. MCKAY (2007) (eds): *Determinants of Pro-Poor Growth*, Hampshire and New York: Palgrave Macmillan.
- GTZ-SPAS KENYA & MINISTRY OF FINANCE AND PLANNING (2002): Practitioner's Guide: Citizen Report Cards - CiReCa. Determining levels of citizen's satisfaction with public services in Kenya, Nairobi, Kenya.
- GTZ (2007): Value Chains for Broad-based Development, paper presented at: Value Chains for Broad-based Development, Berlin, 30 May-1 June 2007.

- HAGGBLADE, S. & P. HAZELL (2010) (eds): *Successes in African Agriculture - Lessons for the Future*, Washington, D.C.: International Food Policy Research Institute (IFPRI).
- HAGGBLADE, S., P. HAZELL & A. P. DOROSH (2007a): Sectoral Growth Linkages between Agriculture and the Rural Nonfarm Economy, in *Transforming the Rural Nonfarm Economy*, ed. by S. HAGGBLADE, P. HAZELL, and T. REARDON. Baltimore, Md.: Johns Hopkins University Press, 141-182.
- HAGGBLADE, S., P. HAZELL & T. REARDON (2007b) (eds): *Transforming the Rural Nonfarm Economy. Opportunities and Threats in the Developing World*, Baltimore, Md.: Johns Hopkins University Press.
- HAGGBLADE, S., P. HAZELL & T. REARDON (2010): The Rural Nonfarm Economy: Prospects for Growth and Poverty Reduction, *World Development*, 38 (10): 1429-1441.
- HAGGBLADE, S., V. THERIAULT, J. STAATZ, N. DEMBELE & B. DIALLO (2012): A Conceptual Framework for Promoting Inclusive Agricultural Value Chain, MICHIGAN STATE UNIVERSITY Department of Agricultural Food and Resource Economics, Michigan.
- HAMMERSLEY, M. (1992): Deconstructing the qualitative-quantitative divide, in *Mixing Methods: Qualitative and Quantitative Research*, ed. by J. BRANNEN. London: Gower (reprinted), 39-57.
- HAMMERSLEY, M. (1996): The relationship between qualitative and quantitative research: paradigm loyalty versus methodological eclecticism, in *Handbook of Research Methods for Psychology and the Social Sciences.*, ed. by J. T. E. RICHARDSON. Leicester: BPS Books, 159-179.
- HAMMERSLEY, M. & P. ATKINSON (1983): *Ethnography: Principles in Practice*. London: Tavistock.
- HARRIS, J. (2009): Bringing politics back into poverty analysis: Why understanding social relations matters more for policy on chronic poverty than measurement, in *Poverty Dynamics. Interdisciplinary Perspectives*, ed. by T. ADDISON, D. HULME, and R. KANBUR. Oxford: Oxford University Press.
- HARRISS-WHITE, B. & J. HEYER (2010) (eds): *The Comparative Political Economy of Development: Africa and South Asia*, Abingdon and New York: Routledge, Routledge Studies in Development Economics.
- HAUGHTON, J. (2007): *Manual of Poverty Analysis* Washington DC: World Bank Institute.
- HAUGHTON, J. & S. KANDKER (2009): *Handbook on poverty and inequality* Washington DC: The World Bank.
- HAVNEVIK, K., D. BRYCESON, L.-E. BIRGEGÅRD, P. MATONDI & A. BEYENE (2007): African Agriculture and the World Bank - Development or Impoverishment?, Nordiska Afrikainstitutet, Stockholm.

- HAZELL, P. (2004): Smallholders and Pro-Poor Agricultural Growth, OECD POVNET Agriculture Task, OECD, Paris.
- HAZELL, P., C. POULTON, S. WIGGINS & A. DORWARD (2007): The Future of Small Farms for Poverty Reduction and Growth, 2020 IFPRI Discussion Paper No 42, Washington DC.
- HAZELL, P. & A. RAHMAN (2014) (eds): New Directions for Smallholder Agriculture, Rome / London: Oxford University Press.
- HENNINK, M. M. (2014): *Focus Group Discussions (Understanding Qualitative Research)*. Oxford University Press.
- HENSON, S. (2006): New Markets and Their Supporting Institutions: Opportunities and Constraints for Demand Growth, Background Paper for the World Development Report 2008, Rimisp - Latin American Center for Rural Development.
- HERR, M. & T. MUZIRA (2009): Value Chain Development for Decent Work: A Guide for private sector initiatives, governments and development organizations, International Labor Organization (ILO), Geneva.
- HIGGINS, K. (2011): Escaping poverty in Tanzania: what can we learn from cases of success?, CPRC Working Paper 204, Manchester, Chronic Poverty Research Centre.
- HOEFFLER, H. (2006): Promoting the Kenyan Potato Value Chain: Can Contract Farming Help Build Trust and Reduce Transaction Risks?, paper presented at: 99th EAAE Seminar 'Trust and Risks in Business Networks', Bonn, Germany, February 8-10 2006.
- HOEFFLER, H. (2009): Poverty Dynamics in Rural Kenya – Assessing how much Geography matters, paper presented at: ECAS 2009: 3rd European Conference on African Studies “Reshaping Africa”, Leipzig, Germany, 4-7 June 2009.
- HOEFFLER, H. (2011a): Exiting Poverty in Rural Kenya – How much does Natural Resource Endowment matter? Results from Poverty Dynamics and Agricultural Life Histories paper presented at: Tropentag 2011 Conference on International Research on Food Security, Natural Resource Management and Rural Development, University of Bonn, Germany, October 5 - 7, 2011.
- HOEFFLER, H. (2011b): The Political Economy of Agricultural Policies in Africa: History, Analytical Concepts and Implications for Development Cooperation, *Quarterly Journal of International Agriculture*, 50 (1): 29-53.
- HOEFFLER, H. (2011c): Specialisation or Diversification? Poverty Exits and Agricultural Value Chains in Rural Kenya, paper presented at: Poverty, Equity and Growth Network (PEGNet) Conference 2011: Poor Countries, Poor People, and the New Global Players, GIGA German Institute of Global and Area Studies Hamburg, Germany, 07-09 September 2011.

- HOEFFLER, H. & G. MAINGI (2005): Rural-urban linkages in practice: Promoting agricultural value chains, *Entwicklung & Ländlicher Raum*, 5 26-28.
- HOEFFLER, H. & B. W. OWUOR (2009): High Commodity Prices - Who gets the Money? A Case Study on the Impact of High Food and Factor Prices on Kenyan Farmers, Heinrich-Boell Foundation, Berlin.
- HULME, D. (2007): Integrating Quantitative and Qualitative Research for Country Case Studies of Development, paper presented at: Global Development Network Meeting on 'Comparative Analysis': Methodological Workshop, Beijing, January 2007.
- HULME, D. & A. MCKAY (2008): Identifying and Measuring Chronic Poverty: Beyond Monetary Measures, in *The Many Dimensions of Poverty*, ed. by N. KAKWANI, and J. SILBER. London: Palgrave Macmillan.
- HULME, D., K. MOORE & A. SHEPHERD (2001): Chronic poverty: meanings and analytical framework CPRC Working Paper 2, Manchester, Chronic Poverty Research Centre.
- HUMAN RIGHTS WATCH (2008): Ballots to Bullets. Organized Political Violence and Kenya's Crisis of Governance.
- HUMPHREY, J. (2005): Shaping Value Chains for Development: Global Value Chains in Agribusiness, GTZ, Eschborn.
- HUMPHREY, J. (2006): Policy Implications of Trends in Agribusiness Value Chains, *The European Journal of Development Research*, 18 (No. 4): 572-592.
- HUMPHREY, J. & L. NAVAS-ALEMÁN (2010): Value Chains, Donor Interventions and Poverty Reduction: A Review of Donor Practice, IDS Research Reports 63 Institute of Development Studies at the University of Sussex, Sussex.
- HUMPHREY, J. & H. SCHMITZ (2000): Governance and Upgrading: Linking Industrial Cluster and Global Value Chain Research, IDS Working Paper 120, IDS, Sussex.
- IFAD (2001): Rural Poverty Report 2001. The Challenge of Ending Rural Poverty, International Fund for Agriculture and Development (IFAD), Rome.
- IFAD (2010): Rural Poverty Report 2011. New realities, new challenges: new opportunities for tomorrow's generation, International Fund for Agriculture and Development (IFAD), Rome.
- IFAD (2014): Investing in young rural people for sustainable and equitable development, International Fund for Agricultural Development (IFAD), Rome.
- IFAD (2016): Rural Development Report 2016. Fostering inclusive rural transformation, International Fund for Agricultural Development (IFAD), Rome.

- IFAD, WFP & FAO (2013): The State of Food Insecurity in the World. The multiple dimensions of food security, Rome.
- JAFFEE, S. & S. HENSON (2005): Agro-food Exports from Developing Countries: the Challenges Posed by Standards, in *Global Agricultural Trade and Developing Countries*, ed. by M. AKSOY, and J. BEGHIN. Washington DC.: The World Bank.
- JALAN, J. & M. RAVALLION (2002): Geographic Poverty Traps? A Micro Model of Consumption Growth in Rural China, *Journal of Applied Econometrics*, 17 (4): 329-346.
- JAYNE, T. S., J. CHAMBERLIN, L. TRAUB, N. SITKO, M. MUYANGA, F. K. YEBOAH, W. ANSEEUW, A. CHAPOTO, A. WINEMAN, C. NKONDE & R. KACHULE (2016): Africa's changing farm size distribution patterns: the rise of medium-scale farms, *Agricultural Economics*, 47 (S1): 197-214.
- JAYNE, T. S. & F. K. YEBOAH (2018): Africa's Evolving Employment Trends, *The Journal of Development Studies*, 54 (5): 803-832.
- KAKWANI, N., S. KHANDKER & H. H. SON (2004): Pro-poor growth: concepts and measurements with country case studies, IPC Working Paper 1, International Poverty Centre (IPC), Brasilia.
- KAKWANI, N. & E. M. PERNIA (2000): What is Pro-poor Growth?, *Asian Development Review*, 18 (1): 1-16.
- KAKWANI, N. & J. SILBER (2007) (eds): The Many Dimensions of Poverty, New York: Palgrave MacMillan.
- KAKWANI, N. & J. SILBER (2008a) (eds): The Many Dimensions of Poverty, New York: Palgrave MacMillan.
- KAKWANI, N. & J. SILBER (2008b) (eds): Quantitative Approaches to Multi-dimensional Poverty Measurement, New York: Palgrave MacMillan.
- KANBUR, R. & P. SHAFFER (2007): Epistemology, Normative Theory and Poverty Analysis: Implications for Q-squared in Practice, *World Development*, 35 (2): 183-96.
- KANBUR, S. M. R. (2003) (eds): Q-Squared: Combining Qualitative and Quantitative Methods in Poverty Appraisal, Delhi: Permanent Black.
- KAPLAN, M., S. BETTIGHOFER, S. BRÜNTRUP-SEIDEMANN & M. NOLTZE (2016): Landwirtschaftliche Wertschöpfungsketten, Deutsches Evaluierungsinstitut der Entwicklungszusammenarbeit (DEval), Bonn.
- KAPLINSKY, R. & M. MORRIS (2001): *A Handbook for Value Chain Research*. International Development Research Centre (IDRC), Ottawa.
- KELLE, U. (2004): Computer-assisted qualitative data analysis, in *Qualitative Research Practice*, ed. by C. SEALE, G. GOBO, J. F. GUBRIUM, and D. SILVERMAN. London Thousand Oaks New Delhi: SAGE Publications 443-459.

