KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI
DEPARTMENT OF ECONOMICS

THREE ESSAYS ON ECONOMIC IMPACT ASSESSMENT OF THE USE OF THE HEAVILY INDEBTED POOR COUNTRIES (HIPC) INITIATIVE FOR POVERTY REDUCTION IN GHANA

A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES IN FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF DOCTOR OF PHILOSOPHY (PH.D) DEGREE IN ECONOMICS

BY

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JUNE, 2010

DECLARATION

I, declare that I have personally, under supervision, undertaken the study herein submitted

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I, declare that I have supervised the candidate in undertaking the study herein submitted and I confirm that the candidate has my permission for assessment

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ACKNOWLEDGEMENT

I am greatly indebted to my supervisor, Prof. J. Ohene-Manu, Department of Economics, Kwame Nkrumah University of Science and Technology, Kumasi, for his suggestions, guidance and encouragement that have made this study become a living reality. I also wish to express my gratitude to Dr. Osei A. Kuffour (Second Reader) and Rev. Sr. Dr. Eugenia Ampofu (Third Reader) for reading through the manuscripts, and the entire senior members of the Department of Economics for their constructive criticism and directions at various seminars, which helped to shape the study.

My sincere thanks go to my mentor, Prof. David Lam and mentee, Prof. Rebecca Thornton, all of the Department of Economics, University of Michigan for their suggestions, guidance and encouragement on the work during my six months scholarly visit at the University of Michigan and the entire senior members and graduate students of the Department of Economics for their suggestions and directions at various seminars that helped to put the work into perspective.

The study also owes much to the University of Michigan African Presidential Scholars (UMAPS) programme for the scholarship offer that enabled me to have a six month scholarly visit at the University of Michigan, and the support of the African Studies Center of the University of Michigan and my colleague UMAPS of the 2009 cohort. Also to acknowledge are the Vice-Chancellor, Prof. K. K. Adarkwa and the Provost, Prof. Dr. Dr. D. Buor of the College of Art and Social Sciences (CASS), through whose nomination I gained the UMAPS scholarship.

Furthermore, it is my pleasure to thank the staff in charge of the HIPC Initiative in the Ministry of Finance and Economic Planning, the Statistical Service, the District Chief Executives, Coordinating Officers, Planning Officers, Finance Officers at the sampled district offices and the sampled households for the useful information they provided during my field surveys.

Finally, my magnificent thanks go to my wife Sophia Osei-Fosu, my children Augustine, Ignatius, Caroline, Kizito, Claudia, Emelia, and the entire families of Asokwa at Kranka and Sukwanso at Akumsa Domase in Nkoranza District for their forbearance during my absence for the study and their unfailing support.

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JUNE, 2010

DEDICATION

TO

THE POOR IN SOCIETY, THE POOR COMMUNITIES AND THOSE WORKING TO REDUCE POVERTY

ABSTRACT

Ghana applied to join the Heavily Indebted Poor Countries (HIPC) in 2001. The argument was that HIPC spending will help to develop capacity of the poor (through human development), give them capital for investment (through micro-credit), improve their labour productivity (through improvement in health and rural water and sanitation), enhance rural agriculture (through feeder roads construction and rehabilitation), give them skill training, etc. These will enhance the incomes of the poor in the immediate future and help them come out of the vicious cycle of poverty. After eight year of implementation there was the need to assess the impact of the initiative on poverty reduction.

This study therefore investigates the economic impact of the utilization of the HIPC relief fund on poverty reduction in Ghana. Specifically, the study objected to: assess the extent to which the HIPC relief fund has helped to reduce poverty, both at the individual and community levels; determine the relative effectiveness of the various HIPC funded programmes to the reduction of poverty; assess the impact of the HIPC micro-credit on poverty reduction and its benefit incidence; examine how the poor themselves feel about how the programmes have improved their welfare and hence reduced their poverty situation; and examine the extent to which the HIPC initiative has improved the asset, need-base and capabilities of the poor that will make them function as economic and social being.

These research concerns were addressed in the thesis in a three separate but related essays on; Economic Impact Assessment of the Heavily Indebted Poor Countries (HIPC) Initiative on Poverty Reduction in Ghana; The Heavily Indebted Poor Countries (HIPC) Initiative Micro-credit and Poverty Reduction in Ghana: a Panacea or a Mirage?; and Assessment of the Impact of the Heavily Indebted Poor Countries (HIPC) Initiative on Poverty Reduction: The Subjective-Multidimensional and Deprivation Approach, in that order.

The techniques that were used for the analysis included: FGT Index method (Foster, Greer and Thorbecke, 1984); Community Poverty Ratio method (Sullivan, 2002); Benefit Incidence Analysis methods (Demery, 2003); Subjective-Multidimensional Model (Van Praag et al, 1982); Multidimensional Deprivation method (Barrientos, 2003); Capabilities and Functioning model

(Sen, 1983), among others. The definitions and details of these approaches are provided in the appropriate essays that constitute the Thesis.

The study used method with no counterfactual (before and after), which compares the performance of key variables after the initiative with those prior to the initiative. The approach uses statistical methods to evaluate whether there is a significant change in some essential variables over the period. The study uses both primary and secondary data. The primary data were derived from household survey.

Some of the major findings of the study are summarised as follows:
In the first essay, the study found that over the period when the Heavily Indebted Poor Countries (HIPC) initiative was implemented per capita income of the households have significantly increased and therefore decreasing the proportion of the people below the poverty line. The Foster-Greer-Thorbecke (FGT) Poverty Gap Index (PGI) also indicates that the proportion of income needed to transfer the poor above the poverty line has also significantly reduced over the period. By implication over the period poverty incidence has been reduced.

Secondly, the extent of community deprivation of social amenities reduced. That is over the period of the HIPC implementation (2001-2008) more social amenities were provided to the communities. For example 27 more communities were provided with health facilities, 30 were connected with electricity, 40 got access to telephone facilities and 33 communities had their feeder roads re-shape to all weather roads. It also came out that there was improvement in human development outcomes; school enrolment, attendance, retention, completion rate, school performance, adult literacy rate, life expectancy at birth, coverage of vaccination, and delivery assistance increased over the period while infant mortality, maternal mortality, malnutrition, malaria rate, cholera cases, and guinea worm cases went down. Furthermore, the study found that the improvement in the human development outcomes significantly relate to HIPC initiative funds, except in the case of school performance, adult literacy rate and malaria cases. Hence, it can be said that with respect to the provision of social amenities for communities the HIPC initiative has done marvelously well to reduce poverty in Ghana.

Thirdly, the ordinary least square (OLS) analysis proved significantly that the poverty reduction is positively related to the initiative. Hence, the hypothesis that the HIPC initiative has reduced poverty in Ghana is accepted and therefore the strategies used under the initiative have high potential to Ghana's future poverty reduction, growth and over-all economic development.

Furthermore, the study found that the most effective programme to poverty reduction is education, followed by health and water and sanitation. These programmes proved statistically significant relationship to the poverty reduction over the period. This means that when funds are shifted from micro-credit, private sector development and good governance, the rate of poverty will fall.

The study however found that over the period the intensity of poverty (inequality among the poor) increased implying that the HIPC initiative appears not pro-poorest. This was shown by the increase in the Foster-Greer-Thorbecke (FGT) squared poverty gap index from 2000 to 2008. This means the proportion of income needed to move the more poor to catch up with the less poor has increased over the period. This implies that the initiative was more regressive to the poorer and hence not pro-poor. This suggests that even though the initiative has helped to reduce poverty, it impacted significantly on the less poor in the country than the poorest.

Again, some of the programmes; example, the micro-credit, private sector development and good governance appear not to impact on the poor meaning they were probably poorly implemented or they might have long term effects on poverty reduction whose impact cannot be immediately felt.

From the second essay, the study found that the HIPC micro-credit is a panacea to poverty reduction in Ghana. That is it has the potential for poverty reduction because between the HIPC implementation period (2001- 2008), the beneficiaries of the HIPC micro-credit had significant increases in their incomes than the non-beneficiaries. However, from the benefit incidence analysis in section 4.5.2 the distribution of the HIPC micro-credit was skewed. Both the standard and the marginal benefits of the micro-credit were distributed regressively towards the rural areas and the poorest income-quintile of the population. This therefore explains why the intensity

of poverty (inequality among the poor) increased as discussed in section 3.4.1. By implication, if efforts are made to channel the HIPC micro-credit to the rural areas and the poorest income-quintile of the population, the country is likely to reduce poverty drastically, if not completely eradicate it.

The third essay revealed that both the head count and poverty gap indices from Foster-Greer-Thorbecke (FGT) were very high. Also, over the period there was no significant reduction. From counts of domain satisfaction on average over 60% of the households felt that they were poor by all the welfare indicators and therefore it is clear that from the subjective point of view that the initiative did not significantly reduce the poverty situation of the populace.

Furthermore, the study found that the initiative did not significantly improve the households' basic-needs, asset-needs and capabilities that will enable them enhance their well-being and help them to function as economic and social beings. There was no significant statistical difference between the conditions of the households' basic-needs, asset-needs and capabilities in 2000 and 2008. The study therefore concludes that with respect to basic-needs, asset-needs and capabilities the initiative did not positively impact on poverty reduction over the implementation period.

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JUNE, 2010

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INTRODUCTION

1.1 Background of the Study

1.1.1 Overview of the Economy of Ghana

At the end of the year 2000 the Ghanaian economy was in a precarious situation; high intensity of poverty, debt overhang, high debt servicing situation, and over-all poor economic performance. Ghana also experienced growing and deepening poverty and intensification of vulnerability and exclusion among some groups and in some areas, especially in the north of the country and rural areas. The over-all poverty incidence of the country was 39.5 and even higher in different areas, regions, and sectors (see Table 1.1) (Ghana Statistical Service, 2006).

Table 1.1: Poverty Incidence by Sectors, Localities and Regions in Ghana in 2000

Male	42.1	Urban Coastal	31.7	Public Sector	22.3	Western	27.3
Female	35.0	Rural Savannah	70.0	Private Formal	11.1	Central	48.4
Rural	49.8	Rural Forest	38.5	Private Informal	25.2	Greater Accra	15.2
Urban	19.8	Rural Coastal	45.8	Export Farmers	38.9	Volta	37.7
Urban Male	19.8	Urban Coastal	31.0	Food Crop Farmers	59.8	Eastern	43.7
Urban Female	19.8	Urban Forest	18.2	Non-Food Crop Self-employed	28.7	Ashanti	27.7
Rural Male	48.3	Urban Savannah	43.0			Brong Ahafo	35.8
Rural Female	45.8	Rural Coastal	45.6			Northern	69.2
Urban Savanna	43.0	Rural Forest	38.0			Upper East	88.2
Urban Forest	18.2	Rural Savannah	70.0			Upper west	83.9

Source: Ghana Statistical Service, 2006

Five out of ten regions in Ghana had more than 40% of their population living in poverty in 2000. The worst affected being the three northern savannah regions (the Upper East, Upper West and Northern Regions). About 90% of people in the Upper East, 80% in Upper West and 70% in Northern Region were classified as poor in 2000. Food crop farmers in the country had the highest incidence of poverty. They constitute 59% of the poor in Ghana (Ghana Statistical Service, 2000).

One other serious problem in Ghana as at 2000 was the high national debt, whose servicing became increasingly a drag on the economy. Since the introduction of the ERP in 1983, the total national debt, comprising foreign and domestic debts, steadily grew from $2,903 million in 1983 to $7,804 million in 2000 (Bank of Ghana Quarterly Economic Bulletin, 2000).

The debt stock of Ghana as at the end of 2000 exceeded, not only, Ghana's Gross Domestic Product (GDP) in absolute terms, its average growth rate since 1983 has been higher than the annual average economic growth rate between 1983 and 2000. Between 1983 and 2000, the external debt stock rose from $1.9 billion to over $6.0 billion, whilst cedi denominated domestic debt stock surged from ¢29.3 billion ($977 million) to ¢9.4 trillion ($1.8 billion) over the same period. The national debt stock experienced faster growth rate in the 90s than the 80s. Whilst the 80s registered an annual average growth rate of about 2.9% (between 1983 and 1990) the total debt stock of the 90s recorded growth rate of about 8.8% (Bank of Ghana Quarterly Economic Bulletin, 2000).

An indication of the emerging debt crisis in Ghana, as a result of the rising indebtedness, can be seen in the deterioration of its debt indicators over the years. The external public debt stood at 131.0 percent of GDP, and the domestic public debt at 35 percent of GDP, and was in a snowball. For the year 1999 and 2000, statutory servicing of external and domestic debt accounted for 32 percent and 39 percent respectively of total government expenditure. External debt servicing alone accounted for 24 percent of total government expenditure in 2000. A major consequence of this debt overhang was not only a stifled economic growth, but also a reduction in social and poverty related spending. For example, the external debt service expenditure of ¢2,454.6 billion was far bigger than the budgeted social services sector allocation of ¢1,370.1 billion for the year 2000 (World Bank, 2000).

Ghana's economy exhibited high debt burden at the end of December 2000. The total debt stock of Ghana stood at GH¢4.11 billion (old ¢41.10 trillion or US$7.5 billion). Out of this amount, GH¢3.17 billion (old ¢31.70 trillion or US$5.80 billion) was external and GH¢0.94 billion (old ¢9.40 or US$1.7 billion) was domestic. The total debt represented 224 per cent of exports, 709 per cent of budget revenue and 124 per cent of GDP. In present value terms, it was 395 per cent

of revenue. The ratio of Ghana's external debt stock to its domestic budget revenue was 571%, an excess of the 250% threshold considered as a sustainable limit (Budget Statement, 2001). The domestic debt stock was mostly composed of short-term Treasury Bills bearing high interest rates. Interest on domestic debt represented 43 per cent of budget revenue in 2000. Total debt service (excluding the cost of rolling over the Treasury Bills) absorbed almost 100 per cent of domestic budget revenue, leaving virtually no room for domestic financing of other expenditure. Total interest payments amounted to GH¢2,033.3 billion, showing an over- expenditure of 17.5 per cent. While the foreign exchange crises caused external debt servicing arrears, interest payment on domestic debt went up 19.2 per cent as monetary developments forced an increase in interest rate on treasury bills (Government of Ghana, Budget Statement, 2001).

Apart from the overwhelm debt burden the over-all performance of the economy from 1996 through to 2000 was extremely disturbing. This situation was due largely to the external shocks from the Asian crises, recession in Japan, softening of the world prices of gold and cocoa and the steep rise in petroleum prices. These seriously had impact on the performance of the real gross Domestic Product (GDP), inflation and exchange rate depreciation, fiscal deficit, rising monetary growth and external trade and payment difficulties.

An excessive fiscal expansion in the run-up of that year's Presidential and Parliamentary elections had drawn it into a vicious cycle of spiralling inflation and the national currency, the cedi, collapsed losing about 50% of its value vis-à-vis the US Dollar and the country's reserve was so depleted that it could hardly cover a month's imports. The overall performance of the economy in 2000 indicates a real GDP growth rate of 4.4% as against a target of 5.5%; headline inflation was running at about 41 per cent; the fiscal deficit had increased from some 6.0 per cent of GDP in 1999 to 9.0 percent of GDP in 2000 (Bank of Ghana Quarterly Economic Bulletin, 2000)

Furthermore, a survey of available literature and estimates by analysts in 2000 revealed that unemployment ranged from 13% to 24%. Developments in the year 2000 implies higher misery index, especially as the rate of inflation has been on upward trend since January 2000 reaching a high of 41% (see Table 1.2) (Gyan-Baffour, 2002; Ghana Statistical Service, 2000).

Table 1.2: Macroeconomic Performance of Ghana in 2000

Unemployment	24.0%
Headline inflation	41.0%
GDP growth rate	4.4%
Fiscal deficit/GDP	9.0%
Depreciation of the Cedi	50.0%
Foreign exchange reserves	1.2 month of export

Source: Bank of Ghana Quarterly Economic Bulletin, 2000

The poor performance of the economy (particularly for the period January-June 2000) raise doubt as to whether the macroeconomic targets set in the National Budget Statement and Economic policy for 2000 could be achieved. These targets were; real GDP growth of 5%, end of period inflation of 41%, overall budget deficit of 9% of GDP and zero overall balance of payments position. Nor could Ghana meet the convergence criteria outlined for joining of the ECOWAS Second Monetary Zone (SMZ) of which Ghana is a signatory, namely, a single digit inflation rate by end-2000 and 5% by 2003; gross external reserves to cover at least three months of imports by end-2000 and six months by 2003; central bank financing of budget deficit not to exceed 10% of previous year's tax revenue; and budget deficit (excluding grants) not more than 5% of GDP in 2000 and 4% by 2004. Thus even if the budget targets for the year 2000 were met, Ghana would still have more miles to traverse before being able to satisfy all the convergence criteria for joining the ECOWAS SMZ (Bank of Ghana Quarterly Economic Bulletin, 2000).

In the light of the foregoing, it was obvious that the country was indeed in a precarious situation, which posed immense danger to the nation and there was an urgent need to take prudent economic decision and implement policies that would reduce poverty in the midst of the high debt situation. To reduce poverty and subsequently achieve economic growth and development, the Government of Ghana opted for the Heavily Indebted Poor Countries (HIPC) initiative in 2001.

1.1.2 Overview of the Heavily Indebted Countries (HIPC) Initiative

The HIPC initiative entails comprehensive, integrated and coordinated action by the international financial community, including bilateral, multilateral and commercial as well as the international financial institutions to reduce to 'sustainable' levels the external debt burden of poor countries for whom the use of traditional mechanisms of rescheduling and debt reduction together with continued provision of concessional financing and pursuit of sound economic policies might not be sufficient to attain sustainable external debt levels within a reasonable period of time and without additional external support, but demonstrate sound economic and social policy reforms.

In principle, the HIPC Initiative is an arrangement in which a country with a high debt burden engages in a joint project with its major international creditors to reduce the debt burden and to tackle poverty. A country with a high debt burden spends a large part of its annual revenue to service debts. The consequence is that very little is left for investment into social services, so poverty in the country gets worse. In the HIPC Initiative, the international creditors agree to erase the interest servicing of debts and cancel some part of debts and from the decision point and also after completion point full cancelation of debts of the HIPC country over time so that the huge resources that would have gone into debt servicing and repayment of debts are channeled into poverty reduction. It is these resources that are referred to as HIPC savings or HIPC funds (see details under section 2.2).

1.2 Statement of Problem and Research Questions

At the end of the year 2000 Ghana's economy was experiencing high poverty, with over-all poverty incidence of 39.5 and even higher among the rural areas and particularly rural savanna with poverty incidence of 49.5 and 70.0, respectively. To reduce poverty and subsequently achieve economic growth and development, the Government of Ghana opted for the Heavily Indebted Poor Countries (HIPC) initiative in 2001. Government committed itself to poverty reduction with support from HIPC Relief Funds. Ghana reached the "decision point" under the enhanced HIPC initiative on February 26, 2002, and having met all the criteria under the enhanced HIPC initiative, Ghana joined the initiative in March 2002. Ghana then reached its "completion point" by December, 2004.

Among the conditions of HIPC, eligible country should have prepared a Poverty Reduction Strategy Paper (PRSP) through a broad based participatory process and to commit the debt relief fund into poverty reduction programs. These HIPC relief resources were purported to be used to improve education and health services delivery, speed up rural electrification, and enhance rural agriculture, feeder roads construction and rehabilitation, rural water and sanitation, among others (Osafo-Marfo, 2004). The strategies outlined by the initiative were different from the traditional programmes that aimed at growth in general. The fact that the net resource transfer has the potential of impacting positively on output growth in Ghana is neither necessary (one can have poverty reduction without growth) nor sufficient (growth does not automatically ensure poverty reduction) for effective poverty reduction (and increasing human development indicators). Rather growth is conducive for poverty reduction. Growth may be good for the poor' as Dollar and Kraay (2001) assert, but the effectiveness of poverty reduction will depend on the process that generates growth.

