


Growing old in Mozambique: Dynamics of well-being and poverty

António Francisco, Gustavo Sugahara & Peter Fisker

IESE 2013

Growing old in Mozambique: Dynamics of well-being and poverty

António Francisco
Gustavo Sugahara
Peter Fisker

IESE
INSTITUTO DE ESTUDOS SOCIAIS E ECONÓMICOS

Title: Growing old in Mozambique: Dynamics of well-being and poverty

Authors: António Francisco, Gustavo Sugahara, Peter Fisker
Publisher: IESE

Address of the publisher:
178 Avenida Patrice Lumumba
Maputo, Mozambique
Telephone: + 258 21 328894 | Fax: +258 21 328895
iese@iese.ac.mz | www.iese.ac.mz

Editors: António Francisco and Gustavo Sugahara
Proof-reading: Rhiannon Leon

Design and layout: COMPRESS.dsl | www.compressdsl.com
Printing and finishing: DPS
Print run: 300
Photo credits: Mario Traversi

Register number: 7862/RLINLD/2013
ISBN: 978-989-8464-18-7

Maputo, November 2013

Table of contents

Acknowledgements

This report forms part of a collaboration between the Institute for Social and Economic Studies (IESE) in Mozambique and HelpAge International (HelpAge), with the objective of analysing the conditions of life and, in particular, the poverty status of older people in Mozambique.

This research project would not have been possible without the support of both institutions. The authors would also like to thank HelpAge's teams in the UK – Andrea Vilela and Charles Knox-Vydmanov – and in Mozambique – Janet Duffield and Álvaro Zimba – for their valuable contributions. Their relevant inputs, stimulating suggestions and experience on the topic were fundamental to this project.

This research also benefited from the inputs of two meetings, one within IESE which was attended by IESE staff, and the other a public meeting which took place in Maputo on 15 May 2013 and gathered around 100 participants.

In addition to the institutions that already support IESE – Swiss Agency for Development and Cooperation (SDC), Royal Danish Embassy, Ministry for Foreign Affairs of Finland, Irish Department of Foreign Affairs (Irish Cooperation), IBIS Mozambique and The Embassy of Sweden – this research in particular received financial support from the German Federal Ministry of Economic Cooperation and Development (BMZ). The final editing and printed version received financial support from Irish Aid.

List of tables, maps and figures

Tables

Maps

Figures

Boxes

List of acronyms

AIDS	Acquired Immune Deficiency Syndrome
BSSS	Basic Social Security Sub-system
CAP	*Censo Agro-Pecuário* (Agropecuary census)
DNEAP	*Direcção Nacional de Estudos e Análise de Políticas*
GDP	Gross Domestic Product
IESE	*Instituto de Estudos Sócio Económicos* (Institute for Social Economic Studies)
IDS	*Inquérito Demográfico de Saúde* (Demographic Health Survey)
IMF	International Monetary Fund
INAS	*Instituto Nacional de Acção Social* (National Institute for Social Action)
INE	*Instituto Nacional de Estatística* (National Statistics Institute)
IOF	*Inquérito aos Orçamentos Familiares* (Household Budget Survey)
LSMS	Living Standards Measurement Survey
MDGs	Millennium Development Goals
OE	*Orçamento do Estado* (State Budget)
OPL	Official Poverty Line
PARP	*Plano de Acção para Reducção da Pobreza* (Poverty Reduction Action Plan)
PASD	*Programa de Apoio Social Directo* (Programme for Direct Social Action)
PASP	*Programa de Acção Social Produtiva* (Productive Social Action Programme)
PPP	Purchasing Power Parity
PSA	*Programa de Subsídio de Alimentos* (Food Subsidy Programme)
PSSB	*Programa de Subsídio Social Básico* (Basic Social Subsidy Programme)
RPLWB	The Recalculated Poverty Line suggested by the World Bank
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
WB	The World Bank
WESS	World Economic and Social Survey

Executive summary

Older Mozambicans are the most visible face of Mozambique's increasing population longevity. To paraphrase the UNFPA and HelpAge International (2012: 12), increasing longevity is one of humanity's greatest achievements, observed all over the world, at various levels of development. In most countries the increasing number of older people, both in relative and absolute terms, is determined by population ageing. In countries like Mozambique, however, where fertility rates remain high and resistant to change, the bulk of the current increase in older people is mostly caused by rapid population growth fostered by declining mortality rates.

The older population in Mozambique is expected to increase from just over a million people, currently, to an estimated nine million in the 2070s (UN 2013). This will bring about a change in the old age dependency ratio, from above 5 per cent currently to more than 12 per cent. In other words, the younger generation, born during the first decade of the 2000s, will become part of an older population seven times larger, as a proportion of the total population, than today's. In this report we consider quality of life alongside ageing in Mozambique and explore to what extent living conditions are improving as more people reach old age. This research aims to understand the dynamics of well-being and poverty of the older population in Mozambique by making use of national datasets such as the 2007 population census and the 1997/1998, 2002/2003 and 2008/2009 *Inquérito aos Orçamentos Familiares* (IOFs), or Household Budget Survey, from *Instituto Nacional de Estatística* (INE), or the National Institute of Statistics .

The three following questions summarise the main questions that motivated this research:

- Is the older population richer or poorer than the rest of the Mozambican population? In particular, are older people in rural areas poorer than those in urban areas?
- Is increasing life expectancy becoming an asset or a burden to Mozambican society?
- What social protection options exist to address old age poverty in Mozambique?

Based on the analysis of the national datasets used in this study some of the keys findings presented within this report are:

- Older Mozambicans are poorer than the rest of the population. This characteristic is notable in many parts of the country, particularly when regional, provincial and local distributions of households are taken into account.
- Mozambicans are slowly achieving the possibility of living a longer life, but as increasing life expectancy is not complemented by a new economic base or new mechanisms of social protection, older Mozambicans are transformed into victims of their own 'longevity success'.
- This increase in life expectancy has profound and immediate implications, not only in the configuration of social protection mechanisms across the life-course, but particularly in terms of income security in old age. One of the direct implications of this is the need to

create new systems. From this perspective, investments in assets (financial assets and values) play an important role, since it is through these that people seek to save and invest to cope with unforeseen risks, or to enjoy economic benefits in the future.

- A universal pension for older people in Mozambique would facilitate the transformation and replacement of old systems of social protection by modern social protection systems that are more suited to demographic transition and the new economic challenges that Mozambique faces. In this context, the benefits and potential costs of a universal pension should be examined and evaluated by comparing them with the costs and benefits of the current system, which provides partial pensions for a minority and excludes most older Mozambicans.

1. Introduction

> “Where poverty is endemic, persons who survive a lifetime of poverty often face an old age of deepening poverty.”
> *Madrid International Plan of Action on Ageing* (UN 2002: 45)

The issue of well-being and poverty is subject to numerous studies and debates in Mozambique, with hundreds of documents written on its incidence, causes and determinants.[1] Poverty is also the main focus of the strategic documents of the Mozambican government, in particular its reference instrument on public policy, the *Plano de Acção para Reducção da Pobreza* (PARP), or Poverty Reduction Action Plan (GdM 2011).

Despite this focus on poverty, many knowledge gaps still persist, particularly around the dynamics and determinants of poverty across the life-course. These gaps decrease the effectiveness of efforts to reduce poverty.

Despite the universal inevitability of ‘old age’ (with all of us at least expecting to reach old age), and growing awareness around the demographic transition, little is understood about the poverty dynamics of old age in Mozambique. Recently, however, efforts have been made to analyse poverty among different age groups (Dupraz et al. 2006; Kelly 2011).

The reality of demographic change in Mozambique is easy to overlook, given the still small number of older Mozambicans (Francisco 2011; Sugahara and Francisco 2012a; Keyfitz 1980). However, given the place and role of older people in Mozambican society, it is urgent to explore the implications of this unprecedented demographic change, which, depending on social and economic factors, is likely to get much more intense in the relatively near future.

The study of living conditions and poverty levels among older people is justified for reasons beyond those immediately apparent. While Mozambique already has the third largest population of older people in southern Africa, with about 1.2 million inhabitants aged 60 and over (INE 2010a; UN 2011), the proportion of older people in relation to the total population of Mozambique remains relatively small. Only five per cent of Mozambicans are aged 60 and over and less than one per cent are aged 85 and over. The small relative size of the older population could then be used as a justification to de-prioritise older people in terms of public policies, despite their large number in absolute terms.

Although Mozambique is still in the early stages of its demographic transition, there is nothing to indicate that it will not follow a trajectory similar to countries further along in their transition, where population ageing is already impacting on demographics and family composition (Francisco 2011).

Eventually, population ageing will be a reality for Mozambique. Until this happens, it will be necessary to clarify debates around demographic change in the public sphere as well as with

1 IESE has also published extensively on poverty. For recent debates please see Brito et al. (2010).

political professionals and technicians, in particular about the costs and negative effects on society of the devaluing or side-lining of older people.

As noted in Sugahara and Francisco (2012b), the age structure of the Mozambican population is still very young, typical of a developing country, with only a small share of the population surviving to old age (UN 2013). For thousands of years, this small population of older people was all that could be sustained under a nearly stagnant economy (Lesthaeghe 1989; Livi-Bacci 1992).

The younger generation, born between 2000 and 2010, will eventually make up an older population seven times larger than the older population, as a proportion of the total population, today. Furthermore, the relative size of this future older population will be double, with older people making up 12 per cent of the population of Mozambique by the 2070s (Sugahara and Francisco 2012a).

The opportunity to follow the process of demographic change during its early stages offers a unique opportunity for reflection, but even more important than that, it will give society enough time to prepare for the structural changes expected due to demographic transition (Dyson 2010; Francisco 2011; Francisco et al. 2010).

It is important to note that what makes the topic of an ageing population in Mozambique, and the rest of sub-Saharan Africa, particularly fascinating is that it is developing in a context completely different to that observed in other parts of the world. Globally, a significant proportion of population ageing has occurred alongside major changes in the productive organisation of society. In Mozambique, however, this process is occurring in a context where archaic forms of production continue to exist alongside modern.

Following global trends, changes in Mozambique's demographic structure are expected to bring about strong impacts both on the economy and on society in general. It will not only transform the profile of the workforce, but also result in major changes in the behaviour of individuals, either by leading to changes in demand for goods and services, or by influencing saving and investment decisions.

The first part of this report discusses the concept of old age. While the poverty indicators in this report use age cut-offs to define old age, it is important to recognise the complexity and implications behind this apparently simple approach.

Before undertaking poverty analysis we present an overview of the most important characteristics of the population ageing process in Mozambique. Since we take the household as the main unit of our poverty analysis,[2] we look at household characteristics and highlight key information from sources not directly related to this research. The aim is also to offer an insight into the ageing process in Mozambique for those who may want to explore it in more detail.

The poverty analysis within this report begins with a brief exploration of conceptual issues and their implications on the methodological approach to poverty measurement. From there, we examine poverty headcount indicators, based on household consumption, with a particular focus on regional differences. The objective here is to use indicators that are comparable to official poverty data, both from the Mozambican government and international institutions, thereby facilitating engagement with as many stakeholders as possible.

To offer a complementary perspective to poverty indicators based on consumption, we also explore household assets and durable goods. Using the so-called Morris Index method we calculate an index that is used to classify households in quintiles.[3] The main purpose of this

2 The household survey does not allow for individual analysis by age, but it is also important to notice that old age is not a phenomenon isolated from its context.

3 A quintile corresponds to a fifth of the sample or population.

method is to assess the relative asset base of older people compared to the rest of population. Due to the intricate relationship between assets and consumption, it also serves to check the robustness of the results of the poverty analysis.

The last part of the report intends to open debate around the universalisation of old age pensions in Mozambique. Keeping in mind the poverty analysis presented, we believe that this report provides strong evidence that investment in universal old age pensions will have a significant impact, not only on poverty, but also in terms of strengthening the economy, thus responding to this particular stage of demographic transition.

1.1 Research topic

The purpose and main research focus is the older population in Mozambique, which we define as those aged 60 and over. We shall occasionally use different age brackets, for example, 65 and over or 80 and over.

1.2 Research objectives

Our main objective is to investigate existing datasets to understand the scale of old age poverty in relation to the rest of population. Given the resources available and the fact that the issue of population ageing in Mozambique is virtually unexplored, this type of research seems timely and is expected to fill a knowledge gap. We hope that increased debate and knowledge around this subject will generate well-designed and formulated social protection and public policies.[4]

The study should also provide fundamental information about the living conditions and life of older Mozambicans, as compared to non-older population groups. We will do this by:

- Producing analysis of existing socio-economic datasets to provide insights into the relative poverty of the older population;
- Analysing the cost and potential impact on different population groups of various universal pension scenarios in Mozambique;
- Providing reflection on the methodological approaches to measuring old age poverty in Mozambique; and
- Engaging national policy stakeholders in the findings of the research and providing appropriate translated versions.

1.3 Methodology

In each section of this report we provide detailed methodological considerations and explanations. As this topic is inter-disciplinary, different methodologies have been used. Starting with a literature review on conceptual debates around old age, the research process also makes use of several quantitative tools. Regarding the quantitative analysis, the main challenge faced was to find national datasets which provide information about poverty and well-being for the overall Mozambican population, but allow also for meaningful analysis by age group following disaggregation.[5]

4 Most academic literature regarding the older population in Mozambique focuses either on issues related to the abuse of the elderly, or generic demographic dynamics.

5 For example, the so-called *Inquérito Demográfico de Saúde* (IDS), or Demographic Health Survey comprises a comprehensive, nationally representative dataset covering population, education, health, nutrition and household characteristics. Unfortunately, these surveys comprise women and men in the reproductive age, that is, those aged between 15 and 49, missing precisely the key age group of interest for this study.

Therefore, for this study the 2008/2009 *Inqu*érito *aos Orçamentos Familiares* (IOF), or Household Budget Survey, and the 2007 population census were used. Both sources are from the *Instituto Nacional de Estatística* (INE), or National Statistics Institute, and are widely used and revised under international standards. A direct limitation derived from this option was the impossibility of selecting individuals by age, as this information was not collected from all individuals directly. Moreover, in the case of IOFs, the size of the sample would not allow us to disaggregate the households at more meso or micro levels, as the number of observations would became statistically insignificant. For this reason, we were unable to explore in more detail important topics such as gender or intra-household dynamics.

The issue of how to define and measure poor versus non-poor, and above all, poorer or more vulnerable groups, continues to be a cause of debate among researchers (Filmer and Scott 2008; Hargreaves et al. 2007; Morris et al. 2000; Prakongsai 2006; Ura et al. 2010). Where lack of reliable data and controversy around methodological issues related to poverty measurements is a concern, such as in Mozambique recently, there is potential for using complementary, or even alternative, methods of measuring household socio-economic status (Alfani et al. 2012; Cunguara and Hanlon 2010; DNEAP 2010).

In this particular research, aimed at investigating poverty among older people, the authors decided to use complementary research approaches. In the absence of widely accepted data on household expenditure the first option was to build a set of indicators directly comparable and related to the official measures, both nationally and internationally: (i) the Official Poverty Line (OPL) calculated by the government of Mozambique (DNEAP 2010); (ii) the Recalculated Poverty Line suggested by the World Bank (RPLWB) (Alfani et al. 2012)[6]; and (iii) the 'international poverty line', which currently stands at USD1.25 (PPP) per day (UNDP 2013).

Moreover, considering that poverty analysis focusing on expenditure or consumption has a short-term perspective, the authors found it useful to complement this methodological approach with the exploration of several components of economic and social well-being that may more accurately reflect different social groups or a variety of rural and urban contexts. Thus, by complementing the money-metric measures of conventional poverty indicators, this study draws upon an alternative approach of assessing household welfare and living standards in developing countries, known as asset indices. In this specific research on the well-being and poverty of older people, the authors opted for the rather simple method of measuring aspects of household socio-economic position proposed by Morris et al. (2000). To distinguish this index from other asset indices that can be found in the literature, we decided to attribute it the name of the first author in the report that, as far we know, first outlines the index (Morris et al. 2000). For details on this method and index, see Annex 1: Calculation of the Morris Index.

6 There are slight differences between the data used by the World Bank and that used within this research. Here, estimated poverty rates are based on the IOF data set only, while the World Bank's team derived the poverty rates by drawing upon both the 2008/2009 IOF and the 2007 census.

1.4 Structure

This report is organised in three parts, excluding this introduction and the conclusion.

Part I: Demographics of older Mozambicans. Part I analyses the concept of old age, recognising that sociological and cultural notions of older people is far from being a static concept or rigidly definable. Part I also provides a demographic analysis of the older population, taking into account the characteristics of demographic transition in Mozambique.

Part II: Are older Mozambicans less poor than the rest of the population? Part II presents the results of a poverty analysis which compares households with older people to the rest of the population, based on different methods of poverty measurement: (i) conventional indicators of absolute and relative poverty based on consumption; and (ii) a new indicator, called the Morris Index. The Morris Index draws upon an alternative approach of assessing household welfare and living standards in developing countries, known as asset indices, or more accurately in this particular case, 'durable goods' (such as vehicles, bathrooms, pets, radios, computers and so on).

Part III: Universal old age pensions as a development tool. Part III explores what is a reasonable design for a universal pension in Mozambique, and compares three scenarios in terms of their impact on poverty and financial cost.

Conclusion. We advance three conclusions that address the main questions raised within the introduction. We also suggest possible areas for further research which we consider of fundamental importance for a better understanding of Mozambique's demographic transition and for the development of more adequate policies.

PART I

Demographics of older Mozambicans

Demographics of older Mozambicans

> In Africa, when an old man dies, it's a library burning.
> *Amadou Hampâté Bâ (UNESCO General Conference, Paris, 1960)*

Although the use of quantitative tools may give the impression that the issue of ageing is easily reducible to a certain age cut-off, it is important to keep in mind that the phases of life and inter-generational relationships involve both biological and socio-cultural aspects (Beauvoir 1990; Debert 1999).

On one hand, age is a key element in the social organisation of individuals, and an important tool for understanding, assessing and defining policies, such as the allocation of certain social benefits. On the other hand, it is important to bear in mind that there are few studies that seek to understand the actual experiences of heterogeneity present in diverse groups (Sugahara 2009).