- KIELWEIN, N. (2005): Die Empfehlungen des Berichts Our Common Interest der Commission for Africa im Lichte der aktuellen afrikapolitischen Debatte, Deutsches Institut für Entwicklungspolitik, Bonn.
- KIMENJU, S. C. & D. TSCHIRLEY (2009): Agriculture and Livestock Diversification in Kenyan Rural Households, Tegemeo Working Paper Series 29/2008, Nairobi, Tegemeo Institute of Agricultural Policy and Development, Egerton University.
- KING, G., R. O. KEOHANE & S. VERBA (1994): *Designing Social Inquiry: Scientific Inferences in Qualitative Research*. Princeton, NY: Princeton University Press.
- KLASEN, S. (2004): In Search of the Holy Grail: How to Achieve Pro-poor Growth?, in *Attacking Poverty: What makes growth pro-poor?*, ed. by M. KRAKOWSKI. Baden-Baden: Nomos Verlagsgesellschaft.
- KLASEN, S. (2013): Is it time for a new international poverty measure?, in *Development Co-operation Report 2013: Ending Poverty*, ed. by OECD: OECD Publishing.
- KLEINING, G. (1995): *Lehrbuch entdeckende Sozialforschung Bd. 1. Von der Hermeneutik zur qualitativen Heuristik*. Weinheim: Beltz, Psychologische-VerlagsUnion.
- KNBS (2007a): Basic Report on Well-being in Kenya based on Kenya Integrated Household Budget Survey (KIHBS) 2005/06, Kenya National Bureau of Statistics, Nairobi.
- KNBS (2007b): Kenya Integrated Household Budget Survey (KIHBS) 2005/06 (revised edition) Basic Report, Nairobi, Kenya National Bureau of Statistics.
- KNBS (2010): Kenya Demographic and Health Survey 2008-09, KNBS AND IFC MACRO, Calverton, Maryland.
- KNBS (2018): Basic Report on Well-being in Kenya Based on the 2015/16 Kenya Integrated Household Budget Survey (KIHBS), Kenya National Bureau of Statistics (KNBS), Nairobi.
- KRAAY, A. (2004): When is growth pro-poor? Cross Country evidences, IMF, Washington DC.
- KRAAY, A. (2005): Aid, Growth, and Poverty, paper presented at: IMF Seminar on Foreign Aid and Macroeconomic Management, IMF, Maputo, March 14-15, 2005.
- KRAAY, A. & C. RADDATZ (2005): Poverty Traps, Aid and Growth, Background Paper for the Global Monitoring Report 2005, Washington, The World Bank.
- KRAKOWSKI, M. (2004) (eds): *Attacking Poverty: What makes growth pro-poor?*, Baden-Baden: Nomos Verlagsgesellschaft
- KRISHNA, A. (2004): Escaping poverty and becoming poor: Who gains, who loses, and why? Accounting for stability and change in 35 north Indian villages, *World Development*, 32 (1): 121-136.

- KRISHNA, A. (2005): Stages of Progress: A Community-Based Methodology for Defining and Understanding Poverty, Duke University, Durham N.C.
- KRISHNA, A., C. GIBSON-DAVIS, L. CLASEN, M. MARKIEWICZ & N. PEREZ (2006a): Escaping Poverty and becoming Poor in Thirteen Communities in Rural North Carolina, D. UNIVERSITY, Terry Sanford Institute of Public Policy, Duke University.
- KRISHNA, A., P. KRISTJANSON, M. RADEY & W. NINDO (2004): Escaping Poverty and Becoming Poor in 20 Kenyan Villages, *Journal of Human Development*, 5 (No. 2): 211-226.
- KRISHNA, A., D. LUMONYA, M. MARKIEWICZ, F. MUGUMYA, A. KAFUKO & J. WEGOYE (2006b): Escaping Poverty and Becoming Poor in 36 Villages of Central and Western Uganda, *Journal of Development Studies*, 42 (2): 346-370.
- KRISTJANSON, P., A. KRISHNA, M. RADENY & W. NINDO (2004): Pathways out of Poverty in Western Kenya and the Role of Livestock, Pro-Poor Livestock Policy Initiative PPLPI Working Paper No. 14, Nairobi, ILRI.
- KRISTJANSON, P., N. MANGO, A. KRISHNA, M. RADENY & N. JOHNSON (2010): Understanding poverty dynamics in Kenya, *Journal of International Development*, 22 (7): 978-996.
- KRISTJANSON, P., F. PLACE, S. FRANZEL & P. K. THORNTON (2002): Assessing research impacts on poverty: the importance of farmers' perspectives, *Agricultural Systems*, 72 (2002): 73-92.
- KRISTJANSON, P., M. RADENY, I. BALTENWECK, J. OGUTU & A. NOTENBAERT (2005): Livelihood mapping and poverty correlates at a meso-level in Kenya, *Food Policy*, 30 (1): 568-583.
- KRUEGER, A. O., M. SCHIFF & A. VALDES (1992): *The political economy of agricultural pricing policy (Vol 1-3)*. Washington D.C.: John Hopkins Press.
- LANJOUW, J. O. & P. LANJOUW (2001): The rural non-farm sector: issues and evidence from developing countries, *Agricultural Economics*, 26 (2001): 1-23.
- LARSON, D. F., R. MURAOKA & K. OTSUKA (2016): On the central role of small farms in African rural development strategies Policy Research Working Paper 7710, Washington D.C., The World Bank.
- LAVEN, A. & N. VERHART (2011): Addressing gender equality in agricultural value chains: Sharing work in progress, On track with gender Development Policy Review Network (DPRN).
- LAWRENCE, P. (2005): Explaining Sub-Saharan Africa's Manufacturing Performance, *Development and Change*, 36 (6): 1121-1141.
- LAWSON, D., A. MCKAY & J. OKIDI (2006): Poverty Persistence and Transitions in Uganda: A combined Qualitative and Quantitative Analysis, *Journal of Development Studies*, 42 (7): 1225-1251.

- LAY, J., G. M. M'MUKARIA & T. O. MAHMOUD (2007): Boda-boda Rule: Non-agricultural Activities and Their Inequality Implications in Western Kenya, GIGA Working Papers 48, Hamburg, German Institute of Global Area Studies.
- LAY, J., T. O. MAHMOUD & G. M. M'MUKARIA (2008): Few Opportunities, Much Desperation: The Dichotomy of Non-Agricultural Activities and Inequality in Western Kenya, *World Development*, 36 (12): 2713-2732.
- LAYDER, D. (1998): *Sociological Practice: Linking Theory and Sociological Research*. London: Sage.
- LAZARSFELD, P. F., M. JAHODA & H. ZEISEL (1933): *Die Arbeitslosen von Marienthal*. Wien.
- LERNARCHAND, R. (1989): African Peasantries, Reciprocity and the Market. THE Economy of Affection Reconsidered, *Dahier d'Études Africaines*, 29 (1): 33-67.
- LEWINS, A. & C. SILVER (2007): *Using Software in Qualitative Research A Step-by-Step Guide*. Los Angeles London New Delhi Singapore: SAGE Publications Ltd.
- LIGON, E. & E. SADOULET (2007): Estimating the Effects of Aggregate Agricultural Growth on the Distribution of Expenditures, Background paper for the WDR 2008.
- LIPTON, M. (1977): *Why Poor People Stay Poor: Urban Bias in World Development*. Cambridge: Harvard University Press.
- LOPEZ, J. H. (2004): Pro-growth, pro-poor: Is there a trade-off?, Policy Research Working Paper 3378, Washington, D.C., The World Bank.
- LUIG, B. (2013): Business Case Hungerbekämpfung, Forum Umwelt und Entwicklung, Berlin.
- M4P (2008): Making Value Chains Work Better for the Poor - A Toolkit for Practitioners of Value Chain Analysis, UK Department for International Development (DFID) Agricultural Development International, Phnom Penh.
- MAERTENS, M. & J. SWINNEN (2014): Agricultural Trade and Development: A Value Chain Perspective, Economic Research and Statistics Division World Trade Organization (WTO), Geneva.
- MAERTENS, M. & J. F. M. SWINNEN (2007): Globalization, privatization, and vertical coordination in food value chains in developing and transition countries, *Agricultural Economics*, 37 (Supplement s1): 89-102.
- MANGO, N., J. CHENG'OLE, G. KARIUKI & W. ONGADI (2004): Social Aspects of Dynamic Poverty Traps: Cases from Vihiga, Baringo and Marsabit Districts, Kenya., BASIS CRSP research report. USAID, Nairobi.
- MANGO, N., P. KRISTJANSON, A. KRISHNA, M. RADENY, A. OMOLO & M. ARUNGA (2009): Why is it some households fall into poverty at the

- same time others are escaping poverty?, Discussion Paper 16, 45 pp., ILRI, Nairobi.
- MANGO, N., P. KRISTJANSON & A. OTHERS (2007): Kenya-wide fourth participatory poverty assessment using pathways out of poverty method, ILRI, Nairobi.
- MATHIOWETZ, N. A., C. BROWN & J. BOUND (2001): Measurement Error in Surveys of the Low-Income Population, in *Studies of Welfare Populations: Data Collection and Research Issues*, ed. by NATIONAL RESEARCH COUNCIL. Washington, DC: The National Academies Press.
- MAXWELL, S. (2005): The Washington Consensus is Dead! Long Live the Meta-Narrative, ODI Working Paper No. 243, Overseas Development Institute (ODI), London.
- MCCULLOCH, N. & M. OTA (2002): Export Horticulture and Poverty in Kenya, IDS Working paper 174, Brighton, Insitute of Development Studies University of Sussex.
- MCGOLDRICH, M., B. CARTER & N. GARCIA-PRETO (2010) (*eds*): The Expanded Family Life Cycle: Individual, Family, and Social Perspectives, New York: Allyn&Bacon.
- MEINZEN-DICK, R., M. ADATO, L. HADDAD & P. HAZELL (2004): Science and Poverty. An Interdisciplinary Assessment of the Impact of Agricultural Research, Food Policy Report IFPRI, IFPRI, Washington D.C.
- MEUSER, M. & U. NAGEL (2002): ExpertInneninterviews - vielfach erprobt, wenig bedacht, in *Das Experteninterview: Theorie, Methode, Anwendung*, ed. by A. BOGNER, B. LITTIG, and W. METZ. Wiesbaden: VS Verlag für Sozialwissenschaften / GWV Fachverlage GmbH.
- MILLER, D. (2010): Sachs, Easterly and the Banality of the Aid Effectiveness Debate: Time to Move On, *Mapping Politics*, 3 (2010-2011): 72-86.
- MINISTRY OF PLANNING AND NATIONAL DEVELOPMENT (2007): Basic Report of Fourth Participatory Poverty Assessment Nairobi, Kenya.
- MITCHELL, J., J. KEANE & C. COLES (2009): Trading up: How a Value Chain Approach can Benefit the Rural Poor, COPLA Global and ODI, Overseas Development Institute, London.
- MODIGLIANI, F. (1966): The Life Cycle Hypothesis of Saving, the Demand for Wealth and the Supply of Capital, *Social Research*, 33 (2): 160-217.
- MONTPELLIER PANEL (2010): The Montpellier Panel Report Africa and Europe: Partnerships for Agricultural Development, Agriculture for Impact, Imperial College, London.
- MOPND & ILRI (2007): Basic report of fourth participatory poverty assessment, Participatory Poverty Assessment (PPA), Ministry of Planning & National Development of the Republic of Kenya, Nairobi.

