AN ASSESSMENT OF CURRENT PRACTICE ON POVERTY AND INEQUALITY MEASUREMENTS AND PROFILES IN SADC MEMBER STATES

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LIST OF ABBREVIATIONS

AES	Adult Equivalence Scale
COICOP	Classification of Individual Consumption by Purpose
CPI	Consumer Price Index
CSO	Central Statistical Office
FGT	Foster-Greer-Thorbecke
GDC	German Development Cooperation
GIZ	German Society for International Cooperation (Deutsche Gesellschaft fur international Zusammenarbeit)
GRZ	Government of the Republic of Zambia
GTZ	German Technical Cooperation
JASPA	Jobs and Skills Programme for Africa
ILO	International Labour Organization
LCMB	Living Conditions Monitoring Branch
LCMS	Living Conditions Monitoring Survey
MPI	Multidimensional Poverty Index
MS	Member State (Referring to SADC Member States)
NBS	National Bureau of Statistical
NFNC	National Food and Nutrition Commission
NSO	National Statistical Office
OPHI	Oxford Poverty and Human Development Initiative
PIC	Price and Incomes Commission
RPO	Regional Poverty Observatory
SADC	Southern African Development Community
Stata	Statistical Software Package 'Stata'
StatsSA	Statistics South Africa
UNDP	United Nations Development Program
UN	United Nations

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EXECUTIVE SUMMARY

The Study of the assessment of current practice on poverty and inequality measurement and profiles in SADC Member States was initiated by the SADC Secretariat in an endeavor to profile poverty analysis conducted by Member States in the region and come up with a harmonized approach to the poverty measurement. The study was conducted with the aim of coming up with a detailed poverty and inequality measurements by Member States and also recommend a harmonized poverty methodology and inequality measurement.

Definition of Poverty: This Study has revealed that different countries have different perceptions of poverty. This has made the concept of poverty have several definitions mainly because of its multidimensional and complex nature. However, there is one concept that is been viewed by most Member States, that is poverty refers to welfare of its members and a person in poverty is seen as someone who is not in good wellbeing. The study has found that all Member States define poverty as the inability to consume enough food that will keep one's body alive or consuming below a defined poverty line. The poverty line represents the cost of a food bundle and non- food items that one needs to consume in order to live.

Money Metric Poverty Methodology: The study found that all Member States use the Foster-Greer-Thorbecke (FGT) methodology of using expenditure or consumption data to calculate poverty except for Seychelles which uses income data though still adhering to the FGT methodology. In the expenditure aggregate all Member States included education and health except for Seychelles and Tanzania. Seychelles uses income data hence does not consider expenditure in education and health while Tanzania excludes both education and health expenditure on the ground that the introduction of cost recovery in social sectors in the 1990s might compromise the long-term comparability of poverty estimates.

Data Collection: Most of the data collection employed by Member States uses a recall and diary method except for Zambia and Madagascar which deploy only a recall method. The collection of data for a period of 12 months using a diary method is the best method as it takes into account of seasonality challenges which Member States are exposed to while on the other hand the recall method suffers from memory lapse of some respondents and does not take into account of seasonality challenges that affect particular Member State. For a harmonized approach it is recommended to use a combination of the recall and diary method. When using the diary method data must be collected for a period of one year to take care of the seasonality challenges households are exposed to.

The study has found that Member States carryout the surveys at an average interval of every five years. Some countries do after a period more than five years which we feel is just too long a time to measure poverty and inequality. Five-year period is ideal as this will be able to capture some changes in the poverty levels that are happening in the society. Less than two years like every two years would still be good but will not be feasible by many member states due to budgetary constraints.

Questionnaires: All the SADC Member States have been conducting poverty measurement with the support of the World Bank which offers technical and human capacity building. As a result, most Member States have their staff trained in the same skills. Because of the World Bank's

technical support, most Member States have their questionnaires similar with minor differences in some cases. As a way forward there is need to standardise the questionnaires so that they are the same across all Member States. This means that they will be collecting the same information for all Member States.

Consumption Aggregate:

Food Items: The food consumption consists of all food items which are consumed by household members. This includes food purchased from the market and eaten outside, food produced by households and food received from other sources. Member States were consistent in the aggregation of food items and hence this is harmonised.

Consumption of Frequent Non-Food Items: The consumption aggregate sought to capture all welfare enhancing consumptions of non-food items. The non-food component consists of fuel, cleaning materials, personal care items, clothing, footwear, home repairs and others. Other expenditures to be included are expenditure on education and health. Expenditure on health is included because it is linked to a person's welfare while expenditure on education enhances a person's welfare. The data shows that all SADC Member States include expenditure on education and health as part of the overall expenditure in the food basket. In order to harmonise the expenditure on non-food items all Member States need to standardise their expenditure by including and excluding similar items. In this case, it is recommended to include the expenditure on education and health by all Member States.

Durable Goods: Consumption of durable goods needs to be measured with care since consumer durable goods last for several years, once durable goods have been purchased. Member States reported treating the consumption of durable goods by adding the use value except for Tanzania which does not include use value. This is consistent with all Member States hence it is harmonised already.

Housing and Public Networks Services: The utilisation of housing, water and electricity should be included in the household's aggregations. If households do not report the utilization of such consumption, then the approach is to impute a 'hypothetical' rental value based on key household characteristics such as size of rooms, materials of walls/roof/floor, etc. This need to be done using the hedonic housing regression and uses a sub-sample of dwellings where rents are reported. Similarly, water and electricity need to be imputed using similar characteristic using a statistical model. Most SADC Member States included expenses on accommodation except for Tanzania, which excludes rent from its consumption aggregate. For public utilities, water, electricity and gas consumption by all Member States are included in the consumption aggregate except for Seychelles, which do not include them. In order to harmonise expenditure in the utilizing of these public utilities, it is recommended that all Member States treat consumption of these utilities the same.

Adjusting for Households Consumption: During construction of the welfare indicator, the measure of standard of living is defined from household level to individual level because the ultimate objective is to make a comparison across individual and not across households. Equivalence scales are the factors that convert real household consumption into real individual consumption by correcting for differences in the demographic composition and size of households. This makes adult consumption equivalent to that of children and balances between men and women. This study found that different Member States use equivalence scale

differently with some just adjusting for children and adults without taking into consideration sex while others adjust household consumption for both children and adults and also sex.

Malawi and Mozambique adjust for differences in household composition by the number of household members by getting per capita consumption while the rest of SADC Member States use per adult equivalent scales by considering differences in need by age. In order to harmonise, there is a need to standardise the methodology on Household Consumption and this study recommends the methodology of per adult equivalent scale.

Adjusting for Differences in Cost of Living: Contemporary poverty analysis requires that nominal consumption of households are adjusted for temporal and spatial cost-of-living differences because households at different times, and location face different prices. Different Members States use different indices such as Paache index, Laspeyres index and the Fisher index due to varying reasons. The best practice by A. Deaton and S. Zaidi recommend using the Paasche index because it has household specific weights that correspond to the concept on money metric utility and has a convenient interpretation in consumer choice theory. However, most countries use Laspeyres index because of its closer link to the consumer price index, and it is easier to compute. Tanzania and Angola use the Fisher Index for adjusting for the differences in the cost of living while Malawi uses the Paasche index. Since 2018, Tanzania has also started using the Paasche index since the 2017/18 Survey. The rest of the SADC Member States use the Laspeyres index to adjust for the cost of living.

For the harmonisation purposes, the study recommends the use of Laspeyres as it is mostly used by many Member States. However, consensus should be allowed to be used on this one.

Deriving the Poverty Line: The cost of Basic Needs approach is the commonly used approach in setting absolute poverty lines. The key factor is to define a basket of goods that reflects minimum consumption needs of households and to estimate a poverty line at this "Basic Needs Basket". The total poverty line comprises two principal components: food and non-food. The food poverty line represents the cost of a food bundle that provides one enough to consume above the total cost of food in the food basket. Different countries have different methods of estimating the non-food consumption. Most Member States derive the non-food poverty line by estimating non-parametrically the average non-food consumption of the population whose total consumption is close to the food poverty line. The total poverty line is the sum of the food poverty line and the non-food poverty line. When calculating poverty most Member States use absolute poverty except for Botswana and Mauritius, which use the relative poverty concept to calculate poverty. Botswana uses the USD 1.90 poverty line to determine who the poor are while Mauritius uses 50% of median monthly household income of per adult equivalent to calculate the poverty line. The rest of SADC Member States use the Cost of Basic Need (CBN) approach to calculate the poverty line. The study has recommended the need to harmonise the methodologies by coming up with the bundles that make up the Food Basket by using standardised methodology across Member States following the internationally accepted best practice.

The other approach of setting the food poverty line is the Food Energy Intake (FEI) method. This method is anchored on the intake of basic nutritional requirement or calories needed to keep the human body alive. The FEI is based on the total relationship between food energy intake and total consumption. Total consumption is then translated into monetary value, which is the food poverty line. However, total poverty line also has a non-food component. This methodology has been condemned by many scholars who argue that food consumption is

subject to taste and relative prices or employment structure. Due to its inconsistence, it has not been deemed an ideal method of deriving the poverty line.

Poverty Harmonisation: In order to harmonise poverty measurements three poverty methodologies have been studied and these are: (i) An Absolute Poverty Line using the World Bank methods of $1.90 a day methodology, (ii) The 'Weakly Poverty Line using the World Bank Approach and; (iii) Using National Poverty Lines to measure poverty in SADC Member States. An evaluation of the three methods has found that the third method would be a suitable measurement of poverty for the region.

The third method, which is using National Poverty Lines to measure poverty after standardising all the data methodology. This involves coming up with consumption aggregates. This would be a good harmonised poverty measurement for the region because the derived poverty figures would be very close to national poverty figures of respective Member States. This method does not suffer the problems associated with the Purchasing Power Parity which are associated with the absolute poverty line of US$ 1.9 dollar per day.

The study has recommended calculating harmonised Money Metric SADC Poverty by using the National Poverty Lines calculated by each Member State using a standardised methodology which will be applied across all Member States.

Inequality Measurement: The study revealed that SADC Member States use expenditure or income to measure inequality. Some countries use both while others use either of the two. All SADC Member States calculate the Gini coefficient as a measure of inequality. Gini coefficient measures household income distribution using an index of inequality. The coefficient gives the numerical degree to which the Lorenz Curve diverges from the equi-income distribution line. All Member States then use the Lorenz Curve to depict income inequality by the extent to which it diverges from an equi – income distribution line. This is shown by depicting different proportions of total income going to different proportions of the population by using a graphical representation of income distribution of a population.

All SADC Member States use income to measure expenditure except of Botswana, South Africa and Zimbabwe, which calculate two type of inequality from expenditure and income while Tanzania calculates expenditure inequality only.

The argument is on which one is the best between expenditure and income to measure inequality. For those that use expenditure, they argue that consumption is readily available since most of the people in SADC Member States do not have income. They also argue that consumption can be smoothed overtime and therefore, is less volatile and less reliant on seasonal variation than income, especially in agricultural societies (Deaton and Grosh 2000). Another argument in favour of consumption is that well-being (utility) is a function of the goods and services actually consumed. The other reason for using consumption and not income is that measurement of income in Africa is problematic due to jobs seasonality, Income underreporting, and most of the people in urban areas are in informal employment where they do not have a monthly salary but survive on hand to mouth, etc.

Others still argue that consumption is more closely related to permanent income or lifetime resources than current income. This means that expenditure reveals deep seated long run inequality while income only reveals transitory component inequality. However, the arguments

for income are that income gives actual economic power an individual or household has while expenditure or consumption gives actual standard of living. People only spend the income they have earned hence the consumption is just part of what has been earned. It can also be argued that expenditure does not reflect all the income earned as some of it is saved in banks and hence not consumed there and then.

For harmonisation purposes, it is recommended that all countries calculate the measure of inequality using the Standardised methodology, in this case we would recommend calculating from the income data. However, here one would allow for flexibility that inequality calculated from expenditure data can also be used alongside income expenditure.

Multidimensional Poverty Index (MPI); The MPI measures poverty based on deprivations**.** The Global MPI calculated by UNDP uses indicator on health, education and standard of living. South Africa, Seychelles and Mauritius are the only Member States that calculate their own Multidimensional Poverty Index (MPI) while the rest of the MS rely on the Global MPI as calculated by the UNDP and OPHI. However, some Members States such as Tanzania and other have their MPI in the pipeline and by the end of this year many more would have calculated theirs too. In the calculation of the MPI by Member States, they have added one more dimension called economic activity and most of them focus more on employment. Employment is one of the factors necessary in fighting poverty and it compliments education. This also creates a unique methodology just for SADC Member States. This study has concluded that it would be in the best interest if SADC Secretariat started calculating Multidimensional Poverty Index for its Member States using the already available existing data such as the Demographic and Health Survey or the census data. It could calculate two different indices using two different data sets. This study recommends that SADC adopts the MPI methodology used by South Africa and Mauritius, which includes the indicator of employment as one of the variables that has been viewed as a deprivation. This will be the easiest and best way of harmonising the MPI in the region.

The Role of the RPO Committee: The Regional Economic Integration Strategy of SADC has a strategy for poverty eradication aimed at achieving sustainable development in the region. This is to be achieved through a Regional Poverty Reduction Framework which is to be overseen by Regional Poverty Observatory (RPO).

The Regional Poverty Observatory (RPO) committee would coordinate Member States to develop poverty standardised methodologies by harmonising the poverty measurement following best internationally accepted practices.

RPO using harmonised poverty data through the Regional Indicative Strategic Development Plan (RISDP) will enhance the regional framework in guiding SADC into achieving its development objectives through high and sustainable economic growth and deeper economic integration. The RISDP should develop programs that will be able to eradicate poverty in its overarching priority of regional integration in SADC and be able to monitor their performance using harmonised poverty data.

The RPO should build capacity in Member States by training poverty statistician in NSO for them to implement the harmonised poverty measurement and to make them appreciate the importance of having harmonised poverty measurements in the region.

CHAPTER 1: INTRODUCTION

The Southern African Development Community (SADC) is a regional community of 16 Member States, namely, Angola, Botswana, Comoros, Democratic Republic of Congo (DRC), Eswatini, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Tanzania, Zimbabwe and Zambia. It has been in existence since 17th August 1992 after its creation in Windhoek, Namibia. SADC is the successor of the Southern African Development Coordination Conference (SADCC) established in April 1980, with the same objectives, to achieve economic development, peace and security, and economic growth, alleviate poverty, enhance the standard and quality of life of the peoples of Southern Africa, and support the socially disadvantaged through regional Integration.

The ultimate goal for SADC is to eradicate poverty and improve the well-being of its citizens through regional integration and cooperation. SADC's long-term objective is to reduce poverty in the region through economic growth as well as peace, democracy and stability. By recognizing that poverty and inequality remain the greatest challenge affecting the region, SADC held a consultative Conference on Poverty and Development in Mauritius in 2008. The objective of the conference was to intensify dialogue on regional dimensions of poverty and inequality, strengthen collective efforts to address poverty and inequality. The main outcome of the conference was the signing of the Declaration of Poverty Eradication and Sustainable Development in the region.

With regards to the Declaration on poverty eradication and reduction inequalities initiatives, the declaration further highlighted the establishment of the Regional Poverty Observatory (RPO) committee which was mandated to monitor progress made in address high levels of poverty and inequalities. The declaration further noticed the need to acquire and develop adequate capacity both at the secretariat and at Member States level to ensure effective implementation of poverty eradication programmes. In order to monitor progress made in alleviating poverty and reduce level of inequality in the region, RPO identified the need to study the poverty and inequality measurement practiced by Member States and hence harmonise them so as to make it easy to measure poverty and inequality across the region.

CHAPTER 2: PROJECT OVERVIEW

2.1 Objective of Consultancy

The objectives of the Consultancy were set out in the Terms of reference of the project document, incorporated as Reference *No*: 83286888. The main objective of this assessment of current practices on poverty and inequality measurement and profiles in SADC Member States was to provide a harmonised approach to poverty measurement based on the assessment of the SADC Member States'. The study provided the baseline data of the Member States and included a roadmap to enable sustainable, comparative monitoring of poverty in the region, including recommendations to Member States to improve their National Systems to reach this objective.

2.2 Specific Objectives

The main objectives of the study were:

i. To assess current status of poverty statistics, measurements and capacities in national level systems of SADC Member States for sustainable production of reliable statistics on poverty;

ii. To develop a robust, harmonized definition of poverty for the SADC region, including an approach to measure poverty on a regional level, agreed upon by the SADC Member States and considering international best practices;

iii. To assess possible gaps in Member States to provide data that enables a comparable measure of poverty on a regional level;

iv. To review the Regional Poverty Reduction Strategy and role of the RPO. Based on the findings to develop a roadmap to sustainably monitor poverty on a regional level; and

v. To facilitate a regional workshop to validate findings of the study and agree the next steps.

2.3 Scope of Work

The scope of work was set out in the Terms of Reference document and they were to be implemented within a four-month time period. Specifically, the scope had the following for the consultancy:

i. Carry out extensive desk review of the status of poverty is the SADC Member States with the focus on definition, data search, methodologies and standards being used by all Member States to compile poverty statistics;

ii. Determine the extent of comparability of existing poverty and inequalities statistics and trends amongst Member States in the region;

iii. Assess variability of existing formats for disseminating poverty and inequalities statistics and indicators among Member States with particular focus on production of poverty and inequalities atlases or maps;

iv. Determine adherence to internationally accepted best standards and practice for compilation, analysis and dissemination of poverty and inequalities statistics by Member States;

v. Based on the detailed assessment, suggest a joint definition of poverty and a methodology on how to measure it:

vi. Develop a roadmap to enable comparable poverty measurement on a regional basis, including a thorough review of the Regional Poverty Reduction Strategy and role of the RPO.

vii. Provide recommendations to improve existing initiatives for the development of robust statistical systems for collection, analysis and dissemination of poverty and inequalities statistics including development and maintenance of poverty and inequalities statistics databases at national and regional levels;

viii. Provide estimates of cost implications for implementing interventions proposed in the roadmap; and

ix. Present report on findings and recommendations on current status of poverty statistics and capacities in national statistical systems of SADC Member States to Regional Experts Groups meeting for validation.

During the kick-off phase of this consultancy and as part of the preparation of the Inception Report, the Consultant had meetings with key department/divisions and some stakeholders who had a particular interest in the project. These departments/divisions included the Secretariat of the Southern African Development Community (SADC), GIZ and the Southern African Trust. The aim of the meetings was for the consultant to discuss the project inception report and outline the proposed approach to the project, and record concerns and points of view of the key participants.

CHAPTER 3: METHODOLOGY

The study was undertaken through a combination of a desktop review of Living Conditions Surveys Reports or Income and Expenditure Surveys of National Statistical Offices (NSOs) of Member States, administered questionnaires to NSOs as well as telephone interviews with poverty specialists of NSOs. The reports obtained through desktop reviews had their methodologies reviewed on how they measure poverty and inequality. The study endeavoured to understand how poverty and inequality were defined by different NSOs. The questionnaires used to collect data from the field will also be reviewed to try and understand how the data was collected and how the questionnaires were designed.

The study also involved visiting some of the National Statistical Offices in order to carry out interviews with the people that compile data as a way to get an in depth understanding of how the surveys are managed and conducted. During data collection, the following issues were taken into considerations.

3.1 Data Collection

The study used three different methods of data collection. The appropriate method of data collection was used depending on the availability of data. In situations where data was readily available using one method was sufficient unless it was deemed necessary to use the other two. The methods of data collection were as follows:

i. Internet: The study used the internet to collect data from Member States. Most of the Member States have websites where their detailed poverty studies and reports are downloadable.

ii. Interview: These were used to collect direct, in-depth conversation between compilers of poverty data at the NSO and the Consultant. This gave the NSOs an opportunity to provide the consultant with answers on issues that were not addressed in their online data. The interviews were conducted by telephone and, in some cases, through one on one interviews with compilers in select countries that were visited by the consultant. The consultant also visited Planning Commissions and conducted interviews on how the collected data and the information generated was put to use.

iii. Questionnaire: a structured questionnaire was used to collect data from NSOs and Planning Commissions/Departments. The questionnaire was used to collect standardised responses, and it was also a checklist of what are supposed to be common questions. The questionnaire was used to collect information on Member States' expectation of SADC's role in building consensus on poverty monitoring in the region and a regional harmonized definition of poverty.