The Government committed itself to the reduction of poverty through the implementation of the Ghana Poverty Reduction Strategy with the support from the HIPC Relief Fund. The key difference between the HIPC initiative and previous external grants or aid or debt relief, as indicated before, is that the HIPC initiative goes beyond removing the negative economic effects of debt, and requires the investment of debt service savings in poverty reduction programmes. Debt relief before HIPC was not necessarily intended to be spent at all on social services or poverty reduction. HIPC countries were required to open a special account at the central bank into which funds accruing from HIPC relief were deposited.

In addition, grant/aid delivery and allocation procedures were much more cumbersome than those for HIPC relief. Apart from separate bank accounts, large proportion of aid required fulfillment of various conditions, which could lead to considerable delays in the disbursement of funds. These conditions included legal opinions, counterpart funding allocations, etc. Disbursement methods also varied, with much of the aid money either being disbursed as reimbursement for expenditures already incurred by the government or directly to suppliers, allowing government no control over monitoring or value-for-money. Again, the tying of aid to

the export of the donor country and other restrictions reduced the cost-effectiveness and value-for-money of aid.

From March, 2001 when Ghana joined the league of HIPC to December 2008 an amount of GH¢1,106.83 million (US$747.86 million) have been received into HIPC account and GH¢985.74 million (US$666.04 million) has been disbursed to finance poverty reduction related programmes and projects by Ministries, Departments and Agencies (MDAs) and Metropolitan, Municipal and District Assemblies (MMDs) (GPRS Annual Report, 2005; Government of Ghana, Budget Statement, 2006-2008 and The State of the Ghanaian Economy, 2002-2008). The projects being financed by HIPC relief amounts are labeled "HIPC Benefits" to provide tangible evidence of the gains from the HIPC initiative (see plates at appendix D).

The review of related literature (as summarized under section 2.6) brought out interesting issues. Firstly, different people hold different views about the potential of the HIPC initiative to reduce poverty. One group argues that the initiative is a surest solution for debt mitigation and poverty reduction. Another group rather preferred debt cancellation instead of the HIPC initiative. They feared that savings from HIPC would not reach the poor and the countries will go out and contract further debts on the belief that these debts will also be forgiven in some future date. This negative perception was also expressed by some Ghanaians as the HIPC initiative will have strings attach and therefore even worsen the poverty situation.

Secondly, the empirical review yielded opposing results. Some studies revealed that the initiative has made some significant positive impact on poverty reduction, while others show that it has not. It is however worth noting that some of the studies did not directly address the impact of the initiative on poverty reduction at community level but on individual levels via income. Moreover, several different development and poverty reduction related funds have been spent in the country and therefore Just a holistic result about whether poverty has gone down is not enough to attribute it to the effectiveness of HIPC. Furthermore, the previous studies did not consider the relative effectiveness of the components of the HIPC funds among other poverty reduction related funds (District Assemblies Common funds, Internally Generated funds, etc).

Finally, some of the studies were not based on Ghana's experience and yet others were just hypothetical exposition about the potential impact on poverty reduction.

Thirdly, Poverty is viewed as both objective and subjective concept. In the objective approach the government or 'experts' decide below which consumption or income level per day corresponds to poverty. Under this too, authorities decide on what standard constitutes deprivation. However, it is always not known whether the household classified as 'poor' according to the objective definition of poverty recognizes itself as poor, while also households that feel poor are classified as being 'non-poor'. That is poverty is a feeling and therefore there is the need for a psychological construct to give the opportunity for the poor to decide whether they are poor or not.

Finally, the objective approach implicitly assumes that poverty is one-dimensional. It assumes that someone with a low income, and consequently in financial poverty, will also suffer from bad health, and hence be 'health- poor' as well. Or it is very probable that someone with a low income, and consequently in financial poverty will have bad housing and poor in terms of housing standard or will have bad job or live in bad environment and invariable be poor with respect to job type or environmental condition. In that case there would be no room nor need for a concept of multidimensional poverty. However, the literature made is clear that poverty is multi-dimensional and therefore if poverty should be comprehensively analysed other needs and assets deprivation, as well as capabilities should be considered (see essay 3).

In seeking to identify the problem that motivated the need for the study, the following research questions were addressed;

a) Has the HIPC relief fund helped to reduce poverty, both at the community and individual levels?
b) Which of the HIPC funded programmes has been relatively more effective in the reduction of poverty?
c) Was the HIPC micro-credit fund a panacea or a mirage to poverty reduction?
d) Do the poor themselves feel the HIPC programmes have benefited them and have improved their living standards?

e) Did the HIPC initiative improve the asset, need-base and capabilities of the poor that will make them function as economic and social being?

1.3 Objectives and Justification

Based on the outlined statement of problem and the research questions, the primary objective of the study was to assess the economic impact of the utilization of the HIPC relief fund on poverty reduction in Ghana. The specific objectives therefore include the following;

(a) To assess the extent to which the HIPC relief fund has helped to reduce poverty, both at the individual and community levels.

(b) To determine the relative effectiveness of the various HIPC relief programmes to the reduction of poverty.

(c) To assess the impact of the HIPC micro-credit fund on poverty reduction.

(d) To examine how the poor themselves feel about the programmes and how the programmes have improved their welfare and hence reduced their poverty situation.

(e) To examine the extent to which the HIPC initiative improved the asset, need-base and capabilities of the poor that will make them function as economic and social being.

These research concerns were addressed in the thesis in a three separate but related essays. It was firstly assumed that HIPC spending would help directly to reduce poverty via; developing capacity of the poor (education and skills training), capital for investment (micro-credit), improve their labour productivity (improvement in health and rural water and sanitation), and enhance rural agriculture (feeder roads construction and rehabilitation). These would enhance the incomes of the poor in the immediate future and reduce their poverty situation. HIPC was designed in a special way different from earlier programmes and therefore the assessment would demonstrate the effectiveness of the new poverty reduction strategy and be a guide to policy maker and donor countries and institutions in their efforts to help Ghana's development agenda.

Secondly, people have expressed several miss-feelings and skepticism about the viability of the initiative to poverty reduction. People felt the initiative was not simply going to work. Hence the outcome of the impact assessment is a clear evidence to stakeholder about the effectiveness or

otherwise of the impact of the initiative on poverty reduction in Ghana. It also gives quantitative assessment of the initiative on poverty reduction as guide to policy makers.

Thirdly, if the initiative has impacted positively on poverty reduction per the first specific objective, the determination of the relative effectiveness of the various HIPC relief programmes to the reduction of poverty is a signal to policy makers as to which of the programmes and projects was relatively more effective and should be given attention in future or which of them have direct as against indirect, immediate as against long term effects on poverty reduction as a guide for future poverty reduction and development agenda of Ghana.

Furthermore, poverty is not only an objective concept but also subjective. Hence, the outcome from the examination of how the poor themselves feel about the improvement in their welfare would be a guide to policy makers as other dimension of poverty reduction indicator.

Finally, the outcome of the study on the extent to which the HIPC initiative has improved or not the asset, need-base and capabilities of the poor that would make them function as economic and social being is a source of information to policy maker to also put emphasis on the asset, need-base and capabilities of the poor apart from increase in income which are the traditional means of assessing poverty.

1.4 Hypothesis

The study hypothesizes the following;

(a) The HIPC relief fund has helped to reduce poverty, both at the individual and community levels. That is, whether the improvement in incomes of the poor and therefore the reduction in their poverty situation over the period is not attributed to chance or error but as a result of the use of the HIPC funds.

(b) All the HIPC relief programmes are equally effective in poverty reduction. That is the study tested the relative effectiveness of the various programmes to poverty reduction and found the relative importance of the various programmes that the HIPC funds were spent on to poverty reduction.

(c) The HIPC micro-credit fund is a panacea to poverty reduction. Here, the study tested whether or not the HIPC micro-credit that were given out really went to the poor and it improved the incomes of the poor and therefore reduced the poverty situation over the period.

(d) The poor themselves feel the HIPC programmes have improved their welfare and hence reduced their poverty situation. That is, from subjective-multidimensional approach, the HIPC initiative has reduced the poverty situation of the people over the period.

(e) The HIPC initiative improved the asset, need-base and capabilities of the poor has made them able to function as economic and social being. The study tested whether the HIPC initiative has helped to orient and resourced the poor to acquire asset, needs and capabilities.

All these are tested in the appropriate essays that constitute the Thesis.

1.5 Organisation of the study

The rest of the thesis was organized into five parts as follows. The conceptual and theoretical framework, which covers the concept of poverty and measurement, conceptual overview of HIPC initiative, overview of Ghana's economic development, overview of Ghana's poverty reduction strategies. All these constitute Literature Review. This was followed by the first essay on Economic Impact Assessment of the Heavily Indebted Poor Countries (HIPC) Initiative on Poverty Reduction in Ghana. The second essay was on the Heavily Indebted Poor Countries (HIPC) Initiative Micro-credit and Poverty Reduction in Ghana: a Panacea or a Mirage? The third essay was on Assessment of the impact of the Heavily Indebted Poor Countries (HIPC) Initiative on Poverty Reduction: the Subjective-Multidimensional and Deprivation Approach. The final presentation was the general conclusion, summary of findings, recommendation and limitations to the study.

CONCEPTUAL AND THEORETICAL FRAMEWORK

2.1 Poverty, Inequality and Development

2.1.1 Concept of Poverty

Adam Smith said "No Society can surely be flurishing and happy, of which by far the greater part of the numbers are poor and miserable". Poverty wields its destructive influence at every stage of human life from the moment of conception to the grave, it conspires with the most deadly and painful diseases to bring a wretched existence to all who suffer from it. The world today appears to be waking up to the reality of the vicious cycle of poverty that seems to have engulfed developing countries especially in Africa. Poverty reduction is by far the most objective of many if not all Governments in the world now, most especially in the developing countries, with the use of funds from the HIPC initiative (Adam Smith 1776: 1).

Poverty is a widely used and understood concept but its definition is highly contested. The term 'poverty' can be considered to have a cluster of different overlapping meanings depending on what subject area or discourse is being examined (Gordon and Spicker, 1998). Poverty is recognized as a multi-dimensional phenomenon with complex interactive and causal relationships between the dimensions; hence defining the scope of poverty appears to be quite difficult. The problem of defining poverty is further compounded by the non-economic connotations that the word poverty has acquired. For example, poverty has been associated with poor health, low levels of education or skills, an inability or unwillingness to work, high rates of disorderly behaviour and improvidence. While these attributes have often been found to exist with poverty, their inclusion in the definition of poverty would tend to obscure the relation between them and the ability to provide for one's basic needs. In spite of these controversies, attempts have been made to define poverty in several ways. For instance, some economists have defined poverty in the following ways:

'By necessaries, I understand not only the commodities which are indispensably necessary for the support of life but whatever the custom renders it indecent for creditable people, even of the lowest order, to be without. A linen shirt, for example, is strictly speaking not a necessity of life … But in the present time … a creditable day-labourer would be ashamed to appear in public

without a linen shirt, the want of which would be supposed to denote that disgraceful state of poverty' (Adam Smith, 1776: 1).

According to Rowntree a family is counted as poor if their total earnings are insufficient to obtain the minimum necessities of merely physical efficiency (Rowntree, 1997: 1).

'In considering the minimum income needed by persons of working age for subsistence during interruption of earnings, it is sufficient to take into account food, clothing, fuel, light and household sundries, and rent, though some margin must be allowed for inefficiency in spending' (Beveridge, 1942: 1).

Ronald Henderson had this to say 'Insofar as poverty is defined with reference to a minimum acceptable standard of living, it is a relative concept. It requires a value judgment that must reflect the productivity of the economy and community attitudes. The task of determining a minimum standard of living is difficult given the variety of lifestyles and values in Australian society and the range of matters, such as food, shelter, clothing, health and education, that must be considered' (Ronald Henderson, 1975: 1).

Townsend says individuals, families and groups in the population can be said to be in poverty when they lack the resources to obtain the types of diet, participate in the activities and have the living conditions and amenities which are customary, or at least widely encouraged or approved, in the societies to which they belong (Townsend, 1979: 1).

According to Schiller, it is facile and perhaps satisfying to say that poverty is simply lack of money. If this definition is examined, this is recognition of astute vagueness about the nature of poverty. To him, to achieve a workable and acceptable definition, there are two basic approaches to the concept of poverty; first of these is the humanitarian approach, which deems some particular amount of goods and services as essential to individual's or family's welfare. Those who do not possess the economic 'means' to obtain these goods and services are considered as poor. This approach presumes the ability to construct an absolute measure of poverty (Schiller, 1973).

To Bathelder, poverty is just as much as a state of mind as it is a state of one's pocket book. In most subjective of views, he says a person is not poor unless he 'feels poor' (Bathelder, 1971).

Also according to Dorothy, poverty had always had several and not entirely separable meaning and it's always defined according to the conditions of the society in which it occurs. To her, poverty is a relative concept which appears only to refuse an appeal to common sense, for it is apparent that a poverty of an Indian peasant who may die from starvation is in a justifiably different state from that which conflicts those who may be called poor in European countries or North America (Dorothy, 1974).

Viktor defines poverty as lack of physical necessities, assets and income. According to him, any list of dimension will be provisional and personal. Lack of physical necessities, assets and income could be defined as poverty. Though poverty could be referred to as a form of deprivation, there are various dimensions which have to be considered in addressing poverty. These include social inferiority, isolation, physical weakness, vulnerability and the poor and powerless. Poverty may be said to mean the denial of opportunities to choices basic to human development (Viktor, 1978).

In addition to the above definitions, the following are extracts from various reference books on the meaning and definition of poverty.

According to the Encyclopedia of Economics (1982), poverty is a condition of material deprivation, usually defined as a lack of money income relative to some poverty threshold. In most contexts, the poverty threshold or index of material deprivation is specified in relationship to the income or goods available to other members of society. Therefore, the poverty threshold differs from country to country.

Poverty is a condition that is said to exist when people lack the means to satisfy their basic needs. In this context, the identification of poor first requires a determination of what constitutes basic needs. These may be defined as "those necessary for survival" or as broadly as "those

reflecting the prevailing standard of living in the community". The first criterion would cover only those people near the borderline of starvation or death from exposure while the second would extend to people whose nutrition, housing and clothing, though adequate to preserve life, do not measure up those of the population as a whole (New Encyclopedia Britannica, 1988).

The World Book Encyclopedia (2001) also defines poverty as the lack of enough income and resources to live adequately by community standards. These standards however, vary from place to place.

Poverty is a condition in which income is insufficient to meet substance needs. Thus, levels of living may be considerably lower than those that are deemed adequate standards of living (McGraw Hill Dictionary of Modern Economics, 1983).

The Encarta World English Dictionary (2000) defines poverty as a state of being without enough money or resources to live at a standard considered normal or basic by society. That is, a state of not having enough money to take care of basic needs such as food, clothing and housing. It can be used to describe varying states of need, from lack of material comfort to near-starvation.

The World Bank's definition of poverty is largely based on income. According to the World Bank, poverty is the inability to attain a particular standard of living. Income poverty uses consumption per capita. It considers the proportion of the population in an area whose consumption expenditure falls below US$1.00 per day as poor. Thus, according to the World Bank Report, 1990, more than one billion people in the developing countries were poor and struggle on less than US$ 1.00 per day.

The United Nations Development Programme (UNDP) defines poverty as the "denial of opportunity and choices most basic to human development that leads to a long healthy creative life and to enjoy a decent standard of living, freedom, dignity esteem and the respect of others" (UNDP, 1998).

The empowerment model can also be used to explain poverty. To be poor according to this model is defined as a form of disempowerment. The model identifies these dimensions of disempowerment namely, social, political and psychological. Social has to do with poor people's relative lack of access to the resources essential for the self-production of their livelihood. Political also refers to poor people's lack of clear political agenda and voice. A psychological concerns poor person's internalized sense of worthlessness and passive submission to authority (Journal of Social Sciences, 1994).

The Ghana Living Standard Survey (GLSS) defines poverty using an economic index, characterising the poor as those subsisting on a per capita income of less than two thirds of the national average. It also defined the 'hard core' poverty as those with income below one third of the national average. An analysis of the 1998-1999 GLSS data found that half of the rural households in Ghana were poor (Ghana Statistical Service, 1999). According to the GLSS, the majority of the poor in Ghana were engaged in food crop cultivation as their main economic activity, in contrast to those engaged in private formal and public sector employment that were the wealthiest. Extreme poverty is concentrated in certain rural areas (rural savannah) whereas the wealthiest sectors of the population are located in the large urban centers, particularly in Accra.

Attempts to broaden the definition beyond income have come through various studies of poverty in Ghana. Regional and district level consultations on poverty in all ten regions of the country by Nkum and Ghartey Associates under the auspices of the National Development Planning Commission (NDPC) and the German Technical Co-operation (GTZ) highlighted the following key elements as defined by the poor themselves; inability to afford needs (food, shelter, clothes, health care and education); absence of economic indicators (job, labour, crop farms, livestock, investment opportunities); inability to meet the following social requirements (paying development levies, funeral dues, participation in public gatherings); and absence of basic community services and infrastructure (health, education, water and sanitation, access roads, etc) (Nkum and Ghartey, 2000).

The multi-dimensionality of poverty clarified by Nkum and Ghartey (2000) reflects the broader work carried out by the broader 'Voice of the Poor' exercise across several countries, where poverty or ill-being was identified as being complex and interwoven, including a material lack and need for shelter, assets, money and often characterised by hunger, pain, discomfort, exhaustion, social exclusion, vulnerability, powerlessness and low self-esteem (Narayan et al, 2000).

Whilst local or self-definitions of poverty provide a vital insight into physical, economic, human and social conditions of the poor, examples gathered from 'Consultation With The Poor' (CWTP) and Nkum and Ghartey consultations illustrates the reality of poverty, and conversely, the difficulty of grappling with it. A man at Adaboya community said "Poverty is like heat: you cannot see it: you can only feel it: so to know poverty you have to go through it" (Kunfaa, 1999: 12). The Chief of Zagban community in Northern Ghana also has this to say "Our poverty is like a woman who delivers at the market place: you do not need to inform anyone" (Amadu and Atua-Ntwo, 2000: 8).

Though these statements illustrate the difficulty of identifying, understanding and thus acting on poverty, they highlight the importance of listening to the opinions of those it most affects. Not only do individuals, groups and communities have differing terminologies and categories of well-being and poverty, the scales at which poverty is identified vary. Thus, from one perspective, as implied by the Chief of Zagban's statement, poverty is self-evident and broad ranging, affecting in some cases whole community or region. A counter-view has been illustrated from the findings of qualitative assessments of poverty and consultations with the poor, namely the realization that many people attempt to hide their poverty as a consequence of shame, fear or hopelessness. As the poor have been defined as those socially excluded, often engaged in informal unregistered employment, if at all, capturing an accurate picture of whom and how many fall into this category is a complex task. This is well illustrated in Situation Analysis of Women and Children in Ghana: "For every child you see begging on the street or engaging in street labour, there is at least two other people who are poor (a man not able to provide for the family, a divorced woman or widow, and for every child who dies of a preventable disease there is a family which is poor" (Republic of Ghana and UNICEF, 1990: 70).

Despite these difficulties, it is posited here that broader interpretations of poverty not only present a more accurate picture of who the poor are (defined in terms of income or consumption, dignity or autonomy, material or non material assets, gender or ethnic equality, and freedom or security) thus questioning the precision of poverty lines defined only in terms of income or expenditure, but also that these interpretations facilitate the analysis of the many causes and manifestations of poverty, leading to more creative and effective solutions.

