The University of Zambia

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The Economics Department

Public Expenditure and Development: A Human Expenditure Ratio Analysis for Zambia, 1990-2011

A Dissertation Submitted to the University of Zambia in Partial Fulfilment of the Requirements of the Degree of Master of Arts in Economics

By

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2015

DECLARATION

I, COSAM. S. CHANDA, declare that this dissertation:

a) Represents my own work;

b) Has not been submitted for a degree at this or any other University;

c) Does not incorporate any published work or material from another dissertation.

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APPROVAL

This dissertation of COSAM S. CHANDA has been approved as partial fulfillment of the requirements for the award of the degree of Master of Arts in Economics by the University of Zambia.

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ABSTRACT

Despite sustained economic growth in the Zambian economy as shown by real Gross Domestic Product (GDP) growth of more than 5 per cent in recent years, the majority of Zambians continue to live in poverty. This paper assesses the link between public expenditure and human development in Zambia by analyzing the Human Expenditure Ratio (HER). The paper adopts the 1991 UNDP Human Development Report norm to at least spend 5% of GDP on human priority concerns if public expenditure is to have a significant effect on human development.

To assess the link between public expenditure and human development, the HER is decomposed into three ratios (PER- Public Expenditure Ratio, SAR- Social Allocation Ratio, and SPR- Social Priority Ratio) so as to effectively measure public expenditure on human development. The norms around these ratios requires PER be at least 25 per cent, SAR at 40 per cent and SPR at 50 per cent, so that a multiplication of these ratios results in a HER of at least 5 per cent.

The paper generated data on public expenditure from the Financial Reports of Zambia prepared by the accountant General at the Ministry of Finance for 22 years from 1990 to 2011.

Findings of the paper reveal that expenditure on human priority concerns as a share of Gross Domestic Product (GDP) estimated by Human Expenditure Ratio (HER) over the period of study ranged from 0.438% to 3.857% with an average of 1.801%. This is far way below the 1991 UNDP Human Development Report (HDR) suggested norm to least spend 5% of GDP on human priority concerns (HER of 5%) which are critical to Human Development if public expenditure is to be effective in human development.

The paper concludes that low values of the HER explain why the country is still lagging behind in human development (High poverty levels and inequality) despite sustained economic growth in recent years, thus the paper recommends that Zambia needs to reconstruct its public expenditure with a bias towards realigning spending in the Social Sectors towards human priority areas if significant human development is to be achieved.

To get even a more accurate measure of the effectiveness of public expenditure towards human development, the paper recommends that similar studies be undertaken that can cover more social sectors beyond the traditional social sectors (Health and Education). In addition to this, there is need to extend the research and incorporate direct budget support from cooperating partners and also incorporate spending by Non-Governmental Organisations in social sectors towards uplifting of human living conditions.

DEDICATION

With Love and Adoration this paper is dedicated to my wife Hellen Libingi Chanda and my beloved son, Cosam S. Chanda II.

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I am heartily thankful to my supervisor, Professor V. Seshamani, whose encouragement, guidance and support from the start to the end enabled me to develop an understanding of the subject. Lastly, I offer my regards and blessings to the entire Economics department and my Sponsor the Bank of Zambia for having made it possible to undertake my Postgraduate studies. Finally am so grateful to Ministry of Finance Library staff, Mr. Lutangu (UNZA Economics Lecturer) Mr Kakusa Kakusa (UNZA student) and my family for the love and support.

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LIST OF ACRONYMS

AU African Union

CSO Central Statistical Office

GEM Gender Empowerment Measure

GDI Gender related Development Index

GDP Gross Domestic Product

GNP Gross National Product

HER Human Expenditure Ratio

HD Human Development

HDI Human Development Index

HDR Human Development Report

HPI Human Poverty Index

MDG Millennium Development Goal

ODA Official Development Assistance

PER Public Expenditure Ratio

SAR Social Allocation Ratio

SPR Social Priority Ratio

UNDP United Nations Development Programme

WHO World Health Organization

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background

The importance of public expenditure in the process of human development is well recognized. The Human Development sectors (essentially, education, health, and social protection) play an important role in promoting economic development and social equity, and improvement in these areas can have a salutary impact on peace and stability**.** A healthy and better educated and trained labor force has the potential to make significant contributions to labor productivity (complemented by investment in physical infrastructure) and build a vibrant and diversified economy.(World Bank, Liberia Public Expenditure Review: Human Development, 2012).

Zambia has signed development commitment agreements in recent years which include the Millennium Declaration followed by the Abuja Declaration. The Millennium Development Goals are based on the Millennium Declaration, signed by 189 countries (including Zambia). To assess progress on the commitment made in the Millennium Declaration over the period from 1990 to 2015, relevant targets and indicators were agreed upon. The goals and their targets are interrelated and should be seen as a whole. They represent a partnership between the developed countries and the developing countries “to create an environment - at the national and global levels alike - which is conducive to development and the elimination of poverty” (UNDP, Millennium Development Goals progress report- Zambia, 2013).

In April 2001, heads of state of African Union (AU) countries met and pledged to set a target of allocating at least 15% of their annual budget to improve the health sector. At the same time, they urged donor countries to "fulfill the yet to be met target of 0.7% of their GNP as official Development Assistance (ODA) to developing countries". This drew attention to the shortage of resources necessary to improve health in low income settings. Most AU countries are not yet on track to achieve the health MDGs and part of the explanation can be found in the lack of financial resources available to them. The Abuja Declaration recognized this as a potential problem ten years ago, highlighting the importance for governments in AU countries of giving greater weight to health in the allocation of government revenues, while at the same time urging donor countries to increase their funding levels. (WHO, Abuja declaration: Ten years on, 2011).

According to the 2013 Zambia Millennium Development Goals Progress report, extreme poverty has reduced from 58 percent in 1991 to 42.3 percent in 2010. Poverty levels still remains high, widespread and crosscutting in Zambia and rural areas are the worst affected. However, Zambia is still far from reaching the MDG goal of reducing poverty to at least 29 percent by 2015. Zambia, with a Gini coefficient of 0.65, is among the most unequal countries of the world today, this is the reason the macroeconomic achievements have not trickled down to reduce poverty significantly. Specific attention to these growing disparities must be high on the agenda of policy makers.

Zambia has made steady progress on primary school enrolment, which has increased from 80 percent in 1990 to 93.7 percent in 2010. The improvement can be linked to the boost in primary education infrastructure and the introduction of free education. Similarly, progress has been made in improving primary school completion rates. The proportion of pupils reaching Grade 7 has increased from 64 percent in 1990 to 90.9 percent in 2010. Disaggregation by sex shows that the improvement was higher for girls. However, concerns remain on the quality of education received, as well as the enrolment and completion rates in secondary school subsequently.

The Human Development Report of 1991 argues that developing countries have enormous potential for restructuring national budgets and international aid in favor of human development. The Report concludes that much current spending is misdirected and inefficiently used. If the priorities are set right, more money will be available for accelerated human progress. The concept of human development introduced in the first Human development report of 1990 established that the basic objective of human development is to enlarge the range of people's choices to make development more democratic and participatory. These choices should induce access to income and employment opportunities, education and health, and a clean and safe physical environment. Each individual should also have the opportunity to participate fully in community decisions and to enjoy human, economic and political freedom. Human development requires economic growth, for without it, no sustained improvement in human well-being is possible. But while growth is necessary for human development, it is not enough. High growth rate do not automatically translate into higher levels of human development. And firm policy action is required to forge a closer link between economic growth and human development. Just as economic growth is important for human development, human development is critical to Economic growth. The 1990 Human Development Report (HDR) argued that the developing countries have the resource to meet many of their development goals and that the human

development index (HDI) to be used increasingly as a more genuine measure of socioeconomic progress. The HDI is a summary composite index that measures a country's average achievements in three basic aspects of human development: longevity, knowledge, and a decent standard of living. Longevity is measured by life expectancy at birth; knowledge is measured by a combination of the adult literacy rate and the combined primary, secondary, and tertiary gross enrolment ratio; and standard of living by GDP per capita.

The 1991 HDR Report takes the debate a stage further by showing the potential for restructuring national budgets and foreign assistance to meet human needs. The best way to promote human development is to increase the national income and to ensure a closer link between economic growth and human well-being. This approach exemplified, in part, by the recent experience of newly industrializing economies of East Asia. Their efficient, broadly based and employment-intensive economic growth was backed by social services for those who for various reasons were unable to earn their own living.

To develop a sound basis for analyzing public spending on human development countries should monitor four ratios: The public expenditure ratio- the percentage of national income that goes into public expenditure; The social allocation ratio-the percentage of public expenditure earmarked for social services; The social priority ratio-the percentage of social expenditure devoted to human priority concern; and the human expenditure ratio-the percentage of national income devoted to human priority concerns. (Human Development Report, 1991)

Therefore, this paper investigates the link between public expenditure and human development in Zambia from 1990 to 2011. The paper adopted the UNDP's Human Development Report 1991 four ratios which indicate the priority assigned by governments to expenditure on human development. The Public Expenditure Ratio (PER), Social Allocation Ratio (SAR), Social Priority Ratio (SPR) and the Human Expenditure Ratio (HER) will all be calculated based on data extracted from Ministry of Finance annual financial reports (blue books) and GDP figures from Central Statistical Office's (CSO). The Human Development Index will be used as a measure for human development while the Human Expenditure Ratio will used to measure public expenditure for human development.

1.2 Problem Statement

One of the main goals of any Government in developing countries lagging behind in human development is to provide opportunities for its citizens to have access to better education, basic health care and provide information for great and effective development engagement and participation.

Zambia has recorded economic growth in recent years, but poverty still remains very high especially in rural areas and income inequality is still visibly high. The LCMS (2006&2010) showed that the proportion of the population falling below the poverty line was 60.5 per cent in 2010. Further in the year 2010, the extremely poor accounted for about 42 per cent of the total population whilst overall headcount poverty was as high as 77.9 per cent in rural areas compared to urban poverty levels of 27.5 per cent. Even besides a decade of rapid economic growth and commitment by Zambian government to improve allocations towards health and education sectors, the country still lags behind in human development.

Public expenditure as well as social sector spending has increased over the years from 1990-2011. Having signed the Abuja Declaration and the SADC recommendations to at least spend 15% on health and 20% in the education sector respectively, spending in these social sectors has shown some improvements, but has not yet reached the minimum requirements of the aforementioned agreements. Figure 1 and 2 depict trends in health sector spending and education sector spending.