As pointed out by Camarano (2004: 5–6), one of the consequences of the use of numeric age to define old age is that society creates expectations about the social roles of those with such a status, and thus exerts various forms of coercion to fulfil these roles, regardless of the particular characteristics of individuals (Laslett 1996 in Camarano 2004). The same author also notes that the status of older people can be assigned to a certain person, even if they deny that status and do not present the characteristics of dependence or senility, usually associated with old age. Examples of such forms of stereotyping can be seen within retirement laws and pension schemes.

As recalled by Vos et al. (2009), the very concept of old age varies depending on the social context. In many developed countries the age of 65 is usually used as a benchmark for old age. This concept derives from the fact that it is the age at which a significant portion of the population becomes eligible for full pensions and other social security benefits. Vos et al. point out that even age cannot be seen as a static parameter, noting that in 1900 life expectancy in industrialised countries was between 45 and 50 years, while, just a century later, the life expectancy at birth for the global population is around 65 and to rise further to 75 by 2050.

Often, we consider people *older* not only because theoretically they are closer to the end of their lives, but also because they face changes in their social roles and the activities that they perform. If we try to find common characteristics of older people, such as retirement, the fact that they become grandparents, or the fact they become more vulnerable to diseases in comparison to other adults, we must also remember that all these features must be properly framed in time and within the social context of each country, allowing a greater understanding of the condition of older people in that context.

To illustrate this idea with regard to the Mozambican context, one can recall that Mozambican grandparents, many aged between 35 and 40, do not resemble European grandparents, who are usually aged 60 and over with grey hair. In fact, walking on the streets of Mozambique, not many grey-haired people are found, which reflects the rather small proportion of older people. In rural areas, older people are still seen as an intermediary being between the living and ancestors (Geffray 2000: 78–83; Negrão 2005: 209–238). These views, or even superstitions, may be seen as stereotypes of old age, but they in themselves reflect the different demographic and socio-economic stages.

It is also important to note that ageing and old age is a highly gendered experience. The roles played by older men and older women can be completely different, with important implications for their positions in the household as well as in terms of vulnerability.

However, for operational purposes, the demarcation of population groups is important, both in analytical terms as well as in the formulation of public policies. As noted by Camarano (2004), it is through these demarcations that it becomes possible to identify beneficiaries and to focus resources. The current discussion on a convention for the rights of older people does not recommend a numeric age precisely because old age (and related discrimination) is context specific. Defining a numeric age for old age has the main advantage of ease of verification and monitoring. While recognising the need for some degree of pragmatism in the concepts used, 'older person' simplifies the heterogeneity of this segment of the population and therefore risks including individuals who do not require such policies, or excluding those who do.[7]

It is important to bear in mind that debates around the definition of old age are not a purely academic or philosophical exercise. In fact, this debate has strong implications in the construction of society's relationship with its older citizens. As stated by Lloyd-Sherlock in Camarano (2004), policies directed at older people as a subgroup essentially depend on the vision that you have of this population segment.

The age cut-off officially used for the identification of older people in Mozambique was defined by Resolution No. 84/2002 of the Council of Ministers, which considers an older person as a woman aged 55 and over or a man aged 60 and over. However, recent legislation approved by council of ministers, but not yet approved by parliament, defines an older person as those aged 60 and over, regardless of gender. This reform reflects changing interpretations of old age, though it is important to recognise that old age itself may change over time as well; for example, within pension policy ages of eligibility can be indexed to life expectancy to increase over time.

In this work, as noted above, we define older people as those aged 60 and over, though in some specific situations different age references, such as 65 and over or 80 and over, may be used.[8]

7 There are two ways to reduce the incidence of this type of error, both of which require a better understanding of the peculiarities of the population in question: (i) improve criteria in order to increase the accuracy of the definitions, with one or more milestones that allow for the better identification of individuals with certain characteristics; and (ii) modify definitions for certain criteria, assuming that appropriate references are used only for some of the characteristics sought.

8 This option is consistent with organisations such as the UNFPA (UNFPA and HelpAge International 2012: 20).

2. Older Mozambicans have the privilege of living longer, but...

Before exploring the poverty dynamics of older people we will present a brief characterisation of older Mozambicans which should support poverty analysis.

Life expectancy at birth in Mozambique currently stands at around 50 years, compared to the global average of 70 years (UN 2011). The current 4.6 per cent (see Table 1) of the Mozambican population who are aged 60 and over can be regarded as privileged or direct beneficiary from the improvement in human longevity. While it is true that the percentage of older people is relatively low when compared to other age groups, it is equally true that this population group represents more than a million people (see Table 1), a figure that in any context is too large to be ignored (Sugahara and Francisco 2012a). Indeed, to put this into perspective, such a figure is not much lower than the Mozambican wage labour force,[9] which was estimated by the 2007 census to represent one million people.

Obviously, these proportions are changing and will certainly change in the future depending on variations in the growth rate of each age group. As indicated in Table 1, in the past decade or so the annual growth rate of the older population was close to three per cent, the highest among the three main age groups. Based on the available demographic projections for the first half of the 21st century, it is expected that this trend will continue. Between now and 2050, while the growth rate of the older population is estimated to remain almost constant, growth rates of younger age groups are expected to drop to around 1.4 per cent, assuming that fertility rates undergo the expected decline (UN 2011).

Mozambique is at an early stage of demographic transition, which is occurring more slowly and later than the both global demographic transition and the transition found in neighbouring countries of southern Africa.[10] Therefore, it is expected that over the first half of this century the Mozambican population will remain younger than the populations of southern Africa.[11] This difference in the population age structure is illustrated by Figure 1 for Mozambique, and by Figure 2 for the other five countries of southern Africa (Sippel et al. 2011; UN 2013).

9 People aged between 15 and 49.

10 The transition away from an old demographic regime, characterised by high birth and mortality rates (Francisco 2011).

11 Southern Africa is a group of countries designated by the United Nations as South Africa, Botswana, Lesotho, Swaziland and Zimbabwe.

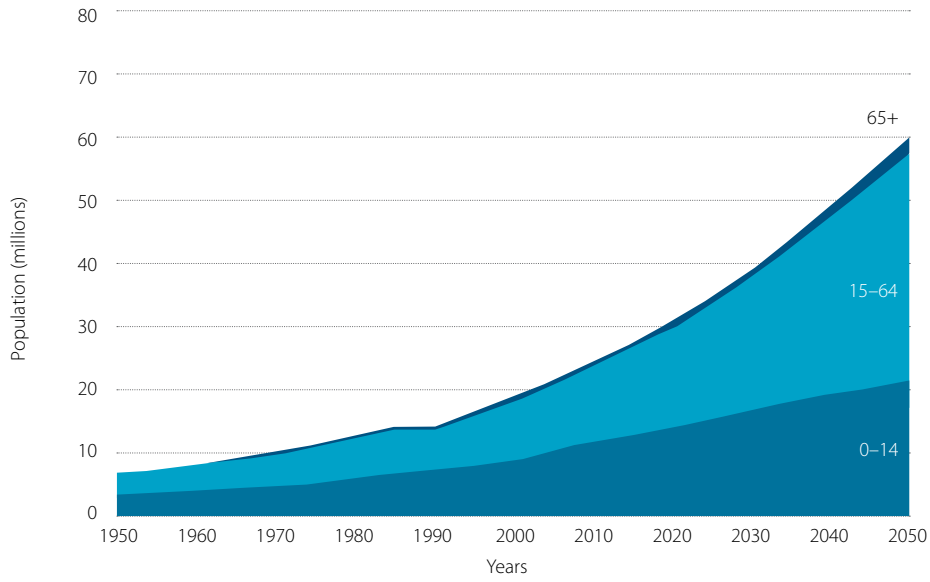
Table 1 – Demographic indicators, Mozambique

Population and age groups	2010
Total population (000s)	23 967
Population density (people per km²)	30
Median age (in years)	17.2
Number of people aged 60+ (000s)	1 192
Number of people aged 65+ (000s)	775
Number of people aged 80+ (000s)	92
People aged under 15 (%)	44
People aged 15-24 (%)	20
People aged 15-64 (%)	53
People aged 65 and older (%)	3.3
Birth and mortality rates	**2005–2010**
Crude Mortality Rate (CMR), per 1000	15.8
Infant mortality (less than one year old), per 1 000	87.1
Under-5 mortality rate, per 1 000	136
Life expectancy at birth (years)	48.4
Life expectancy at 60 birth (years)	16.3
Crude Birth Rate (CBR), per 1 000	42.3
Total Fertility Rate (TFR) (children/woman)	5.6
Population growth rates	**2000–2010**
Population doubling time (years)	28
Average population annual populatio growth rate (%)	2.5
Average population annual populatio growth rate less than 15 years (%)	2.6
Average population annual populatio growth rate 15–64 years old (%)	2.4
Average population annual populatio growth rate 65+ (%)	2.9
Projected population change	**2010–2050**
Life expectancy at birth (years) (2045–50)	66.4
Life expectancy at 60 birth (years) (2045–50)	19.1
Average population annual populatio growth rate (%)	1.9
Average population annual populatio growth rate less than 15 years (%)	1.1
Average population annual populatio growth rate 15–64 years old (%)	2.4
Average population annual populatio growth rate 65+ (%)	2.8

Source: UN 2013 (average fertility variant)

According to Figure 1, between 2010 and 2050, the Mozambican population aged 14 and under is expected to grow at an average annual rate of 1.1 per cent, against 2.4 per cent for those aged between 15 and 59, and 2.8 per cent for the older population (those aged 60 and over) (UN 2013). In southern Africa, on the other hand, an average annual negative (-0.4 per cent) growth of the young population is expected, alongside a growth of 0.8 per cent of those aged between 15 and 59, and 2.5 per cent growth of the older population (see Figure 2). Behavioural differences in the age structure reflect differences in position and pace of demographic transition among these countries, namely the fertility transition, which has a predominant effect on the process of population ageing.

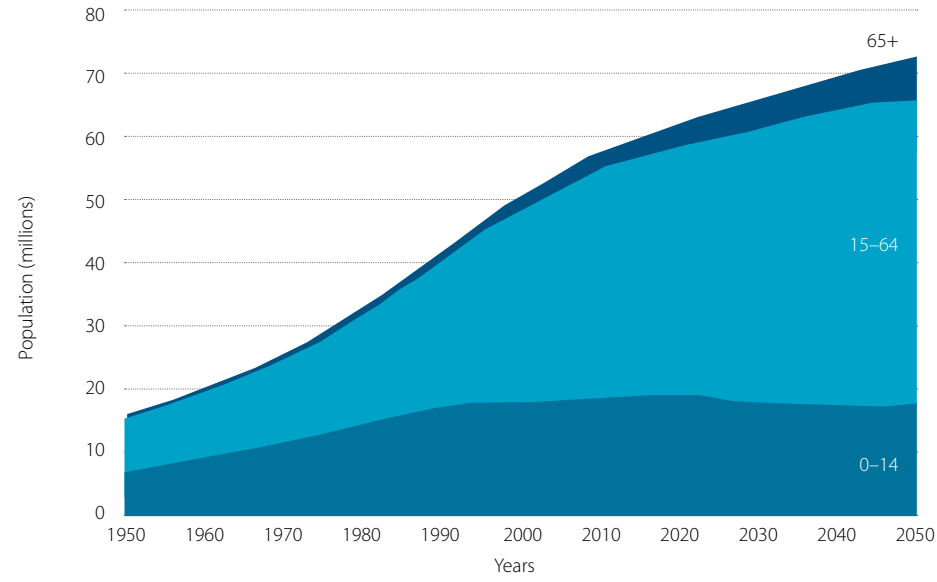
Figure 1 – Mozambique's demographic transformation (1950–2050)



Source: UN 2013

By analysing long-term demographic data, it is clear that the Mozambican population is, and will remain, predominantly young throughout the first half of this century. Strictly speaking, the Mozambican population is not ageing, in fact, it is not yet transitioning from a younger to an older age structure. Before getting older in the literal sense, there will be a period of growth within the working-age population.

Figure 2 – Southern Africa's demographic transformation (1950–2050)

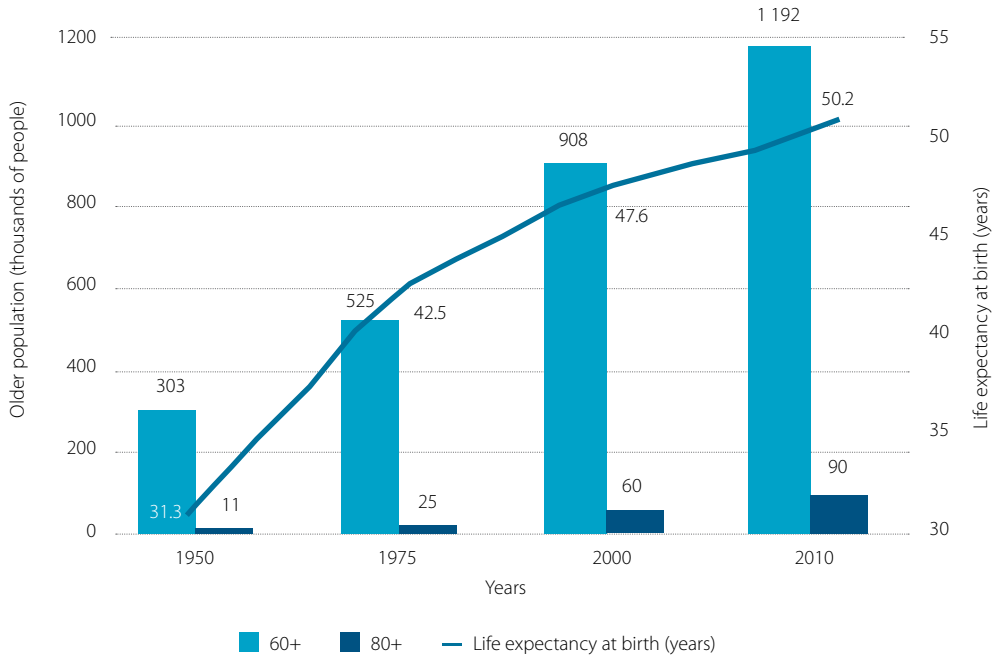


Source: UN 2013

Presently, an older population which makes up 14 per cent of the total population is considered to be the threshold of an 'ageing society' (Ito and Rose 2010: 282; Lee et al. 2013: 5). In the case of Mozambique, the pace of transition to an ageing society will depend on the pace of fertility transition, which is already being seen in a few urban areas, such as the capital city of Maputo.

If long-term projections by the UN are accurate, the proportion of older people in Mozambique by 2080 will be around 14.5 per cent of the total population of 70 million people. This means that, despite a relatively slow population ageing process, the population of older people will increase in absolute terms from the current 1.2 million to about 10 million in seven decades. That is, even if the proportion of older people does not increase the older population of Mozambique is growing in absolute terms.

Figure 3 – Older population and life expectancy at birth, Mozambique (1950–2010)



Source: UN 2013

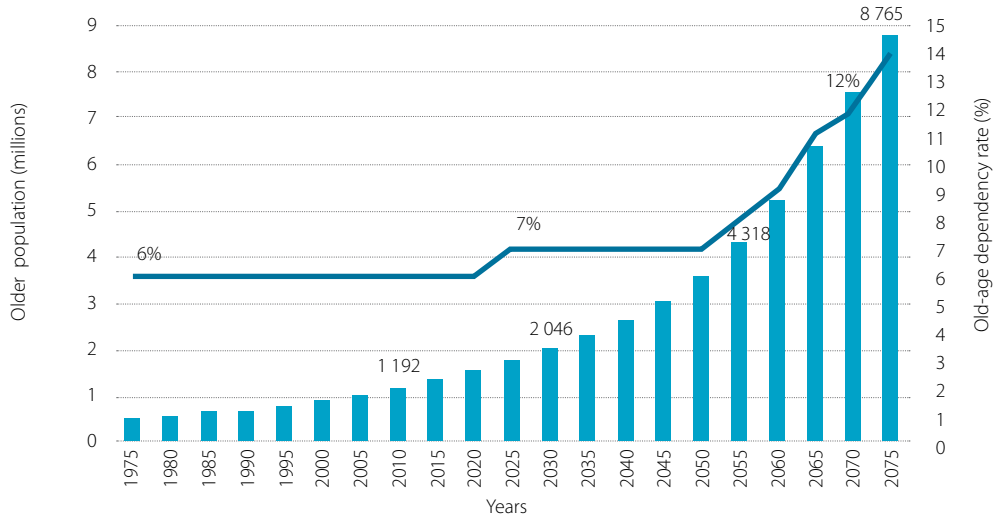
An increase in the older population as a share of the total population should be regarded as an achievement, part of which can be attributed to a recent increase in life expectancy at birth, which rose from 31.3 years in the beginning of the 1950s to 50.2 years in 2010 (see Figure 3).

In a recent study, Sugahara and Francisco (2012c) called attention to the fact that, in the next 50 years, the older population in Mozambique will increase from just over a million people to about nine million in the 2070s (see Figure 4)[12] while the old age dependency rate[13] is expected to increase from just over five per cent to more than 12 per cent. It is important to have in mind that the concept of 'old age dependency' may not be accurate in Mozambique, where the vast majority of older people, as well as children, work as much as adults.

12 This is in keeping with UN estimates that the older population will reach around 10 million by 2080.

13 The old age dependency rate refers to the proportion of the older population, conventionally considered economically inactive, as a share of the population aged between 14 and 65, conventionally seen as the 'working-age' population.