To sum up, according to Hiroshi Nakajima, the Director General, World Health Organization, poverty wields its destructive influence at every stage of human life from the moment of conception to the grave. It conspires with the most deadly diseases to bring a wretched existence to all who suffer from it. Thus, poverty is a condition of life so degraded by diseases, illiteracy, malnutrition, squalor, denied of basic needs, among others. In effect, it could be inferred from the above that poverty is multi-dimensional.

In conclusion, and as indicated earlier, poverty means a lot to different people and whether known or unknown has an effect either directly or indirectly on the world's society depending on the socioeconomic status of the affected. However, defining poverty in traditional consumption and expenditure terms is insufficient on its own to address the needs of the poor themselves. This has led to the inclusion of human and social welfare indicators in development indices and poverty reduction programmes. Furthermore, self-characterisation of poverty, gathered from the poor themselves, has become increasingly central to sector and programme planning, with the recognised aim of including these 'voices of the poor' not only in terms of illustrating their needs, but also in an interactive process of planning for development.

The study therefore adopted the definition of GPRS I. The GPRS I focuses on providing enabling environment that will empower the people to participate in wealth creation and to partake in wealth created irrespective of their socio-economic status or where they reside; have access to basic social services such as health care quality education, potable drinking water, decent housing, security from crime and violence and the ability to participate in decision that affect

their lives. Thus, to reduce poverty in general, there is the need to have a dual strategy of raising incomes and the provision of basic community services.

2.1.2 Types of Poverty

Depending on such factors as time or duration (long or short term or cyclical) and distribution (widespread, concentrated or individual) three types of poverty may be distinguished. These are cyclical poverty, collective poverty and case poverty. Theoretically, poverty can also be explained in absolute and relative terms.

Cyclical Poverty

Cyclical poverty refers to poverty that may be widespread throughout a population, but the occurrence itself is of limited duration. In non-industrial societies (present and past), this sort of inability to provide for one's basic needs rests mainly upon temporary food shortages caused by natural phenomena or poor agricultural planning. Prices would rise because of scarcity of food, which brought widespread, even though temporary, misery. In industrialized societies, the chief cyclical cause of poverty is fluctuations in the business cycle with mass unemployment during periods of depression or serious recession. Since the Great Depression of the 1930s, the chief means of alleviating/reducing poverty caused by business fluctuations have been a nation's fiscal, regulatory and other policies designed to stimulate the economy, and direct government assistance to the victims of unemployment, either through unemployment compensation, welfare and other subsidies or by employment on public-works projects. Although business depressions affect all segments of the economy, their impact is most severe on people of the lowest socio-economic strata, because of their marginal resources.

Collective Poverty

Collective poverty, otherwise called widespread poverty involves relatively permanent insufficiency of means to secure basic needs. That is, a condition that may be as general as to describe the average level of life in a society or that may be concentrated in relatively large groups in an otherwise prosperous society. Collective poverty is relatively general and prevalent in much of Asia, the Middle East, most of Africa and large parts of South and Central America. Nutritional deficiencies, low life expectancy, high levels of infant mortality and poor health

characterize life in these societies. Collective poverty is usually related to economic underdevelopment. The total resources of many developing nations in Africa, Asia, South and Central America would be insufficient to support the population adequately even if they were equally divided among all the citizens.

Case Poverty

Case poverty refers to the inability of an individual or family to secure basic needs even in social surroundings of general prosperity. This inability is generally related to the lack of some basic attributes that would permit the individual to maintain himself. Such categories of persons include the helpless aged, the blind, the physically handicapped, the chronically ill and the chronic mentally ill. However, physical and mental handicaps are usually regarded sympathetically, as being beyond the control of the people who suffer from them. Efforts to improve poverty due to physical cause focus on education, sheltered employment and if needed economic maintenance. By contrast, those persons who have handicaps in social adaptability have long been associated with improvidence, a label covering such behaviour as laziness, the inability to manage money, drunkenness, and producing too many children.

Absolute Poverty

Absolute poverty, as defined by the UN, is a condition characterised by severe deprivation of basic human needs, including food, safe drinking water, sanitation facilities, health, shelter, education and information. It depends not only on income but also on access to services (UN Report, 1995). That is, absolute poverty is defined according to the level of "subsistence" (Rowntree, 1997). It is argued that the level of subsistence can be objectively defined and people living below this level are considered to live in poverty. Rowntree suggested a list of food items to indicate the level of subsistence. The validity of this concept of poverty has been questioned, as the definition of subsistence level is debatable and questionable. The consent of the definition comes into question as well.

Relative Poverty

Relative poverty on the other hand, refers to those deprived relative to others around them Relative poverty is defined according to the concept of "deprivation". For example, the Hong

Kong Society of Social Security has defined the poverty line as the level of personal income being less than 50 percent of the median income. This concept and definition serves to indicate the kind of social inequality and income distribution in a society. However, questions may still be raised about the choice of the income level, for example, why 50% of the median income and not 35%. Townsend (1979) on the other hand has defined 'relative deprivation'. According to him, individuals, families, and groups in the population can be said to be in poverty when they lack the resources to obtain the types of diet, participate in the activities and have the living conditions and amenities which are customary, or are at least widely encouraged or approved, in the societies to which they belong. In this definition, the concept of "deprivation" is used and measured in a comparative sense, particularly in terms of participation in social activities or difference in life style. Piachard (1981) criticizes Townsend's definition as being arbitrary and subjective in drawing a certain line for comparison. Sen (1983), a Nobel Prize winner in Economics, has suggested a sense of "lack of capability" being felt by those who are in lack of some basic things in life as criteria of poverty. He makes use of the concept of "social justice" as a point of reference to indicate that for those who are unfairly treated by others would feel a sense of "lack of capability". Thus, they are considered to live in poverty.

2.1.3 Indicators of Poverty and their Trends in Ghana

Overview

Poverty is a concept that has attracted several definitions and a cluster of overlapping meanings from Adam Smith to the most recent economic discourse. The various definitions have come up because there are several indicators of poverty, some of which are quantitative and others are qualitative, and yet others are multidimensional in nature.

The World Bank periodically prepares poverty assessments of countries in which it has an active programme, in close collaboration with national institutions, other development agencies, and civil society, including poor people's organizations. Assessments report the extent and causes of poverty and propose strategies to reduce it. Countries have varying definitions of poverty, and comparisons can be difficult. To solve this problem of comparison the World Bank in 1992 came up with income consumption or expenditure as poverty indicator. The threshold of the indicator is a poverty line set as living on income or spending less than one US dollar ($1.00) a day. Here,

the assessment is based on two indices; the head count index measuring the number of people who live below this poverty line, and the poverty gap, which measures the amount of money required to move a person above the poverty line. Also, on income consumption or expenditure as poverty indicator the World Bank uses the quintile share of income (World Bank, 1992).

In the 1980s Amartya Sen brought together a range of poverty indicators that were hitherto excluded from (or inadequately formulated in) traditional approaches to the economics of welfare. These indicators are known as the capability functioning which have been widely accepted in welfare economics today. In the most basic sense, functionings consist of "beings and doings". As a result, living may be seen as a set of interrelated functionings. Essentially, functionings are the states and activities that constitute a person's being. According to Sen functionings can vary from elementary things, such as being healthy, having a good job, and being safe, to more complex states, such as being happy, having self-respect, and being calm. Also Sen explained capabilities as the alternative combinations of functionings a person is feasibly able to achieve. Ultimately, capabilities denote a person's opportunity and ability to generate valuable outcomes, taking into account relevant personal characteristics and external factors.

In corroboration with Nussbaum (2000), Sen proposes the following ten poverty indicators: life expectancy, bodily health, bodily integrity, senses imagination and thought, emotions, practical reason, affiliation, other species, play and control over the environment. These indicators were explained as following:

(a) Life expectancy is being able to live to the end of a human life of normal length and not dying prematurely, or before one's life is so reduced as to be not worth living.

(b) Bodily Health is being able to have good health, including reproductive health and to be adequately nourished, and to have adequate shelter.

(c) Bodily Integrity means being able to move freely from place to place, to be secure against violent assault including sexual assault and domestic violence, and having opportunities for sexual satisfaction and for choice in matters of reproduction.

(d) Senses Imagination and Thought mean being able to use the sense to imagine, think and reason and to do these things in a 'truly human' way, and in a way informed and

cultivated by an adequate education, but by no means limited to literacy and basic mathematical and scientific training. Also being able to use imagination and thought in connection with experiencing and producing works and events of one's own choice, religious, literary, musical and so forth. Furthermore, being able to use one's mind in ways protected by guarantees of freedom of expression with respect to both political and artistic speech, and freedom of religious exercise. Finally, being able to have pleasurable experiences and to avoid non-beneficial pain.

(e) Emotions are being able to have attachments to things and people outside oneself, to love those who love and care for him, to grieve at their absence. That is in general to love, to grieve, to experience longing, gratitude and justified anger. Not having one's emotional development affected by fear and anxiety.

(f) Practical Reason means being able to form a conception of the good and to engage in critical reflection about the planning of one's own life. This entails protection for the liberty of conscience and religious observance.

(g) Affiliation means firstly, being able to live with and toward others, to recognize and show concern for other human beings, to engage in various forms of social interaction, to be able to imagine the situation of another. Secondly, having the social bases of self-respect and non-humiliation, being able to be treated as a dignified being whose worth is equal to that of others. This entails provisions of non-discrimination on the basis of race, sex, sexual orientation, ethnicity, caste, religion, and national origin.

(h) Other Species are being able to live with concern for and in relation to animals, plants and the world of nature.

(i) Play is a situation where one is able to laugh, play, to enjoy recreational activities.

(j) Control over One's Environment means firstly, being able to participate effectively in political choices that govern one's life and having the right political participation, protection of freedom of speech and association. Secondly, being able to hold property (both land and movable goods), and having property rights on an equal basis with others. Thirdly, having the right to seek employment on an equal basis with others, having the freedom from unwarranted search and seizure, and being able to work as a human being, exercising practical reason and entering into meaningful relationships of mutual recognition with other workers.

Each of these indicators is scored on a scale, ranging from 1 to 5, with 1 (very poor), 2 (poor), 3 (average), 4 (good) and 5 (very good) or their equivalent. Aggregate at the individual level is by simple addition, so that each person has a score out of 50 and the average score out of 5. An average score of 1 indicates that a person has very low human capability in all of the capability dimensions and therefore cannot function, which makes him hard-core poor. On the other hand, an average score of 5 indicates that the person has none of the human capability deprivation and therefore makes him non-poor because he can function fully and enjoys high standard of living. Within the two extremes the score indicates the degree of deprivation and the level of poverty, while community poverty is estimated by the mean of the means for the population.

Barrientos (2003) constructed a multidimensional measure of deprivation to asset and needs as indicators of poverty. Barrientos provided table of indicators and their thresholds (Table 2.1). Each indicator is scored on a scale, ranging from 1 to 5 or from 0 to 10, and a different cut-off point is specified for each. Aggregation at the individual level is computed by simple addition/counting, so that each person has a deprivation score out of 10. A score of 10 indicates that a person is experiencing no deprivations, while a score of 0 indicates that someone is experiencing deprivation in all of the assessed dimensions.

Table 2.1: Asset and Needs-Based Indicators of Poverty

Label	Description	Values	Deprivation
Health	Self-reported health status	1 very poor 2 poor 3 average 4 good 5 very good	
Life satisfaction	Self-reported assessment "Taking everything into account, how satisfied is this household with the way it lives these days?"	1 very dissatisfied 2 dissatisfied 3neither satisfied not dissatisfied 4 satisfied 5 very satisfied	
Safety	Change in perception of safety from two years before	1 worse 2 same 3 better	
Social participation	Number of social organisations the respondent belongs to	0-8 (Brazil) and 0-10 (South Africa). Brazil: senior centre, church group, community organisation, sports club, school organisation, political party, trade union. South Africa as Brazil plus: women's club, stokvel, burial society.	
Political participation	Number of citizen actions	0-4 (participation in community meeting, or general meeting, complaints to authorities, work for political candidate)	
Financial control	Responses to the question: "How much of own money are you able to keep for yourself?"	1 none 2 very little 3 some 4 a reasonable amount 5 all	
Debt service	Monthly debt repayments as proportion of total debt	1 if x>0.5; 2 if 0.5>x>0.2; 3 if 0.2>x>0.1; 4 if 0.1>x>0.01;5 if 0.01>x	
Durables	Number of durables in household	0-11 (phone, stove electric or gas, stove paraffin or wood, electricity, TV, radio or stereo, fridge or freezer, sewing machine, car, bicycle, motorcycle)	
Water	Main source of drinking water	1 other (river, dam, rainwater) 2 borehole 3 public tap/water carrier 4 piped water on site, neighbour 5 piped water in dwelling	
Expenditure	Quintiles of equivalent per capita household expenditure	1-5	

Source: Barrientos (2003).

Gorden (2000) from his definition of absolute and over-all poverty came out with seven poverty indicators with their thresholds as following;

(a) Food Deprivation measured by Body Mass Index of 18.5 or below as underweight.

(b) Water Deprivation threshold is by access only to unimproved source such as open wells, open springs or surface water or who have to walk for more than 15 minutes (i.e. 30 minutes round-trip) to their water source.

(c) Deprivation of Sanitation Facilities measured by access only to unimproved sanitation facilities, e.g. pour flush latrines; covered pit latrines; open pit latrines; and buckets or no access to a toilet of any kind.

(d) Health Deprivation is indicated by women who did not receive treatment for a recent serious illness or who did not receive the minimum standard of antenatal care from a person trained in midwifery or who do not know that a healthy person can transmit HIV/ AIDS or who do not know that using a condom during sex can prevent HIV/ AIDS transmission. It also includes men who did not receive treatment for a recent serious illness or who do not know that a healthy person can transmit HIV/ AIDS or that using a condom during sex can prevent HIV/ AIDS transmission.

(e) Shelter Deprivation means living in dwellings with 3 or more people per room (overcrowding) or in a house with no flooring (e.g. a mud floor) or inadequate roofing (e.g. natural roofing materials).

(f) Education Deprivation is indicated by youth who did not complete primary school or who are illiterate.

(g) Information Deprivation measured by no access to a radio or television (i.e. broadcast media) at home.

According to him the poverty threshold is equal to 2 or more deprivations of basic human need.

The 2010 United Nations Development Programme Human Development Report by Alkire and Santos introduces a Multidimensional Poverty Index (MPI) as poverty indicator. This new international measure of poverty complements income-based poverty measures by reflecting the multiple deprivations that people face at the same time across developing countries. The MPI identifies deprivations across education, health and living standards. The indicators and their thresholds are as following;

(a) Education is measured by years of schooling and child enrolment. A household is deprived if no household member has completed five years of schooling, and also if any school-aged child is not attending school in years 1 to 8.

(b) Health indicator is measured by Child Mortality and Nutrition status. A household is deprived if any child has died in the family and if any adult or child for whom there is nutritional information is malnourished.

(c) Standard of Living is measured by access to electricity, drinking water, sanitation, flooring, cooking fuel, and assets. A household is deprived; if the household has no electricity; does not have access to clean drinking water or clean water is more than 30 minutes walk from home; if they do not have an improved toilet or if their toilet is shared; if the household has dirt, sand or dung floor; if they cook with wood, charcoal or dung; and if the household does not own more than one of: radio, TV, telephone, bike, or motorbike, and do not own a car or tractor.

GPRS Core indicators in Ghana

The Ghana Poverty Reduction Strategy (GPRS) provides a comprehensive list of the core poverty indicators for monitoring and evaluating the GPRS. This list includes 59 core indicators in a form of a table with their targets and indicator levels (Table 2.2).

Table 2.2: GPRS Core Indicators

Indicator	Target	Indicator Level (2000)
Real per capita GDP growth rate	2.1%	1.8%
Food price inflation	15%	22%
Growth of Domestic revenue	N/A	28.8%
Growth of credit to agriculture	N/A	9.04%
Timely disbursement of budgeted MDA allocation	N/A	N/A
Proportion of total resources going to key GPRS sectors	64.75	79.6
Area of degraded lands & water bodies reclaimed through reforestation	N/A	N/A
Rate of deforestation	-	65,000 ha per year
Ha of degradable forest reserve planted	60,000 ha	-
People with access to non wood fuel	N/A	N/A
Number of small scale agro-processing firms	N/A	N/A
Real per capita agriculture growth rate	1.9%	1.8%

Real per capita food crop growth rate	2.2%	2.6%
Length of motorable feeder roads	-	-
Number of functioning employment centres	N/A	N/A
Number of community resource management areas established	N/A	2
Lifeline pricing for electricity sector developed and implemented	N/A	In Place
Feeder roads contract time lags	N/A	N/A
Percentage of post harvest losses	15-20%	Cereals: 25-30% and Perishables: 35-40%
Tones of silo space established	35 metric tonnes	35 metric tonnes
Extension officer farmer ratio	1:4,000	1:4,500
Area under fish farm	450 ha	350-400 ha
Percent of arable land under irrigation	0.12% (33,000 ha)	0.04% (11,000 ha)
Number of dugouts constructed	262	237
Farmer access to mechanized tillage Access to harvesters Access to processing equipment	15% 5% 30%	Less than 5% Less than 2% 20%
Number of current land cases concluded	Reduced by 35,000 (2008)	60,000 currently in court
Child malnutrition (emphasis on poorest regions)	20	26
Infant mortality rate	50/1,000	57/1,000
Gross enrolment ratio in pre-school and basic schools (primary / JSS)	88.5	79.5
Survival rate to P6 and JSS 3	N/A	N/A
Reduction in the reported cases of Guinea worm	0	5,545
Percent of rural household with access to safe water - GSSCWIQ	54	49.5 (1997)
Percent of households with access to adequate toilet facilities (flush or KVIP)	-	16.8 (1997)
Percent of deprived basic schools (primary/JSS) improved, with emphasis on the 3 Northern regions	30% -2004	20%
Percent of trained teachers in pre-schools and basic school (primary/JSS)	70.6	69.6
Immunization coverage (DPT3)	90	87.9
Proportion of supervised deliveries	55	44.3
Number of new functional water systems Boreholes Wells Pipes	-	622 65 29 -
Percent of total government expenditure on health increased from 5.7% 2000 to 7% by 2004	7	10.5
At least 10% increase in the amount budgeted for exemption fees	-	12.8 Billion
The number of functional Water and Sanitation	N/A	N/A

Boards; District Water and Sanitation Committees; Community Water and Sanitation Committees		
Incidence of poverty	32%	39%-(2000)
Incidence of extreme poverty	21%	27%
HIV AIDS Prevalence	3.6%	3.8)
Accessibility of services (disaggregated to services, region, districts)	-	-
Access of extreme poor to services (disaggregated to services, region, districts	-	-
Drug Based treatment available for people with AIDS	-	-
Adequate security and protection for women and children	-	5,516 cases handled by WAJU
Budgets available to institutions caring for vulnerable and excluded	-	-
Appropriate indicators developed to monitor change in well being of vulnerable and excluded, across the entire GPRS	-	-
Level of perceived corruption in key GPRS functional areas	-	-
Government Expenditure Reports published	-	-
Local safety and security institutions in place: police/citizen ratio	1:925 By 2004	1:1,142
Dissemination of Parliamentary debates on poverty and development	-	-
Utilization of Legal Aid Services	-	4,225
Functioning Electronic Tracking System	-	-
Composite budget developed and submitted	-Yet to be implemented	
Parliamentary Committee on Poverty Reduction established	Committee to be set up in 2002	Ad hoc Committee established and discussed the GPRS Document
Democratic effectiveness of the District Assemblies	Increase DACF to 7.5% of Tax Revenue	5%

Source: GPRS, 2005 Annual Report

2.1.4 Causes of Poverty

On the causes or determinants of poverty it is said that say any programme aimed at poverty reduction must be guided by the signals of and from the poor, the correlates (determinants) of poverty (Coudouel, *et al*, 2002; Boadway and Marchand, 1995; and Fofack, 2000). The difference between the poor and non-poor allow for better understanding of those who are poor

for more improved government poverty reduction programmes that address the needs of the poor. Hentschel, *et al* (2000) used the weighted least squares method to analyse poverty determinants in Ecuador. They found out that level of education of the household head and the number of persons per bedroom correlated with the level of consumption. An increase in the level of education of the household head from primary to secondary and from secondary to tertiary was both associated with increased average household consumption of 30%. A decline in the number of persons per bedroom from four to three and from three to one was associated with an increase in average household consumption of 6.7% and 47.6% respectively across regions.