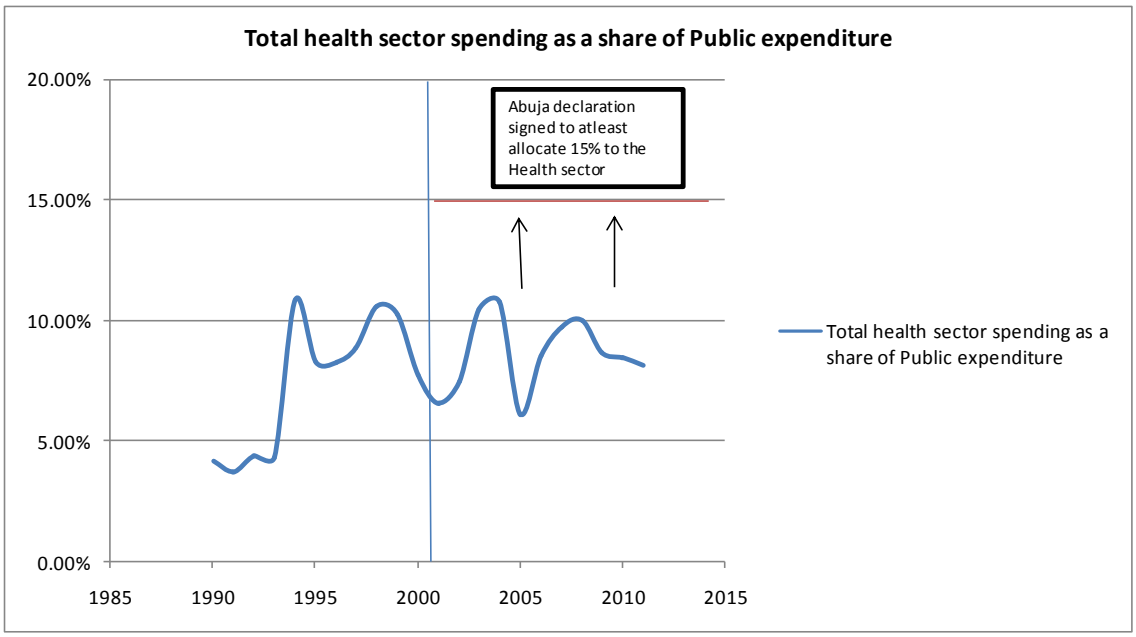

Figure 1: Health Sector expenditure trend

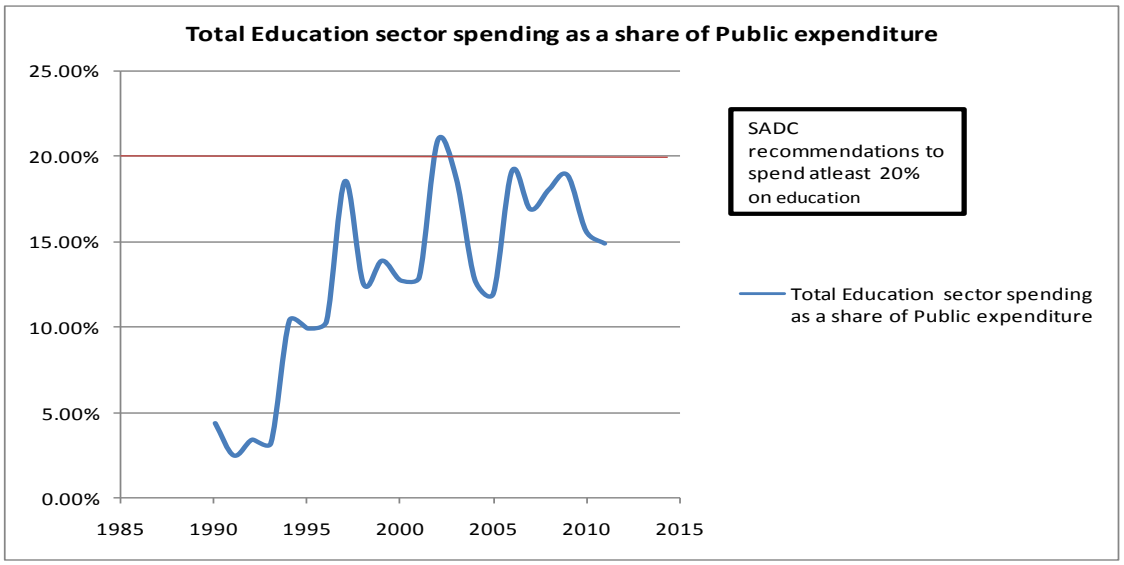

Figure 2: Education Sector expenditure Trend

Restructuring public spending towards supporting human priority concerns is key in translating economic growth into meaningful human development. Therefore, the failure of economic growth to translate into meaningful human development is an indication of the need to assess and analyse public spending in Zambia.The structure of national budget allocations towards spending in social sectors and on human priority areas within social sectors is critical in placing human priority areas at the heart of development. Analysing public expenditure is also critical to

achieving critical MDGs on poverty, primary education, child mortality, equality and maternal health. According to Cuesta, Kabaso and Becerra (2012), there has been continued progress in education indicators, including rising school enrollment rates at the primary and secondary levels, with more modest improvements observed in the youth literacy rate. However, significant challenges still remain, including overcrowded classrooms and limited access to education in rural areas. Even though there have been some improvements in health outcomes, including a reduction in the under-5 mortality rate and a decline in maternal mortality rates, Zambia is still not likely to meet the 2015 Millennium Development Goals (MDGs) for the health sector.

The lack of prioritizing public spending towards social sectors and human priority areas in the social sectors does not support efforts to improve the living standards of citizens. Even though public expenditure may be high, it does not automatically translate into human development unless social sector spending and human capital development is prioritized.

Thus, to achieve reasonable human development there is urgent need to prioritize pro-poor spending that can lead to better development outcomes in areas such as education and health. In addition, the HDR (1991) argues that properly directed public spending on human priority needs and adequate income earning opportunities are essential components of the path to human development.Therefore, it is very critical to analyse the link between public expenditure and human development in Zambia.

1.3 Definition of Essential Terms

Social Sectors- Health and Education sector (the traditional social sectors)

Priority Areas under the Education Sector- Expenditure towards District Basic School Equity programs such as grants to basic schools or support to basic schools, school Nutrition and Gender equality. Basic schools are defined as grade 1 to grade 9.

Priority Areas under Health sector- District Health Service Delivery Areas which include provision of first level Referral Services, Roll back Malaria, HIV/AIDS/STIs, Tuberculosis, Integrated Reproductive health, Child Health, Environmental Health, Mental Health, Oral Health, Nutrition, Epidemic Preparedness, Pediatrics, Medicine, Support Functions and other public health interventions.

Poverty- the definition is material wellbeing perception of poverty in which the poor are defined as those members of society who are unable to afford minimum basic human needs, comprising food and non-food items, given all their total income. (CSO adopted definition).

Human Development- a process of enlarging people's choices. The most critical of these wide-ranging choices are to live a long and healthy life, to be educated and to have access to resources needed for a decent standard of living. (UNDP, Human Development Report, 1990).

Gross Domestic Product- Total goods and services produced by a nation during the year

1.4 Justification of the Study

Despite public expenditure being fundamental in promoting social, human and economic development, no study has been done to analyze the relationship between public expenditure and human development in Zambia. According to Cuesta, Kabaso and Becerra (2012), aside from simple growth, fiscal policy is one of the main tools to promote economic equity and reduce poverty. The statistics for Africa are far worse: only 13 percent of people in the poorest income quintile benefit from social safety net programs, well below the 41% share for the world. While 20 percent of all the beneficiaries of safety nets in Africa belong to the poorest quintile, that share is 30 percent for the world. Evidence also shows that the fiscal policies of many developing countries are even less effective at reducing income inequality in practice than they are in principle, typically because transfers do not contribute much to inequality reduction and the scope for active redistribution is limited by low levels of revenue collection. Zambia's capacity to use its fiscal policy for redistributive purposes seems limited at best. Therefore, this study will heavily contribute to Zambia's Fiscal policy alignment towards human development.

1.5 Research Objectives

The main objective of this research is to find out if there is a link between Zambia's Public Expenditure and Human Development.

1.5.1 Specific Objectives

- To find out the trend of the Public Expenditure Ratio
- To assess the trend and pattern of the Social allocation Ratio
- To find out the trend of the Social Priority Ratio
- To investigate the trend and pattern of the Human Expenditure ratio.

1.6 Hypothesis

1. There has been a positive relationship between public expenditure and human development in Zambia.

CHAPTER TWO

2.0 Literature Review

Human development is significant in achieving social equity and having a healthy productive population. The efficiency of pro-poor spending leads to better development outcomes in areas such as education and health and improved equal access to basic human needs. A number of works have been done to assess the share of public expenditure committed by governments towards achieving human development especially in developing countries.

Human development refers to processes relating to training, education, health care and other professional initiatives designed in order to increase the level of knowledge, skills, abilities, values, and social assets of an individual which will lead to the individual's satisfaction and performance toward sustainable economic development of the country (Marimuthu, Arokiasamy and Ismail 2009). Human development is an important input for economies especially for citizens' continuous improvement mainly on knowledge, skill, life expectancy, and abilities. Thus, the definition of human capital development is referred to as the knowledge, skills, competencies, and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being. The constantly changing global economic environment requires economies to strive for superior competitive advantage through dynamic human development plans which incorporate creativity and innovativeness. This is essentially for their long term sustainable development. Undoubtedly, human capital development plays a significant role in enhancing economic growth and competitiveness, thereby, making it imperative to understand the contribution of social expenditure in enhancing its development (Barney 2005). Schultz (1993) also argued in the same fashion that the term human capital has been defined as a key element in improving a country's assets and citizens in order to increase production as well as sustain competitive advantage in a globalizing world.