3.2 Data Coverage

Coverage of this study was based on the availability of the required data from Member States of all national NSOs. Since this study was aimed at harmonizing poverty and inequality definition across NSOs, it was necessary to look at all Member States in the region and see how best their poverty measurements could be Standardised. All Member States which have been conducting poverty studies in the region had their methodologies studied to understand what the practices were and recommendations on harmonising were made for the rest of the SADC Member States. During data collection, it was discovered that all Member States were collecting and calculating poverty for their countries except for Democratic Republic of Congo (DRC) which had planned to roll its first poverty data collection and analysis for the Province of Kinshasa before moving to cover the whole country in the second round. With the assistance of the World Bank, DRC had already designed its instruments and was preparing to commerce data collection in the year 2019.

CHAPTER 4: ORGANISATION OF THE PROJECT

4.1 Stakeholders Map

STAKEHOLDERS	KEY INTERESTS	IMPORTANCE TO PROJECT	INFLUENCE ON PROJECT (Low, Medium, High)	PARTICIPATION
SADC Secretariat	• Compare levels of poverty in the region for good policy formulation. • Target policies and resource to areas of great need.	High. Will provide overall leadership and political support.	High. Will have influence on all aspects of policy.	Responsible for overall project implementation.
SADC national contact point	• Coordinate SADC policies aimed at ending poverty and increasing regional integration in ministries of respective Member States. • Coordinate SADC programmes within their States.	High. Will provide guidance and support in respective countries.	High. Will have influence on civil service on policy and regional integration.	Beneficiary of successful project implementation as they will use the results to foster further regional integration.
NSO Heads	• Harmonised poverty calculations in their region. • Wider use of their data.	High. Will provide inputs in all systems and guidance.	High. Will have influence on the type of data to be collected.	Provide the required data and validation of the report.
Planning Ministries/Departments of Member States	• Implement national and regional policies based on comparable data. • Design regional policies based on good understanding of regional poverty levels.	High. Will integrate lessons learned across all projects as they integrate findings in coming with regional plans.	High. Will have influence on planning and guidance.	Beneficiary of successful project implementation as they will use the results to foster further regional integration.
German Development Cooperation/GIZ	• Cooperate based on empirical data. • Channel resources in areas of need in the region. • Formulate policies based on empirical data.	High. Will provide financial and development support to the region.	High. Will have influence on nature of support provided.	Provide resources and responsible for overall project implementation.
The Private Sector	• Support development based on tested results and feedback.	High. Will provide political support to the region.	High. Will have influence on all	Expects effective use of development resources paid by their taxes.

STAKEHOLDERS	KEY INTERESTS	IMPORTANCE TO PROJECT	INFLUENCE ON PROJECT (Low, Medium, High)	PARTICIPATION
	• Understand decisions made on cooperation to third.		aspects of policy.	
Donor Community	• Cooperate based on empirical data. • Channel resources in areas of need in the region. • Formulate policies based on empirical data.	High. Will provide Political and technical support to the region.	High. Will have influence on all aspects of policy.	Beneficiary of successful project implementation as they will use the results to foster further regional integration.
The Citizens of SADC	• Partner with SADC and Donors in reducing poverty in the region.	High. Will provide elevated levels of cooperation.	High. Have influence on all aspects of policy and aid to be channeled to them by Governments, donors and SADC.	Cooperate with NSO in future data collection. Appreciate results of donor resources and provide support to projects.
Civil Society	• Partner with SADC and donors in reducing poverty in the region.	High. Will provide a voice against all vices which work against poverty.	High. Advocate to have policies that reduce poverty adopted.	Mobilise citizens of Member States in the fight against poverty.
World Bank	• Partner with Member States and IMF in reducing poverty.	High. Will provide technical knowledge on how to reduce poverty.	High. Will help come up with macroeconomic policies that help reduce poverty.	Provide technical support in the fight against poverty.
Source: Consultants Study of Corresponding Documents				

CHAPTER 5: ANALYSIS AND PRELIMINARY FINDINGS

Defining poverty has not been an easy task as poverty is a multidimensional and complex in nature. Because of this, there has been no universally agreed definition of poverty. However, globally, poverty is seen as a multidimensional concept that seeks to measure level of deprivation in areas such as income, food, access to housing, access to services such as water and electricity, education, health and so on encountered by a person, household or community. The choice of indicators to measure levels of deprivation can often be arbitrary and hence may not reflect a full-scale measure of unmet Basic Needs in different social contexts.

Most SADC Member States use the Cost-of-Basic Needs Approach to measure poverty by formulating the poverty line. This involves the formulation of a poverty line based on nutritional requirements, set in forms of calories, converting it to a food budget and making an allowance for non- food items. The Cost- of- Basic Needs (CBN) method is anchored on the cost of local cost on a food bundle that gives a certain level of nutrition.

The Living Conditions Measurement Surveys are mostly conducted using expenditure or consumption data in almost all the SADC Member States except Seychelles which uses income though she collects expenditure data. Data is collected from the selected household of the member countries and then they are processed to come up with consumption or income figures which are subjected to a poverty line to determine the poverty figure. Note that Seychelles is included in the analysis of expenditure data though they use income data to calculate poverty because she collects expenditure data from the same survey.

Due to poverty's multidimensional complex in nature, different Member States define poverty differently though have the same concept of the Cost-of- Basic Needs (CBN). The table below tries to amplify different definitions of poverty by different SADC Member States. The table also provided information relating to major data sources, concepts and definitions, methodology and dissemination strategies used for poverty statistics. Other major statistical reports are summarized in the table below.

Table 5.1: Overview of Main Data Sources, Concepts and Definitions in SADC Member States

MEMBER STATE	CONCEPTS AND DEFINITIONS	METHODOLOGY USED	MAJOR DATA SOURCES	DISSEMINATION STRATEGY
Angola	Poverty: refers to a situation of evident deprivation of one or more dimensions of an individual's welfare such as access to health services, low human capital, inadequate housing, malnutrition, lack of certain goods and services, lack of capacity of expression of political points of view or religious faith, etc. Poverty is commonly defined as lack of resources to guarantee basic livelihood and welfare conditions as per the standards of the society. GINI coefficient is used to measure inequalities.	Methodology for poverty indicators were developed with technical assistance from the World Bank. The Cost- of- Basic Needs Approach has been used. The methodology produces a multidimensional index which aggregate by combining individual welfare indicators, poverty lines among others.	Household surveys including the following: (i) Poverty Report for Angola, (IDR) 2018-2019 (ii) Population Welfare Comprehensive Survey (IBEP), 2008/2009; (iii) Expenses and Income Survey, DR1 2000/2001.	Statistical Institute Office conduct data dissemination seminars where reports both in soft and hardcopies are shared with the public. Print and electronic media are engaged to disseminate poverty data.
Botswana	A person/household whose total consumption is less than the Poverty Datum line is considered to be poor. Individuals should have the basic capability to feed and clothe themselves; should be able to work if they wish; should be housed in a manner not prejudicial to health; should be able to enjoy education; and should be able to take their place in society. All this should be achieved at minimum cost	Estimation of the cost of a predetermined basket of goods and services to compute the poverty datum line(s) (PDL) and making comparisons with household's consumption expenditures. Those below PDL considered poor.	Household based surveys: (i) Household Income and Expenditure Survey 2002-3 (ii) Botswana Core Welfare Indicators survey, 2009-10 (iii) Botswana Multi Topic Household Survey of 2015/16	Dissemination of poverty statistics and indicators through various means including website, press conferences, electronic and print media, broadcasting services, and dissemination seminars.
Comoros	La pauvreté identifiée en Union de Comores est un problème multidimensionnel : monétaire, éducation, santé, le bien-être de la population, l'accès à l'eau potable ect…	La méthodologie de l'approche du coût de besoin a été utilisé et ceci a permis une analyse conjointe de la pauvreté monétaire et la pauvreté non monétaire (pauvreté des conditions de vie et pauvreté subjective) dans la	(i) Enquête budget consommation de 1995, (ii) Enquête intégrale de 2004 (iii) Enquête 1-2-3 de 2014	La diffusion des données se fait par : -Un atelier de dissémination invitant l'ensemble de l'administration publique, le secteur privé et la société civile.

MEMBER STATE	CONCEPTS AND DEFINITIONS	METHODOLOGY USED	MAJOR DATA SOURCES	DISSEMINATION STRATEGY
	Pour mesurer les inégalités, le coefficient de GINI est utilisé.	mesure où elle permet de dresser une typologie des ménages selon qu'ils soient pauvres en se référant à la pauvreté monétaire, subjective et des conditions de vie.		-Publication du rapport dans le site web de l'Institut de la statistique (www.inseed.km) -Organisation d'une conférence de presse invitant l'ensemble des medias du pays
Democratic Republic of Congo (DRC)	Working on concepts and definitions of poverty in a proposed survey for early 2019. Have identified poverty as one of the major challenges the country is faced with hence the need to measure it. This will help in coming up with strategies that will improve the lives of the people.	The world Bank is working with the National Statistical Institute in developing the first ever poverty measurement survey in the country. Data will be collected in Kinshasa as a pilot project. Money metric methodology using Consumption based approach.	Household Based Survey to be conducted for the first time in areas around Kinshasa in the 2019. With the support of the World Bank, this will be the first of its Kind and it will be rolled out to the other provinces in the second round in the subsequent years.	National Statistical Institute usually disseminates statistical reports through workshops, media briefings and reports. Both hard and soft copy reports are shared with members of the public.
Eswatini	Defines poverty as having less to eat, poor health, low education and having a low living standard. For National Multidimensional Poverty Index, the globally agreed definition of poverty embracing three dimensions of poverty, namely (a) Health (nutrition and mortality); (b) Education (Years of schooling and school attendance); (c) Living Standard (cooking fuel, improved sanitation, safe drinking water, electricity, flooring and assets) is used. Separate child multidimensional Poverty indices have also been developed.	Uses methodology developed with the help of the World Bank. The Foster Greer method of Money metric as promoted by the World Bank has been used over the years. For National MPI - Methodology developed by Alkire and Foster of Oxford University United Kingdom For child poverty – Multiple Overlapping Deprivation Analysis.	Most Poverty Studies were conducted from the Swaziland Household and Income Expenditure Survey and other surveys have been instrumental in deprivations studies as below: (i) Household Income and Expenditure Survey (2000/1); (ii) Household Income and Expenditure Survey (2009/10); (iii) Household Income and Expenditure Survey (2016/17); (iv) Census of Population and Housing (2017); (v) The Multiple Indicator Cluster Survey (2014)	Dissemination of poverty reports and results to stakeholders at national, regional and beyond through CDs, hard copies. Print and electronic media is also extensively used.

MEMBER STATE	CONCEPTS AND DEFINITIONS	METHODOLOGY USED	MAJOR DATA SOURCES	DISSEMINATION STRATEGY
Lesotho	Defines poor households as those who cannot afford a bundle of goods that is deemed sufficient to satisfy basic needs	The cost-of-basic-needs (CBN) method is used to determine a consumption-based poverty line. The methodology was developed with the assistance of the World Bank	Six rounds of Household Budget Surveys (HBS) have been conducted to date since the 1970s (i) 1972/1973 HBS (ii) 1986/1987 HBS (iii) 1994/1995 HBS (iv) 2002/2003 HBS (v) 2010/2011 HBS, and (vi) 2017/2018 HBS	Poverty reports and results are disseminated through media briefs and dissemination workshops, statistical libraries, print and electronic media as well as Bureau of Statistics website. Reports are disseminated both hard and soft copies.
Madagascar	Identified poverty as one of the biggest challenges the country faces. Defined poverty as a multidimensional challenge in education, health and wellbeing of its citizens.	Works with the World Bank in developing the methodology. Use the consumption-based approach to measure poverty. The Cost- of- Basic Needs Approach use in Poverty Measurement	Income and Expenditure Survey conducted from selected Households over a period of every five years. The last survey was conducted in 2012 – 2013.	Disseminations using soft copies such as CD and hard copies using publications, Website, Media through Radio and Television.
Malawi	Define poverty as unavailability of resources and presence of conditions required for reasonably comfortable, healthy, and secure living. Wellbeing is see in terms of adequacy or inadequacy of food consumption, health care, housing etc.	Integrated Household Surveys (IHS) have been implemented with technical assistance from the International Food Policy Research Institute (IFPRI) and the World Bank (WB). Follows the Foster Greer and Thorbecke methodology of expenditure based to calculate poverty.	Integrated Household Surveys ranging from IHS (I) to IHS (IV). The IHS IV was conducted in 2016 -2017. These surveys are to be conducted at an average of every three years.	National Statistical Office conduct dissemination seminars. Media briefs as well as distributing reports in both soft as well as hard copies.
Mauritius	There is no national poverty line. However, on the basis of household survey, poverty is assessed based on relative measurement on household income. Assesses poverty situation in the country based on household income.	With technical support from World Bank, relative poverty measures have been derived using equivalised household income data.	Dedicated Household Budget Surveys on income and expenditure that serves, among others, for poverty analysis conducted every five years with the last one being conducted in 2017.	Poverty statistics mainly disseminated on Statistics Mauritius website in data series, analytical reports, thematic maps etc. Metadata is always included on any report that the Mauritius Statistics disseminate.

MEMBER STATE	CONCEPTS AND DEFINITIONS	METHODOLOGY USED	MAJOR DATA SOURCES	DISSEMINATION STRATEGY
	No clear definition of poverty is mentioned in the note but has articulated various poverty indices computed by Mauritius are supposedly based mainly on World Bank and other international institutions definitions and guidelines relating to poverty measurement. The MPI for Mauritius is called Multi-dimensional deprivation index.			
Mozambique	Defines poverty and well-being as an array of dimensions in health, education, housing, food consumption, possession of durable goods.	With the assistance of the World Bank, Mozambique has built technical capacity in conducting HBS over a period of time. Data collection responsibility lies with the Institute of National Statistics, while the calculation of the poverty line and poverty assessments are the responsibility of the National Department for Political and Development Studies in the Ministry of Economy and Finance (MEF). They calculate National and 13 regional poverty lines.	A series of Household Budget Surveys have been conducted over a period of years with the latest been in 2014/15. Some of surveys and years are (i) Household Budget Survey II 1996/97 (ii) Household Budget Survey II 2002/03 (iii) Household Budget Survey III 2008/09 (iv) Household Budget Survey IV 2014/15	The Institute of National Statistics conduct data dissemination seminars where reports both in soft and hardcopies are shared with the public. Print and electronic media are engaged to disseminate poverty data. (MEF disseminate poverty data)
Namibia	The poor are defined as people who are unable to command sufficient resources to satisfy basic needs. They are counted as the total number of people living below a specified minimum level of income or below a national poverty line. Namibia uses three national poverty lines (Upper bound poverty line, Lower bound poverty line, as well as the Food Poverty line)	Works with the World Bank in developing the methodology. Use the consumption-based approach to measure poverty. The Cost- of- Basic Needs Approach use in Poverty Measurement.	Household Income and Expenditure Surveys are conducted every five years with the latest having been conducted in 2015 -2016.	Statistical publications are disseminated by media briefs, workshops and through the website. Statistical maps, power points and banners are used to display information to the public.

MEMBER STATE	CONCEPTS AND DEFINITIONS	METHODOLOGY USED	MAJOR DATA SOURCES	DISSEMINATION STRATEGY
Seychelles	Poverty is a multifaceted issue and as such has more than one definition. Poverty is seen as a multidimensional challenge facing the population in health, education, social wellbeing. However, having no ability income wise to meet the needs is seen as been poor. Income has been used to calculate the poverty figure while expenditure is also collected. Has been calculating MPI using methodology developed by Alkire and Foster of Oxford University.	Poverty studies have been implemented in partnership with the World Bank and the National Bureau of Statistics. The World Bank provides technical assistance. This is the only country in the SADC sub - region that uses income to estimate its national poverty.	The country has been conducting Household Budget Survey Reports for some time now other source of data are: (i) Household Budget Survey (ii) A poverty profile of the Republic of the Seychelles	Dissemination of poverty results and other statistical reports are done through media releases, workshops and distributions of both hard and soft copies of reports. Power point presentations are made during dissemination workshops. Poverty mapping had been developed for the island nation.
South Africa .	South Africa has also adopted a multidimensional poverty index which is the country's version of the global Multidimensional Poverty Index (MPI), which is an international measure of acute poverty whose main aim is to capture severe deprivations that each person or household experiences with respect to health, education and living standards. The South African MPI (SAMPI) includes the fourth dimension, i.e. Economic Activity dimensions. It allows for comparisons between and within regions, countries and regions/provinces within countries among others uses. Households are classified as poor if they are deprived in at least a third of all the indicators in the SAMPI. South Africa also measures poverty using money-metric measures. This measure uses three	For national poverty lines - Cost of Basic Needs Approach which links welfare to consumption of goods and services. Three poverty lines are estimated, and these are food poverty, upper bound and lower bound poverty lines. Consumption Based Poverty methodology using the Cos-t of- Basic Needs Approach is used to calculate poverty. For Multidimensional Poverty index - methodology developed by Alkire and Foster of Oxford University United Kingdom.	Since 1995 Household based surveys including the following: (i) Income and Expenditure Surveys (ii) Living Conditions Surveys (iii) Community Surveys (iv) Potation Censuses of Population and Housing	Poverty technical and analytical reports mainly disseminated through media conferences, hard and soft copies. They are also made available to members of the public and also found on the Stats SA website. The Statistical office also produces the poverty mapping reports which reports poverty to small levels of the population.

MEMBER STATE	CONCEPTS AND DEFINITIONS	METHODOLOGY USED	MAJOR DATA SOURCES	DISSEMINATION STRATEGY
	national poverty lines, i.e. Food Poverty Line (threshold of absolute deprivation. Represents the amount of money required to purchase the minimum required daily energy intake. Lower-Bound Poverty Line (austere threshold below which one has to choose between food and important non-food items) and the Upper-bound Poverty Line (threshold of relative deprivation below which people cannot afford the minimum desired lifestyle by most South Africans).			
Tanzania .	Defines poverty as when individual consumption is below 'Basic Needs poverty line. Meaning having less to consume means that someone is in poverty.	Methodology used was developed with the help of the World Bank and has been rolled on over the years with the current one being HBS 4, 2017-18. Uses the Cost of Basic Needs Approach and calculates poverty for Urban and rural area as well as National. There is one national poverty line and consumption aggregate adjusted for cost of living differences.	Household Budget Surveys have been collected in series over a period of time. The current is HBS 4 2017-18.	Poverty statistics disseminated on Statistics Tanzania website in data series, analytical reports, thematic maps etc. Seminars are always organised where poverty data is disseminated to the public by engaging the audience during the seminar and at times broadcasted on both TV and or radio stations.
Zambia	Conceptually an individual is considered to be poor if he/she suffers some levels of economic and/or social deprivation. Poverty is defined as been unable to afford minimum basic human needs, comprising food and non-food items, given all their total income.	Methodology used developed by World Bank. World Bank provided technical support in the computation of current poverty statistics for the country. Uses Cost- of- Basic Needs approach based on consumption approach.	Mainly Living Conditions Monitoring Surveys (LCMS) have been conducted since 1990 stating with Priority Survey I and II and then LCMS I to V. The Current is the 2015 LCMS.	Poverty reports and results are disseminated through Dissemination workshops, statistical libraries, print and electronic media, website and data portal. Data is disseminated in reports both hard and soft copies, power point disseminations and poverty maps.

MEMBER STATE	CONCEPTS AND DEFINITIONS	METHODOLOGY USED	MAJOR DATA SOURCES	DISSEMINATION STRATEGY
Zimbabwe	Poverty is generally defined as the inability to attain a level of wellbeing constituting a realistic minimum as defined by society. This is referred to as the Food Poverty Line (FPL) which represents the cost of a given standard of living that must be attained if a person is deemed not to be poor. An individual whose total consumption expenditure does not exceed the Food Poverty Line (FPL) is deemed to be very poor. Inequalities measured by computing Gini indices.	The formula used to obtain the Total Consumption Poverty Line (TCPL) is obtained by summing up Food Poverty Line (FPL) and Non- Food Expenditures in the determined basket of goods and services.	Poverty Income Consumption and Expenditure Surveys. The last survey completed was undertaken from June 2011 to May 2012. Preliminary results of the January – December 2017 survey expected in 2018.	Reports and results on national poverty are disseminated through the Zimbabwe Statistics Agency and electronic and print media. Reports are in both hard and soft copies. Poverty maps and power point are released to the public. Poverty atlas Maps and poverty mapping reports are prepared for the use of the general public and are disseminated together with main poverty report or when statistical reports are been disseminated.