- MORAN-ELLIS, J., V. D. ALEXANDER, A. CRONIN, M. DICKINSON, J. FIELDING, J. SLENEY & H. THOMAS (2006): Triangulation and integration: processes, claims and implications, *Qualitative Research*, 6 (1): 45-59.
- MORRISON, J., D. BENZEMER & C. ARNOLD (2004): Official development assistance to agriculture, Department for International Development (DFID), London.
- MOSER, C. & A. FELTON (2009): The Construction of an Asset Index - Measuring Asset Accumulation in Ecuador, in *Poverty Dynamics*, ed. by T. ADDISON. Oxford: Oxford University Press, 102-127.
- MOYO, D. (2009): *Dead Aid: Why aid is not working and how there is another way for Africa*. Allan Lane.
- MUENDO, K., D. TSCHIRLEY & M. WEBER (2004): Improving Kenya's Domestic Horticultural Production and Marketing System: Current Competitiveness, Forces of Change, and Challenges for the Future, Working Paper No. 08/2004, Nairobi, Tegemeo Institute of Agricultural Policy and Development.
- MUYANGA, M., T. S. JAYNE & W. BURKE (2010): Pathways into and out of Poverty: A Study of Determinants of Rural Household Wealth in Kenya, Michigan State University.
- MUYANGA, M., T. S. JAYNE & W. BURKE (2013): Pathways into and out of Poverty: A Study of Determinants of Household Wealth Dynamics in Rural Kenya, *Journal of Development Studies*, 49 (10): 1358-1374.
- MUYANGA, M. C., M. W. AYIEKO & M. BUNDI (2007): Transient and Chronic Rural Household Poverty: Evidence from Kenya, PMMA Working Paper No. 2007-20. , IDRC - Poverty and Economic Policy Research Network.
- NARAYAN, D. (2009) (eds): *Moving out of Poverty: The Promise of Empowerment and Democracy in India*, Washington DC: Palgrave MacMillan and The World Bank.
- NARAYAN, D. & D. NYAMWAYA (1996): Learning from the Poor: A Participatory Poverty Assessment in Kenya, Environment Department Papers - Participation Series Paper No. 034, The World Bank, Nairobi, Kenya.
- NARAYAN, D., R. PATEL, K. SCHAFFT, A. RADEMACHER & S. KOCH-SCHULTE (2000): *Voices of the Poor: Can Anyone Hear Us?* New York: Oxford University Press.
- NARAYAN, D. & P. PETESCH (2000) (eds): *Voices of the Poor: From Many Lands*, New York: Oxford University Press.
- NARAYAN, D. & P. PETESCH (2002) (eds): *Voices of the Poor: From Many Lands*, New York: Oxford University Press.
- NARAYAN, D. & P. PETESCH (2007) (eds): *Moving out of Poverty: Cross-Disciplinary Perspectives on Mobility* Washington DC: Palgrave Macmillan and The World Bank.

- NARAYAN, D. & P. PETESCH (2010) (eds): *Moving out of Poverty: Rising from the Ashes of Conflict*, Washington DC: Palgrave MacMillan and The World Bank.
- NARAYAN, D., L. PRITCHETT & S. KAPOOR (2009): *Moving out of Poverty: Success from the Bottom Up*. Washington DC: Palgrave MacMillan and The World Bank.
- NARAYANASAMY, N. (2009): *Participatory rural appraisal: principles, methods and application*. Los Angeles: Sage Publications.
- NAROLL, R. & R. COHEN (1970) (eds): *A Handbook of Method in Cultural Anthropology*, New York: Columbia University Press.
- NDENG'E, G., OPIYO, C., MISTIAEN, J. & P. KRISTJANSON (2003): *Geographic Dimensions of Well-Being in Kenya. Where are the Poor? From Districts to Locations*, Central Bureau of Statistics (CBS), Nairobi, Kenya.
- NDULU, B. J., L. CHAKRABORTI, L. LIJANE, V. RAMACHANDRAN & J. WOLGIN (2007): *Challenges of African Growth. Opportunities, Constraints and Strategic Direction*. Washington, DC: The World Bank.
- NDULU, B. J., S. A. O'CONNELL, R. H. BATES, P. COLLIER & C. C. SOLUDO (2008) (eds): *The Political Economy of Economic Growth in Africa 1960-2000* Cambridge: Cambridge University Press.
- NEUBERT, S. (2001): *Methodische Orientierung für kurze und praxisnahe Forschungsprojekte in Entwicklungsländern - Ein Leitfaden für Länderarbeitsgruppen und Gutachter*, Deutsches Institut für Entwicklungspolitik, Bonn.
- NIN-PRATT, A., M. JOHNSON & B. YU (2012): *Improved Performance of Agriculture in Africa South of the Sahara. Taking Off or Bouncing Back*, IFPRI Discussion Paper 01224, Washington DC, IFPRI.
- NJERU, E. H. N. (2004): *Bridging the Qualitative-Quantitative Methods of Poverty Analysis* paper presented at: *Qualitative-Quantitative Methods for Poverty Analysis*, Grant Regency Hotel, Nairobi, 11. 03. 2004.
- NORELL, D. & M. BRAND (2012): *Integrating Very Poor Producers into Value Chains*. Field Guide, USAID and Word Vision, Washington D.C.
- OECD-FAO (2016): *Agricultural Outlook 2016-2025. Special Focus: Sub-Saharan Africa*, OECD and FAO, Paris and Rome.
- OECD (2006): *Promoting Pro-Poor Growth. Agriculture., Promoting Pro-Poor Growth: Policy Guidance for Donors* OECD / DAC, Paris.
- OECD (2007): *Promoting Pro-Poor Growth: Policy Guidance for Donors., DAC Guidelines and Reference Series* OECD-DAC, OECD, Paris.
- OECD (2010): *Measuring Aid to Agriculture*, Organisation for Economic Co-operation and Development OECD, Paris.

- OECD (2011): Development Aid at a Glance - Statistics by Region 2. Africa, 2011 edition, OECD, Paris.
- OECD (2018): Agriculture, Food & Jobs in West Africa, OECD/SWAC - Sahel and West Africa Club, Paris.
- OECD / DAC (2004): Accelerating Pro-Poor Growth through Support for Private Sector Development - An Analytical Framework, DAC Network on Poverty Reduction, Paris.
- OYA, C. (2010a): Agro-pessimism, capitalism and agrarian change: trajectories and contradictions in Sub-Saharan Africa, in *The political economy of Africa*, ed. by V. PADAYACHEE. Abingdon and New York: Routledge.
- OYA, C. (2010b): Rural inequality, wage employment and labour market formation in Africa: Historical and micro-level evidence, Working Paper No. 97 Policy Integration Department, International Labour Office (ILO), Geneva.
- OYA, C. (2010c): Rural Labour Markets in Africa: The Unreported Source of Inequality and Poverty, Development Viewpoint 57, London, Centre for Development Policy and Research (CDPR) at the School of Oriental and African Studies (SOAS), University of London.
- PATESCH, P. (2003): Self-Criticism and Observations on the Way of Finishing *Voices from the Poor: From Many Lands*, in *Q-Squared: Combining Qualitative and Quantitative Methods in Poverty Appraisal*, ed. by R. KANBUR. Delhi: Permanent Black.
- PFEIFFER, B. (2015): "Upgrading" in Wertschöpfungsketten - Global und Regional?, GIGA Focus Global 08/2015, Hamburg, GIGA.
- PLACE, F., M. ADATO & P. HEBINCK (2005): Understanding Rural Poverty and Investment in Agriculture: An Assessment of Integrated Quantitative and Qualitative Research in Western Kenya Q-Squared Working Paper No. 10, Toronto, Centre for International Studies University of Toronto.
- POPKIN, S. L. (1980): The Rationale Peasant: The Political Economy of Peasant Society, *Theory and Society*, 9 (3): 411-471.
- QUISUMBING, A. R. (2007): Poverty Transitions, shocks and consumption in rural Bangladesh: Preliminary results from a longitudinal household survey, CPRC Working Paper 105, CPRC.
- RADENY, M., M. VAN DEN BERG & R. SCHIPPER (2010): Comparing participatory and income measures: Analysis of poverty levels and dynamics in rural Kenya, paper presented at: CPRC Conference 2010, Manchester, September 8-10, 2010.
- RADENY, M., M. VAN DEN BERG & R. SCHIPPER (2012): Rural Poverty Dynamics in Kenya: Structural Declines and Stochastic Escapes, *World Development*, 40 (8): pp. 1577-1593.
- RADENY, M. (2011): Poverty Dynamics, Income Inequality and Vulnerability to Shocks in Rural Kenya, Wageningen University, Wageningen

- Wageningen School of Social Sciences, Thesis submitted: 27 June 2011.
- RAO, E. J. O. & M. QAIM (2011): Supermarkets, Farm Household Income, and Poverty: Insights from Kenya, *World Development*, 39 784-796.
- RAVALLION, M. (1992): Poverty Comparisons: A Guide to Concepts and Methods. , Living Standards Measurement Study Working Papers 88, Washington D.C., The World Bank.
- RAVALLION, M. (1998): Poverty Lines in Theory and Practice, Living Standards Measurement Study Working Paper 133, Washington D.C., The World Bank.
- RAVALLION, M. (2003): Can Qualitative Methods help Quantitative Poverty Measurement?, in *Q-Squared: Combining Qualitative and Quantitative Methods in Poverty Appraisal*, ed. by R. KANBUR. Delhi: Permanent Black.
- RAVALLION, M. (2004a): Defining pro-poor growth: a response to Kakwani, IPC OnePager, International Poverty Centre UNDP, Brasilia.
- RAVALLION, M. (2004b): Pro-Poor Growth: A Primer, Policy Research Working Paper 3242, Washington, DC, The World Bank.
- RAVALLION, M. & S. CHEN (2003): Measuring pro-poor growth, *Economics Letters*, 78 (2003) 93-99.
- RAVALLION, M. & G. DATT (1996): How important to India's Poor is the Sectoral Composition of Economic Growth?, *World Bank Economic Review*, 10 (1): 1-25.
- RAVALLION, M. & G. DATT (1999): When is growth pro-poor? Evidence from the diverse experiences of India's states Policy Research Working Paper 2263, Washington, DC, The World Bank.
- RAVALLION, M. & G. DATT (2002): Why has economic growth been more pro-poor in some states of India than others?, *Journal of Development Economics*, 68 381-400.
- RAVALLION, M., G. DATT & N. VAN DE WALLE (1991): Quantifying absolute Poverty in the Developing World, *Review of Income and Wealth*, 37 (4): 345-361.
- REARDON, T. (2015): The hidden middle: the quiet revolution in the mid-stream of agrifood value chains in developing countries, *Oxford Review of Economic Policy*, 31 (1): 45-63.
- RIISGAARD, L., A. M. ESCOBAR FIBLA & S. PONTE (2010): Gender and Value Chain Development, The Danish Institute for International Studies (DIIS), Copenhagen.
- RIPPIN, N. (2011): A response to the weaknesses of the Multidimensional Poverty Index (MPI): the correlation Sensitive Poverty Index (CSPI), DIE Briefing Paper 09/2011, Deutsches Institut für Entwicklungspolitik (DIE), Bonn.