2.1 Conceptual Framework

Lindauer and Velendik (1992) argued that any nominal valuation of government, whether revenue or expenditure, assumes that what is being measured is the government's role as a direct economic agent. The consequences of a fiscal expansion of government would appear to call for a measure of the budget deficit or surplus. Although the effects of fiscal or monetary policy will not be captured by a nominal index that defines a government's size and influence exclusively in budgetary terms, measurement of total government spending is required in order to examine such issues as how the division of output between public and private goods affects economic growth. Evaluating the growth in public expenditure over time requires comparisons that raise the problem of whether and how to convert nominal units to real terms (that is, with the rate of inflation deducted). One way to avoid the problem of deflating to constant dollars is to chart the trend in the ratio of government expenditure to gross domestic product (GDP). This is the method used by some scholars. Other scholars argue against this procedure on the grounds that the price of public goods may rise more quickly than the prices of other goods, particularly if technological change is faster in the relatively less service-intensive private sector. Under such assumptions about relative price changes for public and private goods, government expenditure ratios based on current prices yield upwardly biased figures on government output because the ratios do not take into account relative price effects (changes in the relative values of spending on two goods that arise from changes in their prices rather than from changes in the quantities consumed).

An opposing position argues that the nominal share of government expenditure can be used as long as the relative prices of public and private goods reflect consumer valuations. If this is the case, the share of output in value terms is the appropriate index of the total amount of goods the government extracts from the economy. Whether nominal or real shares of government expenditure are used depends on the question at hand. Calculating the income elasticity of the demand for public goods would seem to require a real measure of government output, whereas a nominal index would be more useful in assessing the extent to which the government pre-empts economic resources. Ultimately our understanding of the cost of government would benefit from a comparison of both measures, because there are considerable differences between the two sets of figures. (ibid, 1992).

On basis of the arguments in the immediate previous paragraph, ratios used in this paper are based on nominal values and the assumptions underlying the use of nominal values as stated above. To analyse how public spending on human development can be designed and monitored, the 1991 HDR suggests the use of four ratios.

1. The public expenditure ratio (PER) - the percentage of national income that goes into public expenditure.
2. The social allocation ratio (SAR) - the percentage of public expenditure earmarked for social service.
3. The social priority ratio (SPR) - the percentage of social expenditure devoted to human priority concerns.
4. The human expenditure ratio (HER) which is the percentage of national income devoted to human priority concern.

The human expenditure ratio is the product of the first three ratios. It is a powerful operational tool that allows policy-makers who want to restructure their budgets to see existing imbalances and the available options. If public expenditure is already high (as in many developing countries), but the social allocation ratio is low (as was the case in Tanzania in 1988), the budget will need to be reassessed to see which areas of expenditure could be reduced. In most cases like this, military spending, debt servicing and loss making public enterprises would all be likely candidates.

If the first two ratios are high (PER and SAR), but the ultimate human development impact, as reflected in human development indicators, is low as the 1990 case in Pakistan, the social priority ratio must be increased. For the poorest countries, this is likely to involve seeking a better balance between expensive curative hospitals and preventive primary health care, between universities and primary schools and between focusing greater attention on the cities and on the rural areas, where most poor people live. The table below analyses the human expenditure ratios in 1988 for 25 countries, covering 74% of the developing world then.

Table 1: Analysis of public social spending, 1988

	HER(%)	PER(%)	SAR(%)	SPR(%)
High levels of human expenditure- above 5%				
Zimbabwe	12.7	52	49	50
Botswana	7.7	51	37	41
Malaysia	6.3	32	29	68
Morocco	6.3	29	42	52
Jordan	5.5	50	25	44
Costa Rica	5.4	41	50	26
Medium levels of human expenditure- between 3% and 5%				
Singapore	4.3	35	35	35
Brazil	4.2	34	32	38
Kuwait	4	36	42	26
Korea	3.7	16	30	77
Mauritius	3.1	27	40	29
Chile	3.1	33	50	19
Low levels of human expenditure- below 3%				
India	2.5	37	20	34
Thailand	2.5	16	37	42
Sri Lanka	2.5	31	43	18
Philippines	2.4	21	22	53
Tanzania	2.4	29	15	55
Argentina	2.3	41	35	16
Nigeria	2.2	29	20	38
Colombia	2.1	15	40	36
China	2.1	19	24	46
Sierra Leone	1.6	13	39	31
Bangladesh	1.2	12	24	42
Pakistan	0.8	25	21	14
Indonesia	0.6	25	13	18
Weighted average	2.9	28	28	38

Source: Human Development Report 1991

The table illustrates how it is possible to arrive at similar expenditures on social priority areas, but from very different direction. Pakistan and Indonesia had low human expenditure ratio, despite reasonable overall levels of public expenditure. The reason is that their social allocation and social priority ratios were low. The Republic of Korea on the other hand, directed a large share of its relatively small public budget towards social priorities and as a result, had a much better human expenditure ratio. Even countries with a high human expenditure ratio (such as

Jordan) relied on large public expenditure ratios, while others (including Malaysia and Morocco) have particularly high social priority ratios.

What probably matters more than the human expenditure ratio is human development spending per person in absolute terms. This helps place the ratio in its proper perspective. For instance, the Republic of Korea and Malaysia spend similar amounts on social priority concerns per person ($128), even though Malaysia's human expenditure ratio is twice that of the Republic of Korea, because the latter's GNP per capital is twice that of Malaysia. Similarly, Kuwait's human expenditure ratio is half that of Botswana, yet it is absolute expenditure per person is nearly seven times that of Botswana.

Several important policy conclusions emerged from all of this:

- The human expenditure ratio may need to be around 5% if country needs to do well in human development this can be achieved in different ways both efficient and inefficient. A preferred option is to keep the public expenditure ratio moderate (around 25%), allocate much of this to the social sectors (more than 40%) and focus on the social priority areas (giving them more than 50%).An inefficient option is to with draw a large proportion of national income into the public sector to depress private investment and initiative and to restrict the economic growth and resource expansion that can ultimately finance human development in several cases total public expenditure can be cutback (that might encourage more private investment) and yet the government can spend more public money on human concerns.
- Budgetary interventions need not be extensive if GNP growth is rapid and equitable or if the private sector and non-governmental organizations are extremely active in social spending. Even when the funding is public, the implementation can still be private. Many governments find that the private sector and NGOs can provide social services more efficiently, and are increasingly channeling public funds through them.
- High government spending with low social priorities is the worst case. If 25% or more of national income is channeled through the government budget, and yet less than 1%of GDP goes into human priority concerns (as in the case of Pakistan and Indonesia), this is the worst of all possible worlds. The public sector is huge yet the majority of the population does not benefit from public social expenditure. Several developing countries had moved beyond basic priorities. Countries like Mauritius, Singapore, the Republic of Korea and Chile may have had only a moderate human expenditure ratio when the priorities considered were basic ones. But

they already had achieved high levels of human development and therefore shifted their focus to supporting social services at higher level.

2.2 Theories on Human Development

The Human Development Index (HDI) is a summary measure of achievements in key dimensions of human development: a long and healthy life, access to knowledge and a decent standard of living. The HDI is the geometric mean of normalized indices for each of the three dimensions. This technical note describes the steps to calculating the HDI, data sources and the methodology used to estimate missing values. (UNDP, Human development Report 2014)

HDI = $\sqrt[3]{}$ (Health Index X Education Index X Income Index)

Common to the plethora of the recent economic development literature is the idea that the process by which less developed countries can break out of poverty trap and achieve the much desired sustainable development is predicated on persistent production, accumulation and optimal utilization of their human capital. Years of theorizing have produced only few theories to support this argument.

The human capital theory derives its root from the celebrated work of Schultz (1963). Schultz, an agricultural economist developed his idea of human capital in the early 1960s as a way of explaining the economic gains of investing in education and health to improve agricultural output. This argument was logically expanded to show the link between better education and improved productivity as a benefit for the whole economy. Schultz further demonstrated that the yield from human capital in the US economy was larger than that from physical capital such as plant and machinery. This implies that in the absence of human capital, other factors of production would function sub-optimally.

Becker (1993) developed this idea further explaining that expenditure on education, training and medical care would ultimately all be considered as investment in human capital. According to Becker, they are called human capital because people cannot be separated from their knowledge, skills, health or values in the same way they can be separated from their financial and physical assets. Endogenous growth theory economists have stressed the fact that improvements in national productivity can be linked to a faster pace of innovation and investment in human

capital. The proponents of endogenous growth have stressed the need for government and private sector institutions to invest massively in health and education so as to nurture innovation, and provide incentives for individuals to be inventive. The central theme of the theory is that investment in human capital is an essential ingredient of growth.

According to Ehrlich and Murphy (2007), the concept of human capital as an intangible asset is perhaps best defined as a stock of embodied and disembodied knowledge, comprising education, information, health, entrepreneurship, and productive and innovative skills that are formed though investment in schooling, job training, and health as well as through research and development projects, and informal knowledge transfer.

From the perspective of classical economic theory, human capital considers labor as a commodity that can be traded in terms of purchase and sale. This classical theory very much focuses on the exploitation of labor by capital. However, unlike the meaning traditionally associated with the term "labor", human capital development refers to the knowledge, expertise, skill, and health one accumulates through education, training and health care. Emphasizing the social and economic importance of human capital development, Becker (1993) noted that the most valuable of all investment is that made on human being. Ibid (1993) considers education, training and health care to be the most important investment in human capital. Human development is the ultimate objective of economic development. It is also arguably the best means available for promoting development. Viewed as an end in itself rather than as a means, human development is about enriching human lives. Material enrichment – producing a larger volume of goods and services may contribute to this but it is not the same thing. Indeed it is by now widely understood that there is no one-to-one correspondence between material enrichment (measured, say, by gross national product per head) and the enrichment of human lives (measured, say, by the human development index). The human development approach thus implies the dethronement of national product as the primary indicator of the level of development. The stock of human capital consists of the knowledge, skills, experience, energy and inventiveness of people. It is acquired in a variety of ways: through training and apprenticeship programs, while on the job through learning by doing, in the formal education system, through informal contacts by word of mouth, through newspapers, radio and the information media generally, in institutions devoted to pure and applied research and through private study and reflection. The stock of human capital, like the stocks of physical and natural capital, will deteriorate if it is not maintained. Hence the importance of pre-natal and maternal

care, school feeding and other nutrition programs, the provision of safe drinking water, public health and disease control measures, guaranteed employment schemes and the likes. It is now recognized that human capital plays a central role in the development process and this has heightened interest in the economics of education, health economics, labor economics and related sub-disciplines. It is important to note, however, that human capital is just one component of the stock of total capital (Griffin and McKinley, 1992).