Source: Assessment of current practices on Poverty measurements and profiles in SADC, SADC Secretariat and Author's Research Data.

Note: The poverty data is collected by Member States at different times with most countries doing it at regular intervals of every five years. However, it should be noted that some Member States only collect poverty data when resources are available to conduct the survey.

All Member States are expected to be conducting poverty studies following internationally accepted best standards. However, it should be noted that there could be a few differences here and there which need to be analysed and then harmonization to come up with one accepted standard measurement for the whole region. In order to harmonize poverty studies in the region it is important to understand how important concepts of poverty were approached. All countries in the study were first checked for preliminary consistence in the data collection and defining of terms that are used for data collection and manipulations.

The table below shows that most SADC Member States reviewed their data collection tools by using the Classification of Individual Consumption by Purpose (COICOP).

The Classification of Individual Consumption by Purpose (COICOP) is a classification used to classify both individual consumption expenditure and actual individual consumption. Most of the countries are using this standard hence meaning uniformity and internationally accepted best standard. Overall, all the Member States reviewed standardised their data collection tools according to the COICOP.

When collecting data, countries use either a recall or a diary method. A diary is a record with discrete entries arranged by date reporting on what has happened over the course of a defined period of time. With regard to the IES and LCS, diaries recorded all acquisitions made by the household daily during the diary-keeping period. This included the description of the item, value, source, purpose, area of purchase and the type of retailer. On the other hand, a recall method is where a respondent is expected to use memory to remember what he/she might have bought during a specified period of time as requested by the interviewer. All the countries collected expenditure information using a diary method and data was collected over a period of one year except for Zambia and Madagascar which used the recall method for a period of one month. The data collected for a period of one year takes into account the different seasons during the year while using a recall period data collected for a month does not take into account seasonality and also suffers credibility due to memory loses.

All Member States indicated that data on goods was collected using the acquisition approach while information on services received were collected using the payment approach. Acquisition approach is an approach taking into account the total value of goods and services acquired during a given period, whether fully paid for or not during that period. Payment approach is an approach taking into account the total payment made for all goods and services in a given period, whether the household has started consuming them or not.

Own production data was collected using the approach. Own produced goods are those goods the household produce at household level. A good example of own production are vegetables which households produce from their backyard garden. Consumption approach is an approach that takes into account the total value of all consumption goods and services consumed (or used) during a given period.

5.2: Overview by Country Household Surveys

Table 5.2: Comparisons of Household Expenditure Surveys in the Region, overview by country

Country and survey	Classification of Expenditure Type	Reference Year(s)	Sample Size	Methodology	Expenditure Data Collection Approach		
					Goods	Services	Own Production
Angola (IDR 2018-2019)	COICOP	2018/19	12,500 HHs	Diary and Recalls	Acquisition approach	Payment approach	Consumption approach
Botswana (BMTHS 2015/16)	COICOP	2015/16	7,188 HHs	Diary and Recalls	Acquisition approach	Payment approach	Consumption approach
Comoros	COICOP	2014					
Eswatini (Swaziland) (IES 2009/10)	COICOP	2009	3,167 HHs	Diary and Recalls	Acquisition approach	Payment approach	Consumption approach
Lesotho (HBS 2017/18)	COICOP	2017/18	4,295 HHs	Diary and Recall	Acquisition approach	Payment approach	Consumption approach
Madagascar (ENSOMD 2012 -2013)	COICOP	2012/2013	19,200 HHs	Recall	Acquisition approach	Payment approach	Consumption approach
Malawi (IHS4 2016/17)	COICOP	2016/2017	12,480 HHs	Recall	Acquisition approach	Payment approach	Consumption approach
Mauritius (HBS 2017)	COICOP	2017	7000 HHs	Diary and Recalls	Acquisition approach	Payment approach	Consumption approach
Mozambique (IOF 2014/2015)	COICOP	(IOF 2014/2015)	11,000 HHs	Diary and Recalls	Acquisition approach	Payment approach	Consumption approach
Namibia (NHIES 2015/16)	COICOP	2015/16	10,368 HHs	Diary and Recalls	Acquisition approach	Payment approach	Consumption approach
Seychelles (HBS 2013)	COICOP	2013	3,100 HHs	Diary and Recalls	Acquisition approach	Payment approach	Consumption approach
South Africa (LMS 2014/2015)	COICOP	2014/2015	30,818 DUs	Diary and Recalls	Acquisition approach	Payment approach	Consumption approach
Tanzania (HBS 2017/18)	COICOP	2017/18	9,552 HHs	Diary and Recalls	Acquisition approach	Payment approach	Consumption approach
Zambia (LCMS 2015)	COICOP	2015	12,260 HHs	Recall	Acquisition approach	Payment approach	Consumption approach
Zimbabwe (PICES 2011/12)	COICOP	2011/2012	31,248 HHs	Diary and Recalls	Acquisition approach	Payment approach	Consumption approach
Source: Official poverty reports and corresponding documents (see references A).							

5.2 Components and Aggregation Procedure

i. Data Source

The study looked at how the Official Poverty estimates are calculated from data collected within the framework of the Living Standards Measurements Surveys (LSMS) or Income and Expenditure Surveys (IES) of Member States which are large-scale household surveys conducted on a regular basis. The Surveys are representative of the individual country's regions (provinces or districts) as well as on the rural-urban level and cover a substantial number of individuals nested in households.

Data from the following sections of the LMS are utilised in order to derive the consumption aggregate:

(a) Household Roster: Information on household size, locality, characteristics of the household head, and the demographic composition of the household;

(b) Household Assets: Information on asset ownership;

(c) Household Amenities and Housing Conditions: Information on housing conditions, use of electricity, water access, housing, electricity, and water expenditures; and

(d) Household Expenditures: Information on cash purchases, consumption out of self-produce, items received without payments.

ii. *Module Components*

The consumption aggregate is constructed from these four modules. The process of creating this consumption aggregate is guided by a number of considerations. First of all, there is an interest in having a comprehensive measure of consumption as much as possible since, the measure is supposed to proxy welfare. A narrowly defined measure would imply that the omitted components do not contribute in any way to welfare.

However, it is often impossible to add all components of consumption in an equally straightforward manner. This is because, for many components it becomes necessary to introduce additional assumptions in order to be able to add these to the consumption aggregate. This adds to the complexity of the aggregation procedure and can threaten the transparency of the process. Moreover, as a poverty measurement rests on the credibility of the underlying consumption aggregate, it is vitally important not to sacrifice credibility in the process of adding up some particular divisive consumption components to the consumption aggregate.

In deriving its consumption aggregate, National Statistical Offices retains the objectives of comprehensiveness and credibility as the central focus. The final consumption aggregate captures both food, and non-food consumption.

a. Food consumption

At household level consumption aggregate captures (i) cash purchases of food and meals eaten out, (ii) consumption from own produce and (iii) food items received without payment (gifts, food for work, etc.). For cash purchases, nearly all Member States reported the total expenditure related to the purchase. For own produced items and items received without payment, households reported both the quantity consumed/received and the respective unit price. In such cases, the value of consumption is derived by multiplying reported quantities by reported unit prices. Total food consumption is derived by summing across the three categories. Best practice agree that all the consumption captured in the survey should enter the food consumption aggregate (Deaton and Zaidi, 2002).

b. Non-food consumption

The non-food consumption aggregate captures expenditure on frequent and less frequent (but still regular) non-food items that serve as consumption purpose (in contrast to production purposes). It includes the following goods and services: education expenses, medical expenses, personal consumption items (including alcoholic beverages and cigarettes), and personal services. It also captures housing-related expenses, such as rent, water and electricity charges and the trend was the same for all Member States.

Remittances sent, where possible, were treated as transfers but were excluded from the consumption aggregate of sending households this is in line with international best practices, and all member states adhered to this practice as advised by the World Bank. This assist to avoid double-counting, if households at the receiving end use such transfers for consumption purposes, but also to align LCMS consumption measurement with National Accounting practice.

Furthermore, expenditures on financial assets (e.g. repayment of debt, interest payments) were not considered to be strictly welfare enhancing and were, therefore, excluded from the consumption aggregate used to calculate poverty estimates.

5.3 Consumption of (frequent) non-food items

Comprehensive Consumption aggregate sought to include all commonly bought nonfood items such as cleaning materials, fuels, personal care items, and some other less frequently (but still regularly) bought items such as clothing, footwear, and home repairs. The most commonly spent on expenditure such as transport to and from work, consumption on communication were include though they are not welfare enhancing (Ianjouw, 2005). Other expenditure such as fertilizer and seeds were not included as they are not for consumption purposes. The trend is the same in most Member States.

Some of the non-food items not included is expenditure on remittances and taxes, levies since they are often not welfare enhancing expenditures but mere reductions in income except in instances where local taxes are used to provide local public goods (Deaton and Zaidi, 2002). Other expenses which were not expected to be included are expenses on financial assets, repayment of debt and interest payments. Irregular payments such as payments on ceremonies

(weddings, funeral, and dowries) were also excluded as they are not only irregular but at times may also be lumpy.

Expenditure on health and education were aggregated together with other expenditure though the situation is ambiguous. The argument for including health expenditure is that they are a necessity and indicate welfare. The expenses incurred by the person falling ill are taken as an expense and a sick person experience a loss in welfare. In mitigation against ill health some people have purchased health insurance to cover treatment and medication costs while others have to bear the expenses themselves. Deaton and Zaidi (2002) recommend leaving out health expenditure because of their ambiguous nature in the sense that they are lumpy and irregular unless their elasticity with respect to total expenditure is sufficiently high.

Education expenses equally attract a similar argument in the sense that education expenses are irregular just as health expenses (Deaton and Zaidi, 2002). When someone is attending school, the benefits are not direct as they do not affect his or her current level of welfare which some can use as a reason for exclusion. However, it should be noted that education enhances someone's level welfare e.g. via intrinsic value of education or it enables learners to socialise with each other (Lanjouw, 2005). Moreover, standard national accounting practice subsumes education-related expenses under private consumption, thus Deaton and Zaidi (2002) recommend including education expenditure in the non-food consumption aggregate.

Table 5.3 below shows that all SADC Member States except for Seychelles and Tanzania include health and education in their consumption aggregates. Seychelles does not include both education and health in the consumption aggregate since the country uses gross income to calculate the total income for household's members which should be spent on consumption. Tanzania excludes both health and education expenditure on the grounds that the introduction of cost recovery in the social sector in the 1990s (and consequential strong increase in private spending) might otherwise compromise the long –term comparability of poverty estimates. This study did not go to the extent of looking at what type of health expenditure is included by different countries as some countries may just include small expenses such as routine consultations, regular medications and exclude large and infrequent expenses such as hospital stays.

The study also revealed that most of the countries studied did not include transfers, taxes and ceremonial expenses from the consumption aggregates.

From the analysis above, it can be concluded that the assessment on the non - food consumption aggregates are similar for most of the SADC Member States except for Tanzania and Seychelles. Tanzania does not include the health and education in the nonfood aggregate hence making it not comparable across all SADC states while Seychelles use gross income to measure poverty.

Table 5.3: Non-Food Consumption Aggregate (Selected Components), Overview by Country

Country and Survey	*Consumption aggregate includes:*			
	Education	**Health**	**Transfers (Sent)**	**Ceremonial Expenses**
Angola - (IDR 2018-2019)	Yes	Yes	No	No
Botswana (BMTHS 2015/16)	Yes	Yes	No	No
Comoros	Yes	Yes	Yes	Yes
Democratic Republic of the Congo	Yes	Yes	No	No
Eswatini (Swaziland) (IES 2009/10)	Yes	Yes	No	No
Lesotho - (HBS 2017/2018	Yes	Yes	No	No
Madagascar (ENSOMD 2012/2013)	Yes	Yes	No	No
Malawi (IHS4 2016/17)	Yes	Yes	No	No
Mauritius - (HBS 2017)	Yes	Yes	No	No
Mozambique (IOF 2014/2015)	Yes	Yes	No	No
Namibia (NHIES 2015/16)	Yes	Yes	No	No
Seychelles (HBS 2013)	No, uses gross income. (But, do collect for HBS)	No, uses gross income (But, do collect for HBS)	No	No
South Africa (LES 2014/2015)	Yes	Yes	No	No
Tanzania (HBS 2017/18)	Yes	Yes	No	No
Zambia (LCMS 2015)	Yes	Yes	No	No
Zimbabwe (PICES 2011/12)	Yes	Yes	No	No
Source: Official poverty reports and corresponding documents (see references A).				

5.4 Durable Goods

Durable goods – Household items that last for a long time, such as kitchen appliances, computers, radios, televisions, cars and furniture, usually acquired once in several years.

Durable goods that are bought during the survey or those which the household owns have an impact on the welfare of the households. Consumer durable goods last for several years and cost huge amounts to purchase hence they were treated with care in the study. The reason is that durable goods cost huge amounts of money when acquiring them, and this means that adding them to the consumption aggregate would overestimate the welfare of households because such goods are used over a period of a long time. Similarly, neglecting ownership of consumer durable goods purchased prior to the survey would understate the welfare households enjoy, as these items provide some benefits. In view of this, the use value of durable goods should enter the consumption aggregate, or the benefits households derive from using these goods. This is at times referred to as 'rental value' since durable goods use value corresponds theoretically to the cost required to rent durable items on a competitive market. (Deaton and Zaidi, 2002).[1]

The use of durable goods is assumed to be typically related to the stock of goods held by the household. There are different formulas used in practice, depending on the type of data available from the household survey (see box 1 for the most commonly used method). Ideally, surveys provide information on (i) the current resale value of the durable goods, (ii) the purchasing price, and (iii) the age of the item. While it is possible to compute the use value without either the purchase value or the current resale value, one of these two variables must be available.

[1] Note that durable goods should not be confused with productive assets, even though both types of goods are typically subsumed in the asset section of household surveys. Productive assets are used as inputs into the production process and should not be included in the consumption aggregate.

Box 1: Computation of durable goods use values

This box shows the most commonly used method for deriving the use values (UV) of consumer durable items, following Deaton and Zaidi (2002). It requires data on (i) the current resale value of the durable good (p_t), (ii) the purchasing price (p_{t-T}), and (iii) the age of the durable item (T). The use value can then be computed as:

$$UV = S_t \cdot p_t \cdot (r_t - \pi_t + \delta) \qquad (1)$$

In this expression, S_t denotes the number of available items; r_t is the nominal interest rate, π_t the inflation rate and δ the depreciation rate. To reduce the sensitivity of durable good use values to market fluctuations, the nominal interest and the inflation rates may be averaged over a number of years.

The depreciation rate is given by:

$$\delta = 1 - \left(\frac{p_t}{p_{t-T}} \right)^{1/T} + \pi \qquad (2)$$

Applying formula (2) gives a range of possible depreciation rates (δ) for each item captured in the survey. To reduce the impact of outliers, it is recommended to use the median depreciation rate across all observations for a particular item in formula (1), instead of the depreciation rate that was observed for that particular household (World Bank, 2006; this reference manual also shows other possible formulas for computing durable goods use values).

Except for Zambia, most Member States reveal did not give a comprehensive account on how those States collects data on the consumption of consumer durable goods. This is because most of the data is a little bit complicated and difficult to collect. Information on the age, purchase price and /or resale values of these items make it difficult to compute the use value. Zambia gave a detailed approach on the estimation of use value on durable goods. States such as Malawi which computes this data did not give much information on the estimation procedures.

5.5 Housing and Public Network Services

The study also looked at how the Housing and Public Services Consumption are treated by different NSO from different Member States. The consumption aggregate should include the monetary value for the flow of welfare benefits households receive from housing. For renters, this is typically the rent paid by the household. Problems arise because many households own their dwelling and hence do not incur regular expenses. For such households, some form of 'rent equivalent' is needed (Hentschel and Lanjouw, 1995; Lanjouw, 2005)

Information on actual rent paid is available both from the consumption and housing modules. In addition, households that own their houses were asked how much their dwelling would fetch if they were to rent it out. The surveys also gathered information on a large number of dwelling characteristics, such as building materials, water and sanitation access. This information allows estimating a linear regression model, which relates rental values reported by a subset of the

population to key housing and location variables. The parametres used to estimate the value of the house are number of rooms, materials of walls/floor/roof access to water, electricity, garbage disposal etc. and the location of the house itself such as rural/urban and province. The parameter estimates of this hedonic housing regression can then be used to impute rental values to those households that have no other information available (see Deaton and Zaidi, 2002).

The final rent variable is based on a three-tier procedure:

(a) For households renting on the private market, information on actual rent paid from the housing section is used;

(b) For other households, the rent variable reflects the rent estimate of the household; and

(c) If neither of the two is available, rents are imputed using the concept of hedonic housing regression.

Similarly, if households do not report consumption cost of water, electricity and gas for various reasons best known to themselves or genuinely missing, then an imputation regression can be used to assign values for these variables. Though this process could be the same as the hedonic housing regression some adjustment for example, water quality can be included like water from wells, rivers, taps etc. To run such a regression, one needs to treat one water source as a control based on its quality. However, due to its complications it is recommended that one refrain from using this model.

This study looked at how water and electricity are treated by NSOs. The best practice on poverty calculation applies to water and electricity services since these are necessity which improves the welfare of households. The key problem here is that many households use the water and electricity network, but do not report any payments. In such cases, water and electricity expenses are imputed on the basis of a simple regression model. The imputation is only carried out for households that are clearly connected to the public network. In the case of electricity, these are households that use electricity as their main source of lighting energy; for water this relates to households that use a public or private tap as the main source of drinking water.

The study of official poverty reports revealed that almost all Member States except Tanzania includes housing in their computation of consumption aggregates of housing and public network services. There was a great deal of heterogeneity regarding the treatment of housing rental value. All Member States that reported using rental value use the actual value when available but imputes when the value is not available. Malawi uses actual rent if available and resort owner's rent estimates if the former is missing. However, Malawi, South Africa, Swaziland, Lesotho, Zambia and Zimbabwe uses hedonic if actual and estimated rent is not available. Mozambique reported actual rent but did not give information if the estimated rent is used if actual rent is not available.

The reports revealed that Member States include water, electricity for lighting and for some countris gases for cooking in their consumption aggregates. The reports were not clear on how Member States treated missing data of utilities as they did not give information on imputations.

Table 5.4: Treatment of Housing and Public Utilities, Overview by Country

Country and Survey	Housing		Public Utilities	
	Included	Types of Data and Method	Included	Type of Data and Method
Angola (IDR 2018-2019)	Yes	(1)Actual (2) Statistical imputation rent (hedonic housing regression)	Yes	Water, electricity expenses (imputes using statistical methods)
Botswana (BMTHS 2015/16)	Yes	(1) Actual, (2) Statistically imputed rent (hedonic housing regression)	Yes	Water, electricity expenses (imputes using statistical methods)
Comoros	Yes	La régression hédonique pour le logement est utilisé pour le loyer imputé,	Yes	Eau, éléctricité, les méthodes statistiques permettent de faire des imputations
Eswatini (IES 2009/10)	Yes	(1)Actual, (2) Statistically imputed rent (hedonic housing regression)	Yes	Water, electricity expenses (no information on Imputation)
Lesotho (HBS 2017/2018)	Yes	n.a	Yes	Water, electricity expenses (no information on Imputation)
Madagascar (ENSOMD 2012 -2013)	Yes	(1)Actual, (2)Statistically imputed rent (hedonic housing regression)	Yes	Water, electricity, (imputations using statistical methods)
Malawi (IHS4 2016/17)	Yes	(1)Actual, (2) Household estimate if actual is missing. (3) Statistically imputed rent (hedonic housing regression) if both 1 and 2 are not available.	Yes	Water, electricity, expenses (no information on imputation)
Mauritius (HBS 2017)	Yes	1)Rent as reported by renting households 2) imputed rent as reported by non-renting households taking into consideration the actual rental value in the region and type of building	Yes	Electricity, gas, water **(no information on imputation, value is as reported by households)**
Mozambique (IOF 2014/2015)	Yes	(1) Actual, (2) Imputed (no information on method)	Yes	Water, electricity, Gas expenses (no Information on imputation)
Namibia (NHIES 2015/16)	Yes	(1) Actual, (2) Household estimate if actual is missing. (3) Statistically imputed rent (hedonic housing regression) if both 1 and 2 are not available.	Yes	Water, electricity, expenses (sanitary service, waste management/ refusal, Gas), imputations using statistical methods.
Seychelles (HBS 2013)	n.a	n.a	n.a	n.a
South Africa (LCS 2014/2015)	Yes	(1) Households actual (2) Imputed rent using Rental yield compiled by the Banks	Yes	Water, electricity, gas (Imputation using statistical methods)
Tanzania (HBS 2017/18)	No	n.a	Yes	n.a
Zambia (LCMS 2015)	Yes	(1) Actual (2) households estimates (3) Statistically imputed rent (hedonic housing regression)	Yes	Water, electricity (Imputation using statistical methods)

Country and Survey	Housing		Public Utilities	
	Included	**Types of Data and Method**	**Included**	**Type of Data and Method**
Zimbabwe (PICES 2011/12)	Yes	1) Actual, (2) household estimate or (3) statistically imputed rent (hedonic housing regression).		Water, electricity (Imputation using statistical methods)
Source: Official Poverty Reports of SADC Member States				

5.6 Adjustments for Differences in Household Composition

This study looked at how NSOs treat data collected at the household level. Like most other household surveys, most LCMS capture consumption data at the level of households and not individuals. It is easy to see that household consumption is not a good indicator of welfare of individuals unless some adjustment is made for differences in household size and composition.