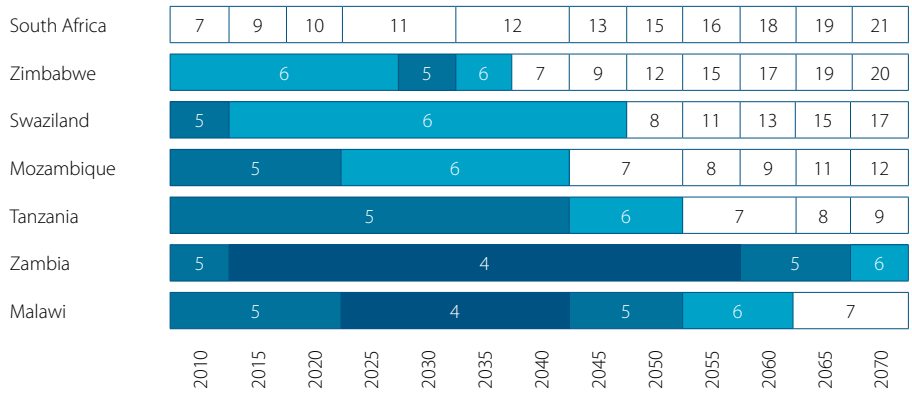
Figure 4 – Older population and the old age dependency rate, Mozambique (1975–2075)



Source: UN 2010

In the context of southern Africa, Mozambique already has the third largest population of older persons in absolute terms (Sugahara and Francisco 2012a). Figure 5 highlights the expected number of years required for the proportion of older people to increase over time, and how this change compares to some neighbouring countries.

Figure 5 – Percentage of the population aged 60 and over: multiple countries



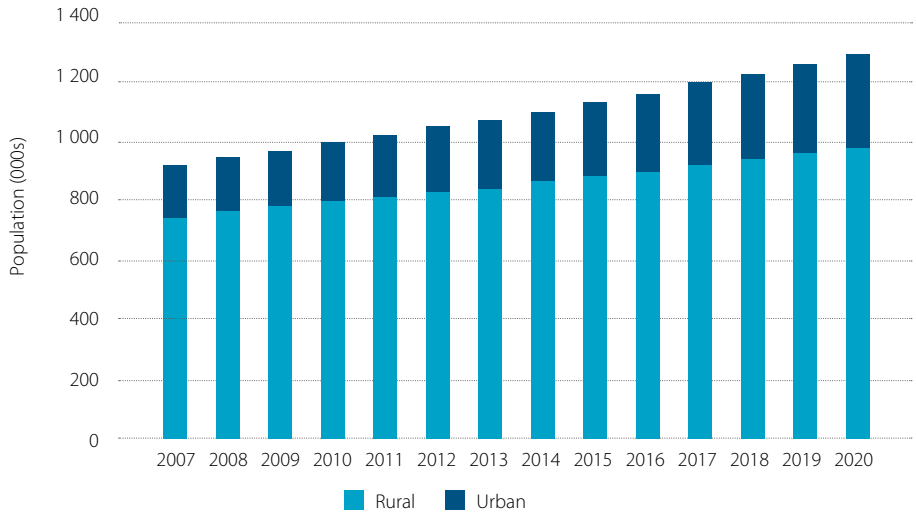
Source: UN 2010

It took more than 70 years (a period not represented in Figure 5) for the proportion of people aged 60 and over in Mozambique to surpass five per cent of the total population. However, after that, a more rapid acceleration is expected: it will take about 20 years to reach six per cent, a further 10 years to reach seven per cent, and only five more years to reach eight per cent. That is, during the next half-century, the share of older people in the population will grow exponentially. This fact is consistent with the successive doubling of the older population, as shown in Figure 4.

3. The challenges of growing old in Mozambique

One of the most striking features of population ageing in Mozambique is that this phenomenon is occurring with greater intensity in rural areas. While in developed countries older populations are over-represented in cities, most older Mozambicans live, and are expected to continue to live, in rural areas (INE 2010a).

Figure 6 – Mozambique: evolution of the older population (2007–2020)



Source: INE 2010

Figure 6 shows population projections for urban and rural areas for the years 2007 to 2020 (INE 2010). Although the growth rate of the older population in urban areas is much higher (0.8 per cent, compared to 0.23 per cent in rural areas), it is expected that in 2020 about 75 per cent of the older population will continue to live in rural areas. Currently around 80 per cent of older people, and 71 per cent of the total population, live in rural areas.

To get an idea of the overal situation in rural Mozambique, a good starting point is the *Censo Agro-Pecuário* (CAP), or Census of Agriculture, published by INE. The data shows that, of the 3.8 million farms in Mozambique (with an average farm size of 1.5 hectares), only two per cent, or 88 000 farmers, had access to credit. Only four per cent used fertilisers, three per cent used pesticide, and about five per cent had irrigation systems. A significant proportion of farms that use modern production techniques and have some access to credit are located in the region of

Tete, which gives a strong indication that these resources are associated with tobacco production. This is relevant because it shows that the majority of farmers in Mozambique do not use modern inputs, which are used by commercial farms (INE 2010b).

Most of the land in Mozambique is still used for food production, but, according to the CAP, 1.6 million rural properties, or 42 per cent of the total, were not able to produce enough food to feed their families in the period of the survey, resulting in these households consuming less food than they were accustomed to.

Given the observed increase in rural poverty in Mozambique in the first decade of the twenty-first century (Cunguara and Hanlon 2010; Francisco and Muhorro 2011), it is easy to understand the difficulties and increased vulnerability facing farmers.

Although 15 per cent of small and medium-sized farms are headed by individuals aged 60 and over, only one in three heads were women (see Table 2). This is an interesting issue, which deserves to be pursued in future research, as data suggest that the gender difference in heads of farms reduces with old age. Around a quarter of heads of farms aged between 20 and 40 are women.

Table 2 – Small and medium farms by gender and age of head

Age group	Female 000s	Female %	Male 000s	Male %	Total 000s	Total %
10–19	26.0	2.5	36.1	1.3	62.1	1.6
20–29	191.5	18.2	584.0	21.0	775.5	20.3
30–39	273.4	26.0	797.9	28.8	1 071.3	28.0
40–49	199.9	19.0	597.3	21.5	797.2	20.8
50–59	168.1	16.0	382.0	13.8	550.1	14.4
60–69	120.4	11.5	233.5	8.4	353.9	9.3
70–79	52.1	5.0	108.4	3.9	160.4	4.2
80–89	17.6	1.7	32.1	1.2	49.7	1.3
90+	2.6	0.3	4.1	0.2	6.7	0.2
TOTAL	1 051.7	100	2 775.2	100	3 826.9	100

Source: INE 2010b

While the distribution of the world population is relatively equal with respect to gender, women are overrepresented in the population aged 60 and over. According to the World Economic and Social Survey (WESS) (UN 2007: 26), for every 100 older women in the world, there are 82 older men.

Not only is the probability of women surviving until the age of 60 higher than for men, it was also found that life expectancy at 60 is greater for women. As a consequence, the proportion of women tends to increase substantially as we move into the older ages.

In Mozambique, this phenomenon is not as apparent. Older women outnumber men in all age groups, but, contrary to what has been observed for the global population as a whole, the ratio tends to decline among all age brackets aged 60 and over, with the exception of the older group, that is, those aged 80 and over, where the proportion of women continues to increase (see Table 3).

Table 3 – Gender ratio of the older population (men per 100 women) by age group

Age	2010	2050
55–59	98.8	99.0
60–64	98.8	99.0
65–69	98.7	99.0
70–74	98.7	98.8
75–79	98.6	98.5
80+	98.4	98.2

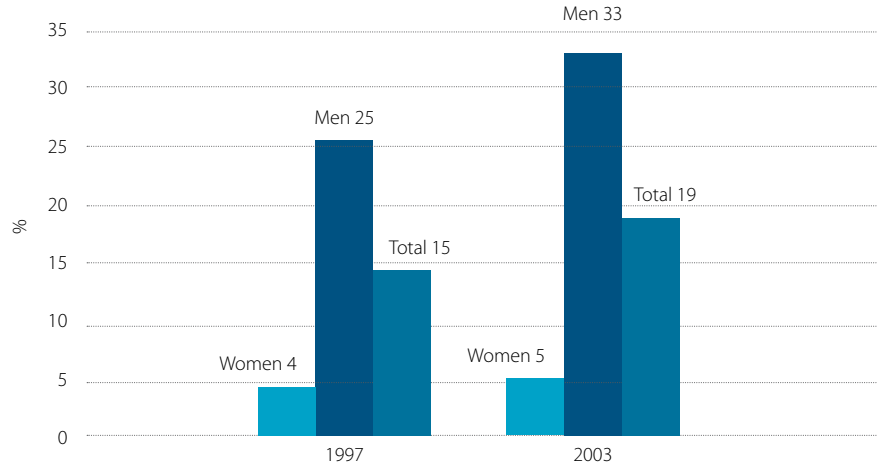
Source: INE 2010b

The fact that the proportion of older women is not much higher than that of older men is related to the fact that Mozambique is still in the initial stages of demographic transition, as explained in the previous chapter. The proportion of older men in relation to older women in Mozambique follows the trend generally observed in the developing world, where gender gaps do not entail large discrepancies concerning the life expectancy of individuals.

The search for a more complete perspective on gender differences within the older segment of the Mozambican population is therefore a major challenge for the country with clear impacts in terms of public policies.

Figure 7 shows the literacy[14] rates among older people in Mozambique, giving another example of the disparities between men and women. Even if we do not intend to deepen this part of the analysis at this stage, it is important to recognise gender inequality among older Mozambicans.

Figure 7 – Literacy rate among older people (1997 and 2003)



Source: UNESCO Institute for Statistics http://stats.uis.unesco.org/

14 The concept of literacy used here is the same as that used by UNESCO, which defines literacy as the ability to read and write, with understanding, a simple statement related to daily life. It is a continuum of reading and writing, and often includes basic arithmetic skills.

4. Households with older people

As the households will be the main unit of our poverty analysis, it is worthwhile exploring some basic figures regarding their composition and location.

Table 4 shows the share of households by different characteristics. Whilst women represent more than 50 per cent of the total population, only 31 per cent of households were female-headed in 2007.[15] A similar pattern occurs in both urban and rural areas if analysed separately.

Table 4 – Household composition by urban and rural areas (% of all households) (2007)

	Total %	Urban areas %	Rural areas %
Male-headed	68.9	70.6	68.2
Female-headed	31.1	29.4	31.8%
Older person-headed (60+)	14.3	11.2	15.5
Older person-headed (66+)	9.7	7.2	10.7
Older person-headed (70+)	5.9	4.3	6.6
With older people (60+)	17.2	14.6	18.2
With older people (60+) and children (0–14)	10.0	9.4	10.3
Without working-age members (15–59)	5.5	3.3	6.4

Source: INE population census 2007

The 2007 census also reveals that 17.2 per cent of households in Mozambique have at least one older person. This fact should be retained as we discuss the wider impact of public policies focused on older people.

Another important characteristic of Mozambican households is the fact that 10 per cent of households include both an older person (those aged 60 and over) and at least one child (aged between 0 and 14). Only 5.5 per cent are skipped-generation households (without members aged between 14 and 59) or child-headed households, which may constitute one of the most vulnerable groups in the country.

Table 5 explores the gender differences among households with older people. Table 5 shows that it is much more common to find older women living alone than men (11 per cent, compared to four per cent of older men). Another striking find is that 10 per cent of households with an older person do not have a working-age household member. The percentage of older women living with children only is more than the double than that of men: seven per cent and three per cent respectively.

15 The head of the household is the main authority and has principal responsibility for the economic decisions of the household.

Table 5 – Living arrangements of older people in Mozambique (2007)

	Male		Female		Total	
	Number	% of all older people	Number	% of all older people	Number	% of all older people
Older people	438 761	47	498 100	53	936 861	100
Older people living alone	36 754	4	105 146	11	141 900	15
Older people living with spouse	126 679	14	129 997	14	256 676	27
Older people living with spouse only	36 220	4	36 220	4	72 440	8
Older people living with children	270 955	29	273 837	29	544 792	58
Older people living with children without working age members	27 173	3	66 149	7	93 322	10

Source: INE population census 2007

It is also important to notice that IOFs have limited capacity of disaggregation when it comes to the age and gender of the individuals. This limitation derives from the fact that IOFs collect data from a relatively small number of older people. This means that further disaggregation results in datasets too small to return statistically significant results.

Table 6 – Composition of households with older people (2007)

	Older-headed households %	With older people %	With older people and children (0–14) %	With children and older people only %
Niassa	12.3	14.1	8.6	4.8
Cabo Delgado	14.0	17.3	9.2	5.2
Nampula	12.6	14.2	8.1	5.4
Zambézia	11.9	13.6	7.3	4.8
Tete	14.2	16.0	8.9	5.7
Manica	14.5	18.5	12.5	4.1
Sofala	14.1	17.6	11.2	4.1
Inhambane	24.5	29.2	15.8	11.4
Gaza	22.2	29.4	18.1	9.5
Maputo Province	15.0	19.6	12.0	5.5
Maputo City	11.4	16.0	11.3	1.9

Source: INE population census 2007

The regional differences can be even more pronounced. In Inhambane and Gaza, for example, households with only older people and children represented 11.36 per cent and 9.48 per cent of the provinces households respectively (see Table 6). In each region there are more households with both older people and children than there are skipped-generation households, with pronounced differences between regions. In Zambézia 7.29 per cent of households contain both older people and children, while in Gaza this number is close to 20 per cent (see Table 6). The number of households with older people outstrips the number of households headed by older people in each region.

Without more, in-depth research it is not possible to identify the root of these regional differences. The objective here was simply to raise the issue, and to use this background information to support the forthcoming poverty analysis.

PART II

Are older Mozambicans less poor than the rest of the population?

Are older Mozambicans less poor than the rest of the population?

> "How can we say we are respected when we are called witches?
> *Rural Mozambican (UNFPA and HelpAge International 2012: 152)*"

Even though poverty is a generally acknowledged idea, its conceptualisation in terms of indicators and its use in policy-making is a complex and controversial issue. The conceptual debate has a long history and is furthered by the development of new tools and methods.[16]

But, while poverty is a complex concept, it is clear that it has a large effect on the population of Mozambique and is one of the most important challenges facing public policy in the country. One of the most common indicators to measure poverty is the poverty headcount, which aims to measure the number of people living below a determined poverty line. Official national poverty estimates for Mozambique measure a household's ability to satisfy its most basic needs by measuring its consumption. The consumption-based poverty headcount is based on the IOF, which is conducted by INE and the Ministry of Planning and Development every six years. The third, and most recent, survey was conducted in 2008/2009 (Alfani et al. 2012; DNEAP 2010).

'Consumption' includes both food and non-food items but omits public services and home-produced services. A cost of basic needs methodology is then applied. This approach consists of the development of a basket of food items that is judged sufficient for basic caloric needs (the calorie content of each basket depends upon the demographic composition of the region, but averages approximately 2 150 calories per day in Mozambique). The cost of this basket represents the food poverty line (DNEAP 2010).

A non-food poverty line is obtained by examining the share of total expenditure allocated to non-food by households living near the food poverty line. The overall poverty line is then calculated as the sum of the food and non-food poverty lines. As stressed by Kelly (2011) the poverty line represents an extremely basic standard of living.

Haughton and Khandker (2009) note that the greatest virtues of the headcount index are that it is simple to construct and easy to understand, but on the other hand the measure has at least three weaknesses: (i) the headcount index does not take the depth of poverty into account; (ii) the headcount index does not indicate how poor the poor are, and hence does not change if people below the poverty line become poorer. Moreover, the easiest way to reduce the headcount index is to target benefits to people just below the poverty line, as they require the lowest

16 For a more comprehensive debate see: Hunt et al. (2004), Anand and Sen (1997), Alkire and Foster (2011), and Estivill (2003).

investment to become 'non-poor'. But by most normative standards, people just below the poverty line are not those in greatest need; and (iii) the poverty estimates should be calculated for individuals and not households. If 20 per cent of households are poor, it may be that 25 per cent of the population is poor (if poor households are large) or 15 per cent are poor (if poor households are small).

The methodology adopted by the government of Mozambique is to base their national poverty line on province-specific food baskets, an approach which has been recently challenged in a study published by the World Bank. According to Alfani et al. (2012) the government's official poverty figures systematically overestimate poverty rates in Mozambique's southern provinces and urban areas while simultaneously underestimating the prevalence of poverty in the country's central and northern regions and in rural areas nationwide.

The same authors recognise that measurement errors are always present in household survey data, but in a recent study, Carr-Hill (2013) goes even further. Presenting a critical perspective on poverty analysis, Carr-Hill sheds light on the limitations of household survey data for obtaining information about the poorest of the poor because they omit, by design, the homeless, those in institutions, and mobile, nomadic or pastoralist populations.

Having this debate in mind, we opted for a mixed approach to investigate old age poverty. Considering the lack of information about the living conditions of older Mozambicans we decided first to build indicators that can be directly comparable to existing, official data, both nationally and internationally: (i) the Official Poverty Line (OPL) calculated by the government of Mozambique (DNEAP 2010); (ii) the Recalculated Poverty Line suggested by the World Bank (RPLWB)[17] (Alfani et al. 2012); and (iii) the 'international poverty line', which currently stands at USD1.25 (PPP) per day (UNDP 2013).

Using consumption as a measure of poverty has value, but it is influenced by both short- and long-term factors. A comparatively better-off household who had recently experienced a financial shock, for example, may choose to constrain consumption in the short term. For this reason, consumption data should be complemented by a measure which gives a sense of a household's income level over the medium and long term.

For many households, investment in assets, which can provide a buffer against unexpected shocks and stresses as well as lead to economic benefits, is important. It would be reasonable to assume that older people, with more years to save and accumulate assets, would own more assets than the rest of the population. Is this the case in Mozambique?

Before seeking to answer this question by exploring available data, it should be recognised that the above hypothesis ignores historical events and contexts (for example, war, economic crises, the impact of public policy on different population groups, etc.). These influences can hardly be captured by the statistical data of censuses and national surveys.

17 In this study, the poverty rate is calculated based only on the dataset of the IOF, while the World Bank's analysis of poverty derives from the results of both the IOF data and INE's 2007 population census. Therefore, there is a slight difference between the indicators obtained here and the results of the World Bank study, but essentially the methodology and poverty line are the same as those used within the World Bank's study.