2.3 Measuring Public Expenditure for Human Development

In the 1991 UNDP Human Development Report, four ratios were introduced to measure Public expenditure on human development. The Report was about financing human development, by restructuring national budgets and international aid in favor of human development. The basic objective of human development is to enlarge the range of people's choices to make development more democratic and participatory. These choices should include access to income and employment opportunities, education and health, and a clean and safe physical environment. Each individual should also have the opportunity to participate fully in community decisions and to enjoy human, economic and political freedom.

The report argues that to develop a sound basis for analyzing public spending on human development countries should monitor four ratios (PER, SAR, SPR AND HER as earlier stated). Monitoring of the ratios is a powerful operational tool that allows policy-makers who want to restructure their budgets to see clearly the available options. The Report concludes that much current spending is misdirected and inefficiently used. If the priorities are set right, more money will be available for accelerated human progress.

Seeta Prabhu (1993) also argued that the UNDP Ratios are vital in analyzing financing for Human Development. He argues that a more efficient and effective public sector will help strengthen the private role in human development. And the best argument for additional resources is that the existing funds are well spent. The human expenditure ratio should increasingly become one of the principal guides to public spending policy. When resources are tight, greater attention must be paid to allocation priorities and efficiency in spending. It is wrong, however, to confuse a plea for greater efficiency with indifference to the mobilization of

additional resources. The best argument for mobilizing more resources is spending existing resources well.

Selim Jahan (2000) argues that human development in its different aspects is measured by various composite indices – the Human Development Index (HDI), the Gender-related Development Index (GDI), Gender Empowerment Measure (GEM) and the Human Poverty Index (HPI). The focus of the HDI is to measure average achievements in human development in a society. It builds on three basic dimensions of human life – a long and healthy life, knowledge and a decent standard of living. The HDI measures basic human capabilities in these dimensions. HDI concentration on three basic dimensions of human life does not mean that other aspects of human life are not important. It just means that the basic capabilities are essential for human well-being and when they are achieved, doors for other opportunities open. Aspects like human rights, participation, non-discrimination, even though are not captured in the HDI are essential for human development. When significant levels of human development are achieved, as measured by the HDI, in three basic dimensions of human life, the doors open up such as participation and ensuring security.

2.4 Review of Empirical Literature

A study that was carried out in India, state of Tripura, adopted the four ratios in measuring human development. According to Mita Choudhury (2003), in the study on the Public expenditure on Human development in Tripura, the study examined the trends and pattern of public expenditure on human development in Tripura and attempted to explain these trends in view of overall changes in the fiscal situation of the State. The paper also presented a comparative analysis of the level of public spending on human development in Tripura and other Indian States. Further, it examined in detail the composition of public expenditure in sectors that are important for human development. The paper was mainly based on data from the Finance Accounts of Tripura and other States. It used data from budget documents of Tripura for detailed analysis of expenditure under different heads. It also used information from the Annual Financial Statement and Budget. The paper measured public expenditure on human development based on UNDP's Human Development Report 1991, which used four ratios to indicate the priority assigned by States to expenditure on human development. These are (I) Public expenditure ratio (PER), defined as the total budgetary expenditures as a proportion of GDP (ii) Social Allocation Ratio (SAR), defined as the share of budgetary expenditure on the social sector in total

budgetary expenditure (iii) Social Priority Ratio (SPR), defined as the proportion of social sector expenditure that is spent on human priority areas, and (iv) Human expenditure ratio (HER), which is a product of the first three ratios and measures the budgetary expenditures in human priority areas as a proportion of GDP. In addition to these ratios, earlier studies have also used trends in per capita expenditure on social and human priority sectors to measure public spending for human development. Thus the study found it useful to examine trends in per capita expenditure along with the UNDP ratios as the UNDP ratios measure the human development expenditure in relation to income and do not indicate the absolute level of expenditure on human development in any State.

Mita (2003), defined social sector to comprise expenditure on broad budgetary heads called Social Services and Rural Development. Social Services include the following subheads: (i) Education, Sports, Art and culture; (ii) Medical and Public Health; (iii) Family Welfare; (iv) Water Supply and Sanitation; (v) Housing; (vi) Urban Development; (vii) Welfare of Scheduled Castes, Scheduled Tribes and Other Backward Castes; (viii) Labor and Labor Welfare; (viii) Social Security and Welfare; (ix) Nutrition; (x) Relief on Account of Natural Calamities; (x) Other Social Services. Within the social sector, social priority areas are defined to comprise elementary education, health and family welfare (excluding medical education, training and research), nutrition, water supply and sanitation and rural development. These are sectors that are particularly important for human development. The findings of this research were: Per capita spending on human development in Tripura is substantially higher than most States in India. It is, however, low in relation to a number of north eastern States; although the per capita expenditure on human development has also been increasing in absolute terms, it has not kept pace with the growth of GDP in the State. As a result, despite a rise in per capita expenditure on human development, the human expenditure ratio has fallen over the 1990s; The slow growth in expenditure on human development relative to GDP is closely related to the fiscal deterioration in the State in particular because of rise in debt stock and rising expenditure on salaries, wages and pensions from 1998- 99 onwards; the major constraint on public spending on human development is the dependence of the State on Centre for its revenues. Fluctuations in Central transfers are an important determinant of the fiscal situation in the State which in turn affects the capability of the State to invest in human development and; within the social sector, education accounts for a large share of expenditure.

The paper concluded that despite deterioration in fiscal conditions, the State has managed to keep spending on education at more than 7 per cent of GDP. In contrast, spending on other human development areas, including health, as a share of GDP has tended to decline.

In 2000, Frances Stewart and Ranis Gustav undertook a study on the strategies of success in human development. Steward and Ranis (2000) analyze the various policy dimensions which have contributed to successful human development (HD) performance in developing countries over the past three decades. We identify the four best HD performers in each of the regions, taking their level of life expectancy and infant mortality, as well as improvements in these dimensions over time, as the indicators. Examining the elements underlying HD performance reveals that a variety of combinations of vigorous economic growth, government social expenditure ratios and equitable distribution of income can lead to successful human development. None of the 'successful' countries performed well in every dimension conducive to HD success; rather, it appears that doing well with respect to some elements can compensate for relative weakness in others, even weak economic growth. It does appear, however, that one condition crucial in every case was a relatively high female primary enrolment ratio; in many cases the extent of female control over the family's income also proved significant.

A study on the role of fiscal policy in human development was undertaken by Rodrigo Suescún in 2007. According Rodrigo Suescún (2007), in the paper on the role of fiscal policy in human development and growth, he develops a dynamic inter temporal general equilibrium model of a small open economy that incorporates human development and also various indicators of social progress. The model is calibrated to 15 Latin American economies to study the effect of marginal increases in different types of useful and wasteful public expenditures under alternative financing schemes. The model seeks to provide quantitative policy assessments to guide government spending/financing decisions when policymakers pursue a specific objective such as growth, welfare, human development or social progress. The estimates presented in this paper indicate that infrastructure spending dominates other forms of public spending (education, health, government consumption and transfers to low-wealth households) in terms of sizable positive effects on growth performance, welfare, human development and social progress.

On Human development, the model rides on the 1990 Human development reports aspects. Following the quantitative approach of the 1990 UNDP Human Development Report, human development is defined as a multidimensional achievement index, as an aggregate of attainment

levels of some basic human functioning. Specifically, human development ($\mathfrak{I}$) is measured as a CES composite of q indicators j = 1… q, of alternative dimensions of wellbeing:

$$\mathfrak{I}_t = \left[\sum_{i=1}^{q} \frac{1}{q} (\mathfrak{I}_{j,t})^{-\rho} \right]^{-\frac{1}{\rho}}$$

This CES specification includes as special cases other well-known mean estimators for averaging information. The human development index (HDI) proposed by the United Nations (1990) is a special case of $\mathfrak{I}$ with q = 3 and ρ = −1; so, it is simply the arithmetic mean of three dimensions of human development (adjusted real income per capita, the level of educational attainment and life expectancy at birth).

In contrast to the UNDP parameterization, here ρ is assumed to take on values in the open interval (−1, 0), thus the chosen averaging formula is the so called Inverse Power Mean (Vijayamohanan Pillai, 2004). The Inverse Power Mean satisfies several desirable properties of a HDI. $\mathfrak{I}$ is monotonically increasing in every component $\mathfrak{I}$, that is, an improvement along one dimension of human development improves the overall achievement index, and concave, that is, the increase in the overall index generated by an improvement in one particular attribute of wellbeing is smaller when the level of human development is high than when it is small (i.e. diminishing returns). The function also exhibits constant returns to scale and the degree of substitution possibilities between any pair of indicator is finite and constant and given by $(1 + \rho)^{-1}$

Birdsall, Ross and Sabot (1993) set out to address the following questions: How great have been the costs to Pakistan, in terms of income growth forgone over the last three decades, of relatively low social spending in education, and especially in the education of girls? They used the result of an econometric analysis of the relationship between education and economic growth is a cross-section of countries to compare Pakistan's actual rate of growth and recent levels of output with what they might have been had Pakistan achieved education enrollment rates observed in three rapidly growing East Asian economics: Indonesia, Republic of Korea and Malaysia. Their analysis suggests that foregone income growth has been large. For example, its female enrollment in primary school has been as high as male enrollment in 1960, i.e. 46 per cent instead of 13 percent, they estimate that Pakistan 1985 per capital income could have been more

than 15 percent greater than it was (In 1960, male enrollment rates in primary schools in Indonesia, Korea and Malaysia were 58, 83 and 89 per cents respectively). They recognized that social spending in education has social as well as economic benefits for example the lower infant mortality rates of better educated mothers, and that gain in income growth alone are a poor measure of overall development.