Bigman, *et al* (2000) in a study on community targeting for poverty reduction in Burkina Faso, using the maximum likelihood estimation method, limited the choice of household-level variables to those available for all communities in that country's priority survey data. Several variables including the education of household members, household assets and land holdings, which are also significant explanatory variables in most consumption models, were not available in Burkina Faso Priority Survey data and were excluded in the estimation.

As already noted, the concept of poverty is very complex. This makes it difficult in identifying which factors are actually responsible for the phenomenon. However, for analytical purposes, one can distinguish between the following causes of poverty.

i. Inadequate access to assistance for those living at the margins and those victimized by transitory poverty because of drought, floods, and war caused by a lack of well conceived public strategies and inadequate resources.
ii. Inadequate access to employment opportunities as a result of the geographic isolation of the poor, low saving rate, low domestic investments and a pattern of growth that does not generate large enough increases in employment opportunities for the poor.
iii. Inadequate access to the means for supporting rural development in poor regions, caused by donor-preference for high potential area and an urban bias in the design of development programmes.
iv. Inadequate access to markets for goods and services that the poor produce caused by the often-remote geographical location of the poor, inadequate or non-existence of rural roads,

ineffective communication networks and the reasonability and small volume of the labour services and production of the poor.

v. High population growth has also been identified as one of the causes of poverty. High population growths have compelled rural farmers to remain on the same piece of land and yet continue to use their traditional techniques (Cleaver and Schneider, 1994). The lack of progress in agriculture in the areas which is generally represented by low productivity and low income is a critical issue for poverty given the high proportion of the population working in agriculture in these areas. In East Africa and the pacific for instance, 69% and 66% respectively of the population working is employed in agriculture and for south Asia and sub-Sahara Africa, the figures are 64% and 68% respectively (UNDP, 1998).

vi. Another factor identified by experts as a cause of poverty is that most countries spend a large proportion of their revenue on debt repayments. For instance, Sub-Saharan African countries use over 14% of their revenues from exports to service their debt. South Asian countries also devote a third of their export earnings to debt servicing (World Bank, 1992).

vii. Another important cause of poverty is government policy. Policy induced (or transitory poverty) results when a new policy changes the relative returns from particular activities (Wagao, 1991). For instance, during the period of the Economic Recovery Programme (ERP) and Structural Adjustment Programme (SAP) in Ghana, a lot of people were redeployed but in effect they were laid off or retrenched and became unemployed and therefore those who could not find jobs became poor.

viii. Jutte (1994) also distinguishes between accidental, cyclical and structural causes of poverty. Accidental poverty results from sicknesses and diseases such as plagues, influenza, malaria, and small pox, HIV/AIDS, among others. These diseases do not only kill large segment of people but also impoverish those who suffer from them. He also considers bad harvests as well as periods of accelerated population growth as structural changes in the economy that cause cyclical poverty. In addition to accidental and cyclical, he also sees structural poverty as being caused by demographic patterns, persistent large families with many children and non-secured old age.

ix. Lastly, a report by the United Nations Environment Programme (UNEP), known as GEO-2000, identifies excessive consumption of energy, raw materials, and other resources in Western and some East Asian nations as one of the main causes of the continued poverty of

the majority of world population. Extreme poverty in many parts of the world forces residents of those areas to exploit natural resources in an unsustainable manner. Both factors have considerable economic and environmental implications.

2.1.6 Measurement of Poverty

One way to measure poverty is through the income approach. This approach to poverty measurement assumes that individuals and households are poor if their income or consumption falls below certain threshold, usually defined as a minimum, socially acceptable level of well being by a group of population (World Bank, 2001). The emphasis is placed on material well-being, and income, a "means" indicator, is employed as an alternative for poverty.

Another way to measure poverty is the use of poverty index proposed by Foster, Greer and Thorbecke (referred to as FGT). The Foster-Greer-Thorbecke (FGT) Index is used to measure the Head Count Ratio (HCR), Poverty Gap Index (PGI) and the Squared Poverty Gap (SPG), which assess, respectively, proportion of the population under the poverty line, depth of poverty and the severity of poverty (Foster, *et al*, 1984). This headcount measures poverty as a percentage of all households (populations) that are poor. Thus, a reduction in poverty would then be measured through a fall in the percentage of poor households in the total number of households. The Poverty Gap Index takes into account the distance separating the poor from the poverty line. That is the proportion or average income required to move the poor above the poverty line. On the other hand the Squared Poverty Gap takes the square of the distance into account i.e. the poverty gap is weighted by itself, so as to give more weight to the very poor. This accounts for the inequality among the poor (see essay one for detailed presentation of the model).

The understanding of the concept of poverty has improved and deepened considerably in the last three decades or so following Amartya Sen's seminal work. Presently there are analytical tools to identify and locate the poor, to describe their characteristics and to measure the extent of poverty at different levels of aggregation. Yet, in spite of spectacular methodological advances in the analysis of poverty a number of conceptual and measurement issues remains to be addressed or further clarified. Most of the remaining unresolved issues in poverty analysis are related directly

or indirectly to the multi-dimensional nature and dynamics of poverty. Before policy makers can become more successful in designing and implementing poverty reduction strategies, within the context of growth, there is the need to identify and understand better the various dimensions of poverty and how the latter interact over time and across space. Poverty has to be defined, or at least grasped conceptually, before it can be measured. The broader the definition of poverty the more difficult is its measurement. In fact, the difficulties inherent in measuring a broadly based, multi-dimensional concept of poverty impose severe restrictions on the number and the type of attributes that constitute poverty.

The most comprehensive and therefore logical starting point in an attempt to capture the concept of poverty is Sen's "capabilities and functionings" theoretical framework (see essay three for detailed presentation of the model). According to this framework what ultimately matters is the freedom of a person to choose her functionings. In order to function, an individual requires a minimum level of well-being brought about by a set of attributes. The standard way of assessing whether an individual is above or below the poverty threshold is income. The rationale behind the money-metric approach to poverty is that, in principle, an individual above the monetary poverty line is thought to possess the potential purchasing power to acquire the bundle of attributes yielding a level of well-being sufficient to function. The standard procedure in real income comparisons is to use market prices to aggregate different goods and services consumed or enjoyed by a given individual, these weights (prices) being anonymous (Sen, 1978; Atkinson and Bourguignon and Chakravarty, 2003). This procedure replaces the actual (unknown) individual welfare function by an indirect utility function defined over the income of the person and the price vector (Atkinson and Bourguignon, 1982).

The drawback of the income approach is that some (non-monetary) attributes cannot be purchased because markets do not exist, for example, with some public goods. It is also clear that in many settings-particularly in developing countries- markets operate very imperfectly as in the case of formal rural credit markets from which many small farmers are sealed off because of inadequate collaterals. The use of income to pinpoint poverty presupposes that a market exits for all attributes and that prices reflect the utility weights all households within a specific setting assign to these attributes. Therefore income as the sole indicator of well-being is limited, if not,

inappropriate as it typically does not (or cannot) incorporate and reflect such key dimensions of poverty as life expectancy (longevity), literacy, the provision of public goods and even, at the limit, freedom and security. The state of well-being is strongly correlated with the quality of life but less so with income.

Another drawback of the income approach to capture poverty is that even if it were possible to specify the minimum thresholds of each and all basic needs and put a price tag on them and aggregate across minimum thresholds to derive the monetary poverty line, there is no guarantee that individuals with incomes at or even above the poverty line would actually allocate their incomes so as to purchase the minimum basic needs bundle. In fact there are numerous examples of household heads who receive an income above the poverty line and allocate it to satisfy wants for, say, alcohol and tobacco at the expense of satisfying the minimum caloric requirements of their children. In the money-metric approach such households would be classified as non-poor whereas in reality at least some of their members are deprived of some basic needs and therefore should be considered poor. This illustrates the difference between basic needs and wants. The welfare functions of such households- at least as reflected by that of a dictatorial head- yield perverse outcomes in the sense that high enough incomes to potentially escape poverty are allocated to yield deprivations and poverty.

According to Sen Capability measures the freedom to achieve alternative functionings. If an individual possesses a large enough endowment or portfolio of capability he can, in principle, choose a specific functioning to escape poverty. As Tsui (2002) noted "the capability of a person is an opportunity set of bundles of functioning and not the functioning achieved". The concept of capability presumes that individuals are well enough endowed so that they have the freedom to choose an appropriate non-poor functioning. The inherent difficulty with this approach to poverty is that it is in practice very difficult, if not impossible, to measure the capability endowment ex ante. Within limits, an achieved functioning can be measured ex post. If only outcomes can be measured, it would imply that in some instances individuals might have had the capability of selecting a non-poor functioning, yet as in the case of a selfish household head mentioned above chose poverty functioning. The distinction between ex ante capability and ex post achieved functioning raises an immediate question: should an individual or household

endowed with the potential capability of choosing a functioning satisfying all basic needs yet opting for an alternative bundle within which at least some minimum thresholds of attributes are not met (for example, some of the children in that household could be malnourished) be considered poor? A pragmatic, as opposed to a philosophical, approach would argue that it is the actual outcome that matters and that if, in any case, ex ante capability cannot be ascertained. Poverty analysts can only judge the state of poverty from observing the actual functioning. The fact that a person or a household had the means to avoid deprivation does not alter an outcome marked by malnutrition and ill-health. If the actual state of living is one of poverty in at least some of its dimensions, the fact that it could have been avoided by the choice of a different allocation of income and other attributes by a given individual does not affect the prevailing state of poverty.

The key issue is how to define the configuration of relevant attributes including their minimum thresholds that constitutes an acceptable, i.e. non-poor, level of functioning. It would be that configuration that would allow individuals to "manage and to be" outside of poverty. Most analysts would start with the set of basic needs (Streeten, *et al*, 1981). Clearly besides income, such tangible basic needs, as nutrition, health, education, shelter, clothing and access to information would be high on the list of crucial attributes used to judge whether a person was or was not poor.

There are other possible dimensions of poverty that are not as clear-cut and for which a minimum threshold is almost impossible to determine such as different kinds of freedoms (of oppression, of religion, of expression), security, and the degree of discrimination and social exclusion below which an individual is thought to be deprived. Except perhaps for nutrition, it is hard enough to set minimum levels for such basic needs as shelter (number of square meters per person, quality of roof and floor) let alone agreeing on the minimum acceptable level of human rights below which an individual should be considered deprived. It is doubtful that anybody can agree and rely on robust indicators of such intangible yet essential dimensions of well-being as freedom, security and discrimination. To compound the difficulty, norms as to what is acceptable to function with dignity tend to be highly context-specific and vary widely from one society to another and from one setting to another.

The measurement of these attributes faces almost insurmountable practical and operational problems yet they cannot be ignored as their deprivation could push individuals into a state of poverty. A person who lives under an oppressive regime, who is discriminated against or socially excluded, is constrained in its functioning and in that sense can be conceived as poor. The determination of threshold levels for the myriad of dimensions of poverty, besides being context-specific, is very much in the eyes of the beholders. Should these levels be set by community leaders at the local community level or by political leaders at the regional or even national levels? Or, alternatively, should analysts ask individuals directly (say, through participatory poverty assessments and focus groups) what they perceive subjectively to be minimum thresholds of attributes below which they would feel deprived? The poverty estimates are very sensitive to the method used to establish these standards.

There are currently two main methods of setting the poverty line in the conventional money-metric procedure, i.e. the Cost of Basic Needs (CBN) and the Food-Energy-Intake (FEI) methods. The CBN approach has the advantage of ensuring consistency (treating individuals with the same living standards equally) while the FEI approach has the advantage of *specificity* reflecting better the actual food consumption behavior of individuals around the caloric threshold given their tastes, preferences and relative prices. Ravallion and Bidani (1994) and Ravallion (1998) cogently argued that in order to make valid welfare comparisons the reference basket (bundle) yielding the caloric threshold should remain constant. The monetary poverty line (z) at any point in time is then obtained by multiplying the constant quantitative reference basket by the variable price vector to obtain z at current (nominal) prices and then deflating it by an appropriate price index (often the consumer price index) to express z in real terms. The conflict between the two criteria becomes apparent when it is realized that a national basket is adopted to allow welfare comparisons when, in fact, tastes, preferences, prices and diets may differ considerably from one region to another. A small minority of the households around the poverty line might only consume the selected national CBN basket and is often significantly different from the actual basket consumed by individuals whose income is near z. Hence, for the sake of welfare comparisons the actual behavior of the poor is ignored if not altogether dismissed. It is as if realism was sacrificed on the altar of welfare consistency. This clash between these two

criteria is even more pronounced in multidimensional poverty analysis than in the simpler income approach because of:

i. the broader set of attributes (in particular the non-monetary ones) taken on board in the former;
ii. the enormous difficulties of establishing objective standards for such elusive concepts as freedom; and social exclusion; and
iii. the likely greater inter-regional and inter-community variability of non-monetary attributes.

Now let us assume that notwithstanding all the difficulties discussed above, agreement has been reached on a list of attributes related to poverty and their threshold levels. How can such information be used to derive measures of multi-dimensional poverty and make poverty comparisons? Starting with the simplest case, i.e. that of an individual who is below each and every attributes threshold level. Such person would be classified as unambiguously poor. Analogously, comparing two individual poverty profiles (A and B) where the attribute scores for all of the n dimensions in the profile of A are above that of the profile of B, it can be inferred unambiguously that A is better off in terms of well-being (less poor) than B. This last example reflects first order stochastic dominance. Absent first order stochastic dominance, where an individual is deprived in terms of some attributes (is unemployed and receives an income below the monetary poverty line) but not for others (possesses an educational status above the threshold), how can it be determined whether this person is poor? Similarly if the profiles of individuals A and B intersect so that A scores better on some dimensions and vice versa, how can it be judge who is less poor? A utility (welfare) function is needed to answer these questions. Such a utility function would include the relative weights to be assigned to the various attributes and the individual and joint welfare contributions of the set of attributes. In the income approach the weights are anonymous and given by the market prices. As pointed out earlier this approach is flawed as;

i. it does not provide price signals in the cases of goods and services for which there are missing markets (can one conceive of a market for freedom?);
ii. the prevalence of imperfect markets and government intervention in much of the developing world results in artificial prices that do not reflect scarcity value; and

iii. market prices are essentially efficiency prices and do not reflect distributional considerations (the marginal utility of a good satisfying a basic need rises with income).

Hence to ascertain poverty and make poverty comparisons within a multidimensional framework requires the approximation of a welfare function that includes the specification of the relative welfare weights, and conveys information about the direct marginal benefits of each attribute and about the interaction among these attributes. In particular this last requirement represents a tall order. It is difficult enough estimating the direct (individual) benefits let alone the multiple and often complex interactions among sets of attributes. The latter can be substitutes or complements. If dimensions are substitutes it means that a person can trade-off one attribute for another (say more food for less clothing) and remain on the same iso-utility curve. On the other hand if attributes are complements, an increase in the amount of one raises the marginal utility of the other (more education increases the present discounted value of the future stream of income). It is also possible that some combinations of poverty dimensions are neither substitutes nor complements.

It is difficult enough to ascertain the degree of substitutability or complementarities on a pair-wise basis let alone among combinations of n dimensions taken 3, 4, up to n at a time. Such a complete mapping of combinations of attributes into the utility space appears daunting if not utopian. This is the reason why efforts at measuring multi-dimensional poverty until now have limited themselves to dealing with at most four (and most typically only two) dimensions in their empirical applications- while showing that in theory their methods could be extended to cope with n dimensions. Let us now review these attempts and in the process highlight some related issues.

In one of the earliest efforts at analyzing multi-dimensional welfare, Atkinson and Bourguignon (1982) focused on the case where the government is concerned both with monetary variables, such as income, and with non-monetary variables. More specifically they tried to: "assess the extent of international inequality allowing for differences between countries both in incomes and in life expectancies, with the judgment depending on the distribution of each variable taken separately and on the way they vary together" (Atkinson and Bourguignon, 1982, p.183). As they

point out in the study of multiple deprivation, an essential issue is to determine how different forms of deprivation (such as low income, poor health and inadequate shelter) tend to be associated and drawing a contrast with what one would observe if they were independently distributed.

Bourguignon and Chakravarty (2003) take as their fundamental and starting point in the development of multi-dimensional poverty measures that poverty consists of a shortfall from a threshold on each dimension of an individual's well-being. In other words, the issue of poverty arises because individuals, social observers or policy makers want to define a poverty limit on each individual attribute: income, health, education, etc. They proceed to build a multi-dimensional measure of poverty assuming only two attributes. The first issue is whether a person should be considered poor if she falls short of the thresholds for all attributes, or only one. In the two-attribute case if $x_1 < z_1$, and $x_2 < z_2$, the person would be poor in both dimensions and therefore unambiguously poor. Alternatively, the shortfall might be in only one dimension, in which case the determination would depend on the nature of the relationship between the two attributes. If the attributes are substitutes and an individual has a sufficiently high level of the first attribute above the threshold to more than compensate, in terms of welfare, for the shortfall in the second attribute than the person cannot be classified as poor. In the literature the distinction between being poor in two (and at the limit all) dimension(s) and in only one dimension has been referred to as the intersection and union definitions of poverty.

This can be illustrated using an example drawn from Duclos, Sahn and Younger: if well-being is measured in terms of income and height (as an indicator of health) then a person could be considered poor if her income falls below an income poverty line *or* if her height falls short of a height poverty threshold. This case would be defined as a union definition of poverty. In contrast, an intersection definition would consider an individual as poor only if she were to fall below both thresholds (Younger, 2003).

Bourguignon and Chakravarty (2003) analyze the implications of various degrees of substitutability and complementarities between attributes on the utility space. They build a class of multi-dimensional poverty measures, which is a multi-dimensional extension of the FGT

(Foster, Greer, and Thorbecko, 1984) measure that satisfies a number of desirable axioms and which is consistent with key properties of interacting attributes. Among others, they argue that in the case of substitutes the drop in poverty decreases less with an increase in attribute j for persons with larger quantities of the other attribute k. For example the reduction in poverty caused by a unit increase in income is less important for people who possess educational levels close to the education poverty threshold than for individuals with very low education. In contrast the drop in poverty should be larger for individuals endowed with more education if these attributes are supposed to be complements.

The family of bi-dimensional poverty measures they derive is limited to the case where both attributes are below their poverty thresholds (i. e. the intersection definition) and are substitutes- assuming different degrees of substitutability. The measure is simply the summation of the shortfalls appropriately weighted raised to the power α, where α can be interpreted as a poverty aversion parameter as in the uni-dimensional FGT measure. Although they argue that, in theory, these families of poverty indices could be generalized to any number of attributes, this would require assuming the same elasticity of substitution between attributes that seems most unrealistic.

To illustrate the applicability of the measures the evolution of rural poverty in Brazil in the 1980's is analyzed. The two dimensions of poverty that are scrutinized are income and educational level. During the period, income poverty increased while educational poverty fell. As one would have expected the poverty outcome in the B-C multi- (bi-dimensional) measure is very sensitive to the relative weights and degree of substitution assumed between income and educational level below their thresholds.