- RODRIK, D. (2003) (*eds*): *In Search of Prosperity: Analytical Narratives on Economic Growth*, New York: Princeton University Press.
- RODRIK, D. (2006): Goodbye Washington Consensus, Hello Washington Confusion? A Review of the World Bank's Economic Growth in the 1990s: Learning from a Decade of Reform, *Journal of Economic Literature*, XLIV (December 2006): 973-987.
- RODRIK, D. (2008): The New Development Economics: We shall experiment, but how shall we learn?, paper presented at: Brookings Development Conference, May 29-30, 2008.
- ROSEGRANT, M. W., C. RINGLER, T. BENSON, X. DIAO, D. RESNICK, J. THURLOW, M. TORERO & D. ORDEN (2006): *Agriculture and Achieving the Millennium Development Goals*, World Bank and IFPRI, Washington DC.
- ROXBURGH, C., N. DÖRR, A. LEKE, A. TAZI-RIFFI, A. V. WAMELEN, S. LUND, M. CHIRONGA, T. ALATOVIK, C. ATKINS, N. TERFOUS & T. ZEINO-MAHMALAT (2010): *Lions on the move: The progress and potential of African economies*, McKinsey Global Institute, London.
- RUBEN, R., K. SLINGERLAND & H. NIJHOFF (2006) (*eds*): *Agro-Food Chains and Networks for Development*, Series: Wageningen UR Frontis Series 14, Wageningen.
- RUBIN, H. J. & I. S. RUBIN (2011): *Qualitative Interviewing: The Art of Hearing Data*. London: Sage Publications Ltd.
- SACHS, J. D. (2005): *The End of Poverty. How we can make it happen in our lifetime*. The Penguin Press, a member of the Penguin Group (USA) Inc.
- SCOONES, I. (1998): Sustainable Rural Livelihoods: A Framework for Analysis, IDS Working Paper 72, Sussex, Institute of Development Studies.
- SCOONES, I., S. DEVEREUX & L. HADDAD (2005): Introduction: New Directions for African Agriculture, *ISD Bulletin*, 36 (2): 1-16.
- SEALE, C., G. GOBO, J. F. GUBRIUM & D. SILVERMAN (2004) (*eds*): *Qualitative Research Practice*, London Thousand Oaks New Delhi: SAGE Publications
- SEITZ, V. (2009): *Afrika wird arm regiert oder Wie man Afrika wirklich helfen kann*. München: Deutscher Taschenbuch Verlag GmbH & Co. KG.
- SEN, A. (1999): *Development as Freedom*. Oxford and New York: Oxford University Press.
- SEVILLE, D., A. BUXTON & B. VORLEY (2011): Under what conditions are value chains effective tools for pro-poor development?, Sustainable Food Laboratory/IIED.
- SHAFFER, P. (2013): *Q-Squared. Combining Qualitative and Quantitative Approaches in Poverty Analysis*. Oxford: Oxford University Press.

- SHEPHERD, A. (2010): Agriculture and Escaping Rural Poverty: an analysis of movements and markets, paper presented at: CPRC Conference, Chronic Poverty Research Centre, Manchester, September 8-10, 2010.
- SID (2004): Pulling apart Facts and Figures on Inequality in Kenya, Society for International Development (SID) East Africa, Nairobi.
- SID (2006) (eds): Readings on Inequality in Kenya. Sectoral Dynamics and Perspectives: Regal Press Kenya Ltd.
- SIDA (2007): Making Markets work for the Poor, Swedish International Development Agency Stockholm.
- SILVERMAN, D. (1993): *Interpreting Qualitative Data: Methods for Analysing Talk, Text and Interaction*. London Thousand Oaks New Delhi: SAGE Publications Ltd.
- SKOUFIAS, E. (2005): PROGRESA and its impact on the welfare of households in rural Mexico, Research Report 139, IFPRI, Washington DC.
- SPRINGER-HEINZE, A. (2018): ValueLinks 2.0. Manual on Sustainable Value Chain Development. 2 Volumes, GIZ GmbH, Eschborn.
- STAMOULIS, K. & G. ANRÍQUEZ (2007): Rural development and poverty reduction: is agriculture still the key? , *Journal of Agricultural and Development Economics*, 4 (1): 5-46.
- STEPHEN MORSE, NORA MCNAMARA & MOSES ACHOLO (2009): Sustainable Livelihood Approach: A critical analysis of theory and practice, Geographical Papers 189, University of Reading.
- STEWART, A. J. (1994): The women's movement and women's lives: Linking individual development and social events, in *The narrative story of lives: Vol. 2. Exploring identity and gender*, ed. by A. LIEBLICH, and R. JOSSELSO. Thousand Oaks: Sage.
- STIGLITZ, J. E. (2002): *Globalization and its Discontents*. Harmondsworth: Penguin Books.
- STOIAN, D., J. DONOVAN, J. FISK & M. F. MULDOON (2012): Value chain development for rural poverty reduction: A reality check and a warning, *Enterprise Development and Microfinance*, 23 (1): 54-69.
- SURI, T., D. TSCHIRLEY, C. IRUNGU, R. GITAU & D. KARIUKI (2008): Poverty, Inequality and Income Dynamics in Kenya, 1997-2007, Tegemeo Working Paper 30, Nairobi, Egerton University, Tegemeo Institute of Agricultural Policy and Development.
- SWALLOW, B., L. ONYANGO, R. MEINZEN-DICK & N. HOLL (2005): Dynamics of poverty, livelihoods and property rights in the Lower Nyando basin of Kenya, paper presented at: International workshop on 'African Water Laws: Plural Legislative Frameworks for Rural Water Management in Africa', Gauteng, South Africa, 26-28 January 2005.

- SWALLOW, B. M., L. ONYANGO & W. K. DASSANAYAKE (2010): Dynamics and Determinants of Chronic Poverty in Western Kenya: Starting Point, Location and Diversification, Nairobi, World Agroforestry Centre.
- TAYLOR, I. (2014): *Africa Rising? BRICS - Diversifying Dependency*. Suffolk: Boydell & Brewer Ltd.
- THE WORLD BANK (2005): Pro-Poor Growth in the 1990s. Lessons and Insights from 14 Countries. Operationalizing Pro-Poor Growth Project (OPPG), Washington DC.
- THE WORLD BANK (2014): *Africa Rising: A Tale of Growth, Inequality and Great Promise*, Washington D.C.
- THEURL, T. (2018) (eds): *Raiffeisen 2018: Ökonomische Innovation – Gesellschaftliche Orientierung* Wiesbaden: Deutscher Genossenschafts-Verlag.
- THORBECKE, E. (2004): Conceptual and Measurement Issues in Poverty Analysis, WIDER Discussion Paper 2004/04, Helsinki, World Institute for Development Economics Research.
- THURLOW, J. & P. WOBST (2007): The Role of Agriculture in Pro-Poor Growth: Lessons from Zambia, in *Determinants of Pro-Poor Growth. Analytical Issues and Findings from Country Cases*, ed. by M. GRIMM, S. KLASSEN, and A. MCKAY. New York: Palgrave MacMillan.
- TIMMER, P. C. (2005): Agriculture and pro-poor growth: an Asian perspective, Working Paper No. 63, Washington DC, Centre for Global Development.
- TORERO, M. (2011): A framework for Linking Small Farmers to Markets, paper presented at: IFAD Conference New Directions for Smallholder Agriculture, IFAD HQ Rome 24-25 January 2011
- TRUTH JUSTICE AND RECONCILIATION COMMISSION (2008): Commissions of Inquiry - CIPEV Report (Waki Report), Commission of Inquiry into Post-Election Violence (CIPEV) Nairobi.
- TSCHIRLEY, D., T. SURI, C. IRUNGU, R. GITAU & D. KARIUKI (2008): Poverty, Inequality and Income Dynamics in Kenya, 1997-2007, paper presented at: Tegemeo Institute Annual Conference, 17th – 18th September 2008 Egerton University, Tegemeo Institute of Agricultural Policy and Development, Nairobi, Kenya.
- UN (2013): The UN Millennium Development Goals Report 2013, New York.
- UN MILLENNIUM PROJECT (2005): Investing in Development. A Practical Plan to Achieve the Millennium Development Goals, United Nations Development Programme (UNDP), New York.
- UNDP (1990): Human Development Report 1990, New York and Oxford: Oxford University Press, Reference.
- UNDP (2010): Human Development Report 2010 - 20th Anniversary Edition, The Real Wealth of Nations: Pathways to Human Develop-

- ment, United Nations Development Programme (UNDP), New York.
- UNECA (2009): Economic Report on Africa. Developing African Agriculture Through Regional Value Chains, United Nations Economic Commission for Africa (UNECA), Addis Ababa.
- UNICEF (2016): State of the World's Children, 2016, United Nations International Children's Emergency Fund (UNICEF), New York.
- UNIDO (2011): Pro-poor Value Chain Development: 25 guiding questions for designing and implementing agro-industry projects, United Nations Industrial Development Organization (UNIDO), Vienna, Austria.
- VALDÉS, A., W. FOSTER, G. ANRÍQUEZ, C. AZZARRI, K. COVARRUBIAS, B. DAVIS, S. DIGIUSEPPE, T. ESSAM, T. HERTZ, A. P. DE LA O, E. QUIÑONES, K. STAMOULIS, P. WINTERS & A. ZEZZA (2011): A Profile of the Rural Poor, Background Paper for IFAD Rural Poverty Report 2011, Rome, IFAD.
- VAN DE WALLE, N. (2001): *African economies and the politics of permanent crisis, 1979-1999*. Cambridge: Cambridge University Press.
- VAN DER MEER, L. & C. KEES (2006): Exclusion of small-scale farmers from coordinated supply chains, in *Agro-Food Chains and Networks for Development*, ed. by R. RUBEN, K. SLINGERLAND, and H. NIJHOFF. Wageningen.
- VAN ELZAKKER, B. & F. EYHORN (2010): *The Organic Business Guide: Developing Sustainable Value Chains with Smallholders*.
- VAN EVERA, S. (1997): *Guide to methods for Students of Political Science*. Cornell University Press.
- VANKATWYK, P. L. (2003): Textures and Threads: Life Cycle Transitions, in *Spiritual Care and Therapy*, 95-104.
- VERMEULEN, S. & L. COTULA (2010): Making the most of agricultural investment: A survey of business models that provide opportunities for smallholders, IIED/FAO/IFAD/SDC, FAO and IIED, London/Rome/Bern.
- VOOR DEN DAG, T. (2003): Export chain of French Beans from Kenya, Development Economics Group, Wageningen, The Netherlands, Wageningen University.
- VORLEY, B. (2013a): Markets for the many rather than the few, *Rural 21*, (02 / 2013) 28-29.
- VORLEY, B. (2013b): Meeting small-scale farmers in their markets: understanding and improving the institutions and governance of informal agrifood trade, IIED/HIVOS/MAINUMBY, London/The Hague/La Paz.
- VORLEY, B., E. DEL POZO-VERGNES & A. BARNETT (2012): Small producer agency in the globalised market. Making choices in a changing world, IIED/HIVOS, London/The Hague.