Analyzing data for 146 countries over 60 years, Son (2010) finds that there is still a wide gap in human capital development between industrialized and developing countries, with the average working age adult in industrialized countries having 11 years of schooling compared with less than 6 years in South Asia and sub-Saharan Africa. He also found that human capital development has been converging over the past 60 years with human capital accumulation being faster in developing countries than in industrialized countries. However, estimates of time to convergence indicate that it may take decades for poor countries to catch up with the 2010 levels of human capital of rich countries. In South Asia, it will take almost 30 years for the region to catch up with the 2010 levels of human capital in industrialized countries, based on its historical performance between 1950 and 2010. Moreover, it will take longer for females than males in South Asia to catch up with their counterparts in industrialized countries due to the persistence of gender disparity in the region. Recommendation arising from the study is that education policy thrust must be closely tied with labor and economic policy. The educational system must not exist in a vacuum; rather, decision on priorities, curricula, and budget allocation need to be made in line with medium and long-term development plans. The importance of education in national development cannot be over-emphasized hence its cardinal position in various objectives of most developing countries. In Nigeria over the years, elements of uncertainty have beclouded this sector both in nominal and in real terms. Incessant strikes, closure of schools and other vices account for poor quality teaching and quality of products. As a result of this, the objective of the study by Omotor (2004) was to examine the profile of educational expenditure in Nigeria (between 1977 and 1998). An education expenditure model was constructed and tested using the ordinary least squares (OLS) technique. The estimates, though not overwhelmingly robust, found that federal government revenue is the singular significant determinant of educational expenditure model. It is the recommendation of the paper that other sources of financing education should be encouraged. A number of cross-country studies suggest that the Pakistan aggregate human capital investment, measured by educational performance is low relative to other countries of similar per capital income levels. This stylized fact prompted Sawada (1997) to investigate the implications of micro evidence of social spending on schooling

from rural Pakistan for an understanding of the causes of low human capital development. The results of school entrant and dropout regressions using household panel data indicate that the permanent and transitory income movements affect children's schooling behavior, indicating credit market imperfections. Hence, the human capital investment in rural Pakistan may be discouraged by poverty, combined with incompletely insured income volatility. Moreover, his analysis points out that there is a distinct gender difference in education.

Bloom, Caning and Sevilla (2001) acknowledged that macroeconomists' empirical studies restricted the definition of human capital solely in terms of schooling, and tried to extend production function models of economic growth to account for two additional variables that micro economists have identified as fundamental component of human capital: work experience and health. Their results reveal that good health has a positive, sizeable and statistically significant effect on aggregate output and human development. They found little variation across countries in average work experience, thus, differentials in work experience account for little variation in rates of economic growth. Finally they observed that the effect of average schooling on national output are consistent with microeconomic estimates of the effects of individual schooling on earnings, suggesting that education creates no discernible externalities.

Castro-Leal (2000) adopted a benefit incidence approach to examine the impact of public spending on curative health care on the poor in several African countries: Guinea, Ghana, Madagascar, Tanzania, Ivory Coast, and South Africa. They found that public spending benefits mostly the rich rather than the poor. Their study concluded that the constraints that prevent the poor from taking advantage of public spending must be addressed if the public health services are to be effective in ensuring human development.

Using annual time series data from 1970 to 2000, Adebiyi (2009) set out to investigate the direction of causality between human capital (i.e. health and education) expenditures and defense spending in Nigeria. His finding is that higher defense spending reduces human capital expenditure, especially on education.

In an attempt to explain why the United States overtook the United Kingdom and other European countries in terms of economic growth in the 20th century, Ehrlich (2007) adopted endogenous growth model where human capital is the engine of growth and development to study the US

emergence as an economic superpower. The results reveal that faster human capital formation was responsible for the ascendancy of the US as an economic superpower.

Do government health and education spending boost consumption (and consequently human development) in China? This question prompted Barnett and Brooks (2010) to investigate whether the sizeable increase in government social spending in recent years lowered precautionary savings and increased consumption. Their main findings are that spending on health, but not education, had an impact on household consumption; the impact, moreover, is large. A one Yuan increase in government health spending is associated with two Yuan increase in urban household consumption. This positive relationship is desirable since calorie intake, to a great extent, stimulates human development.

The objectives of the study by Shenggen and Neetha (2003) were to review trends in government expenditures in the developing world, to analyze the causes of change, and to develop an analytical framework for determining the differential impacts of various government expenditures on economic development. Contrary to common belief, it was found that structural programs increased the size of government spending, but not all sectors received equal treatment. The impact of various types of government spending on economic development is mixed. While some spending guarantees development, others do not.

Using panel data for 120 developing countries from 1975-2000, Baldacci (2004), explores the direct and indirect channels linking social spending, human capital and growth in a system of equations. The work found that both education and health spending have a positive and significant direct impact on the accumulation of human capital, and thus can lead to higher economic development. The paper also found that other policy interventions can be useful in moving toward achieving the MDGs, as such higher social spending alone is not sufficient for achieving the MDGs.

Van de Walle (1996) surveyed the method most often used to assess the welfare effect of public spending. Two methods were used to assess impacts namely: benefit incidence and behavioral approach. The study pointed to the need to diversify and compare results from other evaluation methods and broaden the definition of well-being to see how various facets of living standards are affected by public spending.

CHAPTER THREE

3.0 Data and Methodology

3.1 Data

In this study only public expenditure by the Zambian government was assessed. In as much as budget support from cooperating partners and community based projects in social sectors by NGOs assist in improving living standards, the most reliable expenditure the government can control and make most effective changes towards improving human development is its own expenditure.

The paper generated data on from the Financial Reports of Zambia prepared by the accountant general at the ministry of finance. Year to year Financial Reports (1990-2011) where accessed from the Ministry of Finance Library. The targeted figures were total public expenditure in each respective year, yearly social sectors expenditure, and district expenditures on defined social sector priority areas yearly. Data on GDP was sourced from the Central Statistics Office.

3.1.1 Data collection challenges

Extracting data on public expenditure and social sector expenditure was without difficulty as these figures where clearly stated in each report. However, the main challenge was compiling data on human priority areas within the health and education sectors. These challenges were as a result of some changes that occurred in financial reports. The financial reports have evolved towards decentralised expenditure reporting in the past two decades. The following where the significant changes observed;

- Under the Health Sector, primary and preventive health care spending were the priority areas targeted. Before the year 2005, the required data on priority area spending was collected under different programs that related to primary and preventive health. This created the possibility of missing out some priority spending within the sector which would result in understating the SPR. It was only after 2005 that primary and preventive health care spending was reported under one program as health service delivery per district.
- In the education sector, the priority area was spending towards basic school education (Grade 1-9) and grants to improve basic school services. From 1990-1993, expenditure

towards basic schools was reported under the Headquarters. After 1993, spending was reported per province and later on in 2004, it was disintegrated to reporting per district.

As expenditure reporting was decentralised, it was easier to capture priority spending. Therefore capturing of the SPR improved as reporting on priority area spending was decentralised making it easier to locate priority expenditure at basic schools and health facilities in each district.

3.2 Assessing the Link between Public Expenditure and Human Development

To test the hypothesis that there has been a positive relationship between public expenditure and human development, the UNDP norm to at least spend 5% of national income on human priority concerns (that is HER be at least 5%) was adopted as the decision rule for the test.

3.2.1 Calculation of Ratios

Since the paper adopts the UNDP's 1991 Human Development methodological approach towards measuring Public Expenditure on Human Development, it is important to demonstrate in brief calculations of the ratios.

3.2.1.1 Public expenditure ratio

Annual total public expenditure figures generated from the Financial reports, entered in an excel spreadsheet are divided by the Gross Domestic Product (GDP) figures of respective years.

3.2.1.2 Social Allocation Ratio

This ratio is the social sector expenditure share of total public expenditure annual figure. In this paper, the social sector is defined to comprise of Health and Education sectors only. Therefore, a summation of the total Education sector and Health sector allocation divided by total public expenditure figure for each respective year.

3.2.1.3 Social Priority Ratio

Per district summation of expenditure figures on the social sector priority areas divided by total social sector expenditure results in the required social priority ratio[1].

3.2.1.4 Human Expenditure Ratio

Finally a product of the three ratios (PER, SAR and SPR) results in the human expenditure ratio.

HER= PER x SAR x SPR…… (1)

Given that PER =$\frac{pe}{gdp}$, SAR=$\frac{sse}{pe}$, and SPR= $\frac{hpe}{sse}$

Where pe is public expenditure, sse is social sector expenditure and hpe is human priority expenditure in social sectors.

Thus,

HER= $\frac{pe}{gdp}\ x\ \frac{sse}{pe}\ x\frac{hpe}{sse}$ =$\frac{\cancel{pe}}{gdp}\ x\ \frac{\cancel{sse}}{\cancel{pe}}\ x\frac{hpe}{\cancel{sse}}$ …….. (2)

HER= $\frac{hpe}{gdp}$……. (3)

Equation 1 depicts HER as a decomposition of three ratios while equation 3 just shows that HER is the expenditure on human priority areas as a share of GDP.

3.3 Justification in the use of the ratios

As shown by equation 3, the HER is simply the proportion of GDP that is spent on the defined human priority areas in the social sectors. Equation 1 on the other hand expresses HER as a decomposition of three ratios. Using the ratios can help policy analysts and makers to monitor public spending and execute the need policy action to improve HER. As highlighted in the 1991 HDR, some countries can have the same HER but different spending in terms of the three ratios

[1]**Priority Areas under the Education Sector**- Expenditure towards District Basic School Equity programs such as grants to basic schools or support to basic schools, school Nutrition and Gender equality. Basic schools are defined as grade 1 to grade 9.

Priority Areas under Health sector- District Health Service Delivery Areas which include provision of first level Referral Services, Roll back Malaria, HIV/AIDS/STIs, Tuberculosis, Integrated Reproductive health,Child Health, Environmental Health, Mental Health, Oral Health, Nutrition, Epidemic Preparedness,Pediatrics, Medicine, Support Functions and other public health interventions.

or a country may be doing well on one or two ratios but bad at the other. Therefore, a decomposition of HER helps to come up with necessary policy action targeting a specific ratio or ratios to improve HER.

3.4 Determinant of the ratios

According to Ranis, Steward and Ramirez (2000) the underlying determinants of the three ratios (PER, SAR and SPR) which determine the HER are complex but includes the following: the tax capacity of the system; the demand for military expenditure and other non- human development priorities of the government; the varying interplay between bureaucratic forces, vested interests and popular pressures. It should be noted that all three ratios are affected by the extent of decentralization of the government. Country evidence shows that devolution (real decentralization) tends to increase the revenue available and it increases the Social Allocation Ratio and almost improves the Social Priority Ratio.

3.5 Weakness in the methodology

This methodology is based on the UNDP norms and does not use statistical techniques to determine significance. Thus, the result is not statistically determined but is based on the proven norm on human expenditure.