Duclos, Sahn and Younger developed a dominance approach to multidimensional poverty. They extend the concept of a poverty line in one dimension to a poverty frontier in multiple dimensions. The question they raise and proceed to answer with the help of a few concrete examples is "what is the area of poverty frontiers over which one can be sure that poverty is lower for A than for B?" They show that it is possible for a set of univariate analysis done independently for each dimension of well-being to conclude that poverty in setting A is lower

than poverty in setting B (say rural vs. urban Vietnam), while a multivariate analysis concludes the opposite, and vice-versa. The reason behind the above contention lies in the interaction among the various dimensions of well-being included in the poverty measure and their (multiple) correlations in the sampled populations. A reasonable poverty measure should allow the level of deprivation in one attribute to affect the assessment of how much poverty declines if there is an improvement in another attribute. An increase in income for a severely deprived person in terms of health and education should cause a larger reduction in poverty than the same increase in income going to a less severely deprived individual. Clearly, "one at a time" comparisons of poverty in terms of income, education, health, etc. cannot capture these interdependencies. Populations that exhibit higher correlations among attributes of well-being will be poorer than those that do not, relative to what one would expect on the basis of univariate comparisons alone (Younger, 2003).

The dominance measure Duclos, Sahn and Younger propose is essentially a two-dimensional generalization of the FGT index. An important feature of the D-S-Y measure is that it is influenced by the covariance between the two elements. Another interesting feature is that separate poverty aversion parameters can be selected for the two dimensions. Again, the measure is based on the assumption that the two attributes are substitutes. Three interesting empirical applications are presented to illustrate that their approach, can over wide ranges of poverty thresholds, yield two, three and even four-dimensional surfaces where one distribution dominates another- as in the case of urban vs. rural people in Vietnam using incomes and nutritional status as the two elements. The authors were aware of the limitations of the substitutability assumption and discussed the implications of having instead assumed complementarity. For instance if the production complementarities between education and nutritional status are strong enough it may overcome the usual ethical judgment that favours the multiply-deprived, so that overall poverty would decline by more if we were to transfer education from the poorly nourished to the better nourished. Similarly, one might argue that human capital should be granted to those with a higher survival probability (because these assets would vanish following their death) (Younger, 2003).

In the seventies an alternative approach was advocated by Goedhart, *et al*. (1977) and Van Praag, *et al* (1980), Danziger (1984), Pradhan and Ravallion (2000), Ravallion and Lokshin (2002), Van Praag, *et al* (1982). They argued that poverty was a feeling and that we had to look for the psychological components. On that note an attempt was made to fix two approaches; subjective element and multi-dimensional element. The result is therefore known as a subjective multi-dimensional poverty approach. This is based on the measurement of happiness as developed by Van Praag, *et al* (2003). The subjective approach starts by asking households how they evaluate their own situation in terms of verbal labels 'bad', 'sufficient', 'good' (see essay 3 for detailed presentation of the model).

Another measure of poverty is the asset-based approach and the needs-based approach. In its orthodox form asset-based recognises five 'capitals' that capture the assets that households utilise to generate consumption and accumulate (or liquidate) for future use. These are natural capital, physical capital, human capital, social capital and financial capital. Hulme, *et al* (2001; Moore, 2001) adapt this by dividing social capital into socio-cultural and socio-political assets, and by proposing other potential categories (security and psychological). Potentially, this framework could be utilised to estimate the total asset set that a household controls (see essay 3). Doyal and Gough (1991) sets out a much more comprehensive needs-based perspective. As with the basic needs approach, they argue strongly for the importance of recognising fully universal needs and they reject arguments based on cultural relativism that purport to challenge this. Doyal and Gough identify health and autonomy as the two key basic needs that, all humans must satisfy in order to avoid the serious harm of fundamentally impaired participation in their form of life. Individual autonomy of agency depends on three key variables cognitive and emotional capacity; the level of cultural understanding an individual has about themselves; and critical autonomy (the capacity to compare cultural rules, to reflect upon the rules of one's own culture, to work with others to change them and, in extremes, to move to another culture). These basic needs are universal but the means of satisfying them (the basic needs satisfiers) can be culturally specific. But Doyal and Gough seek to identify universal satisfier characteristics - characteristics of goods, services, activities or relationships which enhance physical health or autonomy in all cultural contexts, by identifying a set of 11 intermediate needs. This list, they argue, was drawn

up based on codified and experiential knowledge. How these intermediate needs are satisfied, however, still depends on the social context.

Poverty can also be measured using the Human Poverty Index (HPI). The HPI measures the transfer that would bring the income of every poor person exactly up to the poverty line, thus eliminating poverty. This measure takes into account three main indicators. These are the percentage of the people without access to safe water, the percentage of the people without access to health services and the percentage of children under five (5) years of age who are underweight (UNDP, 1998: 81).

2.1.6 Growth and Poverty

According to Todaro and Smith (2009), the prospect for ending poverty depends critically on two factors; the rate of economic growth, providing it is undertaking in a shared and sustainable way, and the level of resources devoted to poverty programmes and the quality of these programmes. Developing countries have pursued growth as a process of achieving economic development and enhanced living standards. However, even though they have achieved some level of economic growth over the years (average of 4.5 growth rate in GDP) poverty still abounds and very high in these countries. The question therefore is are acceleration of economic growth and poverty in conflict or are they complementary?

Traditionally, a body of opinion held that rapid growth is bad for the poor, because they would be bypassed and marginalised by the structural changes of modern growth. For resources to have impact on poverty reduction it is important that one understands the likely uses that resources released will be put to. In other words, the fact that the net resource transfer has the potential of impacting positively on output growth is neither necessary (one can have poverty reduction without growth) nor sufficient (growth does not automatically ensure poverty reduction) for effective poverty reduction (and increasing human development indicators). That is growth is conducive for poverty reduction as Dollar and Kraay (2001) assert, but the effectiveness of poverty reduction will depend on the process that generates growth.

Beyond this, there had been considerable concern in policy circles that the public expenditure required for reduction of poverty would entail a reduction in the rate of growth. The argument is held that concentrated efforts to lower poverty would slow the rate of growth. It is explained that redistribution of income or assets from rich to poor, even through progressive taxation, would cause savings to fall, since, the poor have low marginal saving rates.

Todaro and Smith (2009) argued that policies focused toward reducing poverty levels need not lead to a slower rate of economic growth. They supported with case studies and cross-national comparisons of data. According to them, over the past 25 years, China has experienced the highest growth rate in the world and also the most dramatic reductions in poverty. The headcount of the poor in China fell from 634 million in 1981 to 128 million in 2004, with the corresponding headcount ratio falling from 64% to 10%, which did not occur merely as a result of high growth. China has worked with the World Bank and other development agencies to improve its poverty reduction programmes and has built on its long-standing efforts to provide at least minimal education and health care for its people as a firm foundation for long-term progress.

Todaro and Smith (2009) gave at least five reasons why policies focused toward reducing poverty levels need not lead to a slower rate of economic growth:

i. Widespread poverty creates conditions in which the poor have no access to credit, are unable to finance their children's education, and, in the absence of physical and monetary opportunities, have many children as a source of old-age security. These factors, together, cause per capita growth to be less than what it would be if there were no such widespread poverties.
ii. There are evidence that the rich in many contemporary poor countries are generally not noted for their frugality or for their desire to save and invest substantial proportions of their incomes in the local economy.
iii. The low incomes and low levels of living for the poor, which are manifested in poor health, nutrition, and education, can lower their economic productivity and thereby lead directly and indirectly to a slower-growing economy. Strategies to raise the incomes and levels of living of the poor would therefore contribute not only to their material well-being but also to the productivity and income of the economy as a whole.

iv. Raising the income of the poor will stimulate an overall increase in the demand for locally produced necessity products like food and clothing, whereas the rich tend to spend more of their additional income on improved luxury goods. The poor's demand for local goods provides a greater stimulus to local production, local employment, and local investment, and hence, creates conditions for rapid economic growth.
v. A reduction of mass poverty can stimulate healthy economic expansion by acting as a powerful material and psychological incentive to widespread public participation in the development process. On the other hand substantial absolute poverty can act as powerful material and psychological disincentives to economic progress

It can however be said that poverty reduction is possible without rapid economic growth, but while it cannot be counted on sustainable growth by itself to end absolute poverty, ending poverty can greatly facilitate growth.

2.1.7 Poverty, Inequality, and Social Welfare

Economic inequality (or "wealth and income differences") comprises all disparities in the distribution of economic assets and income. The term typically refers to inequality among individuals and groups within a society, but can also refer to inequality among countries. Income inequality describes the extent to which income is distributed unevenly among residents of an area. High levels of inequality indicate that a small number of people receive most of the total income, and that most people receive only a small share of the total.

The Gini coefficient (named after the Italian statistician Corrado Gini) is the most commonly used measure of income inequality. It calculates the extent to which the distribution of income among individuals within a country deviates from a perfectly equal distribution. A Gini coefficient of 0 represents perfect equality (that is, every person in the society has the same amount of income); a Gini coefficient of 100 represents perfect inequality (that is, one person has all the income and the rest of the society has none).

There is widespread concern around the globe that the "rich are getting richer, and the poor are getting poorer". For example, a study by Saez (2007) found that income inequality in the United

States is at an all-time high, surpassing even levels seen during the Great Depression. He reports that the top 10 per cent of income earners in 2007 accounted for 49.7 per cent of total U.S. income, a level higher than any other year since 1917 and even surpasses 1928, the peak of stock market bubble in the 'roaring' 1920s.

The question is what relationships exist among inequality, poverty and social welfare? It is assumed that social welfare depends positively on level of income per capita but negatively on poverty and negatively on the level of inequality. Again, inequality among the poor is a critical factor in understanding the depth of poverty and the impact of market and policy changes on the poor.

Extreme income inequality leads to economic inefficiency: lack of collateral for loans among the poor; savings tend to be lower; an inefficient allocation of asset; and inefficient scale for farming. Again, extreme income disparities undermine social stability and solidarity: it strengthens the political power of the rich; facilitates rent seeking; makes the poor institutions very difficult to improve; and the poor support populist policies that can be self-defeating. Finally, extreme income inequality is viewed generally as unfair.

2.2 The Heavily Indebted Poor Countries (HIPC) Initiative

2.2.2 The Evolution of the HIPC Initiative

In the first half of the 1990s it became conspicuously clear that the external debt situation for a number of developing countries, mostly in Africa has become extremely difficult. To address this situation, the Interim Committees of the IMF and the World Bank jointly proposed and endorsed a programme in September, 1996. This programme became known as the Heavily Indebted Poor Countries (HIPC) Initiative. This initiative was officially launched in September, 1996 by the two institutions. It aims to provide exceptional assistance to eligible countries following sound economic policies to help them reduce their external debt burden to sustainable levels. More specifically, the HIPC initiative is intended to be used in cases where traditional debt relief mechanisms will not be enough to help countries to come out of the debt rescheduling process and reduce their external debt to 'sustainable' levels so they can focus on poverty reduction and economic growth (HIPC, 1996). Central to the initiative is the country's effort

toward macro-economic adjustment and structural and social policy reforms. In addition, the initiative focuses on ensuring finances for social sector programmes.

In September, 1999, a review of the HIPC Initiative was carried out which introduced a number of modifications to the Initiative. This was aimed at providing faster, deeper and broader debt relief and strengthens the links between debt relief, poverty reduction and social policies. The 1999 Review changed the name from Heavily Indebted Poor Countries to Enhanced Heavily Indebted Poor Countries. The modifications introduced to the initiative were to be guided by the following principles: (i) debt relief should reinforce the wider tools of the international community to promote sustainable development and poverty reduction; (ii) debt relief should provide an incentive for debtor countries to adopt adjustment and reform programmes; (iii) focus on poor members; (iv) clear exit from the unsustainable debt; and (v) simplified framework.

IMF and World Bank envisaged that these modifications (Enhanced HIPC) would increase the number of countries that would qualify for HIPC assistance. The changes were also expected to provide more debt relief to the participating countries. A possible advantage of the enhanced HIPC Initiative is that policies would become more poverty-focused. These modifications (Enhanced HIPC) made forty-two (42) countries, mostly in Africa, eligible. They were Angola, Benin, Bolivia, Burkina Faso, Burundi, Cameron, Central African Republic, Chad, Comoros, DR Congo, Lao PDR, Cote d'Ivoire, Congo Brazzaville, Ethiopia, Gambia, Ghana, Guinea, Guinea-Bissau, Guyana, Honduras, Kenya, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Myanmar, Nicaragua, Niger, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, Somalia, Sudan, Tanzania, Togo, Uganda, Vietnam, and Zambia (IMF Factsheet, April 2003). The World Bank and IMF gave the eligibility conditions as the country for the initiative must:

i. Qualify for concessional assistance from the World Bank.
ii. Establish a track record of sound and reform policies through World Bank and IMF supported programmes. Before qualifying for the HIPC initiative, countries must follow IMF and World Bank 'structural adjustment' programmes, including liberalization, privatization and macroeconomic stability.

iii. In addition, the country must have prepared a poverty reduction strategy paper and obtains assistance from the IMF's Poverty Reduction and Growth Facility (World Bank, 2001).

iv. Again, the country must face an 'unsustainable debt burden', beyond available debt relief mechanisms, the debt relief that is provided by the Paris Club group of creditors (an ad hoc group of creditor governments, mainly OECD countries). Paris Club creditors will usually provide a reduction of up to two thirds of the net present value of eligible debt - in other words, debt which was contracted before a certain 'cut-off date'. Aid debt is usually excluded from this, and is only rescheduled at a lower rate of interest. Other bilateral and commercial creditors are also assumed to provide similar reductions, although in practice they may not do so (World Bank, 2001).

v. Furthermore, the country's export to GDP ratio should be below 30% while revenue to GDP ratio should also be lower than 15%.

Apart from the eligibility conditions, a country must also reach a decision point. Countries reach decision point when:

i. Their debt is deemed unsustainable even after the full use of 'traditional' debt relief mechanisms.

ii. They have adopted adjustment and reform programmes supported by the IMF and World Bank and established a satisfactory track record.

iii. They have prepared a Poverty Reduction Strategy Paper (PRSP) through a broad based participatory process. On a transitional basis, given the time, which it will take countries to prepare a fully participatory PRSP, countries may submit only an interim PRSP (I-PRSP).

The judgment as to whether or not countries have reached decision point is made entirely by the World Bank and IMF, with no participation of the debtor government, or of civil society in either debtor or creditor nations. At the decision point, creditors commit to providing sufficient amounts of debt relief to ensure that the countries' debt is reduced to levels deemed 'sustainable'. However, the debt is not actually cancelled until completion point. Most, but not all, creditors provide interim debt service relief between decision point and completion point. However, even after countries have passed decision point, the provision of interim relief is not guaranteed.

Once countries have passed decision point, they are required to establish a further track record of good performance under IMF/World Bank supported programmes before they reach completion point. For countries that reached decision point with only an interim Poverty Reduction Strategy Paper (PRSP), there is also a requirement to prepare a full PRSP and to implement their poverty reduction strategy for at least one year. At completion point, the full debt cancellation, which was committed at decision point, is provided.

2.2.2 Theoretical Basis of the HIPC Initiative

The debt crisis of poor countries dates back to the 1970s and early 1980s as repayment problems first emerged. The 1970s witnessed considerable increase in many developing countries external borrowing. Most poor countries had restricted access to private finance and contracted loans mostly from other governments or international financial institutions guaranteed by their export credit agencies. The creditor governments used the commercial lending or guaranteeing to promote their own exports for protecting domestic employment. This development paradigm was not conducive for countries that also were aid recipients. The risks were substantial but the creditor governments were willing to accept them as contingent liabilities, complementing the direct grants and the concessional ODA loans provided as part of the overall development cooperation policy. The build-up of the debt burden was partly due to the official creditors' willingness to lend, and also to a number of exogenous and endogenous factors, such as adverse terms of trade shocks, failures in governance, insufficient macroeconomic structural adjustment and reform, weak debt management, as well as political factors such as internal and external conflicts.

In the early 1980s some aid agencies started to forgive aid-related debts, but that counted for just a small part of the debt. The official creditors and the international financial institutions adopted new strategy that offered comprehensive non-concessional rescheduling of payments, while IMF provided new loans linked to structural adjustment programs. From the mid-1980s the debt crisis became prominent item on the agenda of G-7 meetings. During the 1980s the ability of creditors to recover debt became increasingly doubtful. Private creditors chose to a great extent to sell their stock of claims in low income countries at a discount. However, official creditors found it

difficult to write off debt and instead started comprehensive non-concessional "flow rescheduling" within the Paris Club, combined with new lending from IMF and multilateral development banks. New credits from exports credit agencies were exempt from rescheduling to encourage additional flows of official financing. The Paris Club rescheduling delayed payments by new grace periods. Payments falling due could be reduced by as much as 90 percent immediately. A majority of the heavily indebted countries had Paris Club rescheduling, but the debt service paid by them still increased from 17 percent of exports on average in 1980 to a peak of 30 percent of exports on average in 1986 (Daseking and Powell, 1999: 5).

There was a turn in the efforts at the debt mitigation in the 1990s. Debt relief for heavily indebted countries became the subject of a campaign by a broad coalition of development NGOs, Christian organizations and others, under the banner of Jubilee 2000. Typical example was the demonstrations at the 1998 G8 meeting in Birmingham. This campaign was successful in pushing debt relief onto the agenda of western governments and international organizations.

Critiques of debt relief argue that it is a blank cheque to governments, and fear savings will not reach the poor in countries plagued by corruption. Others argue that countries will go out and contract further debts, under the belief that these debts will also be forgiven in some future date. They use the money to enhance the wealth and spending ability of the rich, many of whom will spend or invest this money in the rich countries, thus not even creating a trickle-down effect. They argue that the money would be far better spent in specific aid projects which actually help the poor. They further argue that it would be unfair to third-world countries that managed their credit successfully, or don't go into debt in the first place, that is, it actively encourages third world governments to overspend in order to receive debt relief in the future. Others argue against the conditionalities attached to debt relief. These conditions of structural adjustment have a history, especially in Latin America, of widening the gap between the rich and the poor, as well as increasing economic dependence on the global North.

Notwithstanding, the Heavily Indebted Poor Countries (HIPC) initiative was launched to provide systematic debt relief for the poorest countries, whilst trying to ensure the money would be spent on poverty reduction. The HIPC programme has been subject to conditionalities similar to those

often attached to IMF and World Bank loans. To qualify for irrevocable debt relief, countries must also maintain macroeconomic stability and implement a Poverty Reduction Strategy satisfactorily for at least one year. The HIPC initiative was endorsed in its original form in 1996 by the World Bank and the IMF. The idea was to reduce the debt burden faced by highly indebted and poor countries if their policy orientation over several years reflected the implementation of promising macroeconomic and social reforms. For the first time, multilateral debt was included into the relief programme (Holthus 1999: 126 and 115).

The HIPC initiative is said to be the brain child of James D. Wolfensohn, the World Bank Group's ninth president since 1946. It is asserted that since becoming president on June 1, 1995, he traveled to more than 100 countries to gain first-hand experience of the challenges facing the World Bank, and its 183 member countries. During his travels, Wolfensohn did not only visit development projects supported by the World Bank, but he also met with the Bank's government clients as well as with representatives from business, labor, media, non-governmental organizations (NGOs), religious and women's groups, students and teachers. In the process he took the initiative in forming new strategic partnerships between the Bank and the governments it serves, the private sector, civil society, regional development banks and the UN.

It is claimed in 1996, together with the International Monetary Fund (IMF), Wolfensohn initiated the Heavily Indebted Poor Countries (HIPC) initiative as the first comprehensive debt reduction programme to address the needs of the world's poorest and most heavily indebted countries. Two years later, he led a global review of the HIPC initiative, involving church groups, NGOs and representatives from creditor and HIPC countries, to assess its progress and identify ways to make the initiative deeper, broader and faster. This review, and proposals by donor countries, culminated in September 1999 with an official endorsement at the World Bank/IMF Annual Meetings to double the amount of relief, makes more countries eligible for assistance, and speed up the process (World Bank and IMF, 1996).