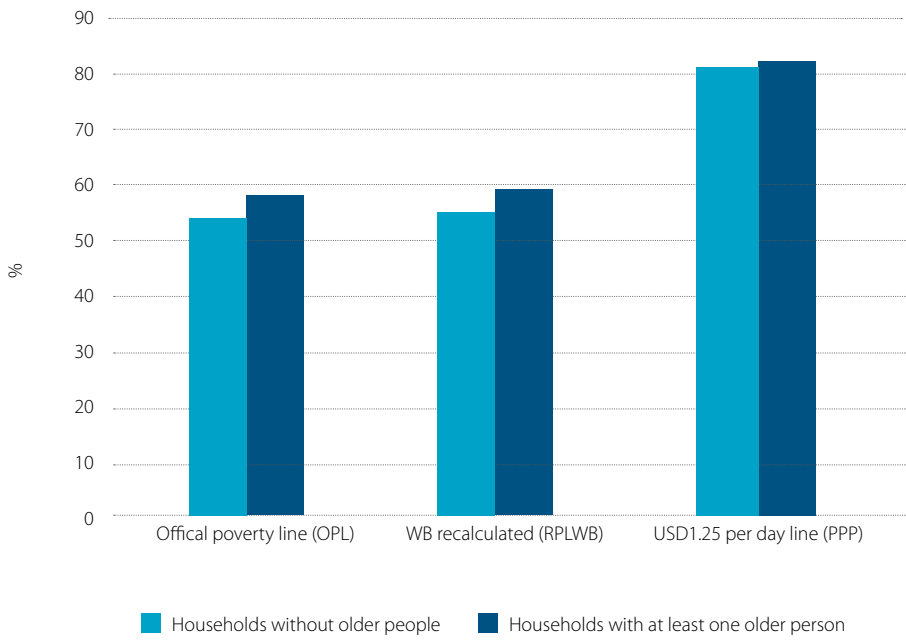
5. Consumption-based poverty estimates

Poverty in general remains high in Mozambique. Using the OPL, more than 54 per cent of the population are poor (Alfani et al. 2012; DNEAP 2010). As we shall see, this percentage can change when different methodologies are applied.

Figure 8 compares the 2008 poverty rates of households with and without older people using the three poverty lines – OPL, RPLWB and the international poverty line. In all three cases households with older people are poorer, on average, than households without. This difference is distinct across all methodologies.

According to the OPL, as used by the government, 58 per cent of households with older people in Mozambique are living below the poverty line, compared to 54 per cent for the population in general. Using the RPLWB returns similar results, with poverty rates of 60 per cent for households with older people and 55 per cent for households without. The RPLWB also results in a slightly wider gap (1 percentage point) between the two groups (Alfani et al. 2012).

Figure 8 – Poverty headcount rates: households with and without older people (2008)



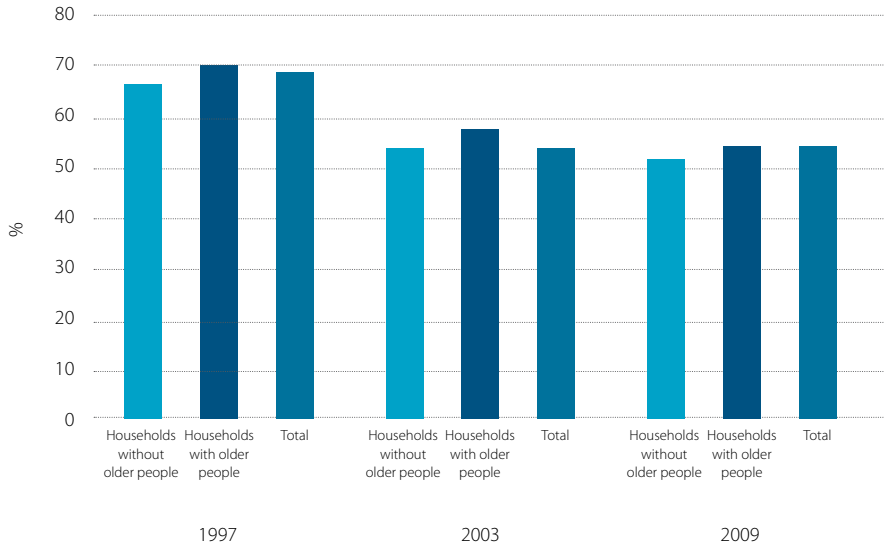
Source: IOF 2008/2009

Differences in the poverty rates of households with and without older people are less pronounced when considering the international poverty line of USD1.25 per day (PPP). 82 per cent of households with older people, compared to 81 per cent of households without older people, were found to be below the international poverty line.

While poverty in 2008 remained high, it demonstrates an improvement over the previous decade. Using the OPL, Figure 9 compares poverty rates for households with and without older people in 1997, 2003 and 2008.

Figure 9 shows a significant decrease in the number of households living below the poverty line, reducing from 67 per cent in 1997 to 54 per cent in 2003.[18] The percentage of households both with and without older people under the poverty line decreased during the same period. This reduction, however, was slightly less pronounced for households with older people, going from 70 per cent in 1997 to 58 per cent in 2003. From 2003 to 2008 this trend of poverty reduction slowed dramatically, with households with older people continuing to be poorer than the rest of the population and the gap between households with and without older people virtually unchanged.

Figure 9 – Poverty headcount rates (OPL): households with and without older people (1997, 2003 and 2008)



Source: IOF 2008/2009

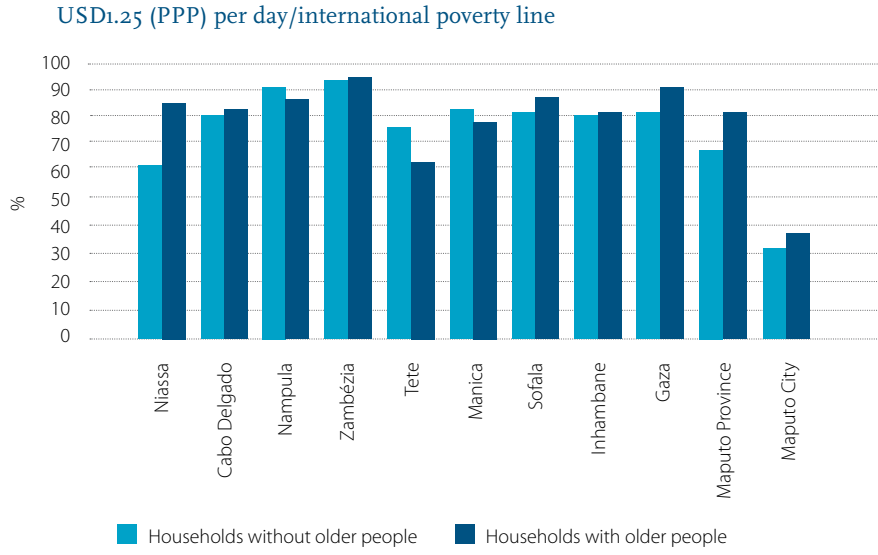
That the size of the poverty gap remains the same, while the population of older people in Mozambique is increasing, suggests that those entering old age are no better off than the existing cohort of older people. It suggests that while the older population of Mozambique is growing bigger, it is not growing richer – which will have significant impacts on poverty rates in the future. At a national level, this lack of improvement in the living standards of older Mozambicans may be one of the main contributing factors to the slow rate of poverty reduction seen in the last decade.

18 Between 2003 and 2008, the poverty rate remained the same, at 54 per cent.

The geographical size of the country, which covers around 801 590km^2, and the large differences between regions in terms of population density and economic development, have also influenced poverty rates.

Figure 10 uses three poverty lines to compare the poverty rates of households with older people to households without older people in the 11 provinces of Mozambique. Once again, we find that the international poverty line returns noticeably different results to both the OPL and the RPLWB. However, we also find large differences in the poverty rates of Zambézia, Tete and Gaza when comparing the OPL and RPLWB.

Figure 10 – Poverty headcount rates: households with and without older people by province (2009)



Source: IOF 2008/2009

Using the OPL, Zambézia, Mozambique's most populated province, and Maputo Province stand out as having the highest rates of households living below the poverty line. In both cases, the share of households with older people living below the poverty line is higher than that of households without older people. More broadly, this was the case for eight of the eleven provinces.

Sofala, Gaza and Maputo Province stand out as having a higher than average share of households living below the poverty line. It is also notable that, in these provinces, the percentage of households with older people living below the poverty line is markedly higher than for households without older people.

However, we find that this pattern is not repeated across all provinces. In the provinces of Tete and Manica, in the interior of Mozambique, households with older people are less poor than other households. This is an interesting finding which should be explored in future research projects.

Moving beyond provinces, we find that the poverty rates of urban and rural areas can vary greatly. Figure 11 compares the three poverty lines for households with and without older people in urban and rural areas.

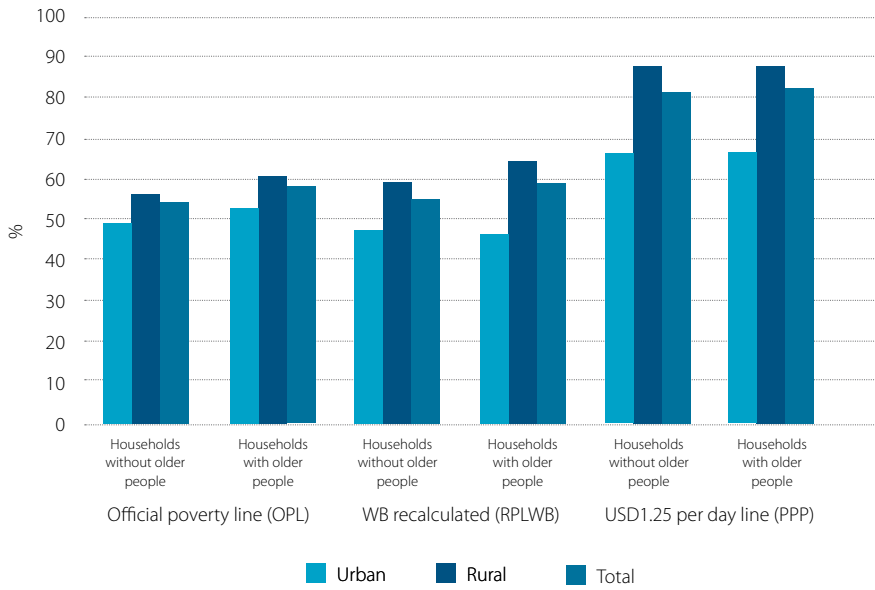
Figure 11 shows that the difference in poverty levels between households with and without older members is larger in rural than in urban areas. Households with older people have higher rates of poverty in rural areas as compared to households without older people.

Using the OPL, 60 per cent of households with older people living in rural areas are below the poverty line, while for the households living in rural areas without older people this figure was 56 per cent.

While inequalities between the urban and rural contexts are generally acknowledged, we now have strong evidence of inequality between different age groups which may contribute to poverty in Mozambique.

To sum up the main findings of this section, we highlight the fact that consumption-based poverty headcounts have shown that, in Mozambique, households with older people are in general poorer than the rest of population, and this is amplified when those households are located in rural areas.

Figure 11 – Poverty headcount rates: households with and without older people by urban/rural area (2008)



Source: IOF 2008/2009

6. Well-being and poverty: the asset index (durable goods)

Using data from the 2007 population census, we created an indicator based on Morris' methodology. For each household in the census, a dummy value was attributed which took into consideration the presence, or absence, of assets.[19] A value of 1 was attributed when the presence, or possession, of a good quality asset was verified. The value of 0 was attributed in all other situations.

The Morris Index is then calculated as the sum of these variables (X) multiplied by a weight (W) equal to the inverse of the mean of the variable (i.e. the frequency with which the dummy variable reports a 1).

$$Morris\ index = \sum_{i=1}^{N} X_i * W_i,\ where\ W_i = \frac{1}{X_i}$$

This methodology provided us both with an alternative proxy to analyse poverty, but also the opportunity to examine poverty using a different data source, the 2007 population census, which provides more precise geographical information than IOFs. It also important to recognise that this method depends on assumptions, the implications of which will be discussed later.

Due to limitations within the data sources used, the aim to assess the assets of households can only be partially realised. The available data has no information about important assets such as land, real estate or financial assets. For this reason we distinguish between 'assets', as found in the literature, and 'durable goods'. Here, where we refer to the basket of assets, we are referring only to durable goods and not to the broader range of goods which incorporate assets.

As previously explored, while consumption-based poverty measures can contribute to a better understand of older people's well-being, they also have a number of limitations.

Likewise, the Morris Index, as explained above, also has its limitations. It might, for example, view assets with different qualities as equal, or disregard important regional differences in terms of the cost of living. It also assumes that the distribution of assets among household members is equal, while general perceptions suggest that older household members receive less, or decide to give more to younger members.

The choice of which assets to consider also has an important impact on the results. In Mozambique, for example, we could not use financial assets for a number of reasons, including low coverage of bank accounts, or land assets, as the Mozambican constitution prohibits private ownership of land.

19 Assets included water sources, wall materials, floor materials, roof materials, toilets, electricity, vehicles, radios, computers, bicycles, televisions, cattle, sheep or goats, and chickens.

The Morris Index may also give us a different perspective in terms of time. Consumption-based poverty measures have a strong short-term view; that is, they analyse the consumption of the household in that particular year. The assets approach, then, may have the advantage of a more long-term view. Consumption-based measures are less influenced by the events of the one or two years prior to data collection. An unusual event, for example a particularly bad crop, may have a strong influence on survey results. For assets, however, the impact of such unpredicted events is less influential.

6.1 National similarities, local and regional disparities

Table 7 compares the percentage of households with and without older people according to asset quintiles. The first quintile represents the 20 per cent of the population who have the fewest assets, while the fifth quintile represents those who have the most assets. It is commonly assumed that, having lived longer, older people would have more capacity to accumulate assets and, therefore, that households with older people would have more assets that the rest of population. Table 7, however, demonstrates that this is not the case.

Households with older people are more likely to be in the first quintile according to the asset index, with 22.8 per cent of households with at least one person aged 60 and over belonging to the poorest 20 per cent of the population. This compares to 19.43 per cent of households without older people. It can be said, in this case, that households with older people have fewer assets than the rest of population.

Table 7 – Distribution of households with and without older people according to assets (2007)

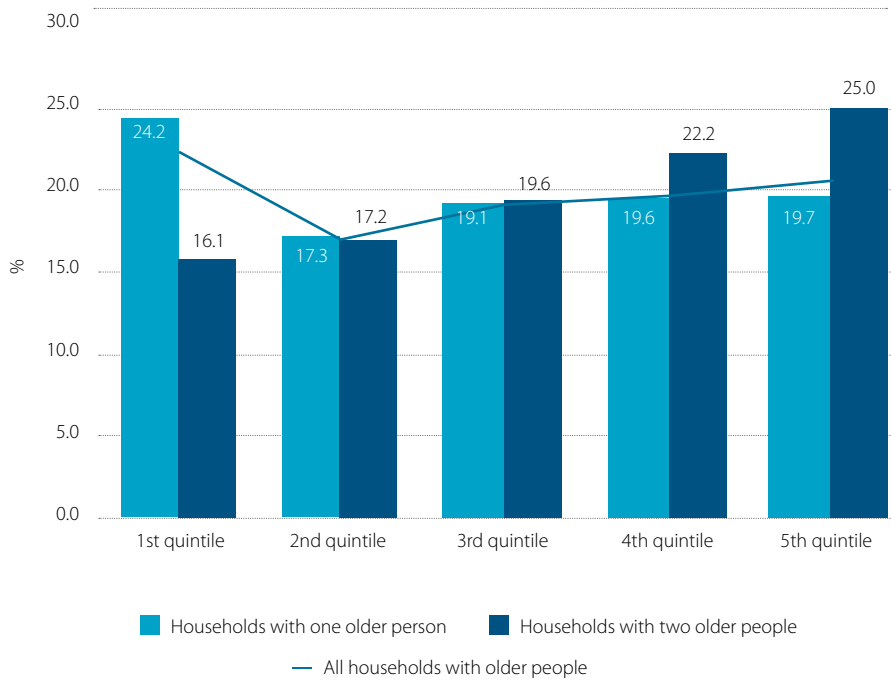
	Without older people	With older people
1st quintile	19.4	22.8
2nd quintile	20.6	17.3
3rd quintile	20.2	19.2
4th quintile	20.0	20.1
5th quintile	19.9	20.7

Source: INE population census 2007

Furthermore, while it may be true that both the first and second quintiles live below the poverty line in Mozambique, households with older people tend to be placed among the poorest of the poor. Households with older people are over-represented in the first quintile but under-represented in the second quintile.

Another interesting observation is that, while households with one older person are generally poorer, in terms of assets, than households without older people, households with two older members are relatively better off. Figure 12 shows that 24.2 per cent of households with one older person are found in the first quintile of the asset index, almost 5 percentage points more than the proportion of households without older people.