CHAPTER FOUR

FINDINGS

4.1 Description of the Ratio Trends

Table 2: Yearly Summary of Ratios

Year	Public Expenditure Ratio (PER)	Social Allocation Ratio (SAR)	Social Priority Ratio (SPR)	Human Expenditure Ratio (HER)
1990	27.30%	8.57%	60.54%	1.416%
1991	38.82%	6.19%	82.65%	1.987%
1992	27.46%	7.79%	47.80%	1.022%
1993	14.57%	7.50%	40.11%	0.438%
1994	20.41%	21.22%	15.13%	0.656%
1995	25.06%	18.21%	19.08%	0.870%
1996	25.07%	18.61%	38.47%	1.795%
1997	21.95%	27.40%	28.72%	1.728%
1998	18.52%	23.10%	46.52%	1.990%
1999	15.09%	24.17%	46.85%	1.709%
2000	17.99%	20.45%	44.67%	1.644%
2001	20.29%	19.45%	55.77%	2.201%
2002	20.03%	28.42%	29.97%	1.705%
2003	23.14%	29.16%	22.46%	1.515%
2004	23.04%	23.53%	22.76%	1.234%
2005	22.68%	18.06%	24.13%	0.988%
2006	20.04%	27.62%	44.03%	2.438%
2007	21.21%	26.62%	36.45%	2.059%
2008	22.52%	28.02%	61.13%	3.857%
2009	21.47%	27.56%	33.63%	1.990%
2010	22.21%	24.08%	24.81%	1.327%
2011	24.64%	23.03%	21.71%	1.231%
Averages	**22.43%**	**20.85%**	**38.52%**	**1.801%***

PER- Total Public Expenditure as a share of GDP

SAR- Social Sector Expenditure as a share of Total Public Expenditure

SPR- Social Sector Priority Area expenditure as a share of Social Sector Expenditure

HER- Social Sector Priority Area Expenditure as a share of GDP

**This is the product of the averages of the other ratios*

4.1.1 Public Expenditure Ratio

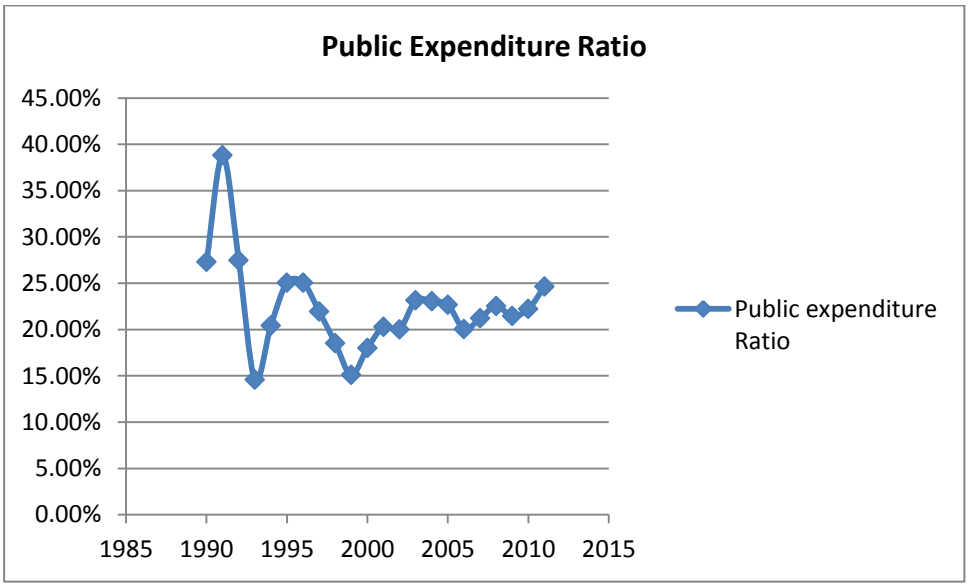

Figure 3: PER

Public expenditure as a share of Gross Domestic Product (GDP), as shown in figure 1, was at 27.30% in 1990 and decreased to 14.57% in 1993 before increasing to 20.41% in 1994. PER then increased from about 20.41% in 1994 to about 21.95% in 1997, representing a 7.54% increase. This increase was as a result of annual total expenditure increasing more than the increase in GDP. Public Expenditure increased by 147% while GDP only increased by 129% during the mentioned period. From 1997-1999 a PER decline was experienced when PER decline from 21.95% to 15.09%. This was due to the 45% increase in GDP accompanied by decreasing Public expenditure. Thereafter, overall Public Expenditure Ratio from 1999 to 2011 increased from 15.09% to 24.64%, because the public expenditure overall grew at a rate proportionate with the level of growth in the economy. The average PER from 1990-2011 was 22.43%, which is around the recommended 25% in the UNDP 1991 Human Development Report (HDR). It is important to note that PER was above 25% in the periods 1990-1993 and 1995-1996 and was slightly close in 2011 when it hit 24.64%.

4.1.2 Social Allocation Ratio

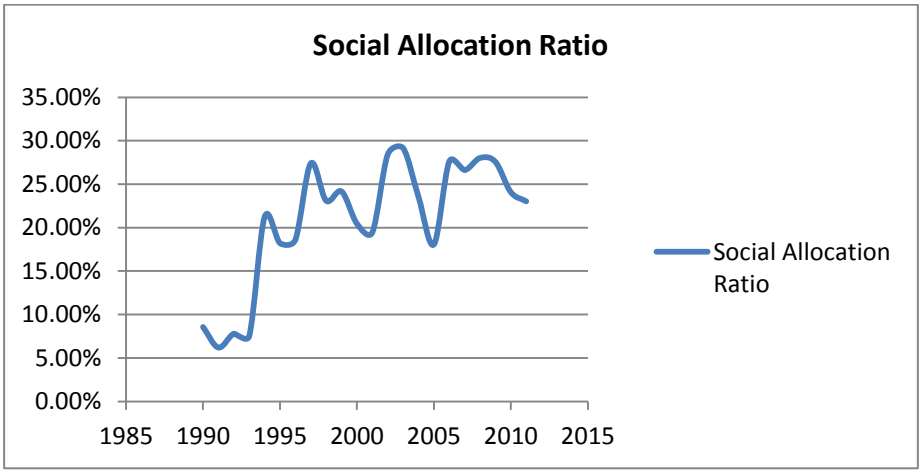

Figure 4: SAR

Social Sector Spending as a share of total Public Expenditure from 1990 - 2011 was in the range of values 6.19% to 29.16%, with an average of 20.85% over the study period. Overall, besides signing the Millennium Declaration in 2000 and the Abuja declaration (commitment to allocate at least 15% to Health Sector) in 2001, there is a reflection of a lack of clear policy direction and implementation towards progressive social sector spending during this period. With the signing of the aforementioned agreements it was expected that policy direction on public spending would be biased towards social sectors. It is important to note that in the period 2006-2011, SAR relatively increased averaging 26.16% due to the period being in the Fifth Development Plan implementation period (2006-2010) which emphasized greater budgetary allocations to Social sector and some human priority areas (Social Sector priority area spending) with guided spending. This did not substantially increase Social Spending to desired levels. The UNDP 1991 HDR recommends that Social sector spending gets a share of at least 40% of total public spending which is far higher than the commuted SAR average of 20.85%.

4.1.3 Social Priority Ratio

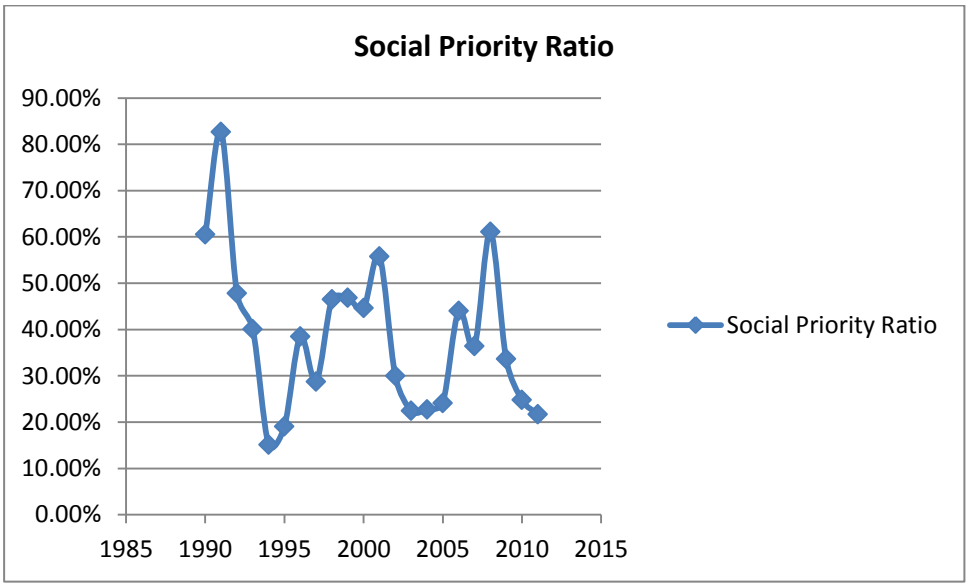

Figure 5: SPR

Just like the other ratios, SPR did not have a defined trend during the period of study. SPR was highest in 1991 at 82.65% then decreased to 15.13% in 1994 before increasing by 268.56% from 15.13% in 1994 to 55.77% in 2001. This increase can be attributed to the change of government in 1991, as a result of the first democratic elections held since independence. The new government began a new era in health care management, so as to provide more affordable health services that serve basic needs. The vision of the new government, as described in its policy paper (Managing for Quality in Health Care) was "To provide Zambians with equity of access to cost-effective, quality health care as close to the family as possible." There was also Education Policies put in place for example Focus on Learning of 1992 and the Educating Our Future of 1996, to help improve educational service delivery. After 2001, SPR started declining and reached 22.76% in 2004 before experiencing another increase which lead to 2008 a relative high of 61.13%. Thereafter SPR continued reducing and was 21.71% in 2011. Over the period, expenditure on priority areas in social sectors was 38.52% on average.