Others also attribute the initiative to the views of Joseph Stieglitz. Stieglitz started his relentless crusade against financial deregulation and 'capital myth', the outright liberalisation of capital markets, which ultimately led to the global economic and financial crisis as far back as the early

1990s, when he dived into the policy arena as the Chair of President Clinton's Council of Economic Advisers, and later as World Bank Chief Economist. It is argued that under his leadership as World Bank Chief Economist as of 1997, the idea of debt cancellation, first proposed by the late President Thomas Sankara of Burkina Faso in the 1980s and later pushed by the Jubilee 2000 Coalition, took strong hold. In less than two years under his stewardship at the World Bank, the Highly Indebted Poor Country (HIPC) Initiative entered the operational stream along with Poverty Reduction Strategy Papers (PRSPs) to increase countries' ownership of their development process (Stieglitz, 2002).

Besides the versions that attribute the HIPC initiative to Wolfensohn or Stieglitz, theoretically, two different lines of thought are put up to explain the cause of this initiative. On the one hand, it follows from debt-overhang theory (Sachs 1984, 1986; Krugman 1988) that a debt burden over a certain level heavily impedes the economic development of a country. Financial inflows dry out due to the risk of insolvency, and investment incentives decrease since foreign creditors rather than local investors are expected to benefit from returns. A number of prominent scholars and development economists such as Jeffrey Sachs and Joseph Stiglitz among others have come out strongly on the need to have Africa's huge external debt completely cancelled if its fragile economy is to take off. These countries were caught up in debt-overhang with debt as a percentage of their GDP above where traditional debt relief mechanisms will not be enough to help such countries exit from the debt rescheduling process and reduce their external debt to 'sustainable' levels so they can focus on long-term poverty reduction and economic growth (HIPC, 1996).

The debt problem of low-income countries has dragged on for more than a decade. This is despite the progressive improvement of debt rescheduling terms. The seriousness of this problem was recognized by the official creditor community in 1987, when the Paris Club decided to apply for the first time more concessional rescheduling terms to the low-income debtor countries in Africa (the so-called Venice terms). The concessionality of rescheduling terms has increased several times in subsequent years. The Toronto terms were introduced in 1989 (33% debt reduction), the London terms in 1991 (50% debt reduction), the Naples terms in 1994 (67% debt reduction) and recently the Lyons terms in 1998 (80% debt reduction) for some of the HIPCs. In

1996, the HIPC Initiative was launched, with a view to providing a framework for multilateral debt relief. In 1997, when exports of low-income countries were at their highest level over the period 1990-1997, their nominal debt-to-exports remained high at close to 300%, while at the same time their arrears on debt payments totalled $70 billion. Excluding arrears, the nominal debt-to-exports ratio reached 200%, and the ratio of paid debt service-to-exports was equivalent to 13%. The estimated percentage of debt service paid to scheduled debt service (i.e. the sum of paid debt service and arrears) was only 13%. Total debt stocks amounted to $ 227 billion, of which 26% was multilateral debt.

Furthermore, total outstanding debt of developing countries and particularly countries in Sub-Sahara Africa showed little change in 1999. The total debt of these countries at the end of 1999 was estimated at $2,554 billion, and $231.1 billion for countries in Sub-Sahara Africa. The ratio of total outstanding debt to exports stood at 137 percent for all developing countries and 225 percent for Sub-Sahara African countries; and that the ratio of debt to gross national product (GNP) was slightly to below 42 and 76 percent for all developing countries and Sub-Sahara African countries, respectively. More seriously, debt-servicing problems persist in these countries. Total debt service paid in 1999 was $49.4 billion and $15.2 billion for all developing countries and Sub-Sahara African countries, respectively; and debt service as a ratio to export was 18.7 percent and 14.8 percent, respectively (United Nations, 1999). A picture of the debt position in some selected African countries is shown in Table 2.4.

Table 2.4: External Debt Situation of some selected African Countries, 1999

Country	Total External Debt ($ billions)	GDP ($ billions)	External Debt as Percentage of GDP
Angola	9.6	5.9	123.8
Congo D.R.	14.4	6.1	217.5
Ethiopia	4.2	6.7	65.3
Kenya	6.4	9.8	61.5
Malawi	2.2	1.8	92.1
Swaziland	0.2	1.4	21.0
Tanzania	7.8	5.6	115.1
Uganda	4.0	6.9	66.5
Zambia	7.0	3.7	172.6
Zimbabwe	4.7	8.0	53.6

Source: World Development Indicators, 2000; World Bank, African Development Indicators, 1999

From Table 2.4 with exception of Swaziland the external debt as a percentage of GDP for all the countries exceeded 50 percent.

The second thought is that countries ruining their economies through irresponsible policies should not be rewarded by debt relief. In their case, debt relief would lead to wrong incentives for a continuation of such policies, to the benefit of the powerful elite and to the detriment of the population as a whole.

To avoid the strengthening of highly problematic political structures and economic policies, the initial HIPC initiative intended to provide debt reduction only after a six year period of promising macroeconomic policy (ex-ante conditionality1). Poor developing countries exceeding a debt-to-export ratio of 200-250% after exploring all traditional measures of debt rescheduling were considered eligible for the program. Based on a proposal of the G7 meeting in Cologne, the original HIPC initiative was substantially altered in 1999. The debt-to-export ratio expected to be sustainable was reduced from 200-250% to 150% Ex-ante conditionality was dropped. Instead, potential future beneficiaries of the program had to engage in a nation-wide participatory process in order to develop a national Poverty Reduction Strategy Paper (PRSP) that had to be endorsed by the IMF and World Bank and implemented for one year. This revised version became known as the Enhanced HIPC initiative and was widely accepted in 2000.

The Enhanced HIPC initiative brought in a new thought. That is the HIPC initiative can be analysed as a result of utility maximization by various actors; politicians, national and international bureaucrats, and NGOs. The interests of different political actors can be presented in terms of their utility functions. Public choice theory generally assumes that the utility of politicians depends on expected votes at the next election, while the utility of bureaucrats depends on their budget, prestige, pleasant working conditions and room for discretionary decisions. NGOs certainly also care for their prestige and budget which is, after all, a precondition of their survival and potential growth. How the Enhanced HIPC initiative affect the utility of these groups is explained that National politicians will compare debt repayment to debt relief considering that repayment leads to fresh resources that can be used to attract new votes. Debt relief to poor countries has a high moral appeal since it intuitively appears to be an act of

charity for the needy. The utility maximization problem of politicians thus consists in weighing the potential gains in votes through repayment against the potential gains in votes through debt forgiveness. Obviously, if it becomes transparent that the default risk is very high and that repayments can hardly be expected anyway, proponents of debt relief for charity reasons will value this relief much less. Assuming that knowledge about default risk is proportionate to the default risk itself, utility gains through debt forgiveness decrease with the default risk (Michaelowa, 1998: 70-73).

2.2.3 Critiques of the HIPC Initiative

People who have worked on debt relief for many years have frequently arrived at the conclusion that debt is not a financial or an economic problem at all but in every way a political one. It is the best instrument of power and control of North over South ever invented; far superior to colonialism which requires an army, a public administration and attracts a bad press. Control through debt not only requires no infrastructure but actually makes people pay for their own oppression (Susan George, 2001).

It is also argued that the most glaring problem with the Heavily Indebted Poor Country (HIPC) initiative for debt relief is that it will not provide lasting relief from debt for the highly indebted countries of the south. The HIPC process is aimed not at cancelling debts, but at ensuring that they can be repaid. It has little to do with enhancing human development, reducing poverty, or even increasing economic growth in the debtor countries. Rather, it is designed to massage debt figures down to a level where they would be deemed "sustainable" again according to the criteria of the IMF (Anup Shah, 2001).

The European Network on Debt and Development also points out in a report that the HIPC is unlikely to free up resources to tackle poverty for three main reasons: "threshold levels to measure debt sustainability are arbitrary and still too high" and that "sustainability is defined in economic terms and not in terms of human and social development." As a result, they point out, several least developed countries with significant debt burdens have not been included in the HIPC initiative; the debt reduction on offer is too small and as such some countries will actually pay more after the initiative than they did before; and the "piling up" of different sets of

conditionalities (Poverty Reduction Strategy Papers) from the IMF and World Bank slows down the process and does not succeed in aligning macroeconomic issues and poverty issues more closely than in the past and macroeconomic frameworks have not changed significantly as a result of PRSPs.

The many critiques of the debt relief initiative can be put into two broad categories; "foreign aid down the rathole" and "poverty trap". These represent two different perspectives on the underlying causes of the failure of development assistance programmes in the poorest countries.

The first argues that debt relief and other forms of aid have been too great and too easy to get. Recipient governments are often wasteful and corrupt. Even in the best cases of reasonably adequate governance, aid and debt relief simply relieve countries' immediate budget constraint, allowing them to persist with bad economic policies. The solution is tough conditionality on good macroeconomic policy and on good governance, and if conditionality does not work, a high level of selectivity, rewarding countries with debt relief and new aid only when they have demonstrated adequate performance in economic management and governance. It argues further that the official donors and creditors share some blame for providing too many loans and grants, driven by a combination of political and commercial motives and bureaucratic incentives combined with overeager professionalism and lack of accountability in the case of the IMF and World Bank staffs. The IMF and World Bank staffs need to become more disciplined and selective in providing debt relief and in making loans and grants (Easterly, 1999; Burnside and Dollar, 2000; Thomas, 2001).

The second critiques say debt reduction is too small and tied to conditionality that is onerous and misguided. Given poor countries' often troubled colonial and postcolonial histories, ethnic fragmentation, high burdens of tropical disease, dependence on primary commodities with declining and unstable prices, and often small size, debt relief and other forms of aid have been far from adequate to allow them to escape poverty and put them onto a growth path. They argue further that the problem is not too much but too little aid, and way too much existing debt. They agree that there has been waste, but according to them, incompetence and corrupt government is an outcome as much as a cause of poverty and underdevelopment. Moreover, they argue that the

structural adjustment and other economic policies pushed by official creditors have been inappropriate for such countries, making matters worse rather than better, and rewarding the elites while burdening the poor (Sachs, et al, 1999; Pettifor, Thomas and Telatin, 2001; Oxfam, 2001).

The Jubilee Debt Coalition Group supported the critiques of the HIPC initiative. They said the most obvious and serous criticism of the HIPC initiative was that it was simply not working. They expressed widespread doubts regarding the Heavily Indebted Poor Countries Initiative (HIPC) launched in 1996 and its successor the Enhanced Heavily Indebted Poor Countries Initiative ability to achieve the promised objective of a "robust exit from the burden of unsustainable debts" for developing countries. According to them problems associated with the design and implementation of the initiative suggest that neither of the two HIPC versions has succeeded in providing adequate response to the developing countries' debt overhang. An analysis of key debt indicators shows that external debt and debt-servicing problems are most severe and persistent in the heavily indebted poor countries, the target group of the HIPC initiative (World Bank Bonds Boycott, 2002).

It is argued further that throughout the process creditors failed to put sufficient political will, resources and serious analysis into the debt reduction operations. Debt reduction targets were set and reset arbitrarily (writing off 30 percent, then 50 percent, and so on) rather than based on serious assessments of the needs of each country. Despite claims of success by creditors for their Heavily Indebted Poor Countries (HIPC) initiative for debt reduction, the IMF estimated that Africa's debt service payments would only go as low as 17.1 percent of export earnings in 2001 (down from 20.3 percent in 1999), before rising again to 18.4 percent in 2002. This was still a crippling economic burden, as African leaders as well as debt cancellation campaigners continue to stress on this. The overwhelming majority of the debt was owed to the World Bank and the IMF. But neither the international financial institutions nor the rich creditor countries gave any indication that they were willing to consider more than marginal adjustments in the HIPC program (Jubilee 2000).

The group emphasized that the process has been much slower than expected and the initiative was suffering from problems of underfunding, excessive conditionality, and restrictions over eligibility, inadequate debt relief and cumbersome procedures. The 22 African countries that qualified to receive some relief were still required to pay almost $2 billion each year in debt repayments to wealthy creditor countries and institutions, mainly to the World Bank and IMF, themselves (Jubilee 2000). African countries' efforts to address urgent domestic priorities, from poverty reduction to the fight against HIV/AIDS, continue to be undermined by their unrelenting debt burden. Most African governments still spend up to three times more on debt repayments than on healthcare for their own people (Toussaint, 1999). Most African governments were still spending up to three times more on debt repayments than on health care for their own people. Not only are some countries spending more on debt payments after they receive debt relief, but they are overshooting the World Bank and IMF's own definitions of debt sustainability.

The Jubilee Debt Coalition Group further argued that, Uganda, the first HIPC graduate, currently has debts of over 200% of the debt-to-exports ratio. This will be the third time Uganda has exceeded its debt sustainability after reaching Completion Points. A Jubilee Debt Campaign factsheet (July 2002) revealed the following serious facts and statistics about Africa and the developing world: Africa spends $14.5 billion each year – that is $40 million each day–repaying debts and only gets $12.7 billion in aid (World Bank, OECD); Africa's total external debt stood at $319 billion in 1999, or 59 percent of GDP (NEPAD Capital Flows, May 2002, NEPAD Secretariat); Since 1990 Sub -Saharan African countries have paid an average of $ 3 billion per year in multilateral debt servicing (World Bank Global Development Finance, 2002); in 2002, Malawi paid almost $60 million in debt repayments (after debt relief) despite its near – famine. The World Bank and IMF had previously advised it to sell maize reserves to meet debt repayments (World Bank: Horst Koehler, Managing Director, IMF); to date only 15% of unpayable poor countries debts (i.e. those of the "Jubilee 52" countries) have been cancelled (Jubilee Debt Campaign, 2002); the 49 countries defined by UNCTAD (UN conferences on Trade and Development) as being the "least developed" owed $143 billion in 2000. In the same year debt repayments totaled $4.6 billion (UNCTAD, 2002) and 20 of these have qualified for HIPC; Developing countries (including those defined as "least developed") pay $1 billion per day in debt servicing (World Bank Global Development Finance 2002); only six countries have

reached the "completion point" of HIPC, thereby receiving a partial debt stock write–off (Uganda, Bolivia, Mozambique, Tanzania, Burkina Faso and Mauritania, World Bank 2001/2); the 26 countries that have qualified for HIPC (i.e. passed "Decision Point") pay US$2.3 billion per year in debt servicing (World Bank, 2002); and it could cost each citizen of the richest countries $1.70 per person per year to cancel the remaining debt of all African countries which have qualified for debt relief under the Heavily indebted poor countries initiative (World Bank, 2002).

The World Bank claims that almost $25 billion in debt relief has already been committed through the HIPC framework (World Bank, 2001) and states that the amount of debt accumulated by qualifying countries is being reduced by up to one-third. However, the practical effect of this is minimal when most of this debt was not being repaid anyway, and when the remaining debt burden continues to be overwhelming. The World Bank and IMF's estimates of the amount of savings being released to countries through HIPC, it is argued, are based on grossly unrealistic assumption of economic growth and increased exports (Jubilee 2000).

In reality export growth for HIPC countries has been far less than what the World Bank and IMF have predicted. In 2001 alone, it was less than half of what had been projected (Jubilee 2000). Even by the world Bank's own measure, 31 of the 42 HIPC countries are heading well off track for reaching 'sustainable ' debt levels through this process, although four of these countries (Kenya, Yemen, Angola and Vietnam) are considered to already have a sustainable level of debt (Jubilee 2000).

In April 2002, the World Bank admitted that of the six countries that at that stage had passed their completion points, at least two still did not have a sustainable level of debt (Oxfam, 2000). In addition, the external debt sustainability of half of the 20 countries which were between decision point and completion point at that time had significantly worsened. Indeed, the world Bank of the time concluded that these countries in the interim period, 8 to 10 could have debt-to-export ratios above 150% even at their completion points (i.e. even at completion point the debt levels of these countries would still be regarded as unsustainable by the World Bank and IMF's own criteria) (World Bank, 2002).

According to HIPC, 'sustainable' debt represents the maximum amount debtor countries can repay without defaulting. Therefore while the HIPC framework claims to be concerned with easing the debt burden of the world's poorest countries, it is actually designed and controlled by creditors to extract the maximum possible in debt repayments (Jubilee 2000). It is, in effect, mainly writing off debt that was not being paid in any case.

The HIPC initiative's focus on purely economic criteria in assessing a country's debt burden reveals a distinct lack of concern for human development and for the capacity of poor countries to meet the needs of their own people. The emphasis is on ensuring that creditors recover as much debt as possible from these countries. HIPC permits creditors to retain a great deal of influence over indebted African counties while offering a façade of concern for the plight of these countries (Toussaint, 1999). This in itself undermines the sovereignty of the national parliaments in question, and brings into contention the whole notion of independence and neo-colonialism.

The IMF and World Bank-prescribed structural adjustment policies have meant that nations that are lent money are done so on condition that they cut social expenditure (such as health and education) in order to repay the loans. Many are tied to opening up their economies and being primarily commodity exporters in such a way that poor countries have found themselves in a spiraling race to the bottom as each nation competes against others to provide lower standards, reduced wages and cheaper resources to corporations and richer nations. This has increased poverty and dependency for most people. It also forms a backbone to what we today call globalization. As a result, it maintains the historic unequal rules of trade.

The economic policy conditions attached to the HIPC process mirror the same conditional ties that have been improved by the World Bank and IMF on African countries for the past two to three decades in the form of Structural Adjustment Programmes (SAPs) with disastrous results. Although these are now repackaged and reframed to reflect a regard for "poverty reduction' their imposition is no less inappropriate (Oxfam, 2001). Tying debt relief to conditions determined by creditors undermines African priorities and initiative and affords creditors on inordinate degree of control over the running of African countries (Jubilee 2000). It is surely a matter for African

governments to determine their own approaches to poverty reduction, in consultation with civil society groups and other partners. Not to have these imposed by external powers, which all too vividly larks back to the colonial days of old. Many NGOs and pressure groups find it shameful that creditors should seek to give orders to African governments as to how they should spend any savings that are received from debt relief.

Most importantly, however, the HIPC initiative muddies the debate surrounding the illegitimacy of much of Africa's debt (Ellis, 1996). As such, it fundamentally undermines the strong imperative for debt cancellation. Many of the loans being repaid by African countries today were initially granted for strategic purposes, and to prop-up repressive and corrupt reforms during the Cold War (Ellis, 1996). Loans were granted for failed projects pushed by creditors, most of which did not benefit Africa's people. However, in light of this, Africa's people are still expected to pick up the bill. They are required to forfeit their own health and education, and that of their children and the generations to come, to ensure that these debts are repaid to wealthy creditors in the west. Not only does the HIPC Initiative fail to acknowledge the illegitimacy of much of these debts, in many ways it actually functions the continued exploitation of indebted countries by rich creditor nations and institutions (Oxfam, 2001). As African countries continue to be drained of desperately needed resources, the question of neo-colonialism and national sovereignty once again raises its mantle.

In Ghana there have been so many controversies and arguments surrounding the HIPC initiative. People have expressed several miss-feelings about the viability. There have been both informed and uninformed ideas, positive and negative views that reflect people's idea, which lead to a lot of skepticism about the initiative and its welfare implications. Some criticized the decision out of ignorance. Others did so for political reasons. Yet, there were those who criticized the initiative out of genuine concern about the implications of HIPC and the unintended consequences of the initiative. They felt that it was going to be just one of those IMF/World Bank programmes. Ghana implemented several IMF/World Bank-funded programs such as the Economic Recovery Program (ERP), the Structural Adjustment Program (SAP), the Enhanced Structural Adjustment Program (ESAP), Program of Action to Mitigate Social Cost of Adjustment (PAMSCAD), Development Policy Frameworks since the mid 1990s (Ghana's Vision 2020), and Emergency

Social Relief Program (ESRP), from 1983 to 2000. Within this period, almost a total amount of Gh¢64.02 billion had been given to Ghana in the form of foreign aids and loans for economic growth and development programs (Bank of Ghana Quarterly Economic Bulletin, 2000). However, at the end of these programmes Ghana was caught in unsustainable debt and a deepened poverty, especially, among rural forks and women and children.