One option would be to simply divide the total value of household consumption by the number of household members. But such an approach would fail to recognise that different household members may have distinct consumption needs. While it is true that children consume special goods, they surely require less of most things than do adults (Deaton, 1997). NSO's approach assigns different weights for different members of the household whereby children count as some fraction of an adult, with the fraction depending on age. Finally, the applied effective household size is the sum of these fractions, and is not measured in the number of persons, but in numbers of adult equivalents. Therefore, NSO's welfare indicator to measure poverty in most Member States is household consumption per adult equivalent.

The most obvious approach would be to compute consumption per capita, by dividing total household consumption by the number of household members. However, this not only assumes that resources are shared equally within families but neglects age and sex-specific differences in consumption needs (e.g. small children consuming less food then adults).[2] It also ignores the existence of public goods at the household level, such as non-food items Utilised by all household members without additional cost (e.g. housing, lighting, cooking equipment). If these items exist (and comprise a non-negligible share of household consumption), larger households are advantaged over smaller ones, because of the lower per-capita cost for the acquisition (and possibly maintenance) of the public good. Likewise, large households might benefit from price discounts, since they would purchase in larger quantities than smaller households. These phenomena are described as economies of scale at the household level. One common approach to deal with differences in consumption needs and/or economies of scale is to apply equivalence scales, which seek to normalise consumption for differences in household composition.

Besides the conceptual appeal of correcting for differences in household composition, it is rather difficult to estimate equivalence scales in practice (see Deaton, 1997, for an overview of the large theoretical and empirical literature on equivalence scales). Because of these difficulties, most applied researchers use ad-hoc scales that seem broadly consistent with the relevant literature and do not attempt to estimate equivalence scales on a case-by-case basis. One commonly used formula (Jenkins and Cowell, 1994), which incorporates both different consumptions needs of children (compared to adults) and economies of scale, is given by:

$$AE = \left(A + \alpha K\right)^{\theta}$$

Where AE is the number of adult equivalents, A denotes the number of adults in the household and K the number of children. α lies between 0 and 1 and stands for the cost of a child relative to that of an adult. The parameter θ, which also takes values between 0 and 1, corrects for economies of scale within a household. It should be noted that if both θ and α are set to unit, this formula simply depicts per capita consumption. The common practice, however, is to set α

[2] The idea of differences in consumption needs could be extended to other groupings, e.g. levels of physical activity (Hentschel and Lanjouw, 1995).

close to 0.3 and θ close to 1 for poor countries (Deaton and Zaidi, 2002). This basically assumes that children (here mainly young children) need around one third of the consumption of an adult, and that most goods consumed are private (which is typically substantiated with the high share of food in total budget).

Table 5.5: Adjustments for differences in Household Composition, Overview by Country

Country and Survey	Per Adult Equivalent or Per Capita Consumption	Considers differences in needs by Age/Sex	Considers economies of scale
Angola (IDR 2018-2019)	Per adult equivalent	Age, (Local scale, unknown origin)	No
Botswana (BMTHS 2015/16)	Per adult equivalent	Age, (Local scale, unknown origin)	No
Comoros	Par adult equivalent	Age	No
Eswatini (IES 2009/10)	Per adult equivalent	Age, (Local scale, unknown origin)	No
Lesotho (HBS 2017/2018)	Per adult equivalent	Age and sex (Local scale, recommendations of the Food and Agriculture Organization (FAO) for Southern African countries)	No
Madagascar (ENSOMD 2012 -2013)	Per adult equivalent	Age, (Local scale, unknown origin)	No
Malawi (IHS4 2016/17)	Per Capita	n.a	No
Mauritius (HBS 2017)	Per adult equivalent	Age (Based on Bank & Johnson's Nonlinear equivalence scale as recommended by the World Bank)	Yes
Mozambique (IOF 2014/2015)	Per Capita	Age and sex (Local Scale)	n.a
Namibia (NHIES 2015/16)	Per adult equivalent	Age, (Local scale, unknown origin)	Yes
Seychelles (HBS 2013)	Per adult equivalent	Age, (Local Scale)	No
South Africa (LCS 2014/15)	Per capita	n.a	No
Tanzania (HBS 2017/18)	Per adult equivalent	Age, sex (WHO, FAO Scales)	No
Zambia (LCMS 2015)	Per adult equivalent	Age (National Food and Nutrition Commission/Price and Income Commission)	No
Zimbabwe (PICES 2011/12)	Per adult equivalent	n.a (WHO, FAO)	No

Source: Review of official poverty reports and corresponding documents (see references A).

In most other African States, such economies of scale would assume that consumption requirements of households do not rise linearly when additional persons are added (because some items in households, e.g. housing, utilities, durable goods, can be shared). Although such effects might play a role, these are very difficult to quantify in practice.

Official poverty reports revealed that Malawi and Mozambique uses per capita to adjust for the economies of scale while the rest of the Member States use per adult equivalent scales to adjust for consumption differences in their households. They mainly adjust for age to accommodate children in their household and bring them at the same level as adults in the consumption levels. Most of the countries use the local scales which are adjusted for consumption differences. Most of the Member States do not adjust the differences in nutrition for sex because of the feeling that the assumption of lower consumption needs for women might threaten the credibility of poverty estimates.

5.7 Adjustments for Differences in the Cost of Living

Households in different parts of the country may face different level of welfare if confronted with different market prices. This problem referred to both temporal and spatial price variations.

Spatial price deflators are needed because price differences between regions are likely to make household comparisons of nominal consumption figures (per adult) misleading. For instance, households enjoying the same level of nominal consumption (per adult) might face different welfare levels if confronted with diverse market prices for the same goods.

Differences in price differentials could be caused by inflation and seasonality might influence prices over the survey period. Secondly, cost of living might differ significantly between regions, especially in places with poorly developed infrastructure. The challenge of price difference can be dealt with by calculating the price index, which adjust consumption to a common set of reference price.

The Paasche index and the Laspeyres index are focused by most literature as the two methods that can be used. The expenditure weights of a Paasche index are tailored to each household's consumption pattern, while the weights of Laspeyres index refer to a fixed reference consumption bundle and these are the main principal difference between these two price indices.[3] In other words, the Paasche index uses household-specific expenditure weights, while the weights of a Laspeyres index are the same for all households.[4] A third index, which can be used for temporal and/or regional price deflation, is the Fisher index, which is computed as the geometric mean of the Paasche and Laspeyres indices. Irrespectively of the choice of index, price adjusted consumption is always obtained by dividing nominal consumption by the price deflator.

[3] Deaton and Zaidi (2002) argue that the weights of a Laspeyres index used for poverty analysis should reflect consumption patterns around the poverty line.

[4] In a temporal framework, the weights of the Paasche index refer to the current period, rather than to the base period. In a spatial context, the weights relate to the household under consideration, rather than to the reference household (Deaton and Zaidi, 2002).

Deaton and Zaidi (2002) recommend the use of a Paasche price deflator referenced to national median prices. This is because the Paasche index, with its household-specific weights, corresponds to the concept of money-metric utility and thus has a convenient interpretation in consumer choice theory. However, many statistical agencies use a Laspeyres index, mainly because it is closer linked to the consumer price index (CPI) and marginally more convenient from a computational perspective. The review of country poverty reports shows that Angola, Botswana, Eswatini, Malawi, and most of the Member States uses the Laspeyre index except for Tanzania and Angola which uses the Fisher index and Malawi uses the Paasche index. It should also be noted that there is no information on what index Mozambique uses. In Tanzania, consumption is measured in nominal terms, but the price index is used to adjust the national poverty line for regional price differences. It should be noted that these indices often adjust simultaneously for regional and temporal price differences, though in other countries (e.g. Tanzania) the index is used solely for regional deflation.

Table 5.6: Adjustments for Price Differences (within Survey), Overview by Country

Country and Survey	Price Deflation	Spatial and/or Temporal Deflation	Type of Deflator	Part of Consumption (Food/Non-Food)	Data Sources
Angola (IDR 2018-2019)	Yes	Spatial and temporal (two stage)	Fishers	Food and Non-Food	CPI Data base
Botswana (BMTHS 2015/16)	Yes	Spatial and temporal (two Stage)	Laspeyres	Food and Non- Food	CPI data base
Comoros	Yes	Spatial and temporal (two Stage)	Laspeyres	Food and Non- Food	CPI data base
Eswatini (Swaziland) (IES 2009/10)	Yes	Spatial and temporal (two Stage)	Laspeyres	Food and Non - Food	CPI data base
Lesotho (HBS 2017/2018**)**	Yes	Spatial and temporal (two Stage)	Paasche	Food and Non- food	Survey based prices
Madagascar (ENSOMD 2012 -2013)	Yes	Spatial and temporal (two stage)	Laspeyre	Food and Non- Food	CPI data base
Malawi (IHS4 2016/17)	Yes	Spatial and temporal (two Stage)	Paasche	Food and Non-food	CPI Data base
Mauritius (HBS 2017)	Yes	Price deflation at national level only and over time. No spatial information	Laspeyres	Food and Non- Food	CPI Data base
Mozambique (IOF 2014/2015)	Yes	Temporal	No information	Only food, non – food Prices assumed constant	No information
Namibia (NHIES 2015/16)	Yes	Spatial and temporal (two Stage)	Laspeyres	Food and non-food	CPI Information
Seychelles* (HBS 2013)	Yes	Spatial	Laspeyres	Food and Non Food	CPI Data base
South Africa	No	Spatial and temporal (two Stage)	Laspeyres	Food and Non- food	CPI data base
Tanzania* (HBS 2017/18)	Yes*	Spatial and temporal one stage two dimensional	Fisher index before the 2017/18 Survey and now using Paashe Index	food and non- food	Survey Based
Zambia (LCMS 2015)	Yes	Spatial and temporal (two Stage)	Laspeyres	Only Food, non – food Prices assumed constant	CPI Data base

Zimbabwe (PICES 2011/12)	Yes	Spatial and temporal (two Stage)	Laspeyres	Food and Non- Food	CPI data base
Note: Tanzania deflates the poverty line rather than the consumption aggregates. Since 2017/18, Tanzania has switched from using the Fisher Index to using the Paashe Index. Seychelles collect data on both food and non- food items though uses income to calculate poverty. **Source:** Official poverty reports and corresponding documents (See Reference A).					

Best practice in poverty studies recommend that NSOs adjust for regional price deflation in food products. This is achieved by computing Laspeyres-style food price deflators at the level of provinces, which express all food consumption in national median prices. The price deflators, which are based on core food products, are calculated according to the following formula (see Deaton and Zaidi, 2002):[5]

$$P_{FL}^{h} = \sum w_k^z \left(\frac{p_k^h}{p_k^o} \right) \qquad (3)$$

with p^h_k being the price paid by household h for item k (here approximated with the *province-level median price*), and p^0_k being the reference price for good k (here *national median price*). The w^z_k are expenditure weights, in this case tailored to consumption patterns of households close to the poverty line (z). The empirical weights w^z_k of each food item are derived from the observed consumption shares of households in the 5th to 6th deciles of the consumption distribution of the considered LCMS round.

The overall price deflator is computed as the weighted average of food and non-food price deflators, whereby the latter is set to unity:

$$P_L^h = w_F^z \cdot P_{FL}^h + (1 - w_F^z) \qquad (4)$$

With w^z_F being the average food share of households close to the poverty line (z). This effectively assumes that non-food prices are constant across space. The non-food component hence has a 'stabilising' effect on the price deflator.[6]

[5] Deaton and Zaidi (2002) prefer the use of a Paasche over Laspeyres price deflator.

[6] While the type of food items included in the food price deflator does not change over time, the weights of each item in the deflator differ slightly between the different LMS when comparing LCMs of the same country. Since the size of substitution effects in food consumption differs from province (regions in the same country) to province depending on changes in provincial item-specific prices, NSO prefers to introduce a 'stabilising effect' into the overall price deflator by assuming that non-food prices do not vary across provinces. In addition, it is much more difficult to find prices of representative non-food items since unobservable quality differences play a much larger role in this case. As a consequence, many NSO decided to make no adjustments for variations in non-food prices across provinces,

CHAPTER 6: POVERTY LINE

6.1 Overview

While the preceding chapter discussed the construction of the consumption aggregate, this section focuses on the computation and update of poverty line(s). In general, there are two main concepts for measuring poverty and setting poverty lines: First, there is the notion of *absolute poverty*, which seeks to maintain a fixed welfare level over time and space. Absolute poverty lines typically specify the amount of money necessary to meet a minimum standard of living, such as basic nutritional requirements and essential non-food necessities (basic clothing, housing, etc). Second, the concept of *relative poverty* defines poverty in relation to the average welfare level in society; thus, relative poverty lines typically rise with overall increases in living standards. While relative poverty lines are common in many industrialized parts of the world (e.g. in European countries), most developing countries refer to an absolute poverty concept, at least in the short-to-medium term (Kakwani, 2003).[7] It is for this reason, as well as for the long-standing tradition of absolute poverty lines in Zambia, that this report focuses on absolute rather than relative poverty lines.[8]

There are two main approaches for setting absolute poverty lines: the cost-of-basic-needs (CBN) method and the food-energy-intake (FEI) method (see Ravallion 1998, 2008 for an in-depth review). Both methodologies will be discussed in detail under section 3.2; the final part of this chapter (section 3.3) comments on how to update the poverty line(s) over time.

6.2 Deriving the Poverty Line

6.2.1 Cost-of- Basic Needs (CBN) Method

One of the oldest methods of setting absolute poverty lines is the Cost of Basic Needs Approach which dates back to Seebohm Rowntree's seminal study on poverty in York at the turn of the 19th century (Rowntree, 1901). The key idea is to define a basket of goods that reflects minimum consumption needs of a representative household and to estimate the poverty line as the cost of this 'Basic Needs Basket'. This methodology is today used by many countries in the world including all SADC Member States. Some of the notable countries that use some variant of Rowntree's approach for setting official poverty line, including the United States (Citro and Michael, 1995) as well as several developed countries (Kakwani, 2003).

A food poverty line is first set when setting the Cost - of - Basic Needs Approach and then an allowance of basic non-food items are added to have it implemented. Since it is difficult to establish normatively what constitutes 'essential' non-food needs (as there is no equivalent to the calorie anchor in defining physiological food requirements) and because few surveys collect information on quantities and prices of non-food items consumed, the non-food component of the overall poverty line is typically modeled as a proportion of the food poverty line (Lanjouw and Lanjouw, 2001).[9]
The CBN approach then requires three distinct steps (Ravallion, 1998; Haughton and Khandker,

[7] In the long term, countries might redefine their 'minimum living standard', thus moving gradually towards a more relative poverty concept. Yet, in the short- to medium-term, national poverty lines in developing countries are typically fixed in real terms (Ravallion, 2009).
[8] Moreover, this report does not discuss subjective poverty lines (Ravallion, 2008).
[9] The problems associated with normatively defining basic non-food needs and costing out a full poverty basket of food and non-food items are discussed in Ravallion and Lokshin (2006) in the context of Russia's official poverty lines.

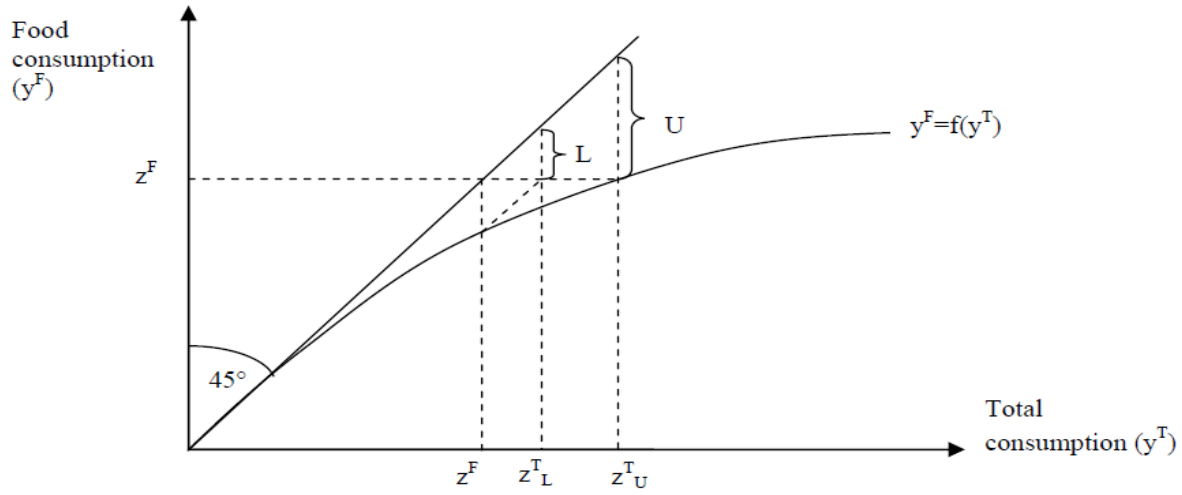
2009): First, it is necessary to define a calorie threshold considered as minimal for adequate nutrition. This is typically based on recommendations set out by the World Health Organization (WHO), the Food and Agriculture Organization (FAO) or (if available) national nutrition commissions. Second, the food poverty line is estimated as the cost of acquiring a food basket, which delivers the above calories and where the relative weights of different food items correspond to observed consumer behavior. The key idea here is to use households 'close to the poverty line' as a reference group for the composition of the food basket in order to ensure that the basket reflects subsistence needs. In practice, the computation of the basket is typically based on an iterative procedure and 'first guess' on the likely range of the poverty headcount. The third step is to add an allowance for essential non-food items, such as shelter or clothing. This is often done by scaling up the food poverty line according to the average expenditure share food items of households close to the poverty line. (See Figure 6.1); this is then considered as the overall poverty line.

6.2.2 Allowing for non-food requirements under the Cost-of- Basic Needs Approach

Setting the non-food component of the overall poverty line is often considered the most contentious part of the CBN method. Not only are there several different variants used in practice, but the methods used for computing the non-food component often not well described in the relevant reports and studies (Ravallion, 1998).

From a theoretical viewpoint, it is feasible to define an upper and lower bound for the overall poverty line. This is best illustrated by plotting food consumption against total consumption:

Figure 6.3: Upper and lower bound of the non-food component under the CBN approach



In the graph above, z^T_L is the lower-bound, z^T_U the upper-bound estimate of the overall poverty line. Both overall poverty lines are based on the same underlying food poverty line (z^F) but differ with respect to their allowance for non-food requirements (L vs. U).

To obtain the lower-bound estimate (z^T_L), the non-food allowance is based on households whose *total consumption* just equals the food poverty line. Surely, these households must be very poor since their total resources are just enough to cover basic food requirements. The fact that they still consume some non-food items, thereby forgoing essential food needs, is an argument for considering this non-food consumption as a rather austere lower bound for the non-food component (L).
In a similar vein, the upper-bound estimate (z^T_U) bases the non-food allowance on households

whose *food consumption* just equals the food poverty line. These households are already consuming enough food to meet basic nutrition requirements. Since at the margin they ought to value non-food consumption as much as food consumption, their non-food consumption can be seen as a more generous upper bound for the non-food component (U).

In practice, both upper- and lower-bound estimate can be derived parametrically or non-parametrically. This is often done by examining households whose total consumption (upper bound) or food consumption (lower bound) lies within a small interval around the food poverty line (Ravallion, 1998, Ravallion and Bidani, 1994).