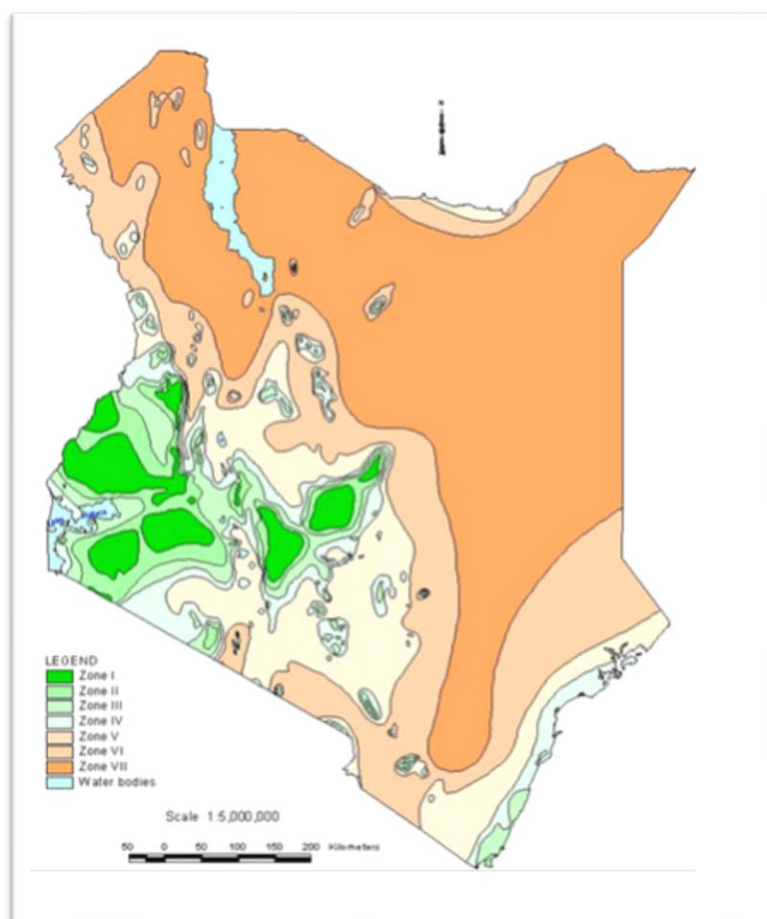
- WCED (1987): Global Policies for Sustainable Agriculture. A Report of the Advisory Panel on Food Security, Agriculture, Forestry and Environment to the World Commission on Environment and Development (WCED), London and New Jersey.
- WEBBER, C. M. & P. LABASTE (2010): *Building Competitiveness in Africa's Agriculture: a Guide to Value Chain Concepts and Applications*. Washington DC.
- WHITE, H. (2007): Evaluating Aid Impact, Research Paper 2007/75, Helsinki, United Nations University UNU-WIDER.
- WHITE, H. (2009): Some Reflections on Current Debates in Impact Evaluation, 3ie Working Paper 3, New Delhi, 3ie - International Initiative for Impact Evaluation.
- WHITE, H. & M. BAMBERGER (2008): Introduction: Impact Evaluation in Official Development Agencies, *IDS Bulletin*, 39 (1): 1-11.
- WIGGINS, S. (2014): Rural transformation: policies for gentle rural transitions, paper presented at: Eschborner Fachtagen 2014 The World in Motion: Mobility, Migration, and Digital Change., Eschborn, 18.06.2014.
- WIGGINS, S., J. FARRINGTON, G. HENLEY, N. GRIST & A. LOCKE (2013): Agricultural development policy: a contemporary agenda. Background Paper for GIZ, GIZ and Overseas Development Institute (ODI), Bonn.
- WIGGINS, S. & S. KEATS (2013): Leaping and Learning. Linking Smallholders to Markets, Agriculture for Impact, Imperial College and Overseas Development Institute (ODI), London.
- WIGGINS, S. & S. KEATS (2014): Rural Wages in Asia, Overseas Development Institute (ODI), London.
- WILLIAMSON, J. (1989): What Washington Means by Policy Reform, in *Latin American Readjustment: How Much has Happened*, ed. by J. WILLIAMSON. Washington D.C.: Institute for International Economics.
- WOLZ, A. (2005): The Role of Agriculture and Rural Development in achieving the Millennium Development Goals - a joint donor narrative, Global Donor Platform for Rural Development (GDPRD), Bonn.
- WORLD BANK (1990): World Development Report: Poverty World Development Report, Washington DC.
- WORLD BANK (2000a): *Can Africa Claim the 21st Century?* Washington, DC: The World Bank.
- WORLD BANK (2000b): World Development Report 2000/01: Attacking Poverty, World Development Report, The World Bank, Washington DC.

- WORLD BANK (2001): World Development Report 2000/01: Attacking Poverty, World Development Report, The World Bank, Washington DC.
- WORLD BANK (2005a): *Agricultural Growth for the Poor: An Agenda for Development*. Washington DC.
- WORLD BANK (2005b): Economic Growth in the 1990s: Learning from a Decade of Reform, The World Bank, Washington, DC.
- WORLD BANK (2005c): Meeting the Challenges of Africa's Development: A World Bank Group Action Plan, World Bank, Washington, DC.
- WORLD BANK (2005d): Pro-Poor Growth in the 1990s. Lessons and Insights from 14 Countries, Operationalizing Pro-Poor Growth Research Program (OPPG), Washington DC.
- WORLD BANK (2007a): Republic of Kenya Country Social Analysis, Environmentally and Socially Sustainable Development Africa Region, Washington DC.
- WORLD BANK (2007b): World Development Report 2008: Agriculture for Development, World Development Report, The World Bank, Washington DC.
- WORLD BANK (2008a): Kenya Poverty and Inequality Assessment Volume I: Synthesis Report, The World Bank, Washington D.C.
- WORLD BANK (2008b): World Development Report 2009: Reshaping Economic Geography, World Development Report, The World Bank, Washington DC.
- WORLD BANK (2009a): Kenya Agricultural Policy Review: Current Trends and Future Options for Pro-Poor Agricultural Growth, Agricultural and Rural Development Unit, Sustainable Development Department, Africa Region, Washington DC.
- WORLD BANK (2009b): Kenya Poverty and Inequality Assessment Executive Summary and Synthesis Report, Poverty Reduction and Management Unit Africa Region, The World Bank, Washington DC.
- WORLD BANK (2015): World Development Report 2015: Mind, Society, and Behavior, World Development Report, The World Bank, Washington DC.
- YEBOAH, F. K. (2018): Youth for Growth: Transforming Economies through Agriculture, The Chicago Council on Global Affairs, Chicago.

All mentioned and quoted internet sources were accessed and retrieved on 28th November 2018.

ANNEX I: MAP OF KENYA BY AEZ

Source: <http://www.infonet-biovision.org/EnvironmentalHealth/AEZs-FAO-System>



Zone	Approximate Area (km ²)	% Total
I. Agro-Alpine	800	0.1
II. High Potential	53,000	9.3
III. Medium Potential	53,000	9.3
IV. Semi-Arid	48,200	8.5
V. Arid	300,000	52.9
VI. Very arid	112,000	19.8
Rest (waters etc)	15,600	2.6

ANNEX II: QUALITATIVE FOLLOW-UP QUESTIONNAIRE

Introduction / Opening the Interview

We _____ and _____ are researchers from Tegemeo Institute (Egerton University). We are currently going round the country as part of our usual research work that involves talking to farmers concerning their welfare and agricultural activities. Today we have visited you specifically because;

1. You are one among the most consistent farmers who have given useful information to our research work in the last few years. We are very grateful for your generous participation.
2. From the information obtained after talking to you in the past, you are also among the progressive farmers especially with regard to your farming activities. We at Tegemeo (Egerton University) want to continue to engage with farmers like you in order to learn more from their experiences. This is important in documenting useful information for agricultural development in this country. We would therefore be delighted if you can (out of your own will) spend little of your time with us to discuss and share more of your experiences.

PAUSE for the farmer to respond.....

All that we discuss here concerning your household activities will be confidential for the purpose of this research. For accurate information, we would like to have only you and/ or any one of your immediate family member to respond. We especially encourage your spouse to contribute as much where necessary. We would also like to take audio records and may be a few pictures during our discussions with you. However, all further use of this material will not remain anonymous and treated confidentially. Please let us know if you mind.

Also feel very free to ask us any question.

Thank you!

For more information contact the address below.

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Email: egerton@tegemeo.org:

Overview of Interview Sections:

A: Cover Sheet (household details)

B: 6 Result sheets from previous interviews about demography, land, agricultural activities and welfare

C: Focussed household history on agricultural activities and welfare (1997-2010)

D: Poverty Self-Assessment

E: Closing Questions

F: Meta-Protocol

A: Cover Sheet

Name of Interviewer:	Name of note-taker:	Date:
Audio File name:	Photo Name:	doc.file name:
Household ID (hhid):	hh Name:	sample (TAMPA or USAID):
Province	District:	Division:
Location:	Sub-Location:	Village:
1st respondent name:	1st respondent age:	1st respondent sex and family position:
1st respondent Education:	1st respondent marital status:	1st respondent main occupation:
Ethnic background:	Religion:	postal Address: Phone:
respondent in previous interviews: (yes/no) if yes, which years: 1997 2000 2004 2007		
2nd respondent name:	2nd respondent age:	2nd respondent sex and family position:
2nd respondent Education:	2nd respondent marital status	2nd respondent main occupation:
Ethnic background:	Religion:	
participated in previous interviews: (yes/no, years?)		
3rd respondent name:	3rd respondent age:	3rd respondent sex and family position:
3rd respondent Education:	3rd respondent marital status	3rd respondent main occupation:
participated in previous interviews: (yes/no, years?)		
Ethnic background:	Religion:	

B: Results from Previous Interviews

→ Introduction to section B: We would like to start this interview with comparing your situation today to previous years. Since you have generously provided us with information about your household already 4 times, in 1997, 2000, 2004 and 2007, this time, we would like to discuss with you the results we were getting from your information. We would like to talk first about your household members and the changes over time; then about your land, crop and livestock activities and lastly, about your welfare in terms of income and assets.

B1: Household Demography (1997-2010)

→ Introduction to why we need to understand the demographic changes over time. Before we go so far, let's start by confirming who and how many lived in your household for the last one year as compared to the previous years when we visited you. This is important for our discussions today because all your household needs and activities depend on how many people stay in your household.

Who is living today in your household?

→ take the family relations and age of all household members.

How many household members are permanently living in this household (2009-2010)?

→ prepare the figures 1997-2007 from excel-sheet and ask about 2009-2010!

1997	2000	2004	2007	2010

Assessment by respondents: agreement / disagreement?

100% agreement	generally correct, but with some differences	some correct, some incorrect	total disagreement

→ if not 100% agreement, please make corrections or additions:

What were the reasons for changes in numbers of members of household since 1997?

→ Look at the specific numbers and ask for the changes between the different interviews.

B2: Household Agricultural Activities (1997-2007): Land Ownership

→ Introduction to land owned: First, we would like to talk to you about your land and how your acreage has developed over time. First, we would like to confirm with you if what we recorded about your land ownership during our past visits were true or if there have been some changes over time. We would also like to understand how much land you are cultivating today.