Some of the comments put forward by some critics who were opinion leaders and former ministers of state in Ghana are as follows;

In a press conference in Accra, the Secretary General of TUC, Mr. Kwasi Adu-Amankwaah, said "I have not yet seen any development or progress in the 18 African countries that are benefiting from the HIPC initiative and cannot fathom why Ghana should also join the HIPC. … to me Ghanaian can contribute in their own little ways to build the nation" (*Daily Graphic*, March 1, 2001: 1).

A former Deputy Minister of Foreign Affairs, Mr. J. A. Laryea said the HIPC puts a stigma of bankruptcy on a country and joining it could drive away potential investors (*Daily Graphic*, March 2, 2001: 1)

Mr. Edward Salia, Member of Parliament for Jirapa and former Minister of Roads and Transport, said from the little experience he gained as a Minister involved with World Bank and IMF, he would not advise the country to join the HIPC (Daily Graphic, March 2, 2001: 3). Also, in a press conference at Wa on April 24, 2001 by the Upper West Region National Democratic Congress (NDC) Parliamentary caucus, Mr. Salia called on the government to reconsider its position on the HIPC initiative since it will make life unbearable for people living in the rural areas. He said "the HIPC initiative has left the country with virtually no developmental option for the rural areas …in addition to the economic hardship the people will undergo under HIPC, the country has to wait for more than six years before the slightest impact of it could be felt". He further said that all subsidies are removed leading to hikes in prices unbearable for the ordinary Ghanaians in rural areas and the next effect of the initiative is that fewer of the people in the region could afford to send their children to school (*Daily Graphic*, April 26, 2001: 3).

In a related development, participants at a discussion on Ghana's debt problem, appealed to the government to look for alternatives to sustainable debt servicing instead of rushing to join the HIPC initiative. They were of the view that any hasty decision to join the HIPC without a careful consideration of possible alternative could lead to unpleasant consequences. The participants noted that the proponents of the initiative would usually offer niceties at the beginning of the programme and leave the countries midstream. They argued further that if the initiative was anything good, the World Bank and IMF would not have changed the name from HIPC to Enhanced HIPC (*Daily Graphic*, March 2, 2001).

Similarly, participants at a public forum on the 2001 National Budget and Economic Policy called on the government to educate the people, particularly the rural communities on why Ghana decided to join the club of HIPC. According to the participants at the forum, it is the responsibility of the government to ensure that every citizen understands its policies to enable people to contribute to finding solution to issues affecting them (*Daily Graphic*, April 7, 2001).

On sharing his view on the HIPC initiative to a group of journalists in Accra, A leading member of the Progressive Alliance, Mr. Dan Markin, described the HIPC initiative as a "modern sophisticated tool of neo-colonialism". He said "the country is at a loss why, after 113 years of brutal colonial subjugation by the British, the same country today wants to push us deeper into the poverty abyss by prescribing the HIPC initiative as the palliative to our problems after years of structural adjustment reforms". According to Mr. Markin, even though there are benefits that the HIPC initiative may bring to the nation, one is not sure of its economic and social cost on the lives of the broad masses of the people. He went further to say that since there are motives behind actions, the prime movers of the HIPC initiative have some hidden and sinister intentions designed to roll back the clock of progress of countries like Ghana which embrace the initiative (*Daily Graphic*, March 13, 2001: 1).

The projects being financed by HIPC relief amounts are labeled "HIPC Benefits" to provide tangible evidence of the gains from the HIPC decision (see plates at appendix D). However, the same skepticism has been expressed after its implementation for over eight years. It is argued that the HIPC initiative has not had positive impact on the poor. Development indicators show

that even though Ghana compares favorably with most other African countries, social conditions are worse than in developing countries as a whole. Access to health care, safe drinking water and sanitation is still inadequate especially in the rural areas and in consequence life expectancy is low, 55 years as compare to 70 year for developed countries.

On November 12, 2002, the Finance Minister, Mr. Yaw Osafo-Mafo, told Parliament that although the management of the economy faced several challenges in the first seven months, the government has made significant progress in moving the economy forward. He added that as at the end of the previous month, an amount of ¢400 billion had been credited to the HIPC initiative account and that the initiative was yielding fruits. The immediate reaction from the minority spokesman, Moses Asaga, was that despite claims by the government that the economy was on course, it was still fragile and Ghanaians continued to face a lot of difficulties (*Daily Graphic*, November 13, 2002).

At another time, in a press review, the National Democratic Congress (NDC) stated that reaching HIPC completion point was not a panacea to Ghana's economic problems. It said although the HIPC initiative launched by the IMF and the World Bank in 1996 was expected to provide a lasting exit from unsustainable debt burden for 42 heavily indebted countries, including Ghana, "studies have shown, however, that HIPC has slowed to a crawl and debt was rather crippling poor countries in the world" (*Daily Graphic*, July 30, 2004).

2.2.4 Intended Objectives of HIPC Initiative Funds

The allocation of funds from the HIPC account is managed internally and is guided by the poverty reduction framework. At the national level, HIPC allocations are based on Cabinet decisions that reflect GPRS priorities. The annual allocations are specified in the budget, which is based on GPRS priorities, identified funding gap and the government emerging priorities during the year. The HIPC initiative works on the principle of debt service relief. This is money that is "saved" by the government from reduced debt service payments. It does not necessarily mean a reduction in the actual debt stock. The interest on debts that are to be paid for servicing the debts are given back to the country to spend on poverty reduction related programmes and projects.

In Ghana, HIPC relief from multilateral is credited to the HIPC special account with the Bank of Ghana as and when payment is due. On the other hand, bilateral relief is calculated annually, and the funds are transferred to the HIPC special account in twelve equal monthly installments. Out of these amounts 20 percent are used for the payment of domestic debts and the rest 80 percent are distributed to Ministries, Departments and Agencies (MDAs) and Metropolitans, Municipals and District Assemblies (MMDAs) for poverty reduction programmes and projects.

From 2001 to 2005 HIPC funds for poverty reduction programmes and projects at Metropolitans, Municipals and Districts levels were transferred through the assemblies and from 2006 the funds were transferred through the Members of Parliament (MPs). On the other hand the funds for micro-credit scheme were specifically transferred through and were administered by the Microfinance and Small Loan Centre (MASLOC) in the Metropolitans, Municipals and Districts.

Part of the HIPC funds was spent on equipment for the Electoral Commission, monitoring of the elections by the Media Commission, and awareness programmes for the National Security Agencies. Again, HIPC funds ware used to finance the Ghana Living Standard Survey (GLSS 5) in 2005. Furthermore, HIPC funds were spent on e-governance activities such as the monitoring of the use of HIPC funds.

2.3 Poverty Reduction Strategies Adopted in Ghana

Before the Ghana Poverty Reduction Strategy (GPRS), Ghana had undertaken a series of poverty reduction strategies. The following are the major (identified) strategies that have taken place in the country as a way of attacking poverty in Ghana.

2.3.1 Economic Recovery Programme (ERP) and Structural Adjustment Programme (SAP)

One of the fundamental problems that have faced the country Ghana is the persistent reliance on the export of some few primary products with little or no value added (cocoa, gold, timber and others). This had made the economy during the period preceding the 1980s vulnerable to price fluctuations dictated by buyers in the developed economies. The low earnings from these primary products have meant low revenue to the country. This in turn had made the economy

difficult to create meaningful wealth. Per capita income during the period preceding the 1980s had been very low. The economy in the 1970s, had been characterised by high rates of inflation, high interest rates, continues depreciating of the Cedi, dwindling foreign reserves, excessive public debt overhang and stagnant economic growth (Asenso-Okyere, 2001).

Attempt at redressing some of these problems have since 1983 pivoted around the traditional World Bank and the International Monetary Fund (IMF) supported economic initiatives of Economic Recovery Programme and Structural Adjustment Programme (ERP and SAP). Aimed primarily at macro level economic stabilization as an essential precondition for the realization of high and sustained economic growth rates, the implementation of these policies in Ghana has been accompanied by reduced involvement of the government sector in economic management. That is, towards the infusion of more private-sector led and market oriented policies. During the mid 1980s, efforts were geared towards providing fresh impetus for increased growth in the traditional commodity sector and also facilitating the development of new growth areas, especially of non-traditional export items. Less emphasis however, was placed on micro level issues, especially on the social dimensions of economic recovery, in spite of the fact that implementation of these economic reforms have resulted in appreciable increases in economic indicators of the economy, poverty levels were on the increase. For instance, extensive liberalization and adjustment in the early part of the 1980s produced some growth in services and mining but did little to produce and sustain growth in agriculture and manufacturing where the majority of the population was engaged. Unfortunately, little systematic effort was made to measure and monitor poverty among the population prior to 1987. As a consequence, the evidence on poverty that exist for this period is fragmentary. However, information available shows that to address these issues, the government initiated a number of action-oriented programmes aimed specifically at redressing the plight of the poor and the disadvantaged groups as an integral part of the economic reform measures (Asenso-Okyere, 2001).

The first attempt, the Programme of Actions to Mitigate the Social Cost of Adjustment (PAMSCAD), was initiated in 1987 with the prime objectives of addressing the needs of vulnerable groups who were in precarious condition due to the effects of Economic Recovery Programme and Structural Adjustment Programme or earlier periods of economic decline. These

included small farmers, mainly in the 'peripheral' regions of Northern Ghana, whose productivity were extremely low and who also faced hunger and unemployment during the lean farming season (Boakye, 2001). Others were urban-based underemployed, and workers redeployed (retrenched) from the public and private sectors of the economy due to this policy reforms.

Projects implemented under PAMSCAD included set of community based projects that were to help in the rehabilitation and construction of social and economic infrastructure, thereby generating employment (Asenso-Okyere, 1994). But a cursory evaluation of the programme indicated that it was unsuccessful in adequately tackling the levels of poverty of the target population. It was clear that poverty levels assumed dramatic proportions in certain urban and rural areas during this period. Data corroborate this view by indicating that the number of rural poor had increased in recent times (Ghana Statistical Service, 2000). It has been asserted that dismal result may be attributed to the inability of the programme to target the poorest of the poor for focused action (Asenso-Okyere, 1994).

3.3.2 Development Policy Frameworks in the Mid 1990s (Ghana's Vision 2020)

The Ghana's Vision 2020, originally entitled National Development Policy Framework was a wide-ranging, twenty-five year perspective programme dedicated to the improvement of individual and social well-being. The development of the vision 2020 was preceded by the National Development Goal setting exercise which all districts and regions participated in. The latter exercise produced the underlying National goal, which was to improve the quality of life of all Ghanaians by reducing poverty, raising living standards through a sustained increase in National wealth and a more equitable distribution of the benefits thereof. Issues addressed in the report included the role of the public and private sector, poverty, gender equity, employment generation and rural development. The first phase of the Ghana's Vision 2020 was the Medium Term Development Plan (MTDP) 1997-2000.

The MTDP was the first of the series of 5-year development plans that was developed from the 25-year vision. The MTDP, referred to as Vision 2020 – the first step, was based upon collaborative work among Ministries, Department and Agencies (MDA), Regions, Districts and

consultations with civil society. Collaboration at national level had been achieved through broad cross sectoral planning groups, for each thematic area, representing MDA and representative interest groups. The MTDP covered five thematic areas; economic growth, human development, rural development, urban development of an enabling environment (GPRSP, 2003-2005). Analysis of these thematic areas indicates that the plan had strictly limited success. This was largely due to limited coordination between the National Development Planning Commission (NDPC) responsible for economic and fiscal management. In the event, annual budgetary allocations did not reflect MTDP programme objectives. There also appeared to be a lack of political commitment to implementation of the plan (Osei, *et al*, 2001).

2.3.3 Interim Poverty Reduction Strategy 2000-2002.

The limited impact of the Ghana Vision 2020: The first step and the MTDP in laying the foundation for sustained poverty reduction led to attempts to formulate more poverty-focused policy initiatives. Consequently, the interim Poverty Reduction Strategy (I-PRSP) for Ghana was prepared in June 2000 for period 2000 to 2002 and has been used as an outline for growth and poverty reduction. Preparation of the Ghana Poverty Reduction Strategy (GPRS) for 2003-2005 builds on the I-PRSP, with greater emphasis on participation of key partners, including civil society, the media, private sector, all arms of government and development partners.

2.3.4 The Ghana Poverty Reduction Strategy

The GPRS represents comprehensive policies, strategies, programmes, and projects to support poverty reduction over a three-year period (2003-2005) and growth and poverty reduction over the period (2006-2009). This document was initiated by the government on the conviction that much needed to be done to the economy of Ghana by way of effective management so as to create wealth for the benefit of all Ghanaians, especially, the poor. The purpose was to create wealth by transforming the nature of economy to achieve growth, accelerated poverty reduction and the protection of the vulnerable and excluded within a decentralized democratic environment. The goals set to achieve entailed the following:

(a) Ensuring sound economic management for empowering the poor;

(b) Increasing production and promoting sustainable livelihoods;

(c) Direct support for human development and the provision of basic services;

(d) Providing special programmes in support of the vulnerable and excluded;

(e) Ensuring good governance and increased capacity of the public sector; and

(f) The active involvement of the private sector as the main engine of growth and partner in nation building.

The period of 2002-2005 was denoted by the document as the stabilizing and foundation lying of the economy for sustainable accelerated and job creation for agro based industrial economy. The focus of the document was also on providing an enabling environment that empowers all Ghanaians to participate in the wealth creation and to partake in the wealth created (GPRSP, 2002-2005). The major indicators of the GPRSP to achieving the desired socio economic status for all Ghanaians are access to basic social services such as health care, quality education, portable water, decent housing, security from crime and violence and the ability to participate in decisions that affect their own lives.

2.4 Theoretical basis for Poverty Reduction Strategies

Poverty Reduction Strategies are viewed by the IMF and the World Bank as a new framework for poverty reduction involving the development of nationally-owned and participatory poverty reduction strategies. Since 1999, it has been mandatory for recipients of funding under the enhanced HIPC initiative, as well as the World Bank's 'Poverty Reduction and Growth' facility (PRGF), and all other forms of concessional (IDA) finance to prepare and implement Poverty Reduction Strategies. The PRSP is intended to implement a holistic long-term strategy in which the recipient country owns and directs its development agenda, under the leadership of the government. The Bank and other development partners are expected to work in a coordinated manner, in association not only with the government but also civil society, the private sector, and other development stakeholders, united in a shared vision of the country's future development. The challenge posed for the PRSP is thus to convert a political interest (the well-being of the poor) into a technocratic dimension of public administration (Brown, 2003).

An interesting aspect of the management of the poverty reduction process has been the way in which it has given new life and strength to contentious concepts and strategies. Concepts which were formerly of value largely in a project frame of reference have now taken on a role in

macroeconomic transformation. Under the World Bank/IMF guidelines, 'participation' is presented as one of the core elements of the PRSP, and central to the achievement of the principles underlying the approach. The 'core principles' of PRSPs are that it should be country driven/led and participatory, results-oriented, comprehensive, partnership-oriented, and oriented to offering a long-term perspective. This element is one of the crucial dimensions differentiating the PRSP from previous generations of aid instruments, such as 'structural adjustment' conditionalities.

There is an intuitive notion that aid should be concentrated on societies which can use it most effectively for the purposes of poverty reduction. It makes sense for donors to focus their efforts on rewarding countries that perform well in these terms, by virtue of their genuine willingness to improve the well-being of the poor and the vulnerable. This contrasts with the tendency of former aid regimes to withdraw aid from the good performers, but maintain it for the bad. A similar intuitive logic underlies the idea of widespread participation by all major stakeholders, particularly the vulnerable and marginalised. Few would question the argument that an effective poverty reduction strategy requires that the views of the poor be incorporated into the diagnosis of poverty, that appropriate techniques be used to discern those views, that policy choices be influenced by them, and that they should be included in public monitoring, as the main intended beneficiaries. That is inclusion of a wide range of stakeholders is advocated, including poor and vulnerable groups, especially women. They are to be involved both as individuals and also through relevant institutions such as NGOs, membership organisations, private sector bodies, farmers' associations, unions, cooperatives, chambers of commerce and similar umbrella groups (Brown, 2003).

The PRSPs specify five main thematic areas: macro-economic stability; production and gainful employment; human resources development and basic services; vulnerability and exclusion; and good governance. For example, HIPC funds to support GPRS are spent on human resources development and basic services, private sector development, and good governance. Human resources development comprises education, health, water and sanitation. The intended objectives include: increase access to basic education; reduce disparity in access to basic education; promote gender equity in enrolment; remove financial barriers to access to education;

improve quality of education; expand and improve post-basic education; increase geographical and financial access to basic health services; bridging the gaps in access between rural and urban areas to health services; ensuring better quality care in health facilities; sustaining financial arrangements that protect the poor; and improving access to safe water in both rural and urban areas; and improved sanitation management (flush, chemical toilet or ventilated improved pit latrine). Basic services programmes cover; exemptions for maternal deliveries payments at health centres, capitation grants for education, and support for National Health Insurance Scheme. Private sector development entails; energy, roads, agriculture, industry, micro-credit and employment sub-sectors. The objectives include; increase access by the poor and vulnerable to modern forms of energy, modernizing and expanding power infrastructures, ensuring full cost recovery for power supply and delivery while protecting the poor, improving spatial access to markets by developing farm-market access roads, rehabilitating roads that link rural and urban markets, provision of irrigation infrastructures, enhancing access to credit and inputs for agriculture, promoting selective crop development, and improving access to mechanized agriculture. Good governance covers administrative governance and economic governance with the objectives being; public safety, monitoring and evaluation (Republic of Ghana, 2002).

The relationship between Human resources development and poverty reduction is very clear. For example, it is argued that education is sin-qua-non to economic development and poverty reduction. Educated people have higher income earning potential, and are better able to improve the quality of their lives. Persons with at least a basic education are more likely to avail of a range of social services, and to participate more actively in local and national government through voting and community involvement. They are less likely to be marginalized within the larger society. Education empowers; it helps people become more proactive, gain control over their lives, and widen the range of available choices. In fact, basic education is one of the keys to empowerment, both for individuals and groups. The combination of increased earning ability, political and social empowerment, and enhanced capacity to participate in community governance is a powerful instrument for helping break the poverty cycle. In fact, education is the primary vehicle by which economically and socially marginalized adults and children can lift themselves out of poverty and obtain the means to participate fully in their communities.

Poverty is both a cause and an effect of insufficient access to or completion of quality education. Children of poor families are less likely to enroll in and complete schooling because of the associated costs of attending school, even when it is provided free. The cost of uniforms, supplies, and transportation may well be beyond the means of a poor family, especially when the family has several children of school age. This means that choices have to be made, and the choice is often to drop out of school or, worse yet, to deny schooling to girls while enrolling the boys, thereby contributing directly to maintaining the inferior status of women. And as poor children who are enrolled grow older, the opportunity cost (their lost labor and the foregone income it may entail) becomes greater, thus increasing the likelihood of abandoning school. Dropping out of school because of poverty virtually guarantees perpetuation of the poverty cycle since the income-earning potential of the child is reduced, not to mention overall productivity, receptivity to change, and capacity to improve quality of life. Lack of education perpetuates poverty, and poverty constrains access to schooling. Eliminating poverty requires providing access to quality education (United Nations Educational, Scientific, and Cultural Organization. 1997).