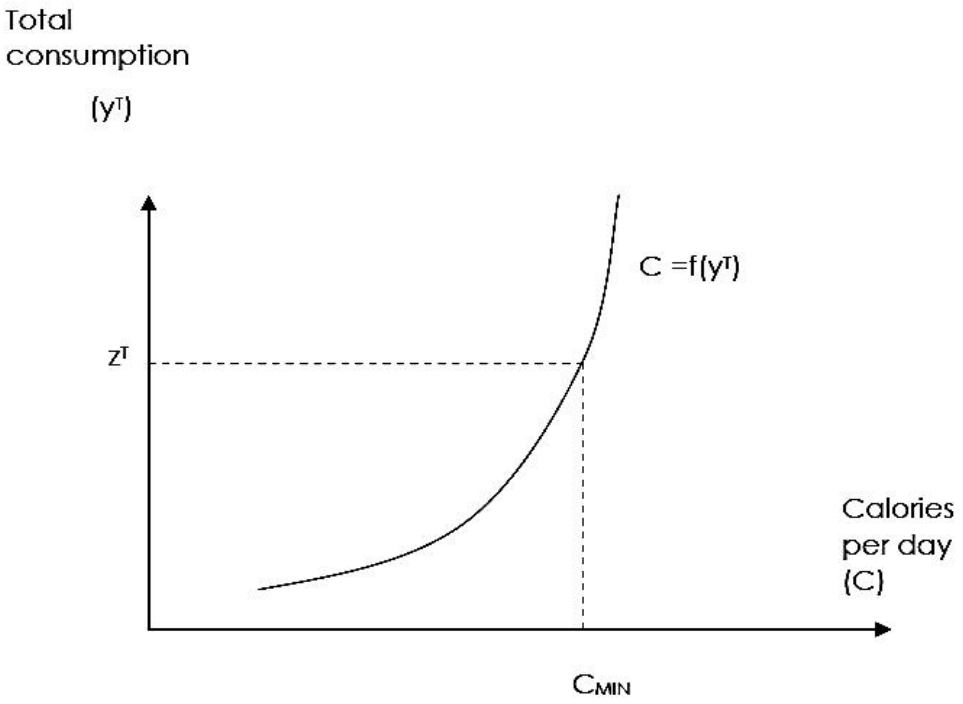
6.2.3 Food–Energy–Intake (FEI) Method

An alternative approach for setting the food poverty line is the Food-Energy-Intake (FEI*)* method. Similar to the Cost-of- Basic Needs methodology, the Food-Energy-Intake approach is anchored in a basic nutrition requirement. Setting the minimal calorie norm would thus follow the same recommendations described above (step one of the CBN method).

However, the key difference between the two methods is how basic nutrition is 'translated' into a monetary value for the poverty line. While the CBN approach estimates the cost of a food basket delivering the pre-determined calorie norm, the FEI method investigates the empirical relationship between food-energy intake and total consumption. This can be achieved, for example, through a non-parametric regression of total consumption (in currency units per day) on calorie-intake (in calories per day). The overall poverty line is then estimated as the level of total consumption at which basic nutrition requirements are met on average (see figure 2 for a graphic illustration).[10] Since the FEI exploits the relationship between calorie-intake and total consumption (not just food consumption), the resulting poverty line automatically includes an allowance for basic non-food necessities.

[10] An alternative is to regress calorie-intake on total consumption and then take the invert. The two approaches are conceptually very similar but need not give the same poverty lines (Ravallion, 1998; Ravallion and Lokshin, 2006).

Figure 6.4: Food-Energy-Intake Approach



Comparing the two approaches, it is often argued that the FEI method is less data intensive and computationally simpler than the CBN approach. Above all, the FEI may not require price data, which is often seen as its key advantage. This, however, assumes that all food consumption is recorded in quantities per reference period and that quantities can easily be converted into the metric system (and then into calories). Both assumptions may not hold for many data sets, as it can be easily illustrated for the SADC Member States. Moreover, quantity information for own-produced food items and gifts are often recorded in local measurement units (e.g. heaps, bundles, tins), which cannot be easily converted into the metric system. In such a context, implementing the FEI approach might even be more demanding than implementing the CBN method.

From a theoretical perspective, many authors point out that the FEI method has some serious weaknesses (Ravallion, 1998; World Bank 2009). The key problem is that Calorie-Intake is influenced by a range of factors other than consumption, e.g. differences in tastes, relative prices or employment structure. This can lead to inconsistencies if the FEI approach is used to derive poverty lines for different sub-groups (e.g. urban and rural poverty lines, or poverty lines for different survey years). For example, differences in relative prices and physical activity might cause a situation where urban households spend less on food (and hence consume fewer calories) than rural households, at any given level of total consumption. Poverty lines generated by the FEI method would thus be considerably higher in urban than in rural areas, even though such difference might not be warranted by differences in absolute price levels. In other words, the different poverty lines might in fact mirror quite different levels of real consumption, which is against the notion of absolute poverty lines. Indeed, Ravallion and Bidani (1994) find almost no correlation between poverty rankings for Indonesia on the basis of FEI and CBN poverty lines. In particular, they find that using FEI-based poverty lines, poverty is greater in urban than in rural areas, a result which is not only intuitively implausible, but also at odds with results based on CBN poverty lines (which reveal markedly higher rural poverty). In a similar vein, Wodon (1997) illustrates a situation in which FEI poverty lines fell over time, despite an across-the-board increase in prices.

It should be noted that such inconsistencies are not unique to the FEI approach but can also apply to the CBN method, e.g. if the latter allows for differences in consumption patterns between sub-groups or over time. If, for example, urban households are wealthier than rural households and therefore consume, on average, more expensive calories, poverty lines based on the CBN approach would be contaminated by differences in real income (see Appleton, 2003, for a discussion on Uganda). Yet, the problem is less severe for the CBN than for the FEI approach. First, the concept of a food basket makes it more transparent (and amendable) to what extent differences in nominal poverty lines between sub-groups are caused by differences in absolute price levels, which would legitimately cause nominal poverty lines to vary, and differences in consumption patterns, which should only be allowed for if not driven by differences in real incomes. Second, FEI-based poverty lines tend to have a much higher elasticity to mean consumption than CBN poverty lines, thus behaving more like relative poverty lines (Ravallion and Bidani, 1994). To summarize, both the CBN and the FEI method might suffer from consistency problems, but the problem is more severe for the FEI approach (Ravallion and Lokshin, 2006).

The preceding discussion has also demonstrated that it is necessary to decide whether to compute just one single regional, or several national (e.g. with provincial or urban/rural) poverty lines. This depends on the extent to which prices and consumption patterns differ between regions and on the underlying reasons. When dealing with CBN-type poverty lines, it is important to discriminate between spatial variations in prices and quantities (the composition of the food basket). It is uncontroversial that differences in absolute price levels between regions should not drive poverty status. Thus either the consumption aggregate or the poverty line (but not both!) should be corrected for spatial price differences or the reference price vector of the deflator should be used for costing out the food basket. It is much less clear, whether the composition of the food basket should differ between regions. As described earlier, differences in consumption structure purely driven by income-differentials should not be reflected in the poverty lines. If, on the other hand, large differences in climate and/or relative prices between regions lead to strong differences in expenditure patterns, one single national food basket might not be defensible. Not only would such a cross-regional basket have little correspondence to actual consumption patterns of households in any given region, but also would a fixed basket rule out substitution effects and thus introduce an upward bias on the poverty lines (DNPO, Economic Research Bureau, IFPRI, 2004). Since it is in practice difficult to fully isolate the income-effect, there is a certain trade-off between specificity, in the sense of allowing for genuine differences in diets across regions, and consistency, in the sense of maintaining a fixed living standard (Ravallion and Bidani, 1994; Kakwani, 2003, Ravallion and Lokshin, 2006).[11] The choice between fixed or variable food baskets is thus rather context-specific.

While the preceding discussion has focused on the theoretical advantages and implications of the Cost-of-Basic-Needs and Food-Energy-Intake approaches for setting poverty lines, this paragraph turns to the methodologies used by statistical agencies in Sub-Saharan Africa to derive poverty lines. From the desktop review of poverty reports it becomes clear that the CBN approach has gained considerable momentum in the region. Most countries for which information on the derivation of the poverty line is available compute CBN poverty lines; this includes all countries in the region except for Mauritius. Calorie norms underlying the food poverty lines vary markedly, and are sometimes expressed on a per capita, or per adult

[11] Ravallion and Lokshin (2006) distinguish between utility and capability consistency. For ease of presentation, this distinction is ignored here.

(equivalent) basis, which constrains comparability between countries. In adult equivalent terms, Angola, Eswatini, Lesotho and others which use 2100 calories per person are anchored on the lowest calories value. Tanzania's poverty lines are anchored on the calorie value (2,200 calories per day), Madagascar is anchored at 2400 calories per day while Zambia is anchored on 2800 calories per day).

Table 6.1: Computation of the Poverty Line, Overview by Country

Country	Absolute or Relative Poverty Concept	Approach for setting the Poverty Line	Daily calorie norm (if applicable)	National or Regional Poverty Lines?
Angola (IDR 2018-2019)	Absolute	CBN	2100 calorie per person	National
Botswana (BMTHS 2015/16)	Absolute	CBN	n.a.	National
Comoros ((Enquête 123 , 2014)	Relative	CBN	2100 calories per person	National
Eswatini (Swaziland) (IES 2009/10)	Absolute	CBN	2100 calories per person	National
Lesotho (HBS 2017/2018)	Absolute	CBN	2700 calories per adult equivalent person	National
Madagascar (ENSOMD 2012 -2013)	Absolute	CBN	2133 Calories per person	National
Malawi (IHS4 2016/17)	Absolute	CBN	2,400 calories per person	National
Mauritius (HBS 2017)	Relative	50 % of median monthly household income per adult equivalent.	n.a	National
Mozambique (IOF 2014/2015)	Absolute	CBN	2,150 calories per person (approximately)	Regional
Namibia (NHIES 2015/16)	Absolute	CBN	2,100 calories per person	National
Seychelles (HBS 2013)	Relative	CBN	2,100 calories per person	National
South Africa (LCS 2014/2015)	Absolute	CBN	2100 Calories per adult	National
Tanzania (HBS 2017/18)	Absolute	CBN	2,200 calories per adult	National
Zambia (LCMS 2015)	Absolute	CBN	2,800 calories per person	National
Zimbabwe (PICES 2011/12)	Absolute	CBN	2100 calories per person	National
Source: Official Poverty reports and corresponding documents **(See Reference A)**				

There are also considerable deviations with respect to the non-food component of the overall poverty line. Mozambique uses Ravallion-type lower bound estimates. Malawi computes the overall poverty line according to the upper-bound approach, while Namibia derives both a lower- and an upper-bound for the non-food component.[12] Tanzania computes the overall poverty line on the basis of non-food consumption of households in the poorest 50 percent of the population (decile 2-5) ; thus, using a rather ad-hoc approach. South Africa calculates three lines which are food poverty lines, lower bound and upper bound for both food and nonfood components.

[12] While most countries use the food poverty line to measure severe poverty and the overall poverty line to measure total poverty, Namibia and South Africa uses the lower-bound estimate of the overall poverty line for measuring severe and the upper-bound estimate for measuring total poverty.

Table 6.2: Details on computation of CBN Poverty Lines, Overview by Country

Country and Survey	Computation of Food Basket / Reference for Consumption Patterns	Computation of Non-Food Component	Ratio of Food to Overall Poverty Line
Angola (IDR 2018-2019)	deciles 5 -6 of the consumption distribution	Upper bound (Ravallion, 1998)	0.62
Botswana (BMTHS 2015/16)	Food Basket pre-determined	Pre-determined	0.70
Comoros	deciles 5 – 6 of the consumption distributions	Upper bound (Ravallion, 1998)	
Eswatini (Swaziland) (IES 2009/10)	deciles 5 -6 of the consumption distribution	Upper bound (Ravallion, 1998)	0.62
Lesotho (HBS 2017/2018)	deciles 2-5 of the consumption distributions	Upper and lower bound (Ravallion, 1998)	0.62 (LB) 0.57 (UB)
Madagascar (ENSOMD 2012 -2013)	deciles 5 – 6 of the consumption distributions	Upper bound (Ravallion, 1998)	0.60
Malawi (IHS4 2016/17)	deciles 5 -6 of the consumption distribution	Upper bound (Ravallion, 1998)	0.62
Mauritius (HBS 2017/18)	n.a	n.a	n.a
Mozambique (IOF 2014/2015)	Poorest 48% of the population	Lower bound (Ravallion, 1998)	0.626 – 0.812
Namibia (NHIES 2015/16)	deciles 2 – 5 of the consumption distributions	Upper and lower bound (Ravallion, 1998)	0.689 (lb)/ 0.484 (ub) *
Seychelles (HBS 2013)	deciles 3 – 4 of the consumption distributions	No information	0.62
South Africa (LCS 2014/15)	deciles 2 – 4 of the consumption distributions	Food poverty, Upper and lower bound (Ravallion, 1998)	0.68 (lb)/0.44 (ub) *
Tanzania (HBS 2017/18)	decile 2 -5 of the population of the consumption distribution	Lower bound method Ravallion, 1998	0. 0.599
Zambia (LCMS 2015)	deciles 5 – 6 of the consumption distributions	Upper and lower bound (Ravallion, 1998)	0.60
Zimbabwe (PICES 2011/12)	deciles 5 – 6 of the consumption distributions	Upper and lower bound (Ravallion, 1998)	0.60
Source: Official Poverty reports and corresponding documents **(See Reference A)**			

Finally, it should be noted that most countries use just one national poverty line (e.g. Angola, Malawi, Botswana, Namibia, Zambia and Zimbabwe), but there are some exceptions: some countries such as Mozambique which computes 13 regional poverty lines and the composition of the food basket and the non-food share vary across regions. Tanzania also reports separate poverty lines for three regions (Dar-es-Salaam, other urban, rural) but these seem to be derived by adjusting one national poverty line for spatial price differences; thus Tanzania's poverty lines may not be considered as regional poverty lines.[13]

In line with the prevalent dominance of CBN poverty lines in Sub-Saharan Africa, the revised poverty lines for SADC Member States are computed according to the concept of Cost-of-Basic Needs.

6.3 Updating the Poverty Line(s) Over Time

As highlighted earlier, the fundamental characteristic of absolute poverty lines is that they ought to imply a constant standard of living. Thus it is critical to ensure that the poverty lines represent a fixed real value over time. This is almost analogous to the computation of regional poverty lines, where the key concern was to keep the standard of living constant across periods of time. For CBN-based poverty lines it is again useful to distinguish between price and quantity differences. Unambiguously, in cases of positive inflation, the nominal value of the poverty line needs to increase over time, in order to reflect a constant standard of living.

There are two main alternatives to account for such price changes. First, it is possible to re-evaluate a constant basket of goods with new, item-specific reference prices. Second, one may apply a composite price index, such as the Consumer Price Index (CPI) or the Food CPI. Theoretically, the former approach is preferable to the latter, because applying a composite price index necessarily entails an approximation and is thus less accurate than re-costing the basket. In practical terms, applying a composite price index is computationally much easier, as it does not require an item-specific price data base but only the CPI tabulations readily available from most statistical agencies. The extent of bias introduced by using a composite price index depends on two key factors, the reference basket of the price index and the length of period for which the update is needed. Ideally, the composite index should correspond as closely as possible to the basket underlying the food poverty line, thus adequately mirroring price changes of the basic needs food items over time (i.e. the food CPI would be preferred to the overall CPI). Likewise, the length of the period is critical, since biases tend to accumulate over time. In practice, it has often been found that the development of the CPI does not adequately mirror changes in prices of basic needs items and that updates based on the CPI can introduce serious biases (Günther and Grimm, 2007).

Besides updating prices, it is possible to update the composition of the food basket (in terms of quantities) over time. Superficially, the nutritional anchor of the CBN methodology seems to guarantee some form of consistency, as long as the underlying calorie norm is kept constant. However, this may not hold due to the arguments presented earlier on, which suggest a relationship between average income and the average price per calorie. As households become richer, they are more likely to consume expensive calories, e.g. meat or dairy, instead of starchy staple crops. This would increase the value of CBN poverty lines over time, in excess

[13] Most countries correct the consumption aggregate rather than the poverty line(s) for spatial price differences; but these approaches are conceptually similar.

of price changes. On the other hand, keeping the basket fixed causes problems if the observed consumption behaviour of the poor changes significantly over the period of interest, for reasons other than income changes (e.g. relative price changes, preference shocks). One pragmatic approach would be to keep the food basket constant in the short-run, but to monitor the composition of the basket and to allow for discretionary updates. These updates should then be accompanied by sensitivity analysis that gauge the effect of changes in the food basket on poverty estimates (possibly reporting to sets of poverty estimates over an interim period).[14]

All food poverty lines can be interpreted as the cost of acquiring an identical bundle of food items in current national median prices. The ratio of food to the overall poverty line is also held constant over time.

The study of the official poverty reports revealed that all Member States came up with new poverty lines every time they conducted a new survey. This meant that the new poverty figures produced from each study reflected the new poverty lines and hence set up a new figure based on the computation of new or updated existing poverty lines. All SADC Member States use the Cost-of-Basic Needs approach and presented a new food basket at every new survey hence did not have a base year of the basket. Since the food poverty line is new there is no need to update it and need no methodology for price adjustment.

[14] Unfortunately, there exists very little theoretically guidance if and how the non-food component of the overall poverty line should be updated over time. This is related to the fact, that the approaches used for computing the non-food component of the poverty line are often fairly ad-hoc in the first place and do not allow distinguishing between the effects of income vice versa price changes on the non-food share.

Table 6.3: Poverty Line Update (only CBN Poverty Lines), Overview by Country

Country and survey	Computation of new or update of existing poverty line?	If update of existing poverty line:	
		Base year for basket	Methodology used for price adjustment
Angola (IDR 2018-2019)	New	n.a	n.a
Botswana	Update	1989	n.a
Comoros	update	2014	n.a
Eswatini (Swaziland) (IES 2009/10)	New	n.a	n.a
Lesotho (HBS 2017/2018)	New	n.a	n.a
Madagascar (ENSOMD 2012 -2013)	Updated	2012/13	n.a
Malawi (HIS 4 2016/17)	Updated	2005	n.a
Mauritius (HBS 2017)	n.a	n.a	n.a
Mozambique (IOF 2014/2015)	New	n.a	n.a
Namibia (NHIES 2015/16)	New	n.a	n.a
Seychelles (HBS 2013)	New	n.a	n.a
South Africa (LCS 2014/15)	Updated	2010/2011	n.a
Tanzania (HBS 2017/18)	New	n.a	n.a
Zambia (LCMS 2015)	Updated	1991	n.a
Zimbabwe (PICES 2011/12)	Updated	2011/2012	n.a
Source: Official Poverty reports and Corresponding Documents**. (See Reference A)**			

CHAPTER 7: POVERTY MEASURES

The study of official poverty reports of many Member States has made the definition of poverty relatively the same. All SADC Member States define poverty based on consuming enough food to enable individual have the required nutrients so as to have the required calorific intake to stay alive.

The consumption aggregate and poverty line(s) discussed provided sufficient information to determine the poverty status of households and individuals. Therefore, monthly consumption per adult equivalent is compared to the food and overall poverty lines (in local currency per month). Most Member States use the following definitions:

- (Total) poverty: a household is classified as poor if total consumption per adult equivalent is below the overall poverty line.

- Extreme poverty: a household is classified as extremely poor if total consumption per adult equivalent is below the food poverty line.

- Food poverty: a household is classified as food poor if food consumption per adult equivalent is below the food poverty line.

However, estimating poverty for the population as whole or certain sub-groups requires poverty measures that translate household- and individual-level well-being into an aggregate number (Coudouel, Hentschel and Wodon, 2002). The following enumeration lists the most common measures of poverty; all three indices are tabulated in reports of SADC Member States.

- Poverty headcount/ poverty incidence: This is the proportion of the population with consumption below the poverty line.

- Poverty gap/ poverty depth: This measure denotes the average poverty gap in the population (the aggregate consumption shortfall of the poor divided by the population) expressed as a fraction of the poverty line. The poverty gap measure provides information about how far away from the poverty line poor households are. It can also be used to compute total resources needed to lift up all the poor to the level of the poverty line.

- Poverty severity: This measure takes into account inequality among the poor by squaring individual-level poverty gaps before aggregating across the population.