4.1.4 Human Expenditure Ratio

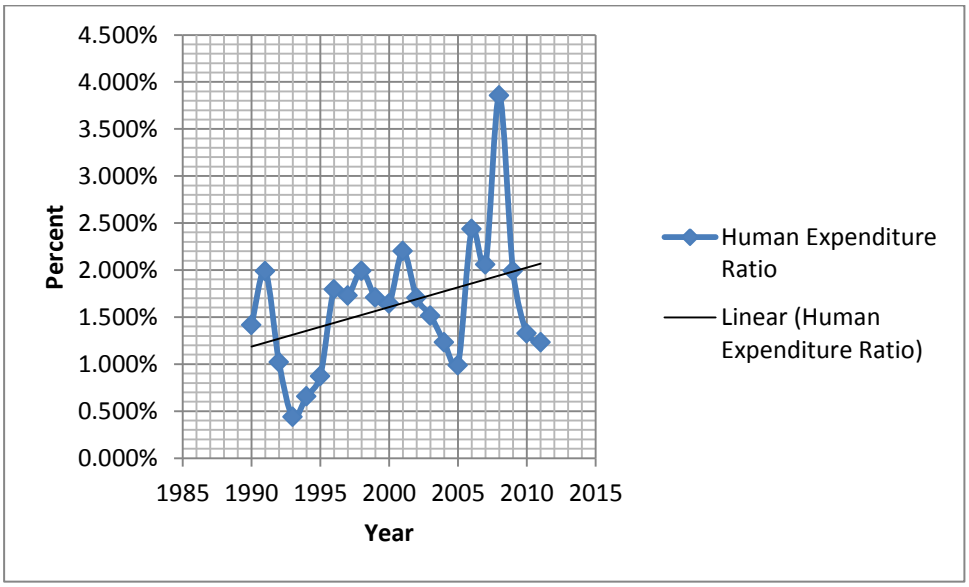

Figure 6: HER

Expenditure on Human priority concerns as a share of GDP estimated by HER over the period of study ranged from 0.438% to 3.857% with an average of 1.801%. This shows a significant deficit from the 1991 UNDP HDR suggested norm of 5% of GDP to spend on Human priority concerns which are critical to Human Development. Even though the overall HER increased from 0.656% in 1994 to 1.231% in 2011, supplemented by fluctuations in many periods of time, a lot of attention is urgently needed in this area if significant improvements in Human development are to be achieved. This raises a red flag on the attainment of Millennium Development Goals, the reduction of inequality and absolute Poverty levels in Zambia especially in rural areas.

4.2 Link between Public Expenditure and Human Development

UNDP's Human Development adopted norm for measuring public expenditure on Human Development requires PER being around 25 per cent, SAR around 40 per cent and SPR around 50 per cent, so that HER of a country turns out to be around 5 per cent. It is on the basis of this norm that the study's hypothesis is anchored. In addition, according to the UNDP HDR (1991) HER falling below 3% is classified as low human expenditure, between 3% and 5% is classified as medium human expenditure and above 5% is classified as high human expenditure.

From the study, expenditure on human priority concerns as reflected by HER ranged from 0.438% to 3.857% with an average of 1.801%. The PER was around the recommended 25% as it averaged 22.43% while the SAR was on average 20.85% which is below the recommend 40% by 19.15 percentage points and the SPR averaged 38.52% compared to 50% recommended. Finally, the product of the three aforementioned ratios, resulting in Human Expenditure Ratio was 1.801%.This is below the UNDP norm that recommends HER of 5% if Public Expenditure is to have a significant effect on human development. With the study revealing that Zambia has had HER below 3% for all year except in 2008 when HER was 3.857%, on average human expenditure has been low level over the years implying that public expenditure has not been linked to human development in Zambia. Therefore, we reject the hypothesis that there has been a positive relationship between public expenditure and human development in Zambia based on the UNDP norms on human expenditure.

4.3 Correlation between Human Expenditure Ratio and Human Development Index

Table 3 depicts the correlation between the human development index and human expenditure ratio. The Pearson coefficient of correlation (r) ranges from -1 to 1, ignoring the sign, the close the r to 1 the higher the correlation or predictability. The sign of the correlation implies the direction of the relationship.

Table 3: Correlation between HER and HDI

		hdi	her
hdi	Pearson Correlation	1	.344
	Sig. (2-tailed)		.117
	N	22	22
her	Pearson Correlation	.344	1
	Sig. (2-tailed)	.117	
	N	22	22

From table 3, the Pearson r=0.344, the correlation is positive implying the two variables' association is in the same direction. The size of the correlation is closer to zero (0) than to 1 implying a low correlation. To explain variability, r^2=0.118, implying that 11.8% of variability in Human Development Index can be explained by changes in Human Expenditure Ratio. The p-value of 0.117 shows that the correlation is statistically insignificant as the p-value is greater than the level of significance at 5%.

The low correlation shows that public expenditure (as indicated by HER) has had a very weak effect on Human development (HDI). The relationship is statistically insignificant as shown by the p-value of 0.117 at 5% level of significance. This reaffirms the findings from the public social spending analysis that showed that public expenditure is low and has no significant effect on human development in Zambia from 1990 to 2011.

CHAPTER FIVE

5.1 Discussion and Analysis of Public Social Spending in Zambia

It is a well-known fact that one of the major challenges Zambia is facing today are high poverty levels and income inequality among the population. Despite the recent turnaround in the economy as shown by real GDP growth of more than 5 per cent, the majority of Zambians continue to live in poverty. It is important to note that a large segment of the population has for a long time been exposed to stringent economic reforms as well as unpredictably harsh weather conditions that monotonically increased their vulnerability to poverty over time. This prolonged exposure to both human and naturally induced hazards, such as the cost sharing and market liberalization economic adjustment-style policies, and the recurring drought spells of the 1990s, has entrenched poverty in the lives of many Zambians. The poverty situation has been more precarious in rural than urban areas mainly because of recurring drought spells which persisted into the new millennium (Living Conditioning and Monitoring Survey 2006 & 2010)

Even with the recent attainment of middle income status and a normally performing economy, it has been a huge challenge to improve the living conditions of the rural population living in poverty in Zambia. The Living Conditions and Monitoring Survey of 2006 & 2010 indicate that poverty levels have remained persistently high despite recording a slight decline between 2006 and 2010. The proportion of the population falling below the poverty line reduced from 62.8 per cent in 2006 to 60.5 per cent in 2010. This implied that between 2006 and 2010 poverty reduced by a 2.3 percentage point. Further in 2010, the extremely poor accounted for about 42per cent of the total population whilst overall headcount poverty was as high as 77.9 per cent in rural areas compared to urban poverty levels of 27.5 per cent. Therefore, spending on Human priority concerns needs to be improved if any meaningful progress is to be attained in the fight against poverty, inequality and ultimately improved Human Development.

The findings in this study show that Zambia's public expenditure towards human development as estimated by the HER stands at an average of 1.801% relative to a recommended annual minimum of 5% by the UNDP. This shows that without well-structured spending that aims at human development, economic growth cannot eradicate poverty automatically. Even with recent steady increases towards social sector spending, spending on human priority concerns within social sectors has remained every low.

With a classification of HER figures above 5% as high level expenditure, between 3% and 5% as medium level human expenditure and HER figures below 3% as low level human expenditure, during the period of study from 1990 to 2011 Zambia has had only one year in which HER was above 3%, which was in the year 2008 at 3.9% (medium level human expenditure). For comparative purposes, we analyse spending for 1994 (one of the years when HER was below 1%) and 2008 (when HER was between 3% and 5%). In 1994, HER was 0.656% decomposed as; public expenditure as indicated by PER was 20.41% which is reasonable relative to the recommend 25%, social sector spending as a share of total public expenditure (SAR) was 21.22% which is half the recommended 40%. This social sector spending was characterized by health sector spending of 10.86% and education sector spending of 10.36%. Social sector priority spending (SPR) stood at 15.13%, which is 3 times lower than the expected 50% going by the UNDP norms. Out of the total spending in education and health sectors, 18% and 2.1% were spent on sector priority areas respectively. In this year, the reason for low HER was low social sector spending and even a lower social sector spending on priority areas. This is similar to the 1988 Pakistan public spending that had HER of 0.8%, PER of 25%, SAR of 21%, and 14% SPR which was cited as a worst case scenario of public human expenditure in the 1990 HDR. Most of the years when Zambia has recorded low human expenditure ratios have been characterized by reasonable levels of public expenditure (PER averaging 22%) accompanied by low social allocation and social priority ratios.

On the other hand, the year 2008 was the only year with a medium level human expenditure. In this particular year, the HER was at 3.9%, public expenditure was 22.53%, social sector allocation (as indicated by SAR) was 28.02% and lastly, social priority spending on human concerns within social sectors was 61.13%. Public expenditure was reasonably around the UNDP norm of 25% public spending, and social sector spending on priority human areas was over the recommended 50% standing at 61%. The only reason why HER in the year 2008 did not reach the recommend 5% mark was because of low Social Allocation Ratio (social sector spending) of 28.02% relative to the recommended 40%. Social sector spending was broken down by a health sector spending of 9.99% and 18.03% in education sector. Health sector spending was below the 15% as required by the Abuja declaration and education spending was close to the SADC minimum requirements of 20%. Spending on priority human concerns as a share of social sectors spending was highly impressive at 80% and 60.78% in the health sector and education sector, respectively.

Improvements in allocations to health sector and education sector and maintaining the spending on human concerns within these sectors above 50% as demonstrated in 2008 is evident enough that Zambia can restructure and improve human expenditure.

Findings of this paper are strongly linked to observations of Cuesta, Kabaso and Becerra (2012), in his paper on how pro poor and progressive Social Spending is in Zambia, that even if the Zambian economy grew at a faster pace in the 2000s following the privatization of the mining industry and a return to fiscal discipline and low inflation, higher recent growth rates have not translated into higher living standards, and Zambia's rank in the 2011 UN Human Development Index was 150 out of the 169 countries assessed. Therefore, the recent period of sustained economic growth also seems to have had a limited impact on poverty reduction.

The findings are also in line with findings in Mita (2003) study on public expenditure on human development using the public expenditure ratios. The paper observed that the Human expenditure ratio reduced as a result of lack of prioritizing human development but expenditure went towards debt stock and rising expenditures on salaries, wages and pension. Further Shenggen and Neetha (2003) also observed that the impact of various governments spending on development is mixed, while others guarantee development others do not.

Stewart and Ranis (2000) in their paper on the strategies of success in human development recognized the expenditure ratios as one of the policy dimensions that have contributed to successful human development in the last three decades. In this paper the examined elements underlying human development performance revealed that a variety of combinations of vigorous economic growth, government social expenditure ratios and equitable distribution of income can lead to successful human development.

Besides, human priority spending within social sectors not being a priority, there has been some efforts by government to uplift the living standards of citizens. According to George Hamusunga (2012), some significant progress has been registered by government in education sector between 2002 and 2009 mainly due to the declaration of free education from grades 1 to 7 and the infrastructure development efforts. This has resulted in increased enrolment from 2.9 million children in 2004 to 3.6 million children in 2009 (MoFNP, SNDP 2010). Similarly, the Net Enrolment ratio (NER) increased from 93% in 2005 to 97% in 2009, completion rates at grade 9 improved from 43% in 2005 to 52% in 2009, while the Gender Party Index (GPI)

increased from 0.95 in 2005 to 0.99 in 2009. However, the exponential increase in enrolment alone albeit important, have proved inadequate to guarantee the learners the necessary learning achievements.