Basic education empowers individuals by opening up avenues of communication that would otherwise be closed, expanding personal choice and control over one's environment, and providing the basis for acquiring many other skills. It gives people access to information through both print and electronic media, equips them to cope better with work and family responsibilities, and changes the image they have of themselves. It strengthens their self-confidence to participate in community affairs and influence political issues. Basic education is the key with which individuals can unlock the full range of their talents and realize their creative potential. It gives disadvantaged people the tools they need to move from exclusion to full participation in their society. Basic education also empowers entire nations because educated citizens and workers have the skills to make democratic institutions function effectively, to meet the demands for a more sophisticated workforce, to work for a cleaner environment, and to meet their obligations as parents and citizens.

Education is recognized as a basic human right. Education is closely linked to virtually all dimensions of development; human, economic, and social. It is also a key factor in improving

governance. Investment in education supports a much broader agenda including health, nutrition, the values of the environment, and community participation. Expanding girls' education, for example, has a positive effect on fertility, infant mortality, nutrition, and enrollment rates of the next generation. An educated populace has easier access to important information about HIV/AIDS prevention and other public issues. Keeping children in school is a well-recognized strategy for reducing child labor. The synergies of education investment are powerful, and underscore the importance of education to facilitate achievement of a range of social and economic goals (World Bank, 2000).

Much of the theoretical debate about the role of education in development and economic growth has focused upon whether education is productive in an economic sense. There is much evidence that levels of schooling amongst the population are highly correlated with levels of economic development. But whether the former has helped cause the latter, or whether causality runs from income growth to educational expansion, remains open to debate. Human Capital Theory (associated with the work of Gary Becker, Mark Blaug and many others), asserts that education creates skills which facilitate higher levels of productivity amongst those who possess them in comparison with those who do not. Education, then, is costly but it brings associated benefits which can be compared with its costs in much the same way as happens with any investment project. Human capital theorists use proxy evidence of various kinds to support the above assertions. First, there is a strong, and empirically verifiable, positive relationships across all societies between the wages and salaries people receive at work and the level of education which they have received. Using the 'normal' assumptions of competitive labour and goods markets, it follows that those with higher levels of education seem to have, on average, higher levels of productivity. Employers use educational characteristics as a proxy for the suitability, and potential productivity, of their employees. Second, the earnings by age of the more educated not only start at a higher level, but increase more rapidly to a peak - which happens later in life - than is the case with the earnings profiles of the less educated. Indeed, those with no education tend to have earnings profiles which remain pretty flat throughout their lives. These patterns are said to indicate not just that education makes people more productive but also that it enhances the ability to learn-by-doing, causing productivity, and thus earnings, to increase at a faster rate than for those with less education (Brown, *et al*, 2002).

Although few people contest the strength and near universality of the above relationships, whether or not they necessarily imply that education is itself a source of enhanced individual productivity remains contested. Early criticisms of Human Capital Theory came from a group of radical economists (Bowles, Gintis and others, sometimes referred to 'Correspondence Theorists') who argued that education was valued by employers not because of the cognitive skills which it engendered, but because of the non-cognitive qualities and attributes inculcated at different levels of the education system. These theorists argue that the non-cognitive traits encouraged by each level of the school system correspond strongly to the attributes required of employees at unskilled, middle and higher levels of the occupational hierarchy. Education was thus judged to be responsible for reproducing the social hierarchies in society in a stable and predictable way, rather more than enhancing the productive capacities of labour.

A further set of theories associated with the 'screening' theorists (Wiles, Whitehead and others), asserts that education is merely an attenuated selection process, whereby the most talented people are distinguished from the less talented. In other words, schooling identifies the most able people but does nothing, itself, to create or enhance those abilities, or by implication, individual productivity. In this view if ranking procedures were efficient, the benefits of ten years schooling could be short-circuited by aptitude tests which might last a matter of days rather than years. This group of theorists argues that the associations between education and earnings adduced by human capital theorists to imply that education has productive value can be shown to be entirely consistent with its negation.

Moreover, it is argued that much of the above debate is set against the backdrop of the formal economy - a world in which people are hired into an occupational hierarchy and progress within it according to their skills and abilities. An extremely important context, however, for a discussion of poverty is that part of production which takes place outside the formal sector, much of which is characterised by self employment in rural and peri-urban areas. There has therefore been much interest in examining the extent to which education affects production patterns in those activities. It has been shown that primary schooling, for example, helps to increase the productivity of peasant farmers, particularly when they have access to the other inputs needed to

enhance their production. It has been shown also that the earnings of the self-employed, including those in urban and informal sector activities, are higher for the educated than for the uneducated. Furthermore, it has been demonstrated that increasing the schooling of women brings beneficial effects for their own control of fertility, for their own health, and that of their families. Thus Human Capital Theory and in a different sense Correspondence Theory both provide a set of implications for policies to alleviate poverty. Broadly speaking, the former implies that an effective anti-poverty strategy should incorporate the enhancement of education and skills amongst poor households. This will enhance their productivity in the informal urban and rural economy, and it will also increase their eligibility for paid employment in the formal sector and for advancement once they are employed. Correspondence Theory similarly implies that increasing levels of schooling in the labour force are likely to be functional to the process of employment growth.

However it does not necessarily imply a benign impact for those school leavers who fail to secure access to the formal sector. Human Capital Theory draws links between education and poverty in terms of education as a means of poverty reduction. The policy conclusions of the Human Capital approach are reflected in the World Bank approach to poverty reduction, which strongly emphasises basic services provision (education and health) to the poor. The World Bank is the largest single source of external funding for education in developing countries. Its agenda on gender, poverty and education is thus influential and the World Bank approach can be characterised as essentially grounded in the orthodox Human Capital Theory outlined above. The Bank states that: Education - especially basic (primary and lower-secondary) education - helps reduce poverty by increasing the productivity of the poor, by reducing fertility and improving health, and by equipping people with the skills they need to participate fully in economy and society (World Bank 1995: 1).

Equity is cited as one of the major challenges facing educational development. It is taken to refer to disadvantaged groups including the poor, linguistic and ethnic minority groups, nomads, refugees, street and working children as well as gender. The World Bank argues that public spending on education is often inequitable, when qualified potential students are unable to enrol in institutions because educational institutions are lacking or because of inability to pay (World

Bank, 1995). The World Bank asserts that public spending on primary education generally favours the poor, but public spending on education policy as a whole often favours the affluent because of the heavy subsidisation of the upper-secondary and higher levels of education. It is pointed out that higher education students come disproportionately from richer families and therefore public sector spending for higher education is particularly inequitable (World Bank 1995). This therefore explains why PRSPs focus on basic (primary and lower-secondary) education.

Another significant aspect of human development emphasised by the PRSPs is health. Health is a key determinant of economic growth and development, while ill health is both a cause and effect of poverty. Aside from the serious consequences for social welfare, ill health deprives developing countries of human resources and the high cost of ill health reduces economic growth and limits the resources governments have available for investment in public health. As a result, improving health in developing countries is essential in order to reduce poverty, which is the primary objective of the European Union's development policy.

Poor health and premature death due to malnutrition, poor hygiene, lack of clean water, unhealthy lifestyles and inadequate health care represent a significant loss of human capital. The health of individuals and populations is a major determinant of economic growth and social development. There is a strong correlation between investments in public health, better health outcomes and economic growth and poverty reduction. Better health improves the quality of life, expands opportunities and safeguards livelihoods. There is a similar link between the state of the environment and the health of the people exposed to that environment. As health improves parents invest more in education. Improved intellectual development and physical well-being leads to higher labour productivity increased per capita income and extends the economically productive life of individuals. Health improvements lead to lower rates of fertility and reduced dependency ratios. Infant and child mortality rates are particularly sensitive to economic security with low levels of infant mortality correlating well with higher levels of economic growth and reduced rates of population increase. A healthy population can improve social wellbeing and macroeconomic stability through increasing tax revenues and reducing the burden of health

related expenditure. Poor health drives poverty, acting through a variety of direct and indirect mechanisms. Ill health, malnutrition and high fertility cause households to become or remain poor.

A heavy disease burden reduces economic growth and further limits the resources available to governments to invest in public health, or poverty reduction efforts. The World Bank estimates that many African countries may lose 0.5-1.2 % per capita growth annually due to HIV/AIDS alone yet the total impact may not have been fully calculated. Malaria in sub-Saharan Africa is the direct cause for a 7.4% loss of total GNP. There is a growing awareness, further documented through the detailed work recently carried out by the Commission on Macroeconomics and Health (CMH) of the WHO that the extent and duration of these effects are significantly more profound than previously realized (Commission on Macroeconomics and Health, 2001). The total return on health investments in developing countries is estimated by the CMH at 18% per annum. The CMH further calculates conservatively that a major global effort to tackle avoidable diseases would generate at the very least $168 billion per year in extra revenue. More specific estimates demonstrate for example annual global savings of $1.5 billion per year once poliomyelitis has been eradicated and all control measures stopped (UN Millennium Task Force on Water and Sanitation, 2005).

Furthermore, water and sanitation management is a key factor in the global battle to remove the scourge of extreme poverty and to build secure and prosperous lives for hundreds of millions of people in the developing world. On its own, this statement may seem non-contentious, as almost every statement on poverty reduction and sustainable development, whether from political, intellectual or organisational leaders, affirms the importance of water. Water serves immediate needs and impacts on health. Water is also a vital input into many types of human activities and is essential for the health and integrity of ecosystems, whilst improvements (and the way people organise to make these improvements) affect social and gender relations. The multiple character of water as a factor in many aspects of poverty reduction is not reflected in the approaches built into many poverty reduction strategies. Evidence shows that improved access to water and sanitation reduces poverty both directly and indirectly. Poverty reduction strategies therefore

must include effective water and sanitation interventions if they are to achieve long-term success. A study carried out by WaterAid in 1999/2000 in four countries showed significant changes in household income as a result of: time saved being used for increased agricultural production, agricultural product processing, manufacture of goods, and sale of services; money saved by reduced cost of water, and reduced cost of medical treatment; and water availability for increased livestock production, crop production, fruit and vegetable production, and food and drink vending.

Many women in developing countries spend hours each day collecting water. This prevents them from doing vital domestic or income generating work. With improved access, the time taken to collect water can be measured in minutes rather than hours or days. Women choose to spend their extra time and energy on activities which ensure family income rather than just family survival. Household disposable income increases in two ways after gaining access to safe water and sanitation. People no longer have to pay premium rates to commercial water vendors. Money is also saved as there is less need to seek medical treatment for illnesses like diarrhoea, scabies, intestinal worms, guinea worm and conjunctivitis that are all caused by inadequate water and sanitation. Water availability is also responsible for higher crop yields and larger livestock populations, providing poor families with both increased food security and surplus produce for sale. Water plays an essential role in other economic opportunities too (Mosley, 2004).

Good governance is an issue that, in different forms, is now seen as fundamental to any poverty reduction strategy and cuts across all of the issues addressed under poverty reduction strategies. It has many dimensions: creating a fair legal, policy and regulatory framework in which the rights of people to access resources are secured; improving the effectiveness, accountability and transparency of government agencies; ensuring the participation of the poor in decision making; enhancing the role of civil society; ensuring basic security and political freedoms; and others (UNDP, 2004). The recognition of the importance of governance issues in recent years has led to a much stronger focus on institutional processes in poverty reduction. It is based on the premise that sustainable development involves changes to power structures and participation in key aspects of decision-making in society so that the poor are empowered to influence decisions that affect their lives.

The concept of governance has been used in two broad senses. The first is in a technicist form, which essentially refers to the management of state structures and institutions. This is a statist conception of governance (World Bank, 1995, 2000). The second is that which transcends the purview of the state to include non-state actors. Governance is viewed as the steering of state and society towards the realisation of societal goals. Governance according to Daniel Kaufmann refers to the exercise of authority through formal and informal channels for the common good (Kaufmann, 2003: 5). The components of governance include (a) the mechanisms and processes of selecting, monitoring and replacing governments (b) constitutionalism and the rule of law (c) capacity to formulate and implement sound policies and deliver public services (d) the respect of citizens and the state for the institutions that govern economic and social interactions (e) citizens' and civil society empowerment.

There are three main actors in the governance arena. These are the state, civil society (including traditional civil society groups and social movements beyond the NGO phenomenon like labour, students' organisations, rural and community based groups), and the private sector. The notion of governance is underpinned by a philosophical conception of a social pact between the state and society, in which both in an interactive manner define national objectives, negotiate the processes of achieving them and working collectively, albeit with some tensions and contradictions in the realisation of those goals. It is about how national capacity is enhanced in a free and democratic environment for the realisation of the collective good of society (Adejumobi, 2002; Peirre and Guy, 2000; Hyden, 1999).

There is a strong nexus between poverty and governance. Poverty in its present conception has some governance parameters. The questions of voice and power for the poor and the vulnerable in society are governance issues. Furthermore, getting "governance right" is at the heart of poverty reduction. It is when there is interconnectedness between state and society that the government can serve the interests of the people and promote the common good central to poverty reduction. The issues of institutional effectiveness, power decentralisation, rule of law, adequate delivery of social services, and participatory democracy, which are germane to good governance, are key elements in the reduction of poverty. They are mechanisms through which the energies and creativity of the poor can be unbounded, they can gain voice and power and

make the state responsive to their needs and demands. In other words, participate actively in making decisions that affect their life chances and engage the process of their empowerment, which are essential to improving their material conditions.

Private firms, through their investments and spread of best practices, are increasingly important to developing countries' growth. There are several channels through which private firms could reduce poverty and benefit the society as a whole. The first is through the taxes they pay to the government, which then could be used to finance public services. Assuming that basic services are pro-poor then the poor would benefit the most from the taxes. This is certainly the case in Indonesia, whose public spending on basic health and education is determined to be pro-poor (Sparrow, *et al* 2001). The second channel is through capital investments. Construction of a new factory or to a smaller extent opening a new store for example, would create jobs. Narayan *et al* (2000) in their consultations with the poor find that one of the most effective ways to escape poverty is to find employment. The final channel is by providing competition, which will improve efficiency and increase productivity, and in turn will lead to reduced prices and an efficient production process that benefit the society as a whole. Klein (2003) argues that this productivity-enhancing characteristic is one of the main differences between the private sector and public sector.

A clear example of a country that benefits from the private sector growth is Vietnam, whose Enterprise Law has resulted in a rapid private sector growth. Steer and Taussig (2002) find that in just two years after the law was passed, private companies were significantly better off and that the expansion provided jobs to the booming Vietnamese workforce down the road. In addition, Loc, Lanjouw, and Lensink (2006) use a difference-in-difference method to measure the impact of privatization on firm performance in Vietnam and found that privatization is indeed associated with performance improvement. Since it is clear that a robust private sector would theoretically spur the overall economic growth it would reduce poverty. It is in the government's best interest to enable such condition to occur. The government's role in supporting growth of the private sector cannot be overstated. Moreover, Psacharopoulos and Nguyen (1997) state that the public-private relationship should be complementary rather than substitutional. According to the World Bank (2005), it is imperative that the government provide a positive investment climate,

which would boost both domestic and foreign investments. A conducive investment climate could be achieved by focusing on domestic stability and security; guaranteeing property rights; and improving regulations, taxation, and infrastructure. Many developing countries, however, could start creating a positive investment climate by simply not punishing companies that are performing well, for example, by imposing excessively progressive tax system or nationalizing profitable companies but rather allowing them to grow.

ADB views PSD as an effective means to achieve its overarching objective of poverty reduction. Sustainable economic growth, based on increased productivity, is the key to winning the war against poverty. The private sector will be the engine for economic growth, creating jobs and increasing incomes necessary to lift people out of poverty. Recent studies have revealed strong empirical evidence of the links between growth and private investment, job creation in the private sector, and poverty reduction (IFC, 2000). That is the hope of the world's poor to escape from poverty is critically dependent on their ability to obtain jobs that help them raise incomes. Private markets are critical mechanisms to help create such jobs. Private firms, small and large, operating in competitive markets are the engine for job creation and income growth and thus provide the opportunity to escape poverty. Poverty reduction requires that entrepreneurs set up businesses where poor people can work. Most of poor people live in rural areas and typically they work in very small informal businesses, for example as farmers or day laborers. It is thus particularly important to improve the investment climate such that people in rural areas as well as small and informal businesses benefit from the development of markets. Special attention also needs to be given to the specific problems faced by women who often have lesser access to productive resources, such as land and credit.

Women entrepreneurs play an important role in many societies, such as in Africa. In South Asia, where the bulk of micro-credit has gone to women micro-entrepreneurs, studies have shown that increases in women's income tend to be better correlated with increases in family welfare than similar increases in the income of men (Murdoch, 1999). However, the entrepreneurial potential of women is often left unutilized due to cultural, policy and institutional biases that limit their access to property and productive resources (World Bank, 2001). A number of related interventions are required to allow poor people to benefit from markets. Opportunities need to be

opened up for small entrepreneurs. Many times they are discriminated against and bureaucratic obstacles and administrative red tape make it difficult to establish thriving businesses. The costs of overcoming such red tape are often disproportionately large for small entrepreneurs. At the same time, large politically well connected incumbents may try to block the most successful new businesses.

In summary, debt relief clearly is a key part of a comprehensive strategy for reducing poverty, but it is no panacea. Debt relief, no matter how generous, is only the first step toward economic recovery for heavily indebted poor countries. These countries can achieve long-term debt sustainability only if they directly address the underlying causes that triggered the debt problem in the first place. To avoid slipping back into a situation where poverty-reducing investments are sacrificed to mounting external debt repayments, these countries must use the debt relief proceeds to create the basis for sustained growth and poverty reduction.

The issue of whether countries that gain relief from the HIPC initiative will be able to effectively translate the lessening of the debt problem into poverty reduction (or pro-poor growth for that matter) is very important. Donor countries agreed to the (enhanced) HIPC initiative with the intention that debt relief will be used in a way that is beneficial to the poor. The main argument made by those calling for total or partial debt cancellation is that the servicing of debt seriously compromises the ability of governments to provide basic social amenities, especially for the poor in these countries. With debt relief, more resources can be made available for investment in both human and physical capital with the consequent result that HIPCs can make significant inroads into achieving pro-poor growth targets as well as attain sustainable debts (Sachs, *et al*, 1999). Not surprisingly, the preparation of a 'Poverty Reduction Strategy Paper' (PRSP) is a key condition for HIPCs to qualify for relief under the enhanced (Cologne) initiative.

There was no doubt that the debt problem at 2000 was jeopardizing Ghana's effort at reducing poverty. Almost 30 per cent of the population was living on less than a US$1 a day (World Bank, 2002). Over 55 per cent of Ghanaians did not have access to essential drugs and an average of about 20 per cent of one-year olds were not fully immunized against tuberculosis and measles (Human Development Report, 2001). The country was spending about six times more on

servicing debt than it did on the health sector as a whole. It was noted that public expenditures in Ghana had not been any more pro-poor in the 1990s than in the 1970s and that trend could only be reversed if the public debt problem was brought under control. Given these trends there was clearly a case for the country to seek relief under the enhanced HIPC initiative especially if it was to come anywhere near its target of moving the country to middle income status and standard of living by the year 2020. Although some may have challenged this generalization, there is no hiding from the fact that significant poverty reduction in Ghana could not be achieved with the growth rate of 3.7 per cent in 2000. With the population growing at about 2.1 per cent, this figure translates to a 1.6 percent per capita GDP growth rate. This was some way off the projection of between 2.4 and 5.9 per cent under 'broad-based growth' and 'no change' growth scenarios respectively, needed to halve poverty by 2015 in Sub-Saharan Africa countries (Hanmer and Nashold, 2001).

2.5 Empirical Review

A study by Lloyd, *et al* (2001) looked at the effect of aid on growth in Ghana. In that study a simple model in which aid impacts on growth through its effect on government spending is formulated. Implicitly the assumption made is that aid is intended to finance public investment, a proposition for which Lensink and Morrissey (2000) provide empirical support. The authors use private consumption growth as a proxy for output growth. They find