The above poverty measures all belong to the FGT class of poverty measures and can be summarized by the following formula (see Foster, Greer, Thorbecke, 1984):

$$P_\alpha = \frac{1}{N}\sum_{i=1}^{q}\left(\frac{Z - Y_i}{Z}\right)^\alpha$$

where N is the population size, q the number of poor people, Z the poverty line, and Y_i consumption per adult equivalent. For α = 0 the FGT measure becomes the poverty headcount, for α = 1 the poverty gap, and for α = 2 the poverty severity index.

Studies from the official poverty reports of Member States revealed that all Member States computed poverty measures based on the three commonly used poverty measures of head count ratio, Poverty Gap ratio and severity poverty measure. All Member States used the food and nonfood of the cost-of-Basic Needs baskets to measure poverty. The cost-of-Basic Needs basket is the most commonly used methods when computing money metric poverty by SADC Member States.

CHAPTER 8: INEQUALITY

Inequality or economic inequality refers to differences between the rich and poor, the have and have nots. Inequality is shown by economic distribution by people's differences in wealth, pay and income. Inequality is large in a society where few people own a disproportionate amount of the economic pie. Inequality denotes the different levels of living standards of the society. Inequality is a broader concept than poverty. It is defined over the entire population and does not only focus on the poor. Inequality is alternatively measured by income and or expenditure. Income inequality provides us with a snap short of income differences across the population. Expenditure inequality tells us more about the long – run, or lifetime, differences in living standards between people.

8.1 Inequality Measurement within the Region

Inequality measures are used to illustrate differences or between groups and withing groups. There are several measures of inequality that have been used by many countries over the last four decades. Nevertheless, the most accepted measure of inequality is the Gini Coefficient. This study looked what Gini coefficient NSOs use. Best practices recommend the use of income data to derive the measure of inequality. This study looked at many different studies by NSOs and adopted the best practice method of measure which use income while at the same time validating others especially the one that use expenditure data.

The study also explored how the inequality measures were treated by different NSOs and how they define concepts. The aim was to ensure that the definition is calibrated across the region. The most accepted definitions for some income concepts are as follows:

8.1.1 Per Capita Mean Monthly Income

This denotes the average monthly income of a household member, calculated as the quotient of total household monthly income and the total number of persons in the household.

8.1.2 Household Mean Monthly Income

This is the average monthly income of a household and is calculated as the quotient of the total monthly income of all households and the total number of households in a country. Related to the mean, monthly income is the modal income representing the income received by the majority of households.

The study of official poverty reports of SADC Member States revealed that all SADC Member States calculate the levels of inequality in their country using the Gini Coefficient. Using the calculated Gini coefficient, they are able to depict the results using the Lorenz curve and also the deciles. All SADC Member States use income data to calculate inequality except for Tanzania and Zambia which measured inequality using both income and expenditure data.

In the study questionnaires that were circulated to all Member States, most indicated that there measures of inequality uses income and this makes it comparable across the region. Once all income of citizens of Member States are converted to one universal currency, it could be easier to come up with one indicator of inequality for all member countries.

Table 8.1: Inequality Calculations, Overview by Country

Country and Survey	Does the Country compute measures of Inequality?	Gini Coefficient	Lorenz curve	Income Deciles	Data used for calculating Inequality	
					Income	Expenditure
Angola (IDR 2018-2019)	yes	✓	✓	✓	✓	No information
Botswana (BMTHS 2015/16)	yes	✓	✓	✓	✓	✓
Comoros	Yes	✓	✓	✓		✓
Eswatini (IES 2009/10)	Yes	✓	✓	✓	✓	No information
Lesotho (HBS 2017/2018)	yes	✓	✓	✓	✓	✓
Madagascar (ENSOMD 2012 - 2013)	yes	✓	✓	✓	✓	No information
Malawi (IHS4 2016/17)	yes	✓	✓	✓	✓	No information
Mauritius (HBS 2017)	yes	✓	✓	✓	✓	Gini coefficient based on expenditure can be calculated.
Mozambique (IOF 2014/2015)	yes	✓	✓	✓	No information	✓
Namibia (NHIES 2015/16)	yes	✓	✓	✓	✓	No information
Seychelles (HBS 2013)	yes	✓	✓	✓	✓	No information
South Africa (LCS 2014/15)	yes	✓	✓	✓	✓	✓
Tanzania (HBS 2017/18)	yes	✓	✓	✓	n.a	✓
Zambia (LCMS 2015)	yes	✓	✓	✓	✓	✓
Zimbabwe (PICES 2011/12)	yes	✓	✓	✓	✓	No information
Source: Official Poverty reports and Corresponding Documents. **(See Reference A)**						

8.3 Per Capita Income Deciles

These are the tabular representation of income distribution of a population. Per capita income deciles divide an income distribution arranged in ascending or descending order into 10 equal parts or deciles. For each decile, the percentage of the total income is calculated as well as the percentage of the total population receiving the total income in the deciles. The difference between the two percentages varies directly with inequality in income distribution.

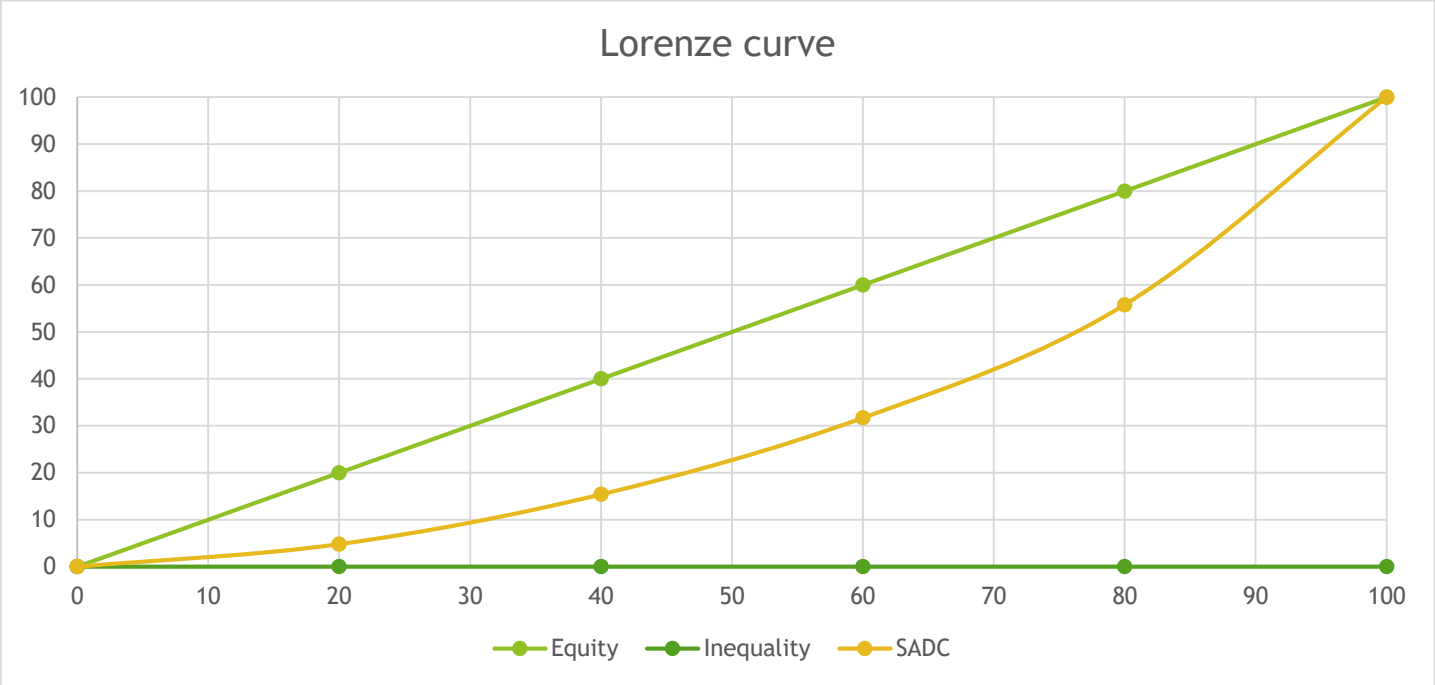
8.4 Lorenz Curve

A Lorenz curve is a graphical representation of income distribution of a population. It shows the different proportions of total income going to different proportions of the population. The curve depicts income inequalities by the extent to which it diverges from an equi-income distribution line. The equi-income distribution line is a straight line joining the ends of the Lorenz curve and represents total equality in income distribution. Each point on the equi-income distribution line is such that a given percentage of the population receives an equal share of total income. This implies that 10 percent of the population receives 10 per cent of the total income, 90 percent of the population receives 90 percent of the total income, and so on.

8.5 Gini Coefficient

This measures household income distribution using an index of inequality. The coefficient gives the numerical degree to which the Lorenz curve diverges from the equi-income distribution line.

Figure 8.1: Lorenze Curve



In Figure above, the straight line is the equi-income distribution line, while the curve is the Lorenz curve. The Gini coefficient is the ratio of the area in the curve which I will call A to the sum of areas A and B (The area just under the curve); hence the Gini coefficient is given by:

G = A / (A+B)

The Gini coefficient always ranges from 0 to 1. A coefficient of 0 represents total equality in income distribution, while a coefficient of 1 represents total inequality. A coefficient such as 0.66 can be considered to represent a high incidence of inequality in income distribution, while a coefficient such as 0.15 represents a more equitable income distribution.

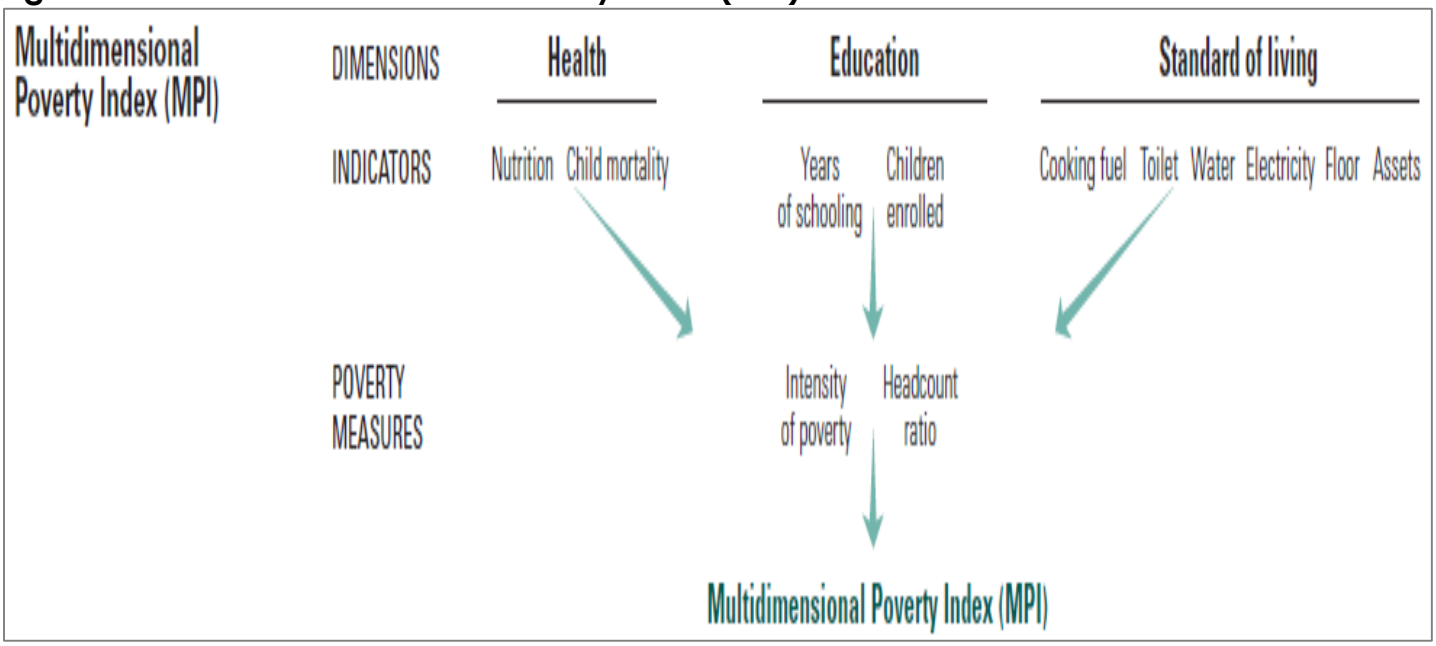
CHAPTER 9: MULTIDIMENSIONAL POVERTY INDEX

9.1 Overview

The study was also aimed at established if any of the NSO calculate Multidimensional Poverty Index (MPI). In situation where NSO do calculate MPI, the study would like to understand the type of methodology the NSO uses to calculate the MPI. In situations where NSO uses its own methodology, the study had to establish the variable used and why they were chosen.

The Multidimensional Poverty Index (MPI) is an index which identifies multiple deprivations at the household and individual level in health, education and standard of living. The Multidimensional Poverty Index (MPI) complements monetary measures of poverty by considering overlapping deprivations suffered by households and individuals at the same time. The United Nations (UN) calculated MPI index by identifying deprivations across three dimensions which are health, education and standard of living, which the poor and poor households have to live with. The figure below illustrates the variables used by the United Nations Development Program (UNDP) in calculating the index.

Figure 9.1: The Multidimensional Poverty Index (MPI)



In March 2013, a SADC regional workshop was held to raise awareness of the MPI. One of the results of that workshop were the identification of the need for a harmonized definition of poverty for the SADC region. It is from that regional workshop that it was considered that the MPI approach should be part of this assignment.

This study revealed that only South Africa, Seychelles and Mauritius calculate their own Multidimensional Poverty report using their own parametres to come up with own dimensions and indicators. Mauritius calls their MPI as ***Multi-dimensional deprivation index***. All the three countries', South African, Seychelles and Mauritius MPI have all the dimensions used by the United Nations Development Program to calculate MPI but have included their own dimensions with its indicators. These countries have

calculated their MPI with technical support from the Oxford Poverty and Human Development Initiative (OPHI). These countries have added unemployment rate as an added dimension, and this measure the employment for persons aged 15 years and above and other indicators such as informal or formal employment. The indicators under economic activity may differ from country to country. Similarly, the indicators in each of the other category may not be the same too. The other thing that may differ are weights used for each indicator from country to country. Although most of the SADC Member States indicated that they calculate MPI, there is no country other than South Africa and Seychelles which has published its own report and most of them use the UN global methodology to try on different data sets. Most SADC Member States when asked in the study questionnaires responded that they calculate some MPI but that could not be supported by official reports.

Table 9.1: Multidimensional Poverty Index Calculations, Overview by Country

Country And Survey	Does The Nso Compute Multidimensional Poverty Index?	Health		Education		Cooking Energy	Living Standards					Any Other Variable
		Nutrition	Child Mortality	Years Of Schooling	School Attendance	Cooking Fuel	Sanitation	Water	Electricity	Floor	Assets	
Angola (IIMS 2015-2016)	Global	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	×
Botswana (Bmths 2015/16)		x	x	×	×	×	×	×	×	×	×	×
Comoros	Global	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	×
Democratic Republic Of The Congo	Global	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	×
Eswatini (Swaziland) (Ies 2009/10)	Global	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	×
Lesotho (2017/2018)	Global	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	×
Madagascar (Ensomd 2012 -2013)	Global	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	×
Malawi (Ihs4 2016/17)	Global	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	×
Mauritius (Hbs 2017)	National	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Economic Activity
Mozambique) (IOF 2014/2015)	Global	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	×
Namibia (Nhies 2015/16)	Global	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	×
Seychelles (Hbs 2013)	Global	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	×
South Africa (Lcs 2014/2015)	National	✓	✓	✓	✓	✓	✓	✓	✓	-	✓	Economic Activity
Tanzania (HBS 2017/18)	Global	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	×
Zambia (Lcms 2015)	Global	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	×
Zimbabwe	Global	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	×

(Pices 2011/12)												
Source: Human Development Report, Official Poverty reports and Corresponding Documents. **(See Reference A)**												

CHAPTER 10: LIMITATION AND RISKS

10.1 Limitations

Time constraints: The amount of work was enormous for the consultant. He had to analyses poverty reports of all SADC Member States. Some of the reports had its information not well packaged to enable the best required information from them on time. However, there was need to put sufficient time to have most of the valuable information collected.

Mitigation: The consultant had to put in a lot of man hours in order to meet the limitation of time.

Scope of work: The Scope of Work contained many milestones which were met. These milestones had a number of reports, deliverables, and end products that were expected to be provided on agreed times.

Mitigation: The consultant tried by all means to meet all the deadlines by ensuring that all the necessary reports, deliverables and end products were done on time. Where this was not done new timelines were arranged and the consultant did his best to meet them.

10.2 Risks

Data was not always readily available as needed for the study. This required proper scrutiny of the assignment. Most of the available data was in summary form and some essential information of the study had been lost in the process of summarising the report.

Mitigation: The proposed ways of collecting data was aimed at mitigating the limited data availability.

The consultant also had to contact some Member States by phone so as to get the extra needed information.

Mitigation: The consultant had to rely on official poverty reports produced by National Statistical offices where necessary in order to have reliable data.

CHAPTER 11: HARMONISING INEQUALITY AND POVERTY MEASUREMENTS IN THE SADC REGION

This Chapter will first look at a harmonised inequality measurement for the entire SADC region. Once the measurement of inequality is harmonised, the inequality figures of all Member States will be comparable across all states and this will make it easier for the SADC Regional Poverty Observatory to speed up reforms and execution of national poverty reduction strategies that will help the region reduce poverty levels within Member States.

11.1 Inequality Harmonisation

The Study has revealed that there are two measurements of inequality pertaining in Member States based on either income or expenditure, and this study has gone further to look at the difference between the two.

Studies have shown that consumption is the nearest alternative to disposable income. Consumption or consumption expenditure, a variable which is often preferred in developing countries since it is more easily measured in such localities than income as many people in these societies are not in salaried employment. Consumption can be smoothed overtime and therefore, is less volatile and less reliant on seasonal variation than income, especially in agricultural societies (Deaton and Grosh 2000). Another argument in favour of consumption is that well-being (utility) is a function of the goods and services actually consumed.

A second argument in favor of consumption is that it is more closely related to permanent income or lifetime resources than current income. This means that expenditure reveals deep seated inequality while income only reveals the transitory component inequality.

The simple proportionality between consumption and permanent income in the baseline inter-temporal consumer's optimisation problem does not hold if some of its basic hypotheses are relaxed and simple forms of personal heterogeneity are introduced in areas such as the effects of savings or inherited wealth, the degree of inter-generational altruism, the variability of uncertain labour incomes, and capacity to borrow, to name just a few. However, the arguments for income are that income gives actual economic power an individual or household has while expenditure or consumption gives actual standard of living.

Finally, there is the problem of measuring of "true" consumption in rich societies. Very few surveys try to measure actual consumption, because purchases of durables, such as major appliances, automobiles, and especially housing must all be spread out over the useful life of a good which is bought in one period but consumed in another. As mentioned earlier, Haig (1921) and Simons (1938) recognised that income represents the possibility to consume, and therefore established their famous identity. It is true that expenditure is easy to collect and most rich people under report their incomes. However, most often the choice between income and expenditure is the issue of availability as against income, which is not always available. It should also be stated that the rich do not consume most of their income as they have good saving tendencies as compared to the poor. In view of this, we feel income is the best measure of inequality of a society as it shows the real difference that exist in a society once its aggregate is well constructed.

For inequality measurements, the most important thing is to standardise the methodology across all Member States. The income sources to be aggregated must be the standardised across all Member States. This would entail that questionnaires of Member States will have to be standardised across Member States something which may be tedious work but one which will eventually be successful over time. Among the income sources to be standardised are as follows:

- Income from agriculture production
- Income from non-agriculture business
- Income in kind
- Rental income from properties owned
- Income from remittances
- Income from pensions, grants and interests
- Income from interest or dividends on shares, bonds, securities, treasury bills, etc.
- Inputed income from consumption of own production goods and services.
- Any other income that accrued to a person

Once all these incomes are collected and aggregated, then the inequality measures such as the Gini coefficient, Lorenze Curve, deciles distribution, coefficient of variation and others can be calculated for each country in their local currencies. This would produce the inequality index for each Member State that is comparable across all Member States.

11.2 Harmonised SADC Poverty Line

To come up with a harmonised poverty measurement in the SADC countries would require coming up with a harmonised SADC poverty line. In the previous chapters the study analysed poverty measurement at different state levels by evaluating the differences and similarities of the existing poverty measurements practiced in each SADC state and a lot of differences and similarities have been highlighted. As a result of these differences and other factors, the SADC Secretariat is considering whether there is merit in developing a harmonised SADC- specific poverty approach.