Figure 12 – Distribution of households with one or two older people according to asset quintile (2007)



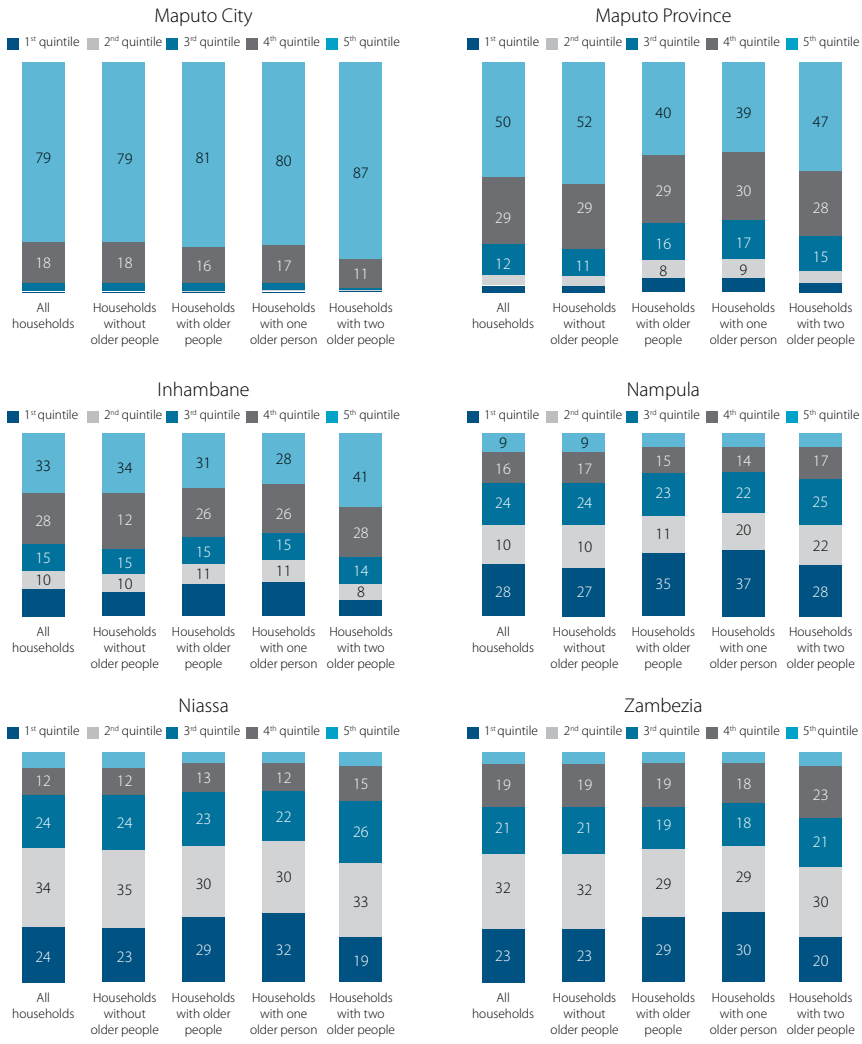
Source: INE population census 2007

At a national level, analysis of welfare and poverty levels, based on household durable goods, led to similar results as found by previous research. However, differences were found when the data is disaggregated by area, for example along urban–rural lines, or by *Posto Administrativo*.[20] Figure 13 illustrates the availability of durable goods six provinces of Mozambique.[21] Our findings, for all provinces in Mozambique, are more consistent with new poverty distribution estimates by the World Bank.

The Morris Index reveals that households with older people are overrepresented in the first quintile at the national level. Moreover, when disaggregating by regional and especially local levels, differences become more evident. For instance, Figure 13 depicts the similarities between Nampula, Niassa and Zambézia. These provinces, however, contrast sharply to Maputo City where households with one or two older people in the fifth quintile own between 80 and 87 per cent of durable goods. Likewise, findings from Maputo Province and Inhambane demonstrate that the fifth quintile of the population own significantly more durable goods than other quintiles, although the disparity is less striking than that found in Maputo City.

20 A *Posto Administrativo* is a government unit of administration – there are several in each district.
21 The six examples presented here were selected to illustrate the most populated provinces, or the most extreme distributions.

Figure 13 – Distribution of households with and without older people according to asset quintiles (2007)



Source: INE population census 2007

6.2 Poverty through an asset-based lens

The Morris Index is part of a growing body of research known as the asset-based approach, which comprises a set of asset indices in welfare analysis to explore living standards in developing countries, which can be seen as a complementary, or even alternative, approach to the per capita expenditure approach. As Morris et al. (2000) point out, this asset-based approach is preferable to an ad hoc inclusion of household characteristics, and is considerably simpler to implement than the more complex methods commonly found within economic research.

One of the biggest advantages of census data is the fact that it provides much more detailed information regarding the location and composition of households. For this reason we now turn to the spatial distribution of households with older people and, within this, the distribution of those in

the poorest quintile as calculated by the asset index. Before advancing with the analysis it is important to bear in mind that: (i) the size of the *Postos Administrativos* do not correspond to population density; and (ii) the first quintile corresponds to a very limited presence of durable goods.

Map 1 in Annex 2 compares the share of households with older people by *Posto Administrativo*. The green areas represent the areas with the highest share of households with at least one older person, while the red areas represent the areas with the fewest households with older people. The map helps us to visualise the huge difference between the south and centre-north regions in terms of household composition. In some areas of Maputo Province, almost 50 per cent of the households have at least one older person (see Maps 4, 5 and 6 in annex 2 for additional images) whereas in some areas of Zambézia and Nampula, the share is as low as 5 or 10 per cent.

There are different hypotheses that may explain this difference, but research published by IDS (2011) sheds light on the huge differences that persist in terms of fertility rates across provinces and regions. Whilst the southern population is already reaching an advanced stage of its demographic transition, with fertility rates close to the population replacement rate, the north has experienced an increase in fertility rates.

Map 2 in Annex 2 combines household composition with data from the asset index. It demonstrates the density of households with older people that also belong to the first quintile of the asset distribution; in other words, the households with the fewest assets.

The map gives a different perspective, not only for regional differences, but also for differences within the provinces. It reveals a strong difference between households in the centre-north region and the south.

On the coastal strip in the north of Mozambique more than 45 per cent of households with older people belong to the first quintile of the asset distribution, while less than 15 per cent of household with older people in the south belong to the first, or 'poorest', quintile.

In Cabo Delgado, the northernmost province of Mozambique, the share of households observed in the first quintile was 30 per cent, but when we consider only households with older people, this share increases to 34 per cent, while for the households without older people the share is 29 per cent (see in Table 16 in Annex 2).

Another example is Niassa, which shares an eastern border with Cabo Delgado, where the difference is even greater. The share of households with older people in the first quintile is 5 percentage points higher than the share of the total population of the province (see Table 23 in the annex).

The map also reveals that almost 30 per cent of households with older people in the central, coastal province of Zambézia belong to the first quintile. While the share of households with older people in Zambézia is smaller than that found in southern provinces, it is important to remember that it is the most populated province in Mozambique, and also the province with the greatest number of older people in absolute terms (see Table 26 in Annex 2).

Finally, Map 3 demonstrates the difference between the share of households with older people and the total population belonging to first quintile of the asset index. The areas in red represent a difference ranging from between 1 and 10 percentage points. In other words, households with older people are more likely to be extremely asset poor than the general population. The few green *Postos Administrativos* shown in Map 3 represent the opposite, that is, situations where households with older people are better off than the general population.

PART III

Universal old age pension as a developmental tool

Universal old age pension as a developmental tool

> Benefits meant exclusively for the poor often end up being poor benefits.
> *Amartya Sen (in Van de Walle and Nead 1995)*

Mozambique is now at a crossroads. No longer a 'donor darling', there is a growing sense of collective anxiety regarding the potential financial resources from the exploitation of natural reserves of gas, coal and other natural resources.

At present, the debate on social protection in Mozambique is trapped, both by a dominant and particular idea of social protection and by the general assumption that there are limited fiscal resources. We will return to this debate later, but this idea is commonly associated with the taxation of natural resources, which has been seen by some as the ultimate solution for all of Mozambique's problems.

Social pensions[22] have been used as a successful policy tool to reduce poverty and promote development. By preventing people from falling into poverty and empowering those who are poor to escape the poverty trap, social pensions are now generally acknowledged as a fundamental tool to promote sustainable and resilient economic growth (Holzmann et al. 2009; ILO and IMF 2012; IMF 2011).

There are many examples of successful social pensions from around the world. From the Old Age Grant in South Africa, The Rural Social Insurance Programme in Brazil, to The Universal Coverage Scheme in Thailand, the decision to invest in social pensions has proven to be an effective choice to strengthen the economy while reducing poverty (Holmqvist, 2010; Holzmann et al. 2009; Lee et al. 2013; Lv et al. 2011)

Social protection floor for a fair and inclusive globalisation (Bachelet et al. 2011), the report of the Social Protection Floor Advisory Group, is an important landmark for international debate on social protection. Endorsed by the United Nations Chief Executives Board and by the Heads of state and government in the 2010 Millennium Development Summit, it is an integrated set of social policies designed to guarantee income security and access to essential social services for all.

The social protection floor concept is part of a two-dimensional strategy for the extension of social security, comprising a basic set of social guarantees for all (a horizontal dimension), and the gradual implementation of higher standards (a vertical dimension).

The authors call attention to the fact that the concept of a social protection floor is neither prescriptive nor a universal standard. In fact, it is an adaptable policy approach that should be

22 Social pensions are non-contributory cash transfers paid regularly to older people or other target groups.

country-led and responsive to national needs, priorities and resources. We will also return to this discussion later.

With regards to the particular issue of social pensions targeting older people, or retirement-age income transfers, Kakwani and Subbarao (2005) highlight the fact that, in many low-income African countries, three factors are placing an undue burden on older people: (i) the burden on the older population has increased enormously with the increase in mortality of prime age adults due to HIV and AIDS and regional conflicts; (ii) the traditional safety net of the extended family has become ineffective and unreliable; and (iii) in a few countries, older people are increasingly called upon to shoulder the responsibility of the family as they became the principal breadwinners and caregivers for young children.

Kidd and Whitehouse (in Holzmann et al. 2009) also argue that, by not taking into account intra-household distribution of income, aggregate measures hide the fact that older people in non-poor households may also experience poverty. Furthermore, older people are particularly vulnerable to sickness or disability. As they age, they are likely to become even poorer.

Willmore (2007) argues that non-contributory, universal pensions automatically protect an entire population, in a way that contributory pensions, public or private, never can. Beyond that, as noted by Niño-Zarazúa et al. (2010), community involvement utilised in the delivery of small-scale or pilot programmes may well prove unsuitable for large-scale programmes, which once again reinforces the importance of state-led policy responses

Willmore also argues that, strategically, it should be preferable to proceed with universality and a modest pension, rather than with a means test and a generous pension. Currently in Mozambique neither of these approaches is the case (see Box 1), with an inadequate pension provided for a small, and not necessarily neediest group.

In another work Willmore (2004) analyses the universal social pension in Mauritius. The author notes that, although Mauritius ended up with a universal pension by accident and not by design, it demonstrates clearly that basic pensions for all are not only theoretically desirable; they are also affordable and politically feasible in a developing country.

There are several other reasons to advocate for a universal social pension for older people in Mozambique, but we choose to end this section highlighting the potential improvement a universal social pension could have on the lives of rural workers. Benefits paid in rural areas have been found to have three impacts: increased coverage of life insurance, increased household expenditure and increased coverage of agricultural insurance, which generates additional income (Delgado and Cardoso Junior in Camarano 2004: 293–321).

Box 1: Current social protection mechanisms in Mozambique

In the past five years, the government of Mozambique has approved a series of legislative and political documents which frame the national approach to social protection (Selvester, Fidalgo and Tambo 2012). The Regulation of the Law was approved in 2009 (Decree 85/2009) and the National Strategy for Basic Social Security 2010–2014, was approved by resolution 17/2010 by the Council of Ministers (GdM 2010). A pension beneficiary from the contributory system receives on average 8 MZN (USD0.30) daily, that is, USD9 a month (FDC and UNICEF 2011).

The Social Protection Law approved in February 2007 structured the social protection system around three fundamental pillars: (i) The Compulsory Social Security Sub-System, implemented by the Ministry of Work and the Ministry of Finance; (ii) The Basic Social Security Sub-System (BSSS), implemented by the Ministry of Women and Social Action; and (iii) Complementary Social Security, which is operated privately.

The Regulation of the Law was approved in 2009 (Decree 85/2009) and the National Strategy for Basic Social Security 2010–2014 was approved by resolution 17/2010 by the Council of Ministers (GdM 2010).

There are four key areas that make up the national social protection platform.

1. Direct social assistance: This includes cash transfers for indefinite periods (such as the *Programa de Subsídio Social Básico* [PSSB], or Basic Social Subsidy Programme), social transfers for specific periods (such as the *Programa Apoio Social Directo* [PASD], or Programme for Direct Social Action, and social services (such as orphanages, institutional care for older people and so on). These programmes are implemented by the *Instituto Nacional de Acção Social* (INAS), or National Institute for Social Action.

The origins of the PSSB programme go back to 1990, when it was established as part of the Mozambican structural adjustment programme led by the World Bank and International Monetary Fund (IMF) and known as the *Programa de Subsídio de Alimentos* (PSA), or Food Subsidy Programme. The PSA was renamed in 2010 in order to reflect the nature of the programme as a social assistance cash transfer rather than a subsidy to purchase food.

2. Social action in the health sector, including universal access to primary healthcare and other activities that improve good health and well-being. The programmes in this component are managed by the Ministry of Health.

3. Social action in the education sector, including programmes that aim to create an enabling environment for the most vulnerable groups to participate in the education system. This component is managed by the Ministry of Education.

4. *Programa de Acção Social Produtiva* (PASP), or Productive Social Action. Due to the inter-sectoral nature of PASP, which will begin in 2013, these activities will be managed jointly by INAS and the ministries for Women and Social Action, Public Works, State Administration, Planning and Development, Agriculture, and Labour. PASP will target households that are extremely poor but have some labour capacity. It will provide cash for work for limited periods during the year, including labour-intensive public works.

Source: Ministry of Planning and Development | Balance First Half of the Economic Plan Social 2011

7. The historic institutional context of social protection in Mozambique

As demographic trends have shown, sooner or later Mozambican society will have to face the consequences of its longevity gains. Will longevity be an achievement or a burden?

One of the main implications of the demographic transition is that it is making the existing mechanisms to provide income security in old age (for example, having children) unsustainable and unviable. All around the world the process of demographic transition and changes in production modes have boosted the emergence of new social protection mechanisms including contributory and non-contributory pensions.

In 1901, Mozambique implemented a different type of social protection system, the so-called *Repartição Social*, or 'Social Sharing'. Through this system, younger generations contributed equitably to the retirement of the older generation. Over the decades, this system became more comprehensive, before losing, soon after independence, its financial base, both in fiscal and tax terms (Francisco 2010; Francisco et al. 2011; Quive 2007: 14).

More than twenty years after the return of peace in 1992, serious structural challenges due to the overwhelming dependency on the subsistence economy continue to threaten human security. As we have argued in previous research, social protection should be approached from a structuring point of view, *ex ante*, rather than *ex post,* paternalistic and charitable. From our perspective, social protection comprises the set of mechanisms that provide human security, including not only food and income security, but also the prevention of physical and psychological violence (for example, robbery, kidnapping, human trafficking).

Current social security mechanisms and non-contributory programmes in Mozambique have faced serious problems of financial feasibility and sustainability (ILO and IMF 2012; Quive 2007; Wartonick 2009). Despite the relaxation of interventionist public policies over the past two decades, overall households and individuals face serious difficulties in attempting to improve their savings. This may be because improvements in productivity have been slow, despite their relevance to the national economy, in particular in rural areas (Cunguara and Hanlon 2010; DNEAP 2010; Dupraz et al. 2006).

Economic freedom, in the sense of real and equal opportunities for the general population, is extremely limited. The prevailing informal nature of the economy is largely fuelled by strong state interventionism (political, administrative and legal) which frustrates the freedoms and property rights of its citizens. The production base for the effective expansion of employment opportunities is therefore weak.

In this context, financial, fiscal and tax systems face serious constraints to providing a viable and sustainable basis for both public and private social security and retirement mechanisms. Worryingly, these are precisely the mechanisms expected to enable people to accumulate savings, either through joint or individual schemes, over their economically active life span, allowing them to achieve income security in their old age.

From IESE's point of view, informed by our research and analysis, the current focus of the Mozambican government and its international partners on fiscal space entails a rather limited view regarding public policies targeting the older population (ILO and IMF 2012) – a view which is characterised by being charitable and *ex post*, rather than structuring and *ex ante* or aiming to value and strengthen family cohesion and intergenerational relationships (Sugahara and Francisco 2012a).

Arising from the above analysis and other studies conducted by IESE, the issue of a universal old age pension emerges as a potentially important instrument for development, since it will contribute not only to the economy but also to the restoration of bargaining power, prestige and social function that older people enjoyed for thousands of years in Mozambican society. Since the demographic transition upset the balance and sustainability of population growth, the position of older people has changed radically.

7.1 Determining an adequate social benefit in Mozambique

Holzmann et al. (2009) confirm the idea that there is a broad consensus that retirement-age income transfers and, in particular, social pensions have played an important role in reducing poverty.[23] Despite this, only 25 per cent of the world's labour force is covered by mandatory contributory pension systems (Holzmann et al. 2009: 3).

Globally, there are many different social pensions that vary in size and coverage. But if social pensions have been such a success, and enjoy such a wide consensus, why has Mozambique not yet implemented a universal pension scheme? Francisco et al. (2013) argue that debate around social pensions in Mozambique has been inhibited by particular notions about social benefits which see them more as charity than a right. More recently, a focus on the existence, or the creation, of fiscal space to implement social protection has dominated debate.

Clearly, post-independence Mozambique experienced a divergent path from that of its neighbours – Botswana, Mauritius, Swaziland, Lesotho, Namibia and South Africa – who also won independence over the last half century. These countries are now emerging in social protection literature as the most advanced in terms of mechanisms to ensure income security of their older populations. In some cases these mechanisms are universal, covering all older people, while in others they cover only a subset of older people or attempt to complement contributory systems (Emmett 2012; HelpAge International 2012; Kakwani and Subbarao 2005; Moore and Garcia 2012; Niño-Zarazúa et al. 2010; Niño-Zarazúa 2012; Pelham 2007).

In the first half of the 1980s Mozambique was economically and financially insolvent. In February 1984 the Mozambican state failed to pay debt service (Waty 2011). To avoid bankruptcy, or even the complete collapse of the state, the Mozambican government chose to seek international aid donors, having acceded to the Bretton Woods institutions in September 1984.

Waty (2011) considers this date as the beginning of the struggle for economic emancipation. After the international financial rescue in 1984/1985, state aid to Mozambique grew to

23 It is important to notice that social pensions are age transfers not based on retirement. However they are often within the retirement system in high-income countries.