What is the total land size you own as a household?

→ prepare overview of land owned (1997-2007) in excel file and ask about 2009-2010! try to distinguish between land owned, land rented in and land rented out (in acres).

1997	2000	2004	2007	2010

Assessment by respondents: agreement / disagreement?

100% agreement	generally correct, but with some differences	some correct, some incorrect	total disagreement

→ if not 100% agreement, please make corrections or additions:

What were the reasons for changes in land under cultivation since 1997?

→ Look at the trends and ask for the changes between the different interviews!

B3: Household Agricultural Activities (1997-2007): Crops

→ *Introduction to agricultural activities: Now, we would like to look at your farming activities and how they have developed over time .First, we would like to confirm with you if what we recorded about your crop activities during our past visits were true or if there have been some changes over time. We would also like to understand what you are doing now.*

What are and what were the crop activities of your household since 1997?

→ *prepare list of crop activities (1997-2007) in excel file and ask about 2009-2010!*

1997	2000	2004	2007	2009/10

Assessment by respondents: agreement / disagreement?

100% agreement	generally correct, but with some differences	some correct, some incorrect	total disagreement

→ *if not 100% agreement, please make corrections or additions:*

What were the reasons for changes in crop activities since 1997?

→ *Look at the specific activities and ask for the changes between the different interviews!*

B4: Household Agricultural Activities (1997-2010): Livestock

→ Introduction to agricultural activities: Let's now, talk about your livestock activities and how they have developed over time. As for crops, let us also confirm with you if what we recorded about your livestock activities during our past visits were true or if there have been some changes over time. We would also like to understand what you are doing now.

What are and what were the livestock activities of your household since 1997?

→ prepare list of number of livestock kept (1997-2007) in excel file and ask about 2009-2010!

1997	2000	2004	2007	2009/10

Assessment by respondents: agreement / disagreement?

100% agreement	generally correct, but with some differences	some correct, some incorrect	total disagreement

→ if not 100% agreement, please make corrections or additions:

What were the reasons for changes in numbers of livestock of household since 1997?

→ Look at the specific numbers of livestock and ask for the changes between the different interviews!

B5: Household Welfare Situation (1997-2007): Income

→ Introduction to household welfare: Now, we would like to discuss with you your household welfare and how you have developed over time. From the information we got during our previous interviews with your household it looks like your welfare in 2004 and 2007 was a bit better compared to 1997-2000 when we had our first interviews. We would like to confirm this trend with you to know whether you agree to that trend about your development and we would like to understand what changes have occurred and how.

1. Let's look at your hh's overall development since 1997 in terms of income – it shows an upward trend, do you agree?

→ go through the first lines of hhinc and inc per adult equivalent (just say per person) and tick the agreement/disagreement. Then return to the figures (or alternatively the graph showing the trends)

→ prepare figures for hhinc, hhincae and poor/non-poor (1997-2007) from excel file and ask about 2009-2010! Focus with the respondent on general "trends".

	1997	2000	2004	2007
hhinc				
hhinc per ae				
poor/non-poor				

1. Assessment by respondents: agreement/disagreement on general trends of household income
Does the hh confirm that they were poor in the beginning of the panel, but are not anymore today?

100% agreement	generally correct, but with some differences	some correct, some incorrect	total disagreement

→ if not 100% agreement, please make corrections or additions:

2. Now, let's look at the composition of your hh income. From the data we read that you had(for example: ...some off-farm income in 1997 and 2000, but it was going down later; at the same time your crop income made up for it – do you agree?

→ go through the lines of cropinc, lvnet and offinc and tick the agreement/disagreement.

→ prepare figures for cropinc, lvinc and offinc (1997-2007) from excel file and ask about 2009-2010!

	1997	2000	2004	2007
% cropincome				
% lvincome				
% off-farm income				

B5: Household Welfare Situation (1997-2007): Income(continued)**2. Assessment by respondents: agreement/disagreement on composition of household income?**

100% agreement	generally correct, but with some differences	some correct, some incorrect	total disagreement

→ if not 100% agreement, please make corrections or additions:

What were the reasons for changes in household income and the household income composition since 1997?

→ Follow up from the overall trends and ask for the changes between the different interviews!

B6: Household Welfare Situation (1997-2007): Assets

→ *Introduction to Assets: We have talked about your household welfare more so about your income, but for any household to fare well there are usually some other things like properties or investments that support or compliment their income/ livelihoods activities. So we would also like to discuss such things that you own or share in with others that in your opinion may have improved your living standard over the last few years.*

Let's look at the assets we have recorded in previous interviews.

→ *prepare list of assets recorded (1997-2007) from excel file and ask about 2009-2010! Please encourage to talk also about shared items, such as oxen plough or natural resources like a stream, etc.*

1997	2000	2004	2007	2009/10

Assessment by respondents: agreement/disagreement on general trends of household assets?

100% agreement	generally correct, but with some differences	some correct, some incorrect	total disagreement

→ *if not 100% agreement, please make corrections or additions: particularly capturing shared items, such as oxen plough or natural resources like a stream, and other items that were previously not recorded. please specify the years.*

What were the reasons for changes in household assets since 1997?

→ *Follow up from the specific items and ask for the changes between the different interviews!*

C: Focused Life History between 1997 and today

Areas to focus the story telling on: agricultural activities between 1997 and 2007 – what changes occurred and why? What was the relationship between agricultural activities and hh internal and hh external factors? We want to understand after the interview predominant reasons driving that hh's development: Agricultural Activities? Education and job situation of family members? Role of remittances? Changes in sources of income and hh income composition? Relevant social factors? Any external shocks such as weather, prices, health, insecurity?

Main objectives:

1. *Ascertain reasons for changes in crop-livestock system*
2. *Ascertain reasons for changes in sources of income*
3. *Ascertaining reasons for poverty dynamics*

→ Establish the relationship and time sequence between the underlying causes and effects for these three areas! have your checklist of guiding Questions at hand to structure or focus the story where necessary. Otherwise encourage free talking and listen carefully.

→ insert about half to one page narrative of the hh story here:

→ insert at least one original quote, that you found most outstanding (in Swahili and in English):

D: Welfare Self-Assessment and Stages of Progress

As we finish, we want to go back a bit on what we discussed about your welfare today as compared to the information we got about your household in 2007. We would like to get your own opinion on how you rate your welfare in relation to your neighbours.

D1: Self Assessment of Welfare situation relative to other hh in the neighbourhood and area
 → only relevant for TAMPA hh, for USAID hh skip

→ prepare the result from 2007 from excel file and ask about 2009-2010!

worse off	about the same	better off

do you still agree with this assessment?

Assessment by respondents: agreement/disagreement on general trends of welfare self-assessment?

100% agreement	generally correct, but with some differences	some correct, some incorrect	total disagreement

→ if not 100% agreement, please make corrections or additions:

Do you still think your household is worse off/about the same/better off than other households your neighbourhood and area today?

→ note down any relevant change in the self-assessment compared to other hh.

D2: Self Assessment of Welfare situation according to stages of progress

→ Explain the background of this stage of progress: From a major research that has been conducted in our country with rural communities, it was found out that there are some general things that every household or family normally do or acquire in a progressive manner as their welfare improves. One's ability to do certain things for his household such as buying clothes, paying school, build a house, buy a cow etc can be the measure of his/her welfare. It was also found out that one's ability may stay the same or change over time. Where does your ability come from for instance? Your ability basically is from what you do, what you own, your income and the support you get from others as we have been discussing with your farming activities today. From the information you've given previously and today, let's check a few things here and see what in your opinion is your ability today and when we visited you previously in 2007 and 1997.

- 1 Purchase Food
- 2 Purchase clothes
- 3 repair house
- 4 primary / Pre-primary education for children
- 5 invest/start small businesses (e.g. retail shop, groceries, kiosks)
- 6 purchase small livestock (e.g. chicken, goats, sheep)
- 7 increase livestock (in numbers and also larger animals) - cattle
- 8 rent in or even buy more land for cultivation
- 9 secondary education for children
- 10 build a semi-permanent house (with mud walls, sheet roof)
- 11 expand businesses (e.g. wholesale shops)
- 12 build a permanent house (stone/brick wall, sheet/tiles roof)
- 13 buy a vehicle
- 14 expand businesses and rent out property

Stage of the family/household in 1997 when they were first interviewed?

Stage of the family/household in 2007 when they were last interviewed?

Stage of the family/household now 2010?

→ please note: The progress by stages in sequence of numbers is only best known to the interviewer and not the respondent(s). To get the hh stages, it is therefore upon the interviewer to use the hints gathered from this interview such as income, assets and farming activities to ask up and down the items in the stages of progress list (not necessarily mentioning the hints). Also note that not all the hh that progress went through every stage as it is in the progress list we are using. We therefore ask each

hh if they are able (2010) and if they were able then (2007 and 1997). Remember for instance that a hh may be able to afford a vehicle but they either do not need one or have not decided to acquire one, or they were able to build a permanent house in 1997 but not anymore in 2010. Get and finalize the stage for 2010 (today), then 2007 (before the last general election year) and finally 1997 (El Nino year).

What were the major factors behind changes in your households? What were the reasons behind each such movement (up or down) or stability / stagnation at a certain stage?

E: End of Interview

Last Question: What do you think will happen in future with regards to agricultural activities and hh welfare? Do you plan to continue with farming? Will your children continue your crop-livestock system? Or what other sources of income will play a role in future?

Closure question: is there anything you would like to add? Anything left out? Anything you would like to know from us?

In case of anything, please don't hesitate to contact us again.

Contact of interviewing researchers:

Heike Hoeffler contacts: 0715-167117

Thank you very much * Asante Sana

F: Meta Protocol: How was the Interview?

General Context and Impression: brief description of homestead and your assessment of the respondent(s) and quality of the interview
Atmosphere the interview took place:
General Flow of the interview? Interruptions?
Duration:
Language the interview was conducted:
Consistency of interview:
Reliability of interviewees?
Credibility of Stories:
Plausibility of Stories:
Assessment of hh poverty level by interviewer:
Any other exceptional points to note about interviewees and their hh? Anything surprising, shocking, encouraging?

ANNEX III: GUIDING QUESTIONS FOR AGRICULTURAL HOUSEHOLD HISTORY

Guiding Questions for Section C:

Focused agricultural hh history between 1997 and 2010

Areas to focus the story telling on: agricultural activities between 1997 and 2007 – what changes occurred and why? What was the relationship between agricultural activities and hh internal and hh external factors? We want to understand after the interview predominant reasons driving that hh's development: Agricultural Activities? Education and job situation of family members? Role of remittances? Changes in sources of income and hh income composition? Relevant social factors? Any external shocks such as weather, prices, health, insecurity?

Main objectives:

1. Ascertain reasons for changes in crop-livestock system, including land
2. Ascertain reasons for changes in sources of income
3. Ascertaining reasons for poverty dynamics

→ *Establish the relationship and time sequence between the underlying causes and effects for these three areas! In some cases, these guiding questions are meant to cross-check information gathered under section B.*

→ *Notes on Documentation: These are guiding questions for the stories I need to gather. The way I have noted them down is not necessarily suggesting that you need to ask all questions or that you have to ask them the way I have noted them down – but they are rather meant for guiding you in the documentation. It doesn't matter when in the interview a respondent talks about this. It can be while discussing the past looking at the figures from previous interviews and explaining changes in section B or after that; the sequence in which it is told doesn't matter for the documentation. However, the documentation should roughly tell the story alongside the following main areas for me to understand and analyse it later:*

- **Development of the hh demography:**

- 1.1. How did the hh membership develop over the past 13 years – growing? shrinking? How many people are depending on this agricultural livelihood today compared to 1997? What will be the future of the farm hh?
- 1.2. if appropriate: How did the family hold together over the last 13 years? Do children live far away or close by? Mutual support between hh members?