The study has found that there could be some merit in developing a SADC specific poverty line in a consistent method using consumption-based approaches as most SADC Member States are considered developing countries whose majority of their citizens depend on informal sector economies for their survival. It would be specific to come up with SADC poverty using a SADC-specific poverty line in a consistent method of generating national poverty lines using national currencies rather than generating a PPP-adjusted poverty line in international dollars (see also Klasen 2013a and Klasen et al. 2015). It is important that such a poverty line also considers relative poverty in its assessment to reflect the rising aspirations of SADC Member States (see Ravallion and Chen 2011; Chen and Ravallion 2013). In terms of multidimensional poverty lines, there is merit in developing a SADC -specific Multidimensional Poverty Index (MPI) that takes into account the specific living conditions of SADC Member States.

11.2.1 Advantages and Disadvantages of a Harmonised "SADC" Poverty Line

This study has shown why it is important to come up with a SADC harmonized poverty line. When discussing a SADC poverty line, it is important to ask whether that is important to have or not. Here we consider four possible arguments for a SADC poverty line. First, one could argue that conditions in SADC Member States are different from other parts of the world that it justifies a different poverty line, in the sense that, it would reflect these particular circumstances. Urbanisation has taken root in most SADC Member States and these have meant that some people are leaving their rural homes and hence weakening family ties. In some instances, two economies apply where, the rural areas are mainly made of poor subsistence farming-based economies while the urban areas experience a mixture of a few salaried formal economy and informal sector economy mainly based on vending. In some SADC states the provision of public services are weak and to some extent, not existent at all while in some states the rural areas are totally neglected altogether. This might justify a lower poverty line, measured in terms of private per capita incomes because fewer private incomes are required to achieve a certain level of well-being. But it is not obvious that these apparent differences justify a peculiar SADC poverty line because the heterogeneity within Member States in these economic and social arrangements is very large based on the history of colonialization. Also, one would first need to investigate the empirical importance of these claims and their relevance to particular SADC Member States before one could draw any firm conclusions on this. It should also logically lead to different poverty lines within SADC states, depending on the particular circumstances. It would thus be particularly difficult to use this argument as a motivation for a uniform expenditure poverty line appropriate for all SADC Member States.

The levels of difference in economic and trends of economic performance out to be reflected in the setting of a poverty line. Some States within SADC such as Botswana, Angola, South Africa, Zambia and others have experienced rapid economic growth affecting average income /expenditure while other such as Zimbabwe have remained stagnant over the last two decades due to sanctions imposed by Western countries. With growth in income been experience by other SADC Member States, this might justify the use of a SADC poverty line that reflects the expenditure/income and more importantly, reflects SADC economic performance. Such a harmonised poverty approach should contain a relative element, i.e., increase with rising prosperity in SADC region. The high economic growth of the SADC region might be a counter argument to a single and uniquely SADC poverty line.

Thirdly, developing a harmonised SADC poverty line is argued that it would be more closely aligned with national poverty lines of Member States and, thus, the disconnect between national and international poverty measurement would be correspondingly smaller (see Dotter and Klasen 2014a; Klasen 2013). This is essentially an empirical question. It is argued that the US$ 1.25 poverty line is greatly linked to Sub-Saharan African countries. However, the US$1.25 poverty line has been greatly condemned by many scholars as illustrated in the topic on World Bank US$1.25 methodology studied below.

Fourth argument relates to the Human Development Reports' multidimensional poverty measure. The most prominent internationally comparable multidimensional poverty measure is UNDP's MPI (see UNDP 2010, Ch. 5; Alkire and Santos 2014), which uses the same indicators and cutoffs across the entire developing world. Due to differences in climate, economic and social arrangements, social preferences, and the nature and state of public services, one might argue that a SADC MPI should reflect this in terms of indicators and cutoffs. For example, the role of education to personal advancement is seen as particularly important in SADC Member States, and an MPI should reflect this by giving education more weight and possibly argue for a higher cutoff. Another important variable that one needs to give more precedence is employment especially for the youths. Most SADC countries need to create more jobs for their citizens as a direct way to reduce poverty. This is the reason why the few SADC countries that are calculating MPI have incorporated employment as one of the variables to be measured. Of course, as before, the heterogeneity within Southern African Development Committee is a problem for this line of reasoning. When considering multidimensional poverty measures below, we revisit this issue again. One should also mention that there are important disadvantages to generating a continent-specific poverty line. The comparisons across Member States are difficult and not transparent both in terms of levels and trends.

To conclude this discussion, it is not obvious that a specific harmonised SADC poverty approach is desirable. The most compelling arguments are that it could reflect expenditure levels and faster economic progress better than a global measure; that it can be linked more closely to national poverty lines in SADC; and that it might reflect uniquely SADC conditions and settings in a multidimensional measure. But there are costs to it and this suggests that one should not drop a global measure for a SADC one, but only treat a SADC poverty line as complementary to a global assessment.

11.2.2 Options to Construct a Harmonised SADC Poverty Line

There are different options to develop a harmonised SADC specific poverty line.

In developing a harmonized poverty line, one needs to first distinguish between a money metric/expenditure and a multidimensional poverty line. When constructing an expenditure poverty line, we consider three options. Using only SADC Member States in the estimation, the first option is to copy the estimation method of the World Bank of generating the US$1.25-a-day poverty line; secondly, the option would be to use the same set of countries to produce a 'weakly relative' poverty line (Ravallion and Chen 2011; Chen and Revallion 2013); and the third option grounds a SADC Member States poverty line in national poverty measurement (see Klasen 2013, 2013b). Thus, together with a SADC-specific multidimensional poverty line, altogether four options are considered.

11.2.3 An Absolute Consumption Poverty Line using the World Bank's Methods

Since 1990, the World Bank has been generating an international poverty line; (Ravallion, Datt and van de Walle 1991). The poverty line has been changing from US$1.02 in 1985 PPP-adjusted dollars in 1990; in 2000, it was adjusted to US$1.08 in 1993 PPP-adjusted dollars (World Bank 2000; Chen and Ravallion 2001); and, in 2008, it was adjusted to US$1.25 in 2005 PPP-adjusted dollars (Ravallion, Chen and Sangraula 2009). Currently the new poverty line is set at $1.90 using 2011 prices. The methods of deriving the international poverty line have essentially been the same (although differing in some details of data used) and we focused on the latest completed

revision done in 2011. Ravallion, Chen and Sangraula (2009) explain how the World Bank derives the international consumption poverty line using the following steps. First, available national poverty lines for 74 developing countries are translated into poverty lines expressed in PPP-adjusted international dollars in 2005 prices.

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Over the years, nation's consumption data from more than 74 countries are collected by World Bank staff who then apply the same methodology. Consumption per capita are then expressed in international dollar using Purchasing Power Parity (PPP). They then apply an international poverty line of US1.90 at 2011 PPP price. All individuals whose per capita consumption is below the set poverty line are considered to be poor while those above are considered non poor. Thus, using a sample of SADC Member States would not lead to a different poverty line from using the global sample if the same estimation method are used. Nevertheless, the question arises which estimation method is to be preferred.

Overall, the study suggest that this method would not generate a very reliable and robust estimate for a SADC-specific expenditure poverty line. Besides these estimation issues, there are more serious concerns and criticisms of this entire approach which have been discussed extensively in the literature (e.g., Reddy and Pogge 2009; Klasen 2013, 2013b; Klasen et al. 20015; Deaton 2010; Dotter and Klasen 2014a). We highlight four of the most important issues that have been discussed in the literature. First, this method is rather unstable and highly dependent on the sample of countries included in the estimation and the PPP exchange rates used. When, in 2008, the World Bank switched from using the 1993 PPPs and the sample of countries used for estimating the poverty line, it led to the switch of the international poverty line from US$1.08 in 1993 dollars to US$1.25 in 2005 dollars. Currently, similar issues are arising with the new 2011 PPPs which could lead to serious reassessments of poverty levels in the world and in different regions (Klasen et al. 2015). More seriously, the 2008 revision led to a massive upward shift in global poverty for all years, e.g., from about 29% in 1990 to about 41% in the same year; thus, the base year of the first MDG was changed substantially with a large impact on what halving global poverty would mean. The pace of poverty reduction was, however, less affected (Chen and Ravallion 2010). As shown by Deaton (2010) and Greb et al. (2012), the main reason for the massive increase in levels of observed global poverty was not the switch of the PPPs, but the switch in the sample of countries used to estimate global poverty. Deaton (2010) additionally noted that the change in the sample led to some perverse effects. In particular, he noted the case of India. Whereas India was part of the reference group of countries that made up the global poverty line using 1993 dollars, high subsequent growth ensured that India was no longer in the reference group in the assessment using 2005 dollars. Because India's poverty line is rather low, the exclusion of India from the reference group led to an increase in the global poverty line, which, in turn, led to an increase in measured poverty in India using that new line. In a sense, rapidly rising incomes in India have led to higher observed poverty in India using the international poverty line, clearly a problematic effect. In short, there appear to be substantial problems and uncertainties associated with switches in PPPs and national poverty lines used to estimate the global poverty line. The 2011 PPPs suggest that prior assessments of PPP-adjusted incomes underestimated per capita incomes in PRC and India, and some other Asian economies. If these are used to generate a new international poverty line, this could have substantial implications for poverty in those countries, compared with other regions, as well as on global poverty. A second line of criticism relates to the use of PPPs more generally for this type of assessment (Deaton 2010; Klasen 2013b; Reddy and Pogge 2009). One criticism is that PPPs are generated to compare overall price levels, not price levels for the poor; worse, they can be sensitive to changes in the price level for goods unrelated to the poor (Reddy and Pogge 2009). Another

criticism is that PPPs are only valid for a particular benchmark year, but not over time. Thus, the question arises whether one should use only one PPP benchmark year (as currently being done in the World Bank's approach to poverty measurement), or several benchmark years (as done for the Penn World Tables that also use PPP-adjusted income data). A third line of criticism is that the international income poverty line has limited relevance for country-level poverty assessments because the difference between country-level consumption poverty lines and the international consumption poverty line is substantial (Dotter and Klasen 2014a).

This point, which was earlier alluded to above, is nicely visible in the estimation of the SADC poverty line. As can be seen, the difference between country-level poverty lines and the estimated World Bank poverty line is substantial. In Lesotho and Madagascar poverty, using the World Bank poverty line is lower than using national poverty estimates whereas, in the rest of Member States, it is much higher. In fact, there is a clear regional pattern to the difference between national poverty lines and a World Bank poverty line. Most of the SADC Member States have their poverty estimate below the estimated line, i.e. poverty is lower using national poverty lines than the international poverty line, see Annex table B.

This poverty line has challenges when there is increased economic growth in some Member States. This was observed in some Asian countries such as India and China, which experienced some levels of prosperity. These countries increased their national poverty line to make it more relevant for national policymaking. In this context, the question arises whether one should adjust the poverty line because of increasing prosperity. This is precisely the suggestion by Ravallion and Chen (2011) of a 'weakly relative' international poverty line to which we discuss below.

In view of these arguments, one would summarise that the case for a SADC poverty line using the World Bank's method of deriving the US$1.90 poverty line is weak. It would not lead to a substantially different poverty line. It is poorly linked to national poverty lines, it is unstable due to the link to the PPPs and the estimation method, and it would be increasingly irrelevant for some of the fast-growing SADC economies.

11.2.4 A 'Weakly Relative' Poverty Line using the World Bank's Approach

A 'weakly relative' international poverty line was proposed by Ravallion and Chen (2011. This method suggests that if all incomes increase (decrease) by the same proportion then an aggregate poverty measure must fall (rise). In any Standard poverty measure this will be satisfied as long as the elasticity of the poverty line to the mean does not exceed unity.

By aggregate poverty measure, Ravallion and Chen (2011) mean poverty measurement outcomes such as the headcount ratio or poverty-gap index. As they explain, the weakly relative approach will be satisfied for any standard poverty measure so long as the elasticity of the poverty line to mean income is less than one. Utility itself is however assumed to be a function of own income and relative income, thus rendering poverty relative in the income space. Accepting Ravallion and Chen's (2011) typology, and assuming that the social standard of living can be captured by national mean income M, this can be easily represented formally. Utility is $W(Y,Y/M)$, where Y is own income and Y/M is relative income, and utility is assumed to be smoothly non decreasing in Y and Y/M (Ravallion and Chen, 2011). The poverty level of utility $\bar{W}$ is therefore defined in terms of the income poverty line Z such that Utility is $W(Y,Y/M)$, where Y is own income and Y/M is relative income, and utility is assumed to be smoothly non

decreasing in Y and Y/M (Ravallion and Chen, 2011). The poverty level of utility $\bar{W}$ is therefore defined in terms of the income poverty line Z such that

$$\bar{W} = W(Z, Z/M). \quad (1)$$

If the utility derived from relative income is non-zero, Z must change as M changes in order for $\bar{W}$ to remain fixed. In light of this, Ravallion and Chen (2011) show that the elasticity of Z with respect to M is given by

$$\eta = \frac{WY/M}{WY/M + M \cdot WY}$$

$$(0 \leq \eta \leq 1), \quad (2)$$

In the welfarist conceptualisation this essentially imposes a limit on the weight that can be attached to relative deprivation in the poverty line determination. In terms of equation 2, it implies that while people may derive utility from relative income Y/M, they also derive at least some utility from absolute income Y (Ravallion, 2012). In the capabilities conceptualisation it either limits the importance of social inclusion needs or assumes that the cost of social inclusion is less than unit elastic with respect to national mean income.

The elasticity of the weakly relative poverty line is substantially below one (but increases with increasing incomes), which distinguishes it from a purely relative line. Such a weakly relative poverty line has several features that make it advantageous to be used for a SADC- poverty line (see Klasen 2013; Klasen et al. 2015). First, it adjusts the poverty line 'automatically' with increasing prosperity in SADC Member States, thereby addressing the problem of the increasing irrelevance of the very low US$1.90-a-day poverty line. Given that this poverty line increases disproportionately with mean income, it will still be the case that distribution-neutral growth will lower 'weakly relative' poverty but will do so at a smaller pace than when using a purely absolute line. Therefore, the 'weakly relative' poverty line has some advantages such as:

(i) It adjusts the poverty line automatically with increasing prosperity, thereby addressing the problem of the increasing irreverence of the $1.90 a – a day poverty line.

(ii) Since this poverty line increases under – proportionately with mean income, it will still be the case that distributional – neutral growth will lower "weakly relative" poverty but will do so at a smaller pace than when using a purely absolute line. (klasen 2013)

At the same time, all the other disadvantages of the World Bank's method remain so that it is not clear whether this is the best way forward. But it clearly seems to be superior for simply deriving a SADC absolute poverty line than using the World Bank's method.

11.2.5 Using National Poverty Lines to Measure Poverty in SADC Member States

Thirdly, a standardised methodology following accepted international best practice by coordinating a process of setting national poverty lines of Member States in a harmonised way. Though, these national poverty lines would be expressed in national currency one could still aggregate them across States in a consistent fashion if the poverty lines were consistently derived. This proposal was made by Reddy, Visaria and Attali (2008) and later by Klasen (2013, 2013b) and Klasen et al. (2015). One advantage is it avoids the problems associated with the

PPP exchange rates. A second advantage is that such a poverty line would be more closely linked to national poverty measurement and, thus, would have a higher relevance. At the same time, a range of questions would need to be addressed before such a proposal could be implemented (see Klasen (2013b) for an extensive discussion). Firstly, how should such a poverty line be grounded? The most promising approach would be to use the method most commonly used to set national poverty lines by most SADC Member States, the Cost-of-Basic Needs Method (Ravallion 1994).

Each SADC Member State already has a food basket. There is need to assess the food baskets and see to it that they were constructed following the same standard. In the event that they were not then there is need to create new food basket by first identifying a reference group of households in Member States (which should be close to the poverty line) whose spending pattern would be used to derive expenditure shares on a basket of goods and services used to assess poverty. In a second step, the food expenditures in that basket are turned into calories and then the basket is scaled up (or down) to reach the required caloric norm for households.

This basket (including non-food items) then defines the quantities of food and non-food items to be consumed at the poverty line. The cost of that basket then yields the poverty line. This poverty line is then updated for price changes of goods included in the basket over the years. But over longer time periods, the basket is adjusted to reflect changing expenditure patterns. In a rapidly growing economy, it usually means that the basket changes by reducing the food share and increasing higher-quality goods. In this way, relative poverty considerations can be brought in when the poverty basket is adjusted. Although the methods are straight-forward and have been applied in many countries (including SADC Member States), setting these poverty lines in a consistent fashion across countries is challenging. The first-best option would be for participating countries to agree on a consistent system of poverty measurement using this approach. It would ideally also include coordinating household surveys so that the questionnaires are similar enough that they can be used consistently. The model would be the same as the System of National Accounts where a similarly coordinated process of standard methods is accepted across the world. At the same time, it is unlikely that such a coordinated way to set national poverty lines would be agreed upon quickly. In the meantime, a second-best option would be to use existing household surveys from these SADC Member States and apply consistent poverty lines in these surveys, even if these lines are not the current approaches used by the governments. In this way, one could demonstrate the feasibility of this approach and, thereby, move the debate forward. Thus, this approach is promising but requires a longer-term process to implement it fully. But, as suggested, a short-cut is possible, and it is useful to illustrate the feasibility of this approach. This method would be cost effective as SADC will be using the data collected by Member States at Member States' costs. The only area where SADC would need to spend a little bit of resources is on checking on the levels of standardisation of the questionnaires and all the survey tools.

11.3 Calculating a SADC-specific MPI?

SADC can consider calculating a SADC-specific MPI since poverty is widely recognised as a multidimensional phenomenon. Attempts has been made in South Africa and Mauritius where MPI has been calculated by closely following the Global MPI but with minor modifications. When coming up with a SADC MPI, the challenge would be to come up with a set of indicators and weights that would allow for a consistent analysis of poverty over time and across space. With the publication of the MPI in 2010 (UNDP 2010), a first attempt to create such a comparable

poverty measure was made. It uses a so-called dual cutoff method proposed by Alkire and Foster (2011) where the first cutoff defines whether a household is deprived in a particular dimension, and a second cutoff defines whether a household has passed the threshold of deprivations to be called multidimensionally poor. Although there are many questions of details that still need to be addressed (Dotter and Klasen 2014b), it now appears feasible to generate a SADC-specific version of such an MPI. Two SADC Member States (South Africa and Mauritius) are already calculating their own version of MPI and it would be encouraging to adopt their methodology and conduct a similar MPI across all Member States.

With this development in process, and as discussed above, one would first need to think through why and how a SADC MPI would have different indicators, cutoffs, or weights. This is not a straight-forward question and has to deal with the great heterogeneity among SADC Member States. Although one may argue that, because of differences in climate, social structures, or values in particular SADC Member States could choose appropriate indicators, cutoffs, and weights to generate MPIs for these different sub-regions, it would be hard to develop an MPI for all of SADC. The only way out of this dilemma would be to follow an already started process by South Africa and Mauritius, to develop a common understanding for indicators, weights, and cutoffs, although it is expected that such a consensus would not be reached easily.

A second way by which one could construct a SADC MPI that differed less fundamentally would be to adjust cutoffs to better reflect the average performance of SADC economies in these MPI indicators. For example, a cutoff of five years of education of a single household member to render the entire household non-poor, as currently done in the MPI, might be too low for many SADC Member States. Thus, the idea would be to move away from an absolute indicator of acute multidimensional poverty to a (weakly) relative one that considers the performance of SADC economies in these indicators. This would also mean including the variable of labour force as many SADC Member States emphasise job creation as another way of getting citizens out of poverty.

A third approach would be to change the weights used for a SADC based multidimensional poverty line (Pasha 2014). This would be to use principal component analysis to derive statistical weights for the indicators to be included in the MPI. This will bring out substantial differences in weights in health, education, nutrition and standards of living across, etc., across countries. Using different weights would lead to different multidimensional poverty measures and might provide interesting new revelations across countries. Of course, it would lower the ability to compare levels and trends across countries. But clearly this is an issue well worth exploring further.

The other thing that needs to be properly thought of is which data can be used for calculating multidimensional poverty index. The two data sets, that is census or demographic health surveys (DHS) data sets would be ideal. The DHS is more suitable to be used as the data is collected more frequently at an interval of every 5 years. The questionnaires of the DHS and the census are very homogenous across Member States and would be comparable although there is need to check them for minor differences which can be easily standardised across Member States.