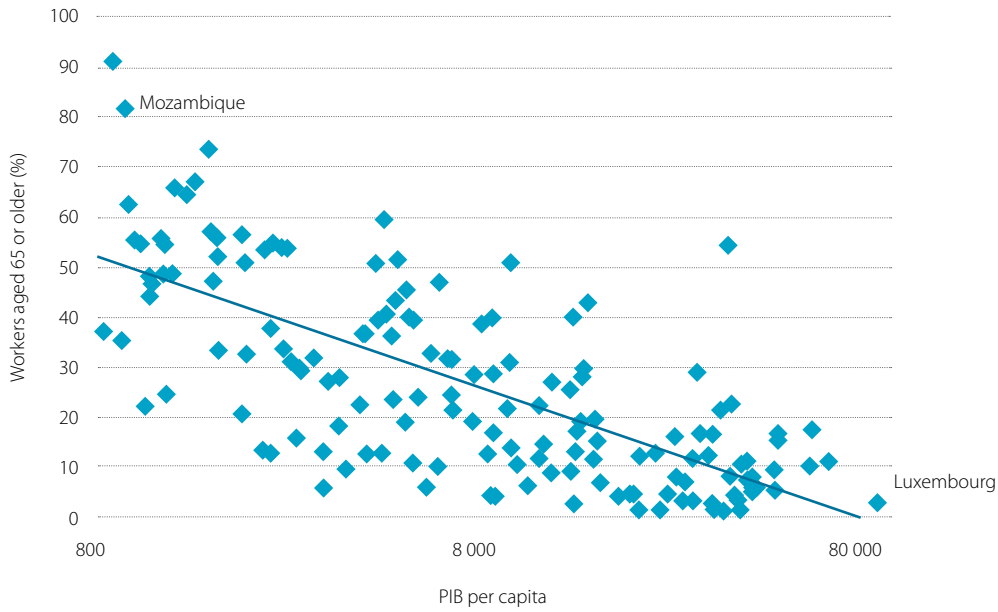
unprecedented levels, becoming virtually unpayable in the late 1990s.

It is within this context of high dependency that the narrative of stability has been forged. Furthermore, it has informed debate on social protection in Mozambique, perhaps contributing to the dominance of fiscal space in the debate.

In this sense, any serious debate about adequate social benefits in Mozambique should not depart from the fiscal space debate and refuse this assistentialist perspective. To take a new angle on the cost of social protection in Mozambique, we should ask: What will the cost be to the country if it decides not to implement a social pension? Can Mozambique afford not to have a social pension scheme?

The low levels of coverage of social pensions in Mozambique, both public and private, have a very clear consequence, as is shown by Figure 14. This figure shows that Mozambique has one of the highest participation rates of older people in the labour force. More than 80 per cent of Mozambicans aged 65 and over continue to work (with diminishing returns on their income), the opposite of what is seen in most high-income countries.

Figure 14 – Relationship between labour force participation of workers over 65, in 2010, and GDP per capita



Source: International Labour Office, LABORSTA 2011

The general productivity of work is still very low in Mozambique and it is still almost impossible for the average Mozambican to produce enough to meet his/her basic needs throughout the year, and even more impossible to think about saving for his/her old age. The consequence is that the majority of Mozambicans have no other option than to work until the day they die.

Challenging the notion that social protection is a 'subsidy to laziness' is important to move forward the debate about the type of society that Mozambicans want. Social protection is fundamental to guarantee a strong and transparent system where both government and citizens have the obligation to monitor and evaluate the use of resources to ensure that they have been well managed and are reaching the intended beneficiaries.

Debates around the adequacy of social benefits are long-standing and heavily disputed. Some argue on the basis of human rights, others try to define minimum biological standards in terms of nutritional need. Furthermore, 'minimum standards' has a social and subjective root, making the task even more complex.[24]

Box 2: Basic Indicators

For 2012, the Mozambican Social Welfare Sector allocated around USD65 million, which is 1.1 per cent of the *Orçamento do Estado* (OE), or State Budget, or 0.4 per cent of nominal GDP for 2012. The budget for social protection programmes (including PSSB, PASD and PSSAS) is USD37 million, which is 0.6 per cent of the OE, or 0.2 per cent of nominal GDP for 2012. The value of PSSB's monthly transfer is around USD5, while the programme covered about 253 000 in 2011, or about 20 per cent of older people. A pension beneficiary from the contributory system receives on average 8 MZN (USD0.30) daily or USD9 a month (FDC and UNICEF 2011).

Basic Indicators:[24]

- Public expenditure on social protection: 3.96% of GDP*
- Public expenditure on health: 3.26% of GDP*
- Percentage of people aged 65 and over who are beneficiaries of old age pension: 19.9*
- Percentage of active population contributing to social security: 1.7*
- Taxpayers registered in social security programmes: 25 683**
- Beneficiaries enrolled in social security programmes: 731 762**
- Beneficiaries of the PSSB: 217 683***
- Beneficiaries of Social Benefit for Work Programme (Social Welfare): 4 029***
- Beneficiaries of the Income Generation Programme (Social Work): 3 089***
- Beneficiaries of Social Services: 15 121****

* Source: ILO | World Social Security Report 2010 (Year: 2006)

** Source: National Institute of Statistics of Mozambique (Year: 2008)

*** Source: Ministry of Planning and Development | Assessment of Economic and Social Plan 2010 (Year: 2010)

**** Source: Ministry of Planning and Development | Balance First Half of the Economic Plan Social, 2011

24 Source: Centro de Informação em Protecção Social www.cipsocial.org/index.php?option=com_content&task=view&id=281&Itemid=122#

8. Expected impact of a universal pension: How much would it cost?

As previous chapters have shown, social pensions have the potential to be a crucial, if not a fundamental, policy for Mozambique. This research has sought to complement the poverty analysis of previous sections with some examples of the cost and impact of social pensions. It is hoped that this will add substance to theoretical considerations within the discussion of social protection.

By focusing on a universal pension, we are avoiding the discrimination which results from the almost random exclusion of most older people. But beyond that, a social pension should aim to provide more than a subsistence level. Furthermore, while a minimum level of support is important, if the value of the pension is tiny or supplied erratically it loses its fundamental value to support, or restore, the individual's ability to contribute and participate actively in society.

To explore the potential cost and poverty impact of a social pension in Mozambique we consider three different scenarios: (i) a scale-up of the current PSSB programme; (ii) a universal old age pension equal to a third of the minimum wage; and (iii) a universal old age pension equal to the minimum wage.

To simplify calculations we set the age of eligibility at 60, as proposed by legislation to protect older people's rights currently in debate in Parliament.

As both the PSSB and the minimum wage provide variable amounts according to household composition, in the case of the PSSB, and different professions, in the case of the minimum wage, we also define a single value for each. Within the first scenario we set the value of the transfer at 500 MZN per month, which is the maximum transfer level available under the PSSB. Similarly, within the second and third scenarios we define the value of the transfers in relation to the 2012 minimum wage for agricultural workers of 2 300 MZN per month. It should be noted that the minimum wage, although relatively low in international terms, appears more generous when compared with the average annual income per capita. The minimum wage for agricultural workers corresponds to an annual income of around 27 600 MZN (around USD930), compared to the gross national income per capita in 2011 of around USD460, or slightly less than half of the minimum wage.[25]

As the most recent data available is from the 2007 census, we deflate these transfer values to 2007 levels before calculating their poverty impact. As our analysis focuses on the household level, the consumption-based poverty headcount assumed an equal distribution between household members. The estimated poverty impact of a universal pension is summarised in Table 8.

25 We use the World Bank Atlas method to convert MZN into US dollars. http://data.worldbank.org/indicator/NY.GNP.PCAP.CD.

Almost half a million people would be immediately lifted out of poverty through the expansion of the PSSB, with a transfer levels of 500 MZN a month, to all those aged 60 and over, at a cost of 1.51 per cent of GDP. This would constitute solely the 'day after' impact of the transfer, and does not take into account other potential impacts associated with behavioural changes; for example in terms of coping strategies, livelihood options and investment in the human capital of younger households members.

Table 8 – Estimated impact of a universal pension on the total population

	Baseline	Scenario 1 (500 MZN/month)	Scenario 2 (766.67 MZN/month)	Scenario 3 (2 300 MZN/month)
Headcount rate (%)	54.7	53.0	52.4	48.1
Reduction in headcount (%)		1.7	2.32	6.58
People escaping poverty (extrapolating to 2013)		423 665	579 182	1 640 587

Source: Authors' calculations

Table 9 – Estimated impact of a universal pension on households with older people

	Baseline	Scenario 1 (500 MZN/month)	Scenario 2 (766.67 MZN/month)	Scenario 3 (2 300 MZN/month)
Headcount rate (%)	58.3	48.6	45.0	20.7
Reduction in headcount (%)		6.09	9.65	33.95
People escaping poverty (extrapolating to 2013)		70 076	111 022	390 475

Source: Authors' calculations

To calculate the cost of these scenarios we use a methodology similar to that used by Daniel et al. (2010). As noted by Daniel et al., data on the administrative costs of social pensions in Africa is relatively limited. However, a universal social pension in Mozambique would benefit from enormous economies of scale compared to the region's mainly small social transfer pilots. For the same reasons as are found in Daniel et al., we use an administration cost equivalent to 5 per cent of the annual transfer value.

Estimates of the financial costs of the three scenarios are presented in Table 10. This estimated cost varies between 1.5 per cent and 7 per cent of GDP. These values need to be contextualised, but both implicit and explicit assumptions will certainly influence any cost or benefit assessment of a universal old age pension.

Table 10 – Estimated cost of a universal pension

	Scenario 1 (500 MZN/month)	Scenario 2 (766.67 MZN/month)	Scenario 3 (2 300 MZN/month)
MZN (million)	6 628	10 163	30 488
USD (million)	221	339	1 016
% GDP	1.5	2.3	7.0

Source: Authors' calculations

In order to assess whether or not the potential costs presented in Table 10 are high, or whether they are affordable or unaffordable, it is essential that assumptions are clearly explained. For example, if cash transfers are framed by a consumption-based approach and aim to address short-term shocks, emergencies or to provide a safety net to the most vulnerable, then the estimated costs presented in Table 10 may seem disproportionate or impractical given current fiscal space in Mozambique.

Another approach would be to compare the cost of a universal social pension to well-known examples of expenditure, such as the recent USD400 million investment in two 'Catembe Bridges' to be built in Maputo. Looking forward, revenue from natural resources may comfortably cover even the highest estimated cost presented in Table 10.

Although this is not the appropriate space to explore this debate in depth, it is important to note that the most relevant comparison to make is between the cost of a universal pension and the cost of the alternative – that is, the cost of the current programmes targeting older people, with scattered, fragmented and non-universal coverage. At this point, the question should be: what is the cost of not investing in a universal social pension?

Evidence and experience from other countries, including neighbouring countries, that have universal social pensions are valuable here. There is a wealth of evidence on the social and demographic impact of social pensions, particularly on their role in supporting a sustainable transition of fertility rates. This matter will be explored further in IESE's future research.

9. Conclusions

In trying to understand population ageing in Mozambique, the authors feel that we have just started to scratch the surface of a huge, complex and mostly unexplored subject. At first glance, it seems that older people in Mozambique face issues of the same magnitude as those facing younger and adult populations. At second glance, however, we find that, while the older population is still small, both in relative and absolute terms, its importance to the demographic and reproductive transition of Mozambique cannot be underestimated.

After applying different and complementary technical and methodological approaches, this study shows that the older population in Mozambique is poorer than the rest of the population. This characteristic is found almost universally throughout the country, although notable differences were found between region, province and *Postos Administrativos*. Gradually, but slowly, more Mozambicans are living longer. However, improvements in life expectancy appear to stand on weak economic ground. Modern mechanisms of social protection in Mozambique are virtually inexistent. This means that the widespread financial networks and means available in more developed countries are not available in Mozambique. Because of this, evidence gathered in this study concludes that, overall, the older Mozambican population has become a victim of its own 'longevity success' – that is – more people are living into old age, but it is an old age without income security.

Any proposal for a universal pension for older people needs to have a strong development rationale. That is, besides providing immediate financial support, a universal pension should have a broader impact, both within recipient households and within society as a whole. A clear aim should be to replace the current social protection system, with its pre-demographic transition roots, with a modern social protection system which is adequate and able to cope with demographic and economic challenges. In this context, the cost and benefits of a universal social pension should be examined and evaluated through comparison with the costs and benefits of existing alternatives, such as: no social pension at all, on the grounds that Mozambique cannot afford them; or a low value pension for a minority, chosen on an ad hoc and subjective basis, with the majority of older people excluded.

The authors hope that the information presented and analysed here represents an important contribution for a better understanding and an improved attitude towards the older population of Mozambique. However, it is important to remember that there is a vast range of issues not covered and thematic discussions left unexplored in this report which may be equally important.

Contributions from all scientific areas are mostly welcome and needed. Teachers, engineers, doctors, lawyers, chemists, business administrators, and so on, should not wait for demographic transition to happen before taking action. They can indeed work to help Mozambicans as the process of demographic transition that is already underway accelerates. It is also important to bear in mind that some of Mozambique's neighbours, such as South Africa and Botswana, have

already made the transition to an ageing society. Why can Mozambique not aim to adapt to this reality better and faster than its neighbours?

This report has highlighted areas that could benefit from further analysis. As previously explored, defining who are the 'old' is not an easy task. This debate needs to undergo a more in-depth exploration in Mozambique. In particular, the following questions could inform debate: how does Mozambican society deal with its older citizens? Do the different religions or beliefs present in Mozambique have different perspectives about older people? What influence do different cultural backgrounds bring to such a diverse country? What is the gender or ethnic composition of the older population? What social issues are most relevant to older people? Moreover, poverty indicators require more in-depth and localised exploration. During research, poverty analysis by *Posto Administrativo* resulted in very complex findings, which could not be fully addressed due to data limitations. These geographical differences in poverty rates demonstrate the need for deeper analysis with potential impacts in terms of policy design. It will also be important to understand the differences that gender brings to the experience of old age in Mozambique, as well as understanding the impact that migration has on households and family composition, and the role played by older people within their households.

Finally, one cannot forget to mention debates around increasing inequality in Mozambique. It is generally acknowledged that more than two decades of relatively high, but uneven, economic growth in Mozambique has not led to a significant or satisfactory reduction in poverty levels. The prevalence of a strong informal sector, alongside uneven economic growth, may go some way towards explaining these apparent inconsistencies (Brito et al. 2010). However, as the poverty analysis provided within this report shows, there are clear differences both in terms of regions as well as along urban–rural lines. These differences demand more systematic research into inequality and the possible opportunities for improving the well-being of the Mozambican population in general, and its older population in particular.

Annex 1: Morris Index as an asset-based approach

The Morris Index

The Morris Index is part of a growing body of research known as the asset-based approach, which comprises a set of asset indices used in welfare analysis as indicators of living standards in developing countries. These indices can be seen as a complementary or even alternative approach to the per capita expenditure approach. As Morris et al. (2000) points out, rather than following either an ad hoc inclusion of selected household characteristics or the more complex approaches customarily encountered in economic research, this asset-based approach, which is intended as a proxy for wealth, is based on a simple weighted sum of the number of different items owned by a household.

The asset-based index is rooted in the assumption that households with greater resources will purchase and own a greater number of durable goods. The indicator uses data on selected household assets, such as durable and semi-durable goods of everyday use, to describe household welfare. The motivation behind the assets-based approach is two-fold: (i) the indicator is based on evidence that income and expenditure measures are incomplete measures of the material wellbeing of households, especially in developing countries where such data may have higher measurement errors; and (ii) an asset indicator can either compensate for the absence of information on household income and expenditure, or it can be used to complement or strengthen the per capita expenditure analysis by utilising data available from household surveys (Filmer and Scott 2008; Morris et al. 2000; Prakongsai 2006; Ura et al. 2010).

Calculation of the index

The Morris Index approach assigns to each item (i) in the list of assets (X) a weight equal to reciprocal of the proportion of households who own one or more of that item (W_i) (i.e. the frequency with which the dummy variable reports a 1), then multiplying that weight by the number of units of asset i owned by the household (X_i), and summing the product over all possible assets. The resulting index proposed by Morris et al. for a household j is then the following:

$$Morris\ index = \sum_{i=1}^{N} X_i * W_i,\ where\ W_i = \frac{1}{X_i}$$

In addition to the asset score, the total value of household assets owned can be calculated by summing – over all assets owned – the reported current values of those assets (*Vi*). This approach is 'based on the assumption that households with greater resources will purchase and own a greater number of consumer durables' (Morris et al. 2000: 383). This weighting of the household assets assumes that households are progressively less likely to own a particular item the higher its monetary value. The authors also found that the household asset core is highly correlated with the household asset values, indicating that two measures classify households in a similar manner.

Data application of the asset index

The asset index is calculated in this study using data from the INE's 2007 population census. For each household in the census, information was gathered on the ownership of 14 different types of asset, ranging from dwelling materials (wall, floor and roof materials), consumer durables (such as bicycles, radios, televisions and so on) and livestock (such as cattle, chickens and so on). So, the following dummy indicators were considered (where 1, for example, equals good materials or the possession of the specific asset, and 0 indicates otherwise):

- Water source
- Wall materials
- Floor materials
- Roof materials
- Toilet
- Electricity
- Vehicle
- Radio
- Computer
- Bicycle
- Television
- Cattle
- Sheep or goats
- Chickens

A few comments regarding this asset index

Morris et al. (2000) gives a satisfactory account on the strengths and weaknesses of this asset-based approach as a proxy for wealth, which is summarised here:

- It lists context-specific household assets to elicit a weighted score, which can be used to identify the poor from the non-poor.
- Most countries have a Living Standards Measurement Survey (LSMS) which is undertaken by the World Bank and adjusted to local circumstances.[26] These questionnaires can be accessed online and used to identify a suitable list of assets.
- However, it does not take into account the most valuable household items due to either absence of information in the survey or difficulty of measurement, or both. These include land, houses, livestock, financial capital and human resources.