On health care services, Cuesta, Kabaso and Becerra (2012) argues that in an attempt to address unstable public-health funding arising from broader fiscal and macroeconomic volatility, Zambia introduced a system of user fees in 1993, though certain exemptions for specific services and specific age groups were allowed. In 2006 these fees were abolished for all primary health services in rural areas. In November 2011 user fees for primary healthcare were also eliminated in urban areas. According to Masiye (2008), the removal of user fees in rural areas was seen as a tool for bridging the rural-urban income divide and improving healthcare equity. However, its impact on the quality and accessibility of health care remains unclear, even after additional efforts were undertaken to increase health funding and provide for a more efficient distribution of drugs and other medical supplies. In order to address public health priorities in a cost-effective and equitable manner, a substantial share of resources should be allocated to the lowest level of the healthcare system, i.e. first-tier institutions. However, in practice just over a third of health expenditures are allocated to primary healthcare.

CHAPTER SIX

6.0 CONCLUSION AND POLICY IMPLICATIONS

6.1 Conclusion

The main objective of the study was to find out the link between public expenditure and human development. A Human Expenditure Ratio analysis was done by means of decomposing HER into the public expenditure ratio, social allocation ratio and social priority ratio. The ratios were computed and their trends assessed. The methodology adopted was the 1991 UNDP HDR financing human development ratio analysis. Findings reviewed that on average, Zambia has had low levels of human expenditure with HER at an average of 1.801% far below the recommended 5%.

Even though Zambia has experienced real GDP growth of more than 5% in recent years and made commitments to improve human development through social sector spending through the signing of the SADC recommendations to allocate about 20% of national budgets on education and Abuja declaration to allocate about 15% of budget to the Health sector, there has been no clear indication of planned and exponentially sustainable social sector spending. Aside from the signing of the aforementioned agreements, there is need to monitor budgetary allocations versus actual expenditure so as to improve budget performance. From the study, expenditure on health and education as a share of total expenditure was on average 9% and 15% respectively. This gives an average of 24% as the total social sector allocation as a share of total public expenditure. This is a clear indication that social spending has not yet reached desired level and spending within the social sectors does not support trickle down of resources to human priority concerns. This demonstrates the reason why the country is still lagging behind in human development (High poverty levels and inequality) despite sustained economic growth in recent years.

As a result, Zambia is one of the lowest ranked countries. It was ranked 163 out of 186 Countries in 2012 and during the period 2000-2010, Zambia's HDI has been below the Average HDI of low income countries as shown in Table 2 below

Table 4: Human Development Index-Zambia versus Sub Sahara Africa

Year	Zambia	Low Income Countries human development	Sub-Saharan Africa
2010	0.438	0.461	0.468
2009	0.431	0.455	0.463
2008	0.420	0.448	0.456
2007	0.411	0.442	0.449
2006	0.405	0.432	0.440
2005	0.399	0.424	0.432
2000	0.376	0.385	0.405

Even in the absence of satisfactory economic growth or a relatively even income distribution, countries can achieve significant improvements in human development through well-structured public expenditures. For example, during the last three decades, Sri Lanka experienced relatively slow growth, rather equally distributed, and Botswana and Malaysia had adequate growth, unequally distributed. Yet all these countries have made impressive achievements in their human development levels because they have had well-structured social policies and expenditures. Costa Rica and Chile, too, have demonstrated that dramatic human progress can be achieved - in a short time and even without rapid GNP growth. But distributive policies can compensate for the effects of low GNP growth or unequal income distribution only in the short and medium run. These policy interventions do not work indefinitely without the nourishment that well-distributed growth provides. In the long run, economic growth is crucial for determining whether countries can sustain progress in human development or whether initial progress is disrupted or reversed (as in Chile, Colombia, Jamaica, Kenya and Zimbabwe).

6.2 Policy Implications

Evidence emanating from findings suggests that there is need for political commitments to improve public expenditure towards human priority concerns to acknowledge that human development cannot be promoted only at the expense of economic growth as this poses a false trade off. Thus as the 1990 HDR recommends, restructuring of budget priorities so as to balance economic and social spending by developing countries have the resources to meet many of their development goals. This Report takes the debate a stage further by showing the potential for

restructuring national budgets and foreign assistance to meet human needs. The findings in this paper confirm the 1990 HDR statement that GNP growth accompanied by reasonably equitable distribution of income is generally the most effective path to sustained human development. But if the distribution of income is unequal and if social expenditures are low or distributed unevenly (for example in Brazil), human development may not improve much, despite rapid GNP growth.

This is further backed by the Human Development Report 1991 whose main conclusion is that the lack of political commitment, not of financial resources, is often the real cause of human neglect.

The paper proposes restructuring of public expenditure on human priority areas adopting the 2008 expenditure structure (from the results) with improvements in social allocations as follows:

- Public expenditure as a share of GDP be at 25%
- Social sector spending as a share of total public expenditure be at least 35% split by a health sector spending of at least 15% and 20% in the education sector. And SAR to improve gradually by at least 2% in the next three years so that we can reach social spending level of 40% by 2018.
- Lastly, spending on human priority concerns as a share of total social sector spending should be 61%.

The above will result in 5.3% (25% x 35% x 61%) spending on human priority concerns as a share of GDP. This will enable Zambia attain high level human expenditure as the UNDP norm to at least have HER at 5%.

These policy changes will be very critical to the improvement of public expenditure towards human development. Zambia does not need to wait until the revenue base is increased before these policy actions on financing human priority areas can be enhanced but should use the existing resources by realigning social spending and improving efficiency. This is a similar observation in the 1991 HDR about developing countries which states that a more efficient and effective public sector will help strengthen the private role in human development. And the best argument for additional resources is that the existing funds are well spent. Just as economic growth is necessary for human development, human development is critical to economic growth. This two-way link must be at the heart of any enlightened policy act.

Lastly, the paper recommends that similar studies be undertaken that can cover more social sectors beyond the traditional social sectors (Health and Education) so as to get even a more accurate measure of the effectiveness of public expenditure towards human development. Furthermore, there is need to also extend the research and incorporate direct budget support from cooperating partners and also incorporate spending by Non-Governmental Organisations in social sectors towards uplifting of human living conditions.

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Appendix

		Expenditures				
Year	TOTAL G.D.P. AT MARKET PRI	Actual total expenditure	Actual Health sector Expenditure	Health sector priority Area total spending	Actual Education sector Expenditure	Education sector priority Area total spending
1990	114 941 427 897.00	31 381 642 813.00	1 320 066 764.00	1 234 553 042.23	1 369 191 262.00	393 427 617.27
1991	218 275 800 000.00	84 723 800 000.00	3 154 077 248.00	3 309 539 954.27	2 093 098 886.00	1 027 474 709.20
1992	569 563 600 000.00	156 400 900 000.00	6 856 262 379.00	3 827 325 726.47	5 321 502 970.00	1 993 440 074.76
1993	1 481 763 100 000.00	215 854 704 791.33	9 312 997 745.33	2 591 208 960.71	6 880 242 747.33	3 904 546 264.54
1994	2 240 109 404 000.00	457 300 000 000.00	49 658 648 942.00	6 498 017 896.91	47 394 744 453.00	8 187 708 690.36
1995	3 005 059 227 267.40	753 000 000 000.00	62 588 683 581.00	9 392 378 745.81	74 516 730 960.00	16 765 964 499.24
1996	3 950 197 875 915.49	990 400 000 000.00	82 182 157 010.00	50 981 365 961.76	102 100 679 142.00	19 907 282 129.28
1997	5 140 181 176 935.53	1 128 400 000 000.00	100 193 997 583.00	68 284 139 301.43	208 964 409 335.00	20 520 173 027.64
1998	6 027 939 569 901.79	1 116 400 000 000.00	118 302 988 038.00	86 325 660 172.83	139 538 952 539.00	33 624 933 534.72
1999	7 477 664 472 228.13	1 128 390 215 321.00	116 185 645 994.00	101 176 324 852.07	156 505 777 596.00	26 591 018 160.48
2000	10 121 292 481 578.70	1 821 300 000 000.00	140 950 290 995.00	128 232 072 742.28	231 503 576 130.00	38 158 510 770.36
2001	13 193 716 313 770.20	2 676 390 000 000.00	175 772 130 866.00	223 861 952 735.59	344 912 871 366.00	66 521 128 873.44
2002	16 324 435 627 543.00	3 269 000 000 000.00	245 772 502 644.00	217 762 204 283.00	683 302 965 402.00	60 640 790 700.67
2003	20 551 112 252 562.00	4 755 000 000 000.00	498 318 219 466.00	255 036 031 502.20	888 192 380 349.00	56 385 245 366.89
2004	25 993 146 104 488.50	5 988 100 000 000.00	645 044 132 519.00	244 309 224 884.79	763 906 808 092.00	76 414 643 085.30
2005	32 041 509 974 133.80	7 266 900 000 000.00	444 546 861 758.00	266 273 891 491.14	868 036 411 422.00	50 437 875 288.22
2006	38 560 800 574 730.80	7 729 500 000 000.00	658 617 716 410.00	632 313 575 541.96	1 476 259 513 683.00	307 739 625 389.88
2007	46 194 799 065 159.30	9 798 700 000 000.00	956 200 000 000.00	830 873 027 302.76	1 652 700 000 000.00	120 197 795 100.72
2008	54 839 439 442 548.40	12 348 800 000 000.00	1 234 000 000 000.00	1 005 572 860 124.43	2 226 200 000 000.00	1 109 487 328 755.00
2009	64 615 577 854 463.60	13 872 800 000 000.00	1 206 300 000 000.00	905 657 735 101.60	2 617 200 000 000.00	380 331 558 100.08
2010	77 666 590 236 713.90	17 252 100 000 000.00	1 464 100 000 000.00	700 587 512 695.33	2 690 300 000 000.00	330 307 057 872.12
2011	93 344 404 045 425.60	22 995 700 000 000.00	1 876 000 000 000.00	791 652 054 132.81	3 418 900 000 000.00	357 643 095 594.48