11.4 Conclusion

From the above discussions, one would see that to harmonise poverty and inequality measurement in SADC Member States would not be a straightforward one. In particular, it has been argued that there are no good reasons to adjust the World Bank's US$1-a-day approach

to a SADC setting. Many of the problems of the World Bank's international poverty line would be carried over to its SADC version; in addition, the database to estimate such a poverty line would be even smaller, leading to questions of reliability and robustness. Also, the large heterogeneity in existing poverty lines in SADC Member States would militate against this proposal. A more promising option is to consider a 'weakly relative' SADC consumption-based poverty line that takes into account the rapid growth in living conditions and aspirations in many of SADC's economies. But many of the drawbacks of the current international poverty line would carry over to the 'weakly relative' case. Even more promising could be a coordinated process for setting national money metric poverty lines where national poverty measurement is based on a common conception of poverty. This is a long-term agenda that would need a great deal of coordination between SADC economies, but it is well worth pursuing this further. Another option would be the creation of a SADC-specific MPI, maybe one that adjusts itself automatically to improving living conditions by adjusting the cutoffs. But all of these proposals would have to be rigorously tested to see whether they can be implemented and yield new insights that are not visible in current approaches to poverty measurement in SADC Member States. The discussions about the changes in the international poverty line to reflect the results of the 2011 PPP show the difficulty of maintaining a reliable, consistent, and robust international poverty line (Klasen et al. 2015). Thus, it is all the more important to consider alternatives.

CHAPTER 12: THE ROLE OF SADC REGIONAL POVERTY OBSERVATORY IN HARMONISED POVERTY AND INEQUALITY

SADC through its Regional Economic Integration Strategy has come up with a strategy for Poverty Eradication towards sustainable development. This is to be achieved through a Regional Poverty Reduction Framework. The Regional Poverty Reduction Framework seeks to elaborate and translate the Regional Indicative Strategic Development Plan's priority intervention areas on poverty eradication into an implementation framework. This has the effect of fine-tuning the regional agenda for poverty eradication and provides a bridge to align national poverty reduction strategies to regional interventions.

The revised SADC Regional Indicative Strategic Development Plan (RISDP 2015-2020) and (revised) Regional Poverty Reduction Framework (RPRF) provides a regional framework to promote development and poverty reduction strategies. And the Regional Poverty Observatory (RPO) functions as a mechanism for monitoring the implementation of the SADC Regional Poverty Reduction Framework. SADC has made significant strides to develop a monitoring mechanism through the RPO.

The stated objectives of the Regional Poverty Observatory include:

- to help Member States through harmonisation of standards, methods and indicators
- speed up reforms and execution of national poverty reduction strategies;
- Provide regional best practices to supplement the benchmarks; and
- Allow comparative performance analysis of developmental programs across Member States.

The Regional Poverty Observatory (RPO) committee would coordinate Member States to develop poverty standardised methodologies by harmonising poverty measurement following best internationally accepted practices. By working closely with the SADC Regional Statistical Programme, RPO would train poverty statisticians of SADC Member States in ensuring that they standardise data collection and poverty methodology in the region. The following steps need to be followed if Member States are to produce harmonised poverty measurement in the region:

(i) The Member States need to harmonise the data collection tools. This would include coordinating household surveys so that the questionnaires are similar enough that they can be used consistently. The money metric questionnaires are somehow similar as coordinated by the World Bank but there is need to synchronize them more. This is to make sure that they are more standardised and so that they collect data using same definitions and measure poverty using the same parametres.

(ii) The Member States need to collect data following the same methodology. The first part of data collection would be for all Member States to collect data for a standardised period of one year. Some Member States use a recall method while others use the diary method. In this approach, all Member States will be expected to collect data using the diary method. RPO need to encourage all Member States to be using the diary as they have fewer disadvantages compared to recall.

(iii) The Food Basket used to collect data need to be developed using the same methodology. The standard methodology will eventually be used to develop the poverty line of each Member State.

(iv) RPO must encourage Member States to standardise data collection by avoiding non-metric measurement of food items such as tins for weight and encourage members to use scales for food collection.

(v) RPO need to encourage Member States to invest in electronic data collection methods which uses tabulates. These result in less error in data collected.

(vi) RPO must train data analysts from Member States to follow the same steps from the chosen methodology of data collection throughout the data analysis. Once this is done, we are sure of having a harmonised poverty measurement from all SADC Member States.

(vii) In the event of resistance to adopt one methodology by some SADC Members States, it would mean that SADC could still try to get the raw data and apply a standardised methodology for its regional harmonisation and still appeal to members to get on board.

A harmonised poverty measurement in the SADC region will make it easy for the RPO to access reliable information which it can rely on for development initiatives. Harmonised poverty figures will mean that the impact of developmental programmes can be accessed equally across the region. This will also entail that monitoring of poverty reduction programmes becomes easy as all the progress made can be accessed using harmonised data.

RPO will use harmonised data for monitoring and compliance of agreed regional policies an important element of the mandate of regional organisations.

RPO using harmonised poverty data through the Regional Indicative Strategic Development Plan (RISDP) will enhance regional framework in guiding SADC into achieving its development objectives through high and sustainable economic growth and deeper economic integration. The RISDP should develop programmes that will be able to eradicate poverty in its overarching priority of regional integration in SADC and be in a position to monitor their performance using harmonised poverty data. RISDP with harmonised poverty figures will deepen integration within SADC with a view to accelerate poverty eradication and achieve Sustainable Development Goals.

In conclusion, the study has found that, by harmonising poverty and inequality indicators in the region, the efforts of the RPO in monitoring poverty will be made easy and the goal of the Regional Poverty Reduction Framework of enhancing regional integration by reducing poverty in the region will be easily attained.

APPENDIX

Table A. LIST OF OFFICIAL POVERTY REPORTS AND MAJOR SURVEYS REPORTS REVIEWED

Country and survey	Survey(s)	Year
Angola	Inque'rito de despesas e receitas e emprego em Angola (IDREA) Income and Expenditure Survey	2008/09, (IDR 2018-2019)
Botswana	Botswana Multi Topic Measurement Survey (BMTMS)	2015/16
Comoros		
Democratic Republic of the Congo	Enquete Nationale Sur le Suive Des Objectifs du Millenaire poure Development (ENSOMD)	2019
Eswatini (Swaziland)	Income and Expenditure Survey (IES)	2009/10
Lesotho	Household Budget Survey (HBS)	2017/2018
Madagascar	Enquete Nationale Sur le Suive Des Objectifs du Millenaire poure Development (ENSOMD)	2012 -2013
Malawi	Integrated Household Survey 4 (IHS4)	2016/2017
Mauritius	Household Budget Survey (HBS)	2017
Mozambique	Inquérito aos Agregados Familiares sobre Orçamento Familiar (IOF) (Household Budget survey)	2014/15
Namibia	National Household Income and Expenditure Survey (NHIES)	2015/2016
Seychelles	Household Budget Survey (HBS)	2013
South Africa	Living Conditions Surveys (LCS)	2014/2015
Tanzania	Households Budget Survey (HBS)	2011/2015, 2017-18
Zambia	Living Conditions Monitoring Survey (LCMS)	2010, 2015
Zimbabwe	Poverty Income Consumption and Expenditure Survey (PICES)	2014/2015

Source: Consultant's Research

Table B. DIFFERENT TYPE OF POVERTY MEASUREMENT BY FIGURE AND INEQUALITY FIGURE

Country and survey	Different types of Poverty Measurements						Inequality	
	National Poverty line Head Count ratio (% of the Population)	Year and Report	Poverty Headcount ratio at $1.90 a day (2011 PPP) % of the population	Year	Global Multidimensional Poverty Index	Year	Gini	Year
Angola -	40.6	**(IDR 2018/19)**			0.264	2015/16 D	0.51	2018
Botswana	16.3	(BMTHS 2015/16)	n.a	2015/16	n.a	2015/16	0.52	2015/16
Comoros		Enquête 1-2-3, 2014	35	2014	0.181	2012 DM	0,372	2014
DRC	77.1	2012	63.9	2012	0.378	2013/14D	n.a	
Eswatini (Swaziland)	63	(IES 2009/10)	63	2009	0.083	2014 M		
Lesotho -	49.7	(HBS 2017/18)	27.3	2017	0.146	2014 D	0.45	2017/2018
Madagascar	77.8	(ENSOMD 2012/2013)	70.7	2012	0.453	2008/09 D		
Malawi	51.5	(IHS4 2016/17)	51.5	2016	0.244	2015/16 D	0.46	2016/2017
Mauritius -	10.4	(HBS 2017)	< 1%	2017	n.a	n.a	0.400	2017
Mozambique	46.1	(IOF 2014/15)	46.1	2014	0.45	2014/2015 D	0.47	2014
Namibia	17.4	(NHIES 2015/16)	28.7	2009	0.183	2013 D	0.56	2015/16
Seychelles	39.3	(HBS 2013)	n.a		n.a	n.a	45.9	2013
South Africa	40.0	(LES 2014/2015)	18.8	2015	0.032	2014/15 N	0.68	2014/15
Tanzania	26.4	(HBS 2017-18)	n.a	2019	0.275	2015/16 D	0.38	2017-18
Zambia	54.4	(LCMS 2015)	54.4	2015	0.262	2014/15 D	0.56	2010, 2015
Zimbabwe	62.6	(PICES 2011/12)	n.a		0.149	2015 D	n.a	

Note on MPI: D indicates data from Demographic Healthy Surveys (DHS), M indicates data from Multiple Surveys and N indicates data from National Surveys
Source: Review of official poverty reports, Human Development Report, UNDP, World Bank Reports, Povcal,2017 and corresponding documents (see references A).
For South Africa, Lower Bound Poverty Line

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Table C. PEOPLE CONSULTED

COUNTRY	NAME	DESIGNATION
Angola	1. Paula Fouseca	Head Economic Statistics
	2. Maria Costa	Head Consumer Price Index
	3. Ana Paula Machado	Head
Botswana	1. Dr. Burton S. Mguni	Statistician General
	2. Moffat Malepa	
	3. Kutlwana Seblaaphuti	
Comoros	Ounais Said Hamidou	Directeur des Syntheses Economiques
Democratic Republic of the Congo	1. rosper Juma	Assistant Director General of National Institute of Statistics
	2. Jeba Mukunda	Director Economics Statistics, National Institute of Statistics
Seychelles	Sheena Saldanha	Senior Economist, Ministry of Finance, Trade, Investment and Economic Planning
South Africa	Nozipho Shabalala	Chief Director Poverty and Inequality Statistics – StatsSA
Madagascar	Mr. Idaraja	Director, INSTAT Madagascar
	Mr. Rasolonjatovo Ferdinard	Head of Section, Heritage and Living Conditions
	Ms. Irene Ranaivoson	Head of Administrative and Productive Sector Department, Ministry of Economy and Planning, Antananarivo
Zambia	Mr. Lovemore Zonde	Head Living Conditions Monitoring Branch
Southern African Development Community	1. Dr. Mubita Luwabelwa	Director, Policy, Planning and Resource Mobilisation
	2. Mr. Maxwell Mkumba	
	3. Deepchandsingh Jagai	
	4. Mr. Essiah Tjelele	Program Officer – Crops, Food Security Unit
GIZ - Congo	Dr. Andreas Kalka	Resident Director, GIZ, Kinshasa, DRC
GIZ - Botswana	Simone Berg	GIZ, Botswana, Gaborone
World Bank - Madagascar	Serge Radert	Poverty and Equity Consultant, World Bank Country Office, Madagascar. Sraidert@wordbank.org

Source: Consultant's Research

Table D. ADULT EQUIVALENCE SCALE

AGE (YEARS)		CALORIES *(kcal)	ADULT EQUIVALENT CONVERSION FACTOR
Newborns	0 - 3	750	0.29
Children	1 - 3	1, 300	0.51
	4 - 6	1, 800	0.71
	7 - 10	2, 000	0.78
Men	11 - 14	2,500	0.98
	15 - 18	3,000	1.8
	19 - 24 **	2,900	1.14
	25 - 50	2,900	1.14
	51+	2,300	0.90
Women	11 - 14	2,200	0.86
	15 - 18	2,200	0.86
	19 - 24 **	2,200	0.86
	25 - 50	2,200	0.86
	51+	1,900	0.75
Breast feeding Women (+500 kca) ***	11 - 14	2,700	1.06
	15 - 18	2,700	1.06
	19 - 24 **	2,700	1.06
	25 - 50	2,700	1.06
	51+	2,400	0.94
Pregnant Women (+300 kca)	11 - 14	2,500	0.98
	15 - 18	2,500	0.98
	19 - 24 **	2,500	0.98
	25 - 50	2,500	0.98
	51+	2100	0.82

Source: Per capita versus adult – equivalent estimates of calorie available in household budget survey; Rafael Moreira Clara, Renanta Bertazzi levy, Lenise Mondini, Daniel Bandoni, Rio de Janeiro, 2010, www.scielo.br/pdf/csp/v26n11/20

*According to recommended Dietary allowances (RDA) for 1989
** Age brackets used as reference for establishing an adult's mean calorie requirement
***Additional 500Kcal for breastfeeding according to the RDA
#Additional 300 kcal for pregnancy, according to the RDA

Table E. ADULT EQUIVALENT SCALE FOR ZAMBIA

Age Group	Member	Calorie requirements per person	Equivalence Scale
0 -3 year	1	1,000	0.37
4 – 6 years	1	1,700	0.64
7 – 9 years	1	2,100	0.79
10 – 12 years	1	2,150	0.80
Adult (above 12 years)	1		1.0

Source: CSO, 2005
Note: Adult equivalence scale based on age specific calories intake recommendations of Zambia NFNC in calories per day).

Figure A: MAURITIUS RELATIVE DEPRIVATION INDEX

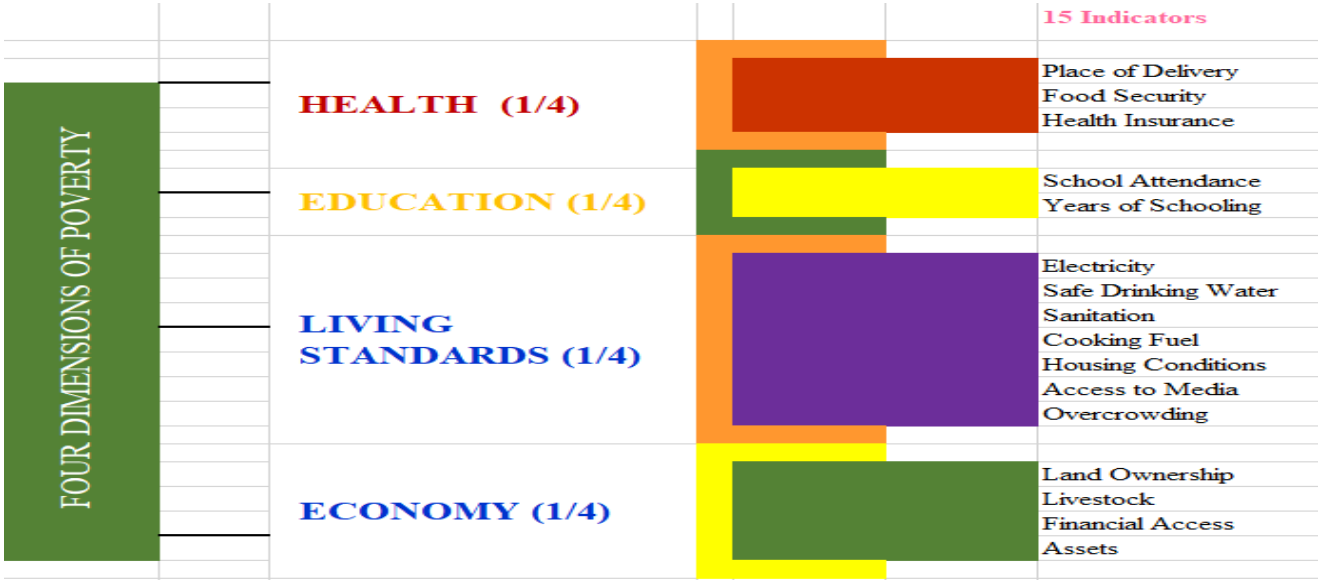

Table F: SEYCHELLES MPI, DIMENSIONS AND INDICATORS

DIMENSIONS	INDICATORS
Living Standard	- Overcrowding - Housing - Electricity - Safe drinking Water - Crime
Health	- Undernutrition - Obesity - Substance use/Abuse - Teenage Pregnancy
Education	- School attendance - Highest Level of Education attained
Employment	- Unemployment rate - Informal employment - Youths, not in employment, education or training (NEET)

Table H: SOUTH AFRICAN MPI, DIMENSIONS AND INDICATORS

Dimension	Indicator
Health	- Child Mortality
Eduction	- Years of schooling - School Attendance
Standard of Living	- Fuel for Lighting - Fuel for heating - Fuel for cooking - Water access - Sanitation type - Dweling - Asset Ownership
Economic Activity	- Unemploymet

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CONCEPTS AND DEFINITIONS

Acquisition Approach – An approach taking into account the total value of goods and services actually acquired during a given period, whether fully paid for or not during that period.

Classification of Individual Consumption According to Purpose (COICOP) – International system of classification of goods and services based on individual consumption by purpose.

Consumer Price Index (CPI) – An index that measures the price of a fixed basket of consumer goods and services.

Consumption Approach – An approach that takes into account the total value of all goods and services consumed (or used) during a given period.

Consumption Expenditure – Expenditure on goods and services acquired, and privately used by household members, including imputed values for items produced and consumed by the household itself.

Diary – A record with discrete entries arranged by date reporting on what has happened over the course of a defined period of time. With regard to the IES and LCS, diaries recorded all acquisitions made by the household during the diary-keeping period. This included the description of the item, value, source, purpose, area of purchase and the type of retailer.

Durable Goods – Household items that last for a long time, such as kitchen appliances, computers, radios, televisions, cars and furniture, usually acquired once in several years.

Dwelling Unit (DU) – Structure or part of a structure or group of structures occupied or meant to be occupied by one or more than one household.

Enumeration Area (EA) – The smallest geographical unit (piece of land) into which the country is divided for census or survey purposes.

Farm – An area of land, together with its buildings, concerned with the growing of crops or the raising of animals.

Gift – An item received by the household from people who are not members of the household or items given away by members of the household to non-members, without compensation.

Household – A group of persons who live together and provide themselves jointly with food and/or other essentials for living, or a single person who lives alone.

Household Head – A person recognized as such by the household, usually the main decision-maker, or the person who owns or rents the dwelling, or the person who is the main breadwinner.

Household Income – All receipts by all members of a household, in cash and in kind, in exchange for employment, or in return for capital investment, or receipts obtained from other sources such as social grants, pension, etc.

Income (Individual) – All money received from salary, wages or own business; plus money benefits from employer, such as contributions to medical aid and pension funds; plus all money from other sources, such as additional work activities, remittances from family members living elsewhere, state pensions or grants, other pensions or grants, income from investments, etc.

Income-In-Kind/Expenditure-In-Kind – This refers to items acquired by the household without paying for them, e.g. bursaries, subsidies from employer, free medical services, private use of a company car or similar vehicle, value of discounted fares for educational purposes, grants from schools and other educational institutions, excluding gifts and maintenance from other household members.

Non-Durable Goods – Household items that do not last long, for example food and personal care items. Households usually acquire these items on a daily, weekly or monthly basis.

Own Production – Own production is the activity of producing goods that the household can consume or sell in order to supplement the household income. Many households – especially low-income households – need to grow food items such as vegetables, mealies, etc., or to keep chickens or livestock to consume and/or sell so that they can provide more adequately for themselves.

Payment Approach – An approach taking into account the total payment made for all goods and services in a given period, whether the household has started consuming them or not.

Primary Sampling Unit (PSU) – Geographical area comprising one or more enumeration areas of the same type (and therefore not necessarily contiguous) that together have at least one hundred dwelling units.

Rural – Farms and traditional areas characterized by low population densities, low levels of economic activity and low levels of infrastructure.

Sample – Part of the population on which information can be obtained to infer about the whole population of units of interest.

Semi-Durable Goods – Items that last longer than non-durable goods but still need replacing more often than durable goods, for example clothing, shoes and material for clothing.

Traditional Area – Communally owned land under the jurisdiction of a traditional leader.

Urban – Formal cities and towns characterized by higher population densities, high levels of economic activities and high levels of infrastructure.

Vacant Dwelling – Dwelling that is uninhabited, i.e. no one lives there.

Visitor (Household) – Person visiting or staying with a household who is not a usual member of the household.