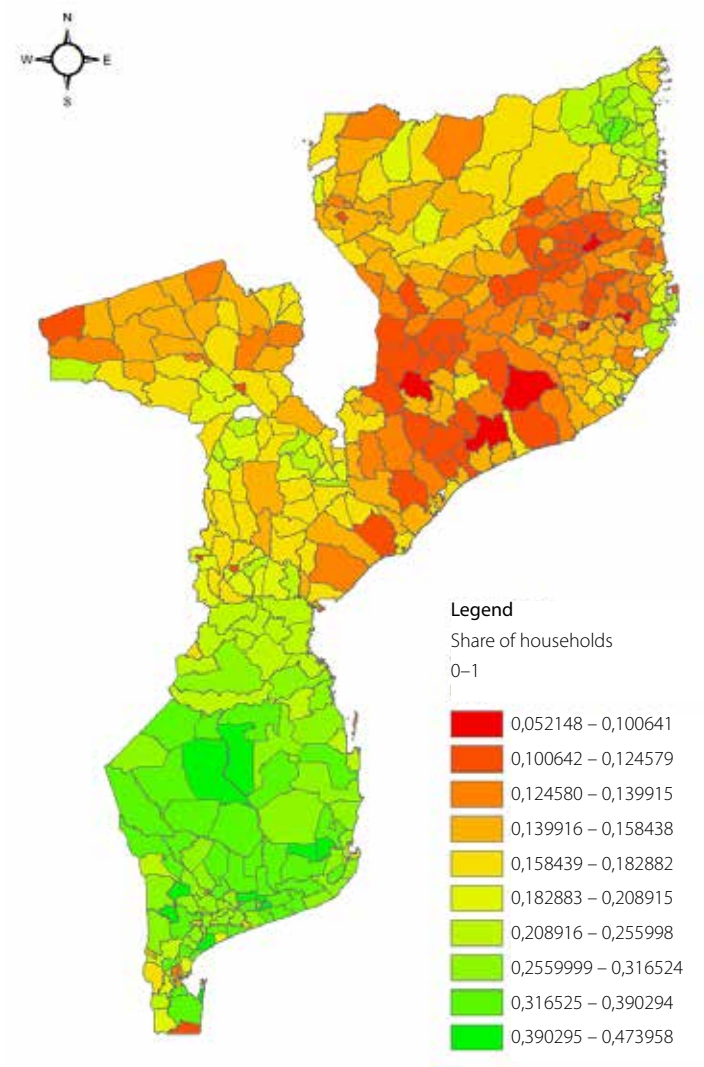
26 http://www.worldbank.org/LSMS/guide/select.html

Housing quality is reduced to physical quality, based on the data provided, but no data is available in terms of housing markets, which are almost non-existent in rural areas of Mozambique. Most dwellings are constructed using household labour and a mix of purchased and scavenged goods, for example metal sheeting and mud, respectively. Consequently, it is rarely possible to attach a monetary value to housing stock. Moreover, INE's census data provides no information on land tenure and the value of land used by the household.

The choice of weighting system for the asset score was based on the assumption that households would be progressively less likely to own a particular item the higher its monetary value. The ability of the household asset score to mirror household asset value was tested by transforming both variables to a log scale to remove the asymmetries in the distributions and then calculating a Pearson correlation coefficient to assess the strength of the association between the two. High values of the correlation coefficient indicate that households are similarly classified by both measures (Morris et al. 2000).

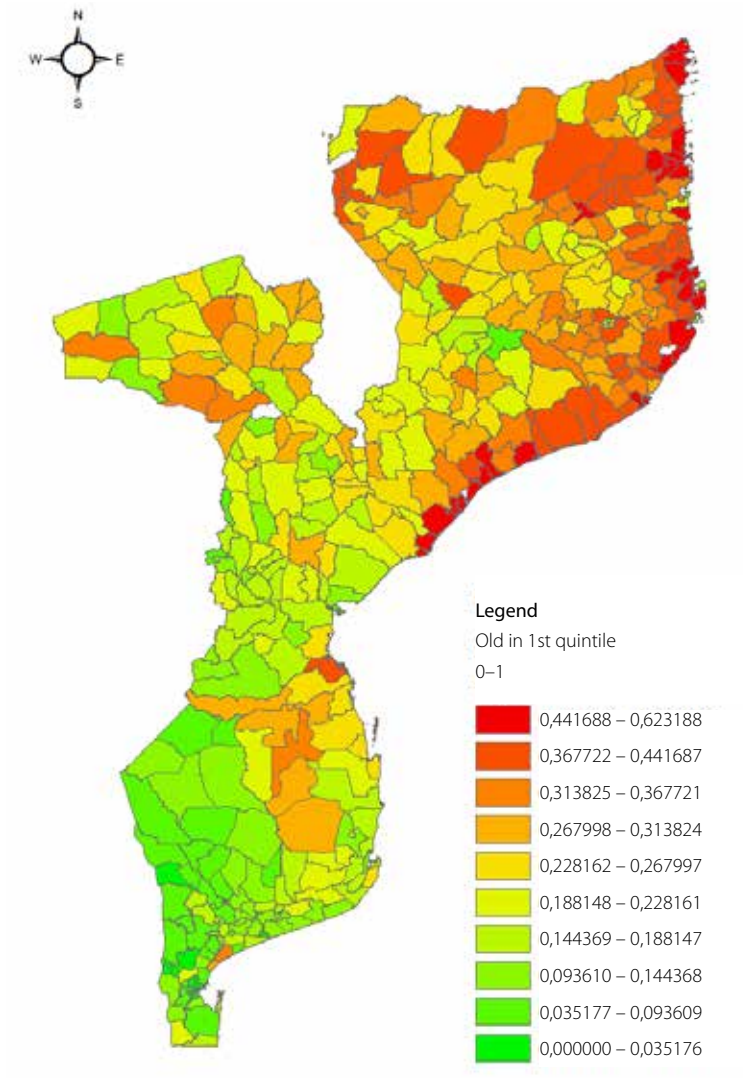
Annex 2: Maps, tables and figures

Map 1 – Share of households with older people, by *Posto Administrativo*



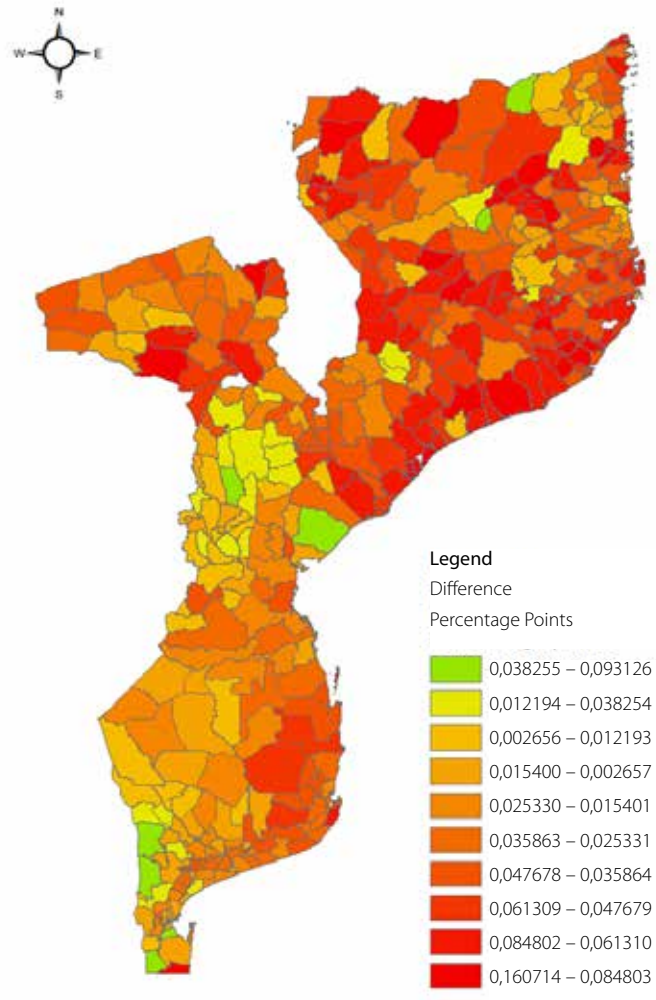
Source: INE population census 2007

Map 2 – Share of households with older people belonging to first quintile of the asset index, by *Posto Administrativo*



Source: INE population census 2007

Map 3 – Difference between share of older people belonging to first quintile of the asset index and the total population, by *Posto Administrativo*



Source: INE population census 2007

Table 11 – Poverty headcount rates: households with and without older people (2008)

	Without older people	With older people
OPL	53.9	58.3
RPLWB	55.2	59.5
USD1.25 (PPP) per day/international poverty line	81.2	82.2

Source: IOF 2008/2009

Table 12 – Poverty headcount rates: households with and without older people (OPL) (1997, 2003 and 2008)

1997			2003			2008		
Without older people	With older people	Total	Without older people	With older people	Total	Without older people	With older people	Total
67.3	69.9	69.4	54.2	58.1	54.1	52.0	55.0	54.7

Source: IOF 2008/2009

Table 13 – Poverty headcount rates: households with and without older people by province (2008)

	OPL		RPLWB		USD1.25 (PPP) per day/ international poverty line	
	Without older people	With older people	Without older people	With older people	Without older people	With older people
Niassa	31.6	34.4	47.8	48.4	70.6	85.1
Cabo Delgado	36.7	40.4	43.3	50.4	80.3	81.9
Nampula	54.8	54.1	59.8	61.6	90.7	86.9
Zambézia	70.3	72.5	57.7	52.8	93.9	94.8
Tete	43.4	28.1	70.9	65.1	76.1	62.4
Manica	56.3	47.4	50.2	48.0	82.6	77.8
Sofala	55.0	68.1	58.9	72.0	81.6	86.7
Inhambane	57.5	58.8	57.8	68.1	79.8	81.4
Gaza	58.5	70.2	38.4	57.0	81.0	90.5
Maputo Province	64.4	79.8	60.2	74.1	67.5	81.0
Maputo City	34.5	42.8	34.7	43.9	31.8	37.3
National	53.9	58.3	55.2	59.5	81.2	82.2

Source: IOF 2008/2009

Table 14 – Poverty headcount rates: households with and without older people by rural/urban area (2008)

	OPL		RPLWB		USD1.25 (PPP) per day/ international poverty line	
	Without older people	With older people	Without older people	With older people	Without older people	With older people
Urban	49.1	52.6	46.9	46.5	66.3	66.6
Rural	56.1	60.5	59.0	64.4	87.8	88.1
National	53.9	58.3	55.2	59.5	81.2	82.2

Source: IOF 2008/2009

Table 15 – Poverty headcount rates: all households by province and urban/rural area (2008)

	OPL	RPLWB	USD1.25 (PPP) per day/ international poverty line
Niassa (urban)	42.2	46.0	71.4
Niassa (rural)	28.9	48.5	72.9
Cabo Delgado (urban)	44.3	47.8	78.3
Cabo Delgado (rural)	35.5	43.7	81.2
Nampula (urban)	49.9	56.1	79.4
Nampula (rural)	56.7	61.7	94.7
Zambézia (urban)	63.6	49.0	83.6
Zambézia (rural)	71.8	58.5	95.9
Tete (urban)	53.0	51.0	78.5
Tete (rural)	40.2	73.7	74.2
Manica (urban)	45.4	37.7	69.5
Manica (rural)	58.3	53.9	86.1
Sofala (urban)	50.1	40.8	70.4
Sofala (rural)	62.9	74.8	90.5
Inhambane (urban)	40.5	37.3	65.5
Inhambane (rural)	62.7	68.0	84.4
Gaza (urban)	48.2	32.5	67.5
Gaza (rural)	67.8	49.3	90.5
Maputo Province (urban)	63.7	60.6	64.0
Maputo Province (rural)	76.3	68.4	84.7
Maputo City (urban)	36.2	36.5	32.9

Source: IOF 2008/2009

Table 16 – Distribution of households with and without older people according to assets: Cabo Delgado (2008)

	Total	Without older people	With older people	With one older person	With two older people
1st quintile	29.8	29.0	33.7	35.3	27.5
2nd quintile	26.5	27.2	23.1	23.0	23.9
3rd quintile	24.3	24.4	24.2	23.7	26.1
4th quintile	14.0	14.0	14.0	13.1	16.9
5th quintile	5.5	5.6	5.1	4.8	5.7

Source: INE population census 2007

Table 17 – Distribution of households with and without older people according to assets: Maputo City (2008)

	Total	Without older people	With older people	With one older person	With two older people
1st quintile	0.2	0.2	0.3	0.3	0.2
2nd quintile	0.6	0.6	0.6	0.7	0.4
3rd quintile	2.4	2.4	2.0	2.2	1.4
4th quintile	17.5	17.9	15.7	16.8	10.8
5th quintile	79.4	79.0	81.3	80.0	87.2

Source: INE population census 2007

Table 18 – Distribution of households with and without older people according to assets: Gaza (2008)

	Total	Without older people	With older people	With one older person	With two older people
1st quintile	8.2	7.0	11.1	12.1	5.9
2nd quintile	7.9	7.5	8.8	9.4	6.1
3rd quintile	16.1	15.7	17.1	17.8	13.5
4th quintile	26.8	28.2	23.7	23.8	23.4
5th quintile	40.9	41.6	39.4	36.8	51.1

Source: INE population census 2007

Table 19 – Distribution of households with and without older people according to assets: Inhambane (2008)

	Total	Without older people	With older people	With one older person	With two older people
1st quintile	14.2	12.7	17.6	19.6	9.2
2nd quintile	10.2	10.1	10.5	11.0	8.4
3rd quintile	14.7	14.6	15.0	15.2	14.3
4th quintile	27.9	28.7	26.0	25.7	27.5
5th quintile	33.0	34.0	30.8	28.5	40.6

Source: INE population census 2007

Table 20 – Distribution of households with and without older people according to assets: Manica (2008)

	Total	Without older people	With older people	With one older person	With two older people
1st quintile	17.9	17.9	18.3	19.5	11.0
2nd quintile	15.8	16.0	14.5	14.8	12.7
3rd quintile	21.7	21.6	22.2	22.5	21.0
4th quintile	21.9	21.7	22.8	22.1	26.9
5th quintile	22.7	22.8	22.2	21.2	28.4

Source: INE population census 2007

Table 21 – Distribution of households with and without older people according to assets: Maputo Province (2008)

	Total	Without older people	With older people	With one older person	With two older people
1st quintile	3.8	3.2	6.3	6.6	4.9
2nd quintile	5.4	4.7	8.0	8.6	5.1
3rd quintile	12.3	11.4	16.3	16.5	15.3
4th quintile	28.7	28.5	29.4	29.7	28.2
5th quintile	49.9	52.2	40.1	38.6	46.5

Source: INE population census 2007

Table 22 – Distribution of households with and without older people according to assets: Nampula (2008)

	Total	Without older people	With older people	With one older person	With two older people
1st quintile	28.4	27.3	35.1	36.5	27.8
2nd quintile	22.0	22.3	20.6	20.2	22.5
3rd quintile	24.2	24.4	22.9	22.4	25.1
4th quintile	16.3	16.6	14.6	14.0	17.4
5th quintile	9.0	9.4	6.9	6.8	7.3

Source: INE population census 2007

Table 23 – Distribution of households with and without older people according to assets: Niassa (2008)

	Total	Without older people	With older people	With one older person	With two older people
1st quintile	24.2	23.3	29.5	31.6	19.4
2nd quintile	34.3	35.0	30.3	29.6	33.4
3rd quintile	23.7	23.8	22.9	22.2	26.2
4th quintile	11.7	11.6	12.5	11.9	15.5
5th quintile	6.1	6.3	4.9	4.7	5.5

Source: INE population census 2007

Table 24 – Distribution of households with and without older people according to assets: Sofala (2008)

	Total	Without older people	With older people	With one older person	With two older people
1st quintile	13.0	12.5	15.5	16.5	10.1
2nd quintile	16.0	15.8	16.6	16.7	16.2
3rd quintile	19.7	19.7	19.5	19.6	19.2
4th quintile	27.6	27.5	28.0	27.3	31.6
5th quintile	23.8	24.5	20.5	19.9	23.0

Source: INE population census 2007

Table 25 – Distribution of households with and without older people according to assets: Tete (2008)

	Total	Without older people	With older people	With one older person	With two older people
1st quintile	20.7	19.7	25.7	28.0	16.0
2nd quintile	15.1	15.7	12.1	12.1	12.2
3rd quintile	19.4	19.3	19.7	19.6	20.0
4th quintile	22.3	22.8	20.0	19.2	23.3
5th quintile	22.5	22.5	22.5	21.0	28.6

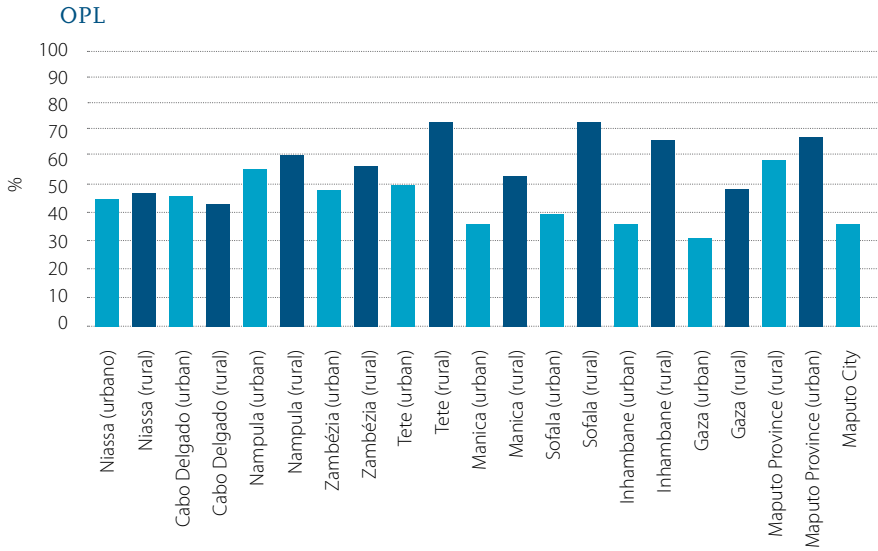
Source: INE population census 2007

Table 26 – Distribution of households with and without older people according to assets: Zambézia (2008)