- **hh agricultural production portfolio: diversification or specialisation? more commercialised or more subsistence?**

- 2.1. How did the hh crop activities develop during the past 13 years and what were the reasons for change?
- 2.2. How did the hh livestock activities develop during the past 13 years and what were the reasons for change?
- 2.3. How did the hh land size develop during the past 13 years and what were the reasons for change?
- 2.4. What was done differently on the farm today compared to past 13 years?
→ Ask for major crop/livestock group ("value chain involvement") – was hh involved in that in the beginning of panel? is it involved today? Did hh productivity increase or decrease?

→ note: for any of the above: not only what was done additional, but also document if something else was stopped and wasn't done anymore. Try to document the reasons why.

- **hh agricultural marketing activities and policy developments:**

- 3.1. How did marketing of agricultural produce change over time? Did any new marketing opportunities come up? / new infrastructure (e.g. roads or markets)? new policies (e.g. extension or new marketing opportunities)
- 3.2. Any large buyers? / Any group marketing / cooperative marketing? / private sector agents?
- 3.3. Integration into a certain production and/or marketing scheme?

→ for any of the above: why? what are reasons behind changes ?

- **hh agricultural activities and agricultural (value chain) projects:**

- 4.1. Has any member of the hh participated in an agricultural project?
→ if so, which one? when? how long in contact? How did you like it? What was it about?
- 4.2. Did the hh receive any specific crop/livestock training?
→ if so, by whom? on what? Was it useful?
- 4.3. Did the hh apply the trained methods on crop or livestock production?
→ if so, what did you do differently after the training (e.g. different production techniques or new varieties)? Did you intensify or diversify? Did productivity go up?
- 4.4. Did the hh think that they increased their agricultural hh income because of that training or project?

- **hh agricultural activities and labour issues:**

- 5.1. How did the workload for agricultural activities develop over time? more or less work today compared to beginning of the panel?

- 5.2. Did any member of the hh get a new job related to an agricultural value chain (e.g. trading or processing of produce? any value addition done?
→ if so, what type of job is or was it (formal/informal/ seasonal/occasional)?
- 5.3. Did the hh give somebody else a job because of a certain agricultural activity?
→ if so, what type of job is or was it (formal/informal/ seasonal/occasional)?

- **hh and off-farm income activities:**

- 6.1. Has or had the hh off-farm income sources?
→ if so, what sources of off-farm income were there and are there today? Why did hh members venture into them? How regular are these sources of income? How reliable are these sources of income? How much does each of the sources contribute to the overall hh income? How has this changed over time? And what are these off-farm incomes used for?
- 6.2. How much do you think have your off-farm income sources to do with your welfare situation?
→ is it possible to establish whether the off-farm activities of hh members have anything to do with agricultural activities? Were there any decisions that led to changes in the sources of income sources that were agricultural value chain related?

- **hh welfare perspective compared to community or area**

- Does the hh confirm the self-assessment of 2007? How do they see themselves today compared to the rest of the community?
- How much are agricultural activities or changes in the crop-livestock system attributed to hh welfare situation? Have changes in agricultural activities lead to poverty exit? What does hh think was the key driver out of poverty?
- Were there any important events and influences for the hh development (e.g. new leaderships? new exposure? new technology? new service provision? weather events? significant prices developments for agricultural inputs or outputs? security or insecurity of hh and its economic activities? major issues of fortune/misfortune in the HH? including harvests, diseases of hh members, etc. or any other key turning points or event that determined the welfare development of the past?

ANNEX IV: Coding Key for Qualitative Interviews

Coding is the process of marking passages of text (or parts of images or sections of a video recording) that are about the same thing, say the same thing or discuss things in the same way. Coding involves identifying words, phrases, lines, sentences or passages of text in a document or an image or part of an image that represents an idea or concept. This is then linked to a named code that represents that idea or concept. This shows that it shares the characteristics indicated by the code and/or its definition with other similarly coded passages or texts. All the passages and images associated with a code can be examined together and patterns identified (see also GIBBS et al. 2005). Codes support a thematic analysis of the content of the text (or images) and enable the rapid retrieval of text that represents common ideas, themes, rhetoric and approaches.

The hermeneutic unit for this research is based on all interviews conducted, alas 51 .doc files.

Preparing a Coding Sheet

Similar passages are marked with a name, the code, that is usually associated with a longer explanation of what the code means, what the passages have in common and, perhaps, a general interpretation of them (see also CARGAN 2007 262 for details or http://onlineqda.hud.ac.uk/Intro_QDA/how_what_to_code.php). It is suggested to try out different types of answers, develop a “coding book” or “coding sheet” that documents the decisions made by what a specific code entails how the data was originally coded.

A point to note is the following: Many of the categories can have either positive or negative impact – thus specific codes need to be given either a + for positive or – for negative. Since a number of factors have either a positive or negative co-notation, it is important to ask always also for the other side of that coin. Example: If there was a drought it will be mentioned. If rainfall was regular, it might be overlooked – yet it might have been an important factor for success.

There are two basic code families applied to my data:

1. Descriptive Codes for hh behaviour – basically following the nomenclature of my questionnaire
2. Interpretative Codes for hh poverty dynamics - mainly giving interpretations of poverty exiting or descending reasons. These codes are partly adapted from MoPND & ILRI 2007 .

Coding of poverty status and relevant agricultural factors and their changes over time (1997 – 2010)

Nr	Code	Category	Descriptive Code	explanatory Sub-Code	Description
1	+INC	B5 – Income	increasing Income		generally over the panel period
2	-INC		decreasing income		generally over the panel period
3	/INC		constant income		generally over the panel period
4	CROPINC-SH		share cropinc		income share cropinc ↑ for recent years
5	LVINC-SH		share lvinc		income share lvinc ↑ for recent years
6	OFFARMINC-SH		share offarminc		income share offarminc ↑ for recent years
7	+ASS	B6 – Assets	increasing set of assets		asset accumulation over entire panel period
8	-ASS		decreasing set of assets		asset decrease over entire panel period
9	/ASS		constant set of assets		constant set of asset over entire panel period
10	-SELF A	D – Self Assessment	worse off		than their neighbours/other members of the community
11	/SELF A		about the same		than their neighbours/other members of the community
12	+SELF A		better off		than their neighbours/other members of the community
13	SOP-PROS	D – Stages of Progress	above the prosperity line		> 11 today
14	SOP-MID		middle		7-11 today
15	SOP-POOR		below poverty line		< 7 today
16	+LAND	B2 – Land	increasing size of land		
17	+LAND-BUY			due to land buying	
18	+LAND-INHER			due to inheritance	
19	-LAND		decreasing size of land		
20	-LAND-SUBDIV			due to subdivision	
21	-LAND-SALE			due to land sale	
22	-LAND-CONFLICT			due to PEV / other conflicts	
23	LAND-CONST		constant size of land		
24	CROP-INT	B3 – Crop	Intensification		increased crop production on same land or expanded land; higher use of inputs
25	CROP-INT-MAR			due to favourable market/price development	
26	CROP-INT-PROJ			due to vc project/programme	
27	CROP-DIV		Diversification		more different and/or new crops
28	CROP-DIV-MAR			due to new crop marketing opportunities	
29	CROP-DIV-PROJ			due to vc project/programme	
30	CROP-SPEC		Specialisation		focus on few particular crops

Nr	Code	Category	Descriptive Code	explanatory Sub-Code	Description
31	CROP-SPEC-MAR			due to price developments	
32	CROP-SPEC-PROJ			due to vc project/programme	
33	CROP-COMM		Commercialisation		explicit market-oriented crop production scheme
34	CROP-COMM-MAR			due to new crop marketing opportunities	
35	CROP-COMM-PROJ			due to vc project/programme	
36	CROP-CONST		Constant crop prod.		
37	CROP-SUBSIS		Subsistence orientation		increased subsistence orientation
38	CROP-EXT		Extension		extension services are mentioned as important
39	CROP-LABSHO		Shortage of labour		shortage of labour mentioned as a production problem
40	LV-INT	B4 – Live-stock	Intensification		basically increase in herdsize
41	LV-INT-MAR			due to favourable market/price development	
42	LV-INT-PROJ			due to vc project/programme	
43	LV –DIV		Diversification		more different and/or new live-stock
44	LV –DIV-MAR			due to new livestock marketing opportunities	
45	LV –DIV-PROJ			due to vc project/programme	+/- extension services
46	LV –SPEC		Specialisation		focus on few particular animals
47	LV –SPEC-MAR			due to price developments	
48	LV –SPEC-PROJ			due to vc project/programme	
49	LV –COMM		Commercialisation		explicit market-oriented livestock production scheme
50	LV –COMM-MAR			due to price developments	
51	LV –COMM-PROJ			due to vc project/programme	
52	LV-COMM-DAIRY		increase in dairy sales		according to findings from Burke et al. 2007
53	LV –CONST		constant LV production		
54	LV-BANK		Δ herd size		ups and downs due to Banking; livestock kept and sold for school fees or other purposes
55	LV-SOC		Δ herd size		ups and downs due to social events such as funerals and weddings
56	LV –SUBSIS		Subsistence Orientation		increased subsistence orientation
57	LV-EXT		LV Extension		extension services are mentioned as important
58	LV-LABSHO		LV Shortage of labour		labour shortage mentioned as LV production problem

Coding of reasons for Changes in Welfare and their changes over time (1997 – 2010)

Nr	Code	Category	Descriptive Code	Explanatory Sub-Code	Description
59	+DEMOG-BIRTH	hh internal matters	increasing Size of hh	gains by birth	during the interview period
60	+DEMOG-MARR			gains by marriage	
61	+DEMOG-FAM			gains by family members	e.g. a kid coming back from urban dwelling
62	+DEMOG-EXFAM			gains by extended family members	during the interview period
63	-DEMOG-LCHILD		decreasing no of hh members	losses of children	during the interview period
64	-DEMOG-LSPOUSE			loss of spouse / widowhood	during the interview period
65	-DEMOG-CGROW			outgrowing of children	
66	-DEMOG-UMIG			urban migration	of any family member
67	-DEMOG-OMIG			Migration out of the country	of any family member
68	-DEMOG-DIV			Divorce	of any family member
69	DEMOG-AGE		age of hh	hh led by aging generation in good condition,	old, alone, children away and remitting
70	DEMOG-AGEPOOR			hh led by aging generation, in poor condition	old, alone and impoverishing
71	DEMOG-YOUNG			hh led by younger generation	
72	DEMOG-TRANS			hh in intergenerational transition	
73	MHHH		sex of head of hh	male headed hh	
74	FHHH			female headed hh	
75	-SOCCOH-MAR	social cohesion of hh	socio-economic standing of the hh / Social Capital	due to marital problems	including , irresponsible spouse, divorce, conflict with in-law family members
76	-SOCCOH-DRUG			due to alcohol/drug use	
77	-SOCCOH-MISM			due to mismanagement of family resources	including debts
78	-SOCCOH-LAZ			due to laziness / idleness	
79	SOCEC-SHG			member of a farmer group (SHG)	
80	SOCEC-SACCO			member of SACCO/ROSCA	
81	SOCEC-COOP			member of a co-op/marketing group	
82	SOCEC-HELP			mutual help from neighbours	
83	EXP-EDU	hh Expenses	hh Expenses increased	Education to be paid for	
84	EXP-HEA			Health related matters	any kind of health related problems or recoveries
85	EXP-SOC			Social Payments	(Dowry, Funerals
86	EXP-DEBT			Debts	
87	EXP-EMPLOY			employing wage labour	
88	EXP-OTH			other	