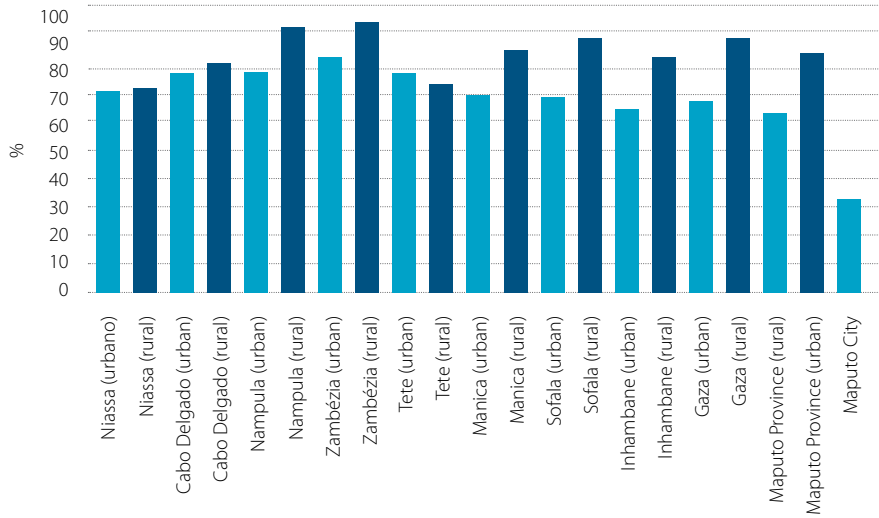
	Total	Without older people	With older people	With one older person	With two older people
1st quintile	23.4	22.6	28.7	30.5	19.8
2nd quintile	31.7	32.1	29.1	28.9	30.3
3rd quintile	20.9	21.2	18.8	18.3	21.0
4th quintile	18.6	18.6	18.7	17.9	23.2
5th quintile	5.4	5.5	4.7	4.5	5.7

Source: INE population census 2007

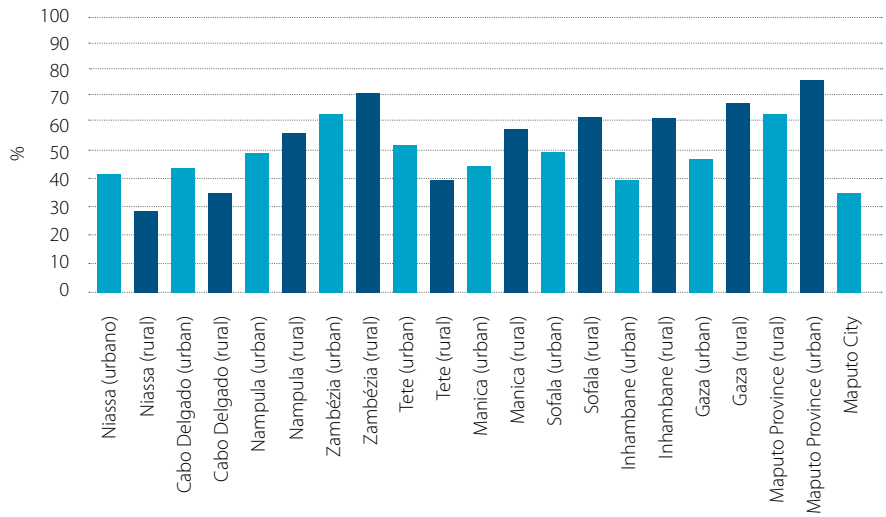
Figure 15 – Poverty headcount rates: households by province and rural/urban areas (2008)



RPLWB



USD1.25 (PPP) per day/international poverty line



Source: IOF 2008/2009

References

Alfani, F., Azzarri, C., D'Errico, M., Molini, V., 2012. Poverty in Mozambique: New Evidence from Recent Household Surveys (SSRN Scholarly Paper No. ID 2156797). Social Science Research Network, Rochester, New York.

Alkire, S., Foster, J., 2011. Counting and multidimensional poverty measurement. *Journal of Public Economics* 95, 476–487.

Anand, S., Sen, A.K., 1997. Concepts of human development and poverty: a multidimensional perspective. United Nations Development Programme (UNDP), New York.

Bachelet, M., López, A.F., Patel, E., Dervis, K., Wilson, M., Hirsch, M., Pillai, S., Silin, Z., 2011. Piso de Proteção Social para uma globalização equitativa e inclusiva : relatorio do grupo consultivo presidido por Michelle Bachelet, constituído pela OIT com a colaboração da OMS. International Labour Office (ILO), Geneva.

Beauvoir, S. de, 1990. A Velhice. Nova Fronteira, Rio de Janeiro.

Brito, L. de, Castel-Branco, C.N., Chichava, S., Francisco, A. (Eds.), 2010. Pobreza, Desigualdade e Vulnerabilidade em Moçambique, 1a ed. IESE, Maputo.

Camarano, A., 2004. Os Novos Idosos Brasileiros : Muito Além dos 60? IPEA, Rio de Janeiro.

Carr-Hill, R., 2013. Missing Millions and Measuring Development Progress. *World Development*. Elsevier, Philadelphia.

Cunguara, B., Hanlon, J., 2010. *O Fracasso na Redução da Pobreza em Moçambique*. [WWW Document]. LSE website. Available at: http://search.lse.ac.uk. (accessed 1.23.12).

Daniel, S., Barrett, S., McPherson, A., Marchetta, F., Knox, C., Newson, L., Osofisan, W., 2010. *Achieving Income Security in Old Age for All Tanzanians: a Study Into the Feasibility of a Universal Social Pension*. Ministry of Labour, Employment and Youth Development in collaboration with HelpAge International. Dar es Salaam, Tanzania.

Debert, G.G., 1999. *A Reinvenção da Velhice: Socialização e Processos de Reprivatização do Envelhecimento*. Editora da Universidade de São Paulo (EDUSP), Sao Paolo.

DNEAP, 2010. Pobreza e Bem-estar em Moçambique: Terceira Avaliação Nacional. Direcção Nacional de Estudos e Análise de Políticas (DNEAP), Mistério da Planificação e Desenvolvimento (MPD), Maputo.

Dupraz, J., Handley, G., Wills, O., 2006. Childhood Poverty in Mozambique: A situation and trends analysis. UNICEF, New York.

Dyson, T., 2010. *Population and Development: The demographic transition*. Zed Books, London.

Emmett, B., 2012. Older People as a Stepping Stone to Redistributive Social Security, in: Paper for 3rd Conference of IESE. Presented at the Mozambique: Accumulation and Transformation in a Context of International Crisis'., IESE, Maputo.

Estivill, J., 2003. *Panorama da luta contra a exclusão social: conceitos e estratégias*. Escritório Internacional do Trabalho.

FDC, UNICEF, 2011. Budget Brief 2012: Social Welfare Sector. Mozambique.

Filmer, D., Scott, K., 2008. Assessing Asset Indices. *Policy Research Working Paper No. WPS4605*. World Bank, Washington, D.C.

Francisco, A., 2010. Moçambique: Protecção Social no Contexto de um Estado Falido mas não Falhado, in: Brito, L. de, Castel-Branco, C.N., Chichava, S., Francisco, A. (Eds.), *Protecção Social: Abordagens, Desafios e Expectativas Para Moçambique*. IESE, Maputo, pp. 37–95.

Francisco, A., 2011. A Natureza Incipiente da Transição Demográfica em Moçambique. Revista de Estudos Demográficos 49, 5–35.

Francisco, A., Ali, R., Ibraimo, Y., 2010. Financial versus Demographic Social Protection in Mozambique. *Poverty in Focus: Long-Term Social Protection for Inclusive Growth* 22, 10–12.

Francisco, A., Ali, R., Ibraimo, Y., 2011. Protecção Social Financeira e Demográfica, in: Brito, L. de, Castel-Branco, C.N., Chichava, S., Francisco, A. (Eds.), *Desafios Para Moçambique 2011*. IESE, Maputo, pp. 283–331.

Francisco, A., Muhorro, S., 2011. Pauperização Rural em Moçambique na 1a Década do Século XXI. IDeIAS Boletim Nº 34, 8 de Abril.

Francisco, A., Sugahara, G., Fisker, P., 2013. Dinâmicas de Bem-estar e Pobreza da População Idosa Moçambicana - Sumário dos Resultados Preliminares Apresentados no Seminário do IESE de 15 de Maio. Instituto de Estudos Sociais e Económicos (IESE), Maputo.

GdM, 2010. Estratégia Nacional de Segurança Social Básica 2010–2014. Governo de Moçambique (GdM).

GdM, 2011. Plano de Acção para Redução da Pobreza (PARP) 2011–2014. Governo de Moçambique (GdM), Maputo.

Geffray, C., 2000. *Nem Pai Nem Mãe. Crítica do Parentesco: o caso Macua*. Nidjira, Lisbon.

Hargreaves, J.R., Morison, L.A., Gear, J.S., Kim, J.C., Makhubele, M.B., Porter, J.D., Watts, C., Pronyk, P.M., 2007. Assessing Household Wealth in Health Studies in Developing Countries: a Comparison of Participatory Wealth Ranking and Survey Techniques from Rural South Africa. *Emerging Themes in Epidemiology* 4: 4.

Haughton, J.H., Khandker, S.R., 2009. Handbook on Poverty and Inequality. World Bank, Washington, DC.

HelpAge International, 2012. What and Where? | About Social Pensions | Pension watch [WWW Document]. Pension Watch - Social Protection in Older Age. Available at: http://www.pension-watch.net/about-social-pensions/about-social-pensions/social-pensions-around-the-world/ (accessed 9.2.12).

Holmqvist, G., 2010. Fertility Impact of Social Transfers in Sub-Saharan Africa - – What about pensions? No. BWPI Working Paper 119. The University of Manchester, Manchester.

Holzmann, R., Robalino, D.A., Takayama, N., 2009. *Closing the Coverage Gap : The Role of Social Pensions and Other Retirement Income Transfers*. The World Bank, New York.

Hunt, P., Nowak, M., Osmani, S., 2004. *Human Rights and Poverty Reduction: A Conceptual Framework*. UN, New York.

ILO, IMF, 2012. Towards Efective and Fiscally Sustainable Social Protection Floors. Preliminary Draft 10 May 2012. (Preliminary Report Prepared for the Meeting of the G20 Labour and Employment Ministers in Guadalajara (Mexico)). Washington, D.C.

IMF, 2011. IMF Executive Board Completes Second Review Under Policy Support Instrument for Mozambique, Press Release Nº 11/240 [WWW Document]. International Monetary Fund. Available at: http://www.imf.org/external/np/sec/pr/2011/pr11240.htm

INE, 2010a. Projecções Anuais da População Total, Urbana e Rural, Moçambique (2007–2040) [WWW Document]. Portal do Instituto Nacional de Estatística. Available at: http://www.ine.gov.mz/populacao/projeccoes/proj_pop_moz/ (accessed 6.17.11).

INE, 2010b. Censo Agro-Pecuário CAP 2009–2010: Resultados Definitivos - Moçambique.
Ito, T., Rose, A.K., 2010. *The Economic Consequences of Demographic Change in East Asia*. University of Chicago Press, Chicago.
Kakwani, N., Subbarao, K., 2005. Ageing and Poverty in Africa and the Role of Social Pensions. United Nations Development Programme, International Poverty Centre.
Kelly, B., 2011. *Pobreza Infantil e Disparidades em Moçambique 2010*. UNICEF, Maputo.
Keyfitz, N., 1980. Population Appearances and Demographic Reality. *Population and Development Review* 6: 47.
Lee, I.H., Qingjun, X., Syed, M., 2013. *China's Demography and its Implications No. WP/13/82*. International Monetary Fund (IMF), Washington, D.C.
Lesthaeghe, R.J. (Ed.), 1989. Reproduction and Social isaOrganisation in Sub-Saharan Africa. University of California Press, New Jersey.
Livi-Bacci, M., 1992. *A Concise History of World Population*. Blackwell, Cambridge.
Lv, J., Liu, Q., Ren, Y., Gong, T., Wang, S., Li, L., 2011. Socio-demographic association of multiple modifiable lifestyle risk factors and their clustering in a representative urban population of adults: a cross-sectional study in Hangzhou, China. *Int J Behav Nutr Phys Act 8*, 1–13.
Moore, C.M.T., Garcia, M., 2012. The Cash Dividend : The Rise of Cash Transfer Programs in Sub-Saharan Africa. Available at: https//openknowledge.worldbank.org
Morris, S.S., Carletto, C., Hoddinott, J., Christiaensen, L.J.M., 2000. Validity of rapid estimates of household wealth and income for health surveys in rural Africa. *J Epidemiol Community Health* 54: 381–387.
Negrão, J., 2005. *Cem Anos de Economia da Família Rural Africana*. Texto Editores, Maputo.
Niño-Zarazúa, M., Barrientos, A., Hulme, D., Hickey, S., 2010. Social protection in sub-Saharan Africa: Will the green shoots blossom? (Brooks World Poverty Institute Working Paper Series No. 11610). BWPI, The University of Manchester, Manchester.
Niño-Zarazúa, M.A., 2012. UNU-WIDER : *Social Protection in sub-Saharan Africa: Will the green shoots blossom?* UNU-WIDER, Stockholm.
Pelham, L., 2007. *The Politics Behind the Non-contributory Old Age Social Pensions in Lesotho, Namibia and South Africa No. CPRC Working Paper 83*. Chronic Poverty Research Centre.
Prakongsai, P., 2006. An Application of the Asset Index for Measuring Household Living Standards in Thailand (SSRN Scholarly Paper No. ID 1080909). Social Science Research Network, Rochester, NY.
Quive, S.A., 2007. *Protecção Social em Moçambique: Uma Rede Furada de Protecção Social*. CIEDIMA, Maputo.
Sippel, L., Kiziak, T., Woellert, F., Klingholz, R., 2011. *Africa's Demographic Challenges: How a young population can make development possible*. Berlin Institute for Population and Development, Berlin.
Sugahara, G.T.L., 2009. *Cidades Criativas e Envelhecimento Populacional*. ISCTE-IUL, Lisbon, Portugal.
Sugahara, G.T.L., Francisco, A., 2012a. Idosos em Moçambique: Romper a Conspiração do Silêncio, in: Brito, L. de, Castel-Branco, C.N., Chichava, S., Francisco, A. (Eds.), Desafios Para Moçambique 2012. IESE, Maputo, pp. 295–331.
Sugahara, G.T.L., Francisco, A., 2012b. *Desafios da Duplicação da População Idosa em Moçambique*. IESE, Maputo.
Sugahara, G.T.L., Francisco, A., 2012c. The Doubling Elderly: Challenges of Mozambique's Ageing Population. IDeIAS Boletim Nº 46e.

UN, 2002. Madrid International Plan of Action on Ageing, in: Second World Assembly on Ageing. United Nations (UN), Madrid.
UN, 2007. World Economic and Social Survey 2007: Development in an Ageing World – *60th Anniversary Edition*, 1948–2007, 60th ed. United Nations (UN).
UN, 2011. World Population Prospects, the 2010 Revision [WWW Document]. United Nations (UN). URL http://esa.un.org/unpd/wpp/unpp/p2k0data.asp (accessed 7.1.11).
UN, 2013. World Population Prospects: The 2012 Revision, (13 June 2013). [WWW Document]. United Nations, Department of Economic and Social Affairs, Population Division. Available at: http://esa.un.org/wpp/unpp/panel_indicators.htm
UNDP, 2013. Human Development Report 2013: The Rise of the South. *Human Progress in a Diverse World*. United Nations Development Programme (UNDP), New York.
UNFPA, HelpAge International, 2012. *Ageing in the Twenty-First Century: A Celebration and a Challenge*. UNFPA and HelpAge International, New York.
Ura, K., Alkire, S., Zangmo, T., 2010. *GNH and GNH Index*. The Centre for Bhutan Studies, Bhutan.
Van de Walle, D., Nead, K., 1995. *Public spending and the poor: theory and evidence*. Published for The World Bank by the Johns Hopkins University Press, Baltimore.
Vos, R., Ocampo, J.A., Cortez, A.L., 2009. *Ageing and Development*. Zed Books, London.
Wartonick, D., 2009. *Developing an Efeective Pension System in Mozambique: A Review of the Pension Program in Mozambique*. Nathan Associates Inc. for review by the United States Agency for International Development, Washington, D.C.
Waty, T.A., 2011. *Direito Económico*. Editora W&W, Maputo.
Willmore, L., 2004. Universal Pensions in Low Income Countries *Public Economics No. 0412002*. EconWPA.
Willmore, L., 2007. Universal Pensions for Developing Countries. *World Development 35*, 24–51.

Older Mozambicans are the most visible face of Mozambique's increasing population longevity. In half a century, life expectancy at birth increased by 20 years in Mozambique, a level still far below the world average life expectancy at birth estimated at 70 years. This study shows that, despite the fact that Mozambicans are living longer, the conditions of individual security and social protection of most elderly people are appalling and point to a dangerous social disruption.

Is living longer living better? This is the great challenge that the issue of longevity puts to Mozambicans in general, and policy-makers in particular. Therefore, in addition to analysing the dynamics of well-being and poverty among the elderly, this study raises the debate about the need and feasibility of a universal pension for the elderly: a universal pension that restores basic dignity and replaces old means of social protection with modern systems capable of responding to the new challenges arising from this economic and demographic transition.

António Francisco
Research director and coordinator of the research group Population, Poverty and Social Protection at IESE; associate professor at the faculty of economics, University Eduardo Mondlane (UEM). He holds a PhD and MA in demography from the Australia National University (ANU) and a degree in economics from the faculty of economics at UEM.

Gustavo Sugahara
Associate collaborator of IESE and associate member of Lisbon University Institute (ISCTE-IUL), DINÂMIA'CET-IUL, Lisbon, Gustavo has a Masters degree in economics and public policies from ISCTE-IUL, Lisbon, Portugal, and a degree in economics from the Pontifical Catholic University of São Paulo, Brazil.

Peter Fisker
PhD student at the University of Copenhagen, Denmark, where he was also a teaching assistant. Peter has a Masters degree in economics from the University of Copenhagen, Denmark, and a degree in political science from Aarhus University, Denmark.

IESE
INSTITUTO DE ESTUDOS SOCIAIS E ECONÓMICOS

ISBN 978-989-8464-18-7
9 789898 464187