Nr	Code	Category	Descriptive Code	Explanatory Sub-Code	Description
89	EAR-KIBA	hh off-farm inc sources		doing farm work for neighbours (kibarua)	
90	EAR-SELF-AG			rural ag-related self-employment	
91	EAR-SELF-NONAG			rural non-ag self-employment	
92	EAR-WAGE-AG			earning ag wage labour	
93	EAR-WAGE-NONAG				including government jobs
94	EAR-REM			+/- Remittances	
95	EAR-TRANS			receiving transfers from governments (including handouts from politicians)	
96	EAR-PEN		earning pensions		additional sourced of income that came up during the interviewed period
97	EAR-SOCPAY		receiving social payments		such as inheritance (cash or in-kind)
98	EAR-OTH		other earnings		
99	EAR-CRED		earnings via credit		hh received credit for agricultural purposes
100	EAR-SAV		earnings from own savings		hh mentioned own savings as important
101	SHO-DRO		drought		external matters affecting welfare / Shocks
102	SHO-FLOOD		flooding		flooding, heavy rains or hailstorms
103	SHO-CROPHEA		crop diseases		
104	SHO-LVHEA		livestock disease		
105	SHO-INPUTMAR		market developments	+ prices of inputs	all sorts of price increases for inputs; particularly to fertiliser price hike in 2009
106	SHO-OUTPUTMAR		market developments	- prices of outputs or non-payment	not only unexpected development for output prices but also for output markets in general; i.e. long delays in payments by CO-OPs or non-payment by exporters
107	SHO-MARKET			+/-marketing opportunities	
108	SHO-SOCCOH		Decrease of social cohesion in the community		or social conflict over resources
109	SHO-SEC		Decrease of Security	+/-security	even fear of decreasing security
110	SHO-SEC-PROP			loss of property	theft
111	SHO-SEC-HARM			physical harm	physical harm and murder
112	SHO-CONF		Conflict		conflicts in previous years that go beyond personal conflicts
113	SHO-PEV				if Post –election violence was mentioned, just to record it
114	SHO-ABSENCE		absence of shocks		
115	FUT-AG-INT	E – Future of the farming	staying in ag production	further intensifying	ag marketing, trading in ag products, etc

Nr	Code	Category	Descriptive Code	Explanatory Sub-Code	Description
		hh			
116	FUT-AG-DIV			further diversifying	
117	FUT-AG-SPEC			further specialising	
118	FUT-AG-COMM			further commercialising	
119	FUT-AG-SUBSIS			further subsistence oriented	
120	FUT-AGPLUS		mixing ag production with other off-farm activities		here: it can also mean retirement plus some subsistence
121	FUT-NONAG-RURAL		staying rural	into off-farm rural activities	
122	FUT-NONAG-URBAN		urban migration		even of the second generation
123	FUT-AG-CROP				
124	FUT-AG-LV				
125	POV-EX	E – FINAL ASSESSMENT	true poverty exiter		
126	NONPOV-EX		non poverty exiter		
127	DIV-SURV		Diversification	survival-led diversification (distress-push)	according to Lay et al. 2008
128	DIV-OPP			opportunity-led diversification (demand-pull)	
129	+INFRA	OTHERS	Infrastructure		Infrastructure mentioned as favourable
130	-INFRA				Infrastructure mentioned as unfavourable
131	MIXFARM		Mixed Farming		importance of mixed crop-livestock farming mentioned
132	-CROP-PROD		general reduction in crop production		
133	-LV-PROD		general reduction in livestock production		
135	+AGSERVICE		increase in availability of agricultural services		increase in availability of agricultural services mentioned as important
136	-AGSERVICE		decrease in availability of agricultural services		decrease in availability of agricultural services mentioned as important
137	+SOCCOH-WORK		hard work		hard work contributing to social standing in the family and/or community
138	EAR-NO		Absence of off-farm inc		
139	RESOURCE		natural resource problems		availability or quality of natural resources mentioned as a problem
140	+SOCCOH-FAM		positive social cohesion and inter-family cooperation		
141	FUT-AG-EXPA		future of agricultural expansion		e.g. buying more land, doing more ag activities
142	+DEMOG-ADOP		Adoption		adoption of orphan children or

Nr	Code	Category	Descriptive Code	Explanatory Sub-Code	Description
					also: grandchildren where children are deceased
143	-SOCCOH-COMMUN		negative trend in social cohesion with or within the community		deteriorating social capital in the community; only of the hh or of the entire community
144	+LAND-RENT				renting in land
145	-LAND-RENT				renting out Land

ANNEX V: List of Households Interviewed

hhid	AEZ	Province	District	Date
2	high potential	Rift Valley	Uasin Gishu	09.03.2010
14	high potential	Rift Valley	Uasin Gishu	09.03.2010
49	high potential	Rift Valley	Trans Nzoia	15.03.2010
51	high potential	Rift Valley	Trans Nzoia	15.03.2010
71	high potential	Western	Kakamega	15.03.2010
76	high potential	Western	Kakamega	11.03.2020
84	high potential	Western	Kakamega	15.03.2010
150	western	Western	Bungoma	09.03.2010
153	western	Western	Bungoma	10.03.2010
156	western	Western	Bungoma	10.03.2010
169	western	Western	Bungoma	16.03.2010
172	western	Western	Bungoma	09.03.2010
223	western	Western	Bungoma	09.03.2010
247	western	Western	Bungoma	10.03.2010
253	high potential	Rift Valley	Uasin Gishu	12.03.2010
255	high potential	Rift Valley	Uasin Gishu	12.03.2010
258	high potential	Rift Valley	Uasin Gishu	11.03.2010
265	high potential	Rift Valley	Uasin Gishu	10.03.2010
271	high potential	Rift Valley	Uasin Gishu	10.03.2010
343	central	Central	Nyeri	19.03.2010
362	central	Central	Nyeri	18.03.2010
366	central	Central	Nyeri	19.03.2010
381	central	Central	Nyeri	18.03.2010
392	central	Central	Nyeri	16.03.2010
408	central	Central	Nyeri	16.03.2010
488	central	Central	Nyeri	17.03.2010
549	central	Central	Nyeri	17.03.2010
551	high potential	Rift Valley	Bomet	18.03.2010
552	high potential	Rift Valley	Bomet	18.03.2010
559	high potential	Rift Valley	Bomet	19.03.2010
721	central	Eastern	Meru	11.03.2010
725	central	Eastern	Meru	09.03.2010
730	central	Eastern	Meru	09.03.2010
739	high potential	Rift Valley	Nakuru	19.03.2010
742	high potential	Rift Valley	Nakuru	19.03.2010
748	high potential	Rift Valley	Nakuru	18.03.2010
753	high potential	Rift Valley	Nakuru	18.03.2010
755	high potential	Rift Valley	Nakuru	19.03.2010
1038	high potential	Western	Kakamega	16.03.2010
1042	high potential	Western	Kakamega	16.03.2010
1050	high potential	Rift Valley	Uasin Gishu	13.03.2010
1158	high potential	Rift Valley	Trans Nzoia	16.03.2010
1162	high potential	Rift Valley	Trans Nzoia	16.03.2010
1163	high potential	Rift Valley	Trans Nzoia	17.03.2010
1169	central	Central	Muranga	10.03.2010
1179	central	Central	Nyeri	13.03.2010
1444	central	Central	Nyeri	13.03.2010
1452	central	Central	Nyeri	15.03.2010
1462	central	Central	Nyeri	15.03.2010
1466	central	Eastern	Meru	10.03.2010
1481	central	Eastern	Meru	10.03.2010

CURRICULUM VITAE HEIKE HÖFFLER

BERUFLICHE TÄTIGKEITEN:

- seit 06/2013 **Gesellschaft für Internationale Zusammenarbeit (GIZ), Bonn**
 Auftragsverantwortliche für das Sektorvorhaben „Agrarhandel, Agrarwirtschaftsförderung, Agrarfinanzierung“; Leitung 12köpfiges Team (seit 04/2017)
 davor: Beraterin im Sektorvorhaben “Agrarpolitik und Ernährungssicherung” (2013-2017)
- 08/2008 – **Freiberufliche Gutachterin**
 05/2013
 entwicklungspolitische Beratungsaufträge u.a. für GfA Consulting Group GmbH, Heinrich-Böll-Stiftung, Bill & Melinda Gates Foundation, GIZ Fachverbund Sector Network Rural Development (SNRD) Africa sowie für verschiedene Programme und Projekte zu Themen der internationalen Agrarpolitik, Agrarwirtschaftsförderung und Ernährungssicherung.
- 08/2002 – **Gesellschaft für Technische Zusammenarbeit (GTZ), Nairobi, Kenia**
 04/2008
 Stellvertretende Programmleiterin und Komponentenleiterin Agrarpolitik im Deutsch-Kenianischen Entwicklungsprogramm “Promotion of Private Sector Development in Agriculture (PSDA)”

AUSBILDUNG:

- 09/2001 – **Deutsches Institut für Entwicklungspolitik (DIE) Bonn**
 05/2002
 37. Ausbildungskurs; Länderarbeitsgruppenthema „Informal Financing of Small-Scale Enterprises in Sri Lanka“
- 04/1998 – **Hauptstudium der Agrarwissenschaften an der Humboldt-Universität zu Berlin**
 08/2001
 Abschluss: Diplom-Agraringenieurin; Note: 1,2 (sehr gut);
 Thema der Diplomarbeit: „Implications of Food Market Liberalisation in Developing Countries: Empirical Evidence from the Kenyan Dairy Sub-sector“, Note: 1,0 (sehr gut),
- 10/1997 – **Forschungssemester an der Universidad Granma, Bayamo, Kuba**
 03/1998
- 10/1995 – **Grundstudium der Agrarwissenschaften an der Humboldt-Universität zu Berlin**
 08/1997
- 02/1995 – **Landwirtschaftliches Betriebspraktikum Klostergut Heiningen, Niedersachsen**
 08/1995
 Milchviehhaltung, Milchverarbeitung und Futtergewinnung (bio-dynamischer Betrieb)
- 08/1987 – **Gymnasium, Eleonorenschule Darmstadt** Abschluss: Abitur, Note 1,5
 06/1994

PREISE & STIPENDIEN:

- | | | |
|---------|---|--|
| 2010 | Poverty Reduction, Equity and Growth Network (PEGNet) | Forschungsstipendium für Feldforschung der Dissertation |
| 2002 | Vater und Sohn Eiselen Stiftung | Hans H. Ruthenberg- Graduierten-Förderpreis für herausragende Abschlussarbeiten zum Thema Welternährung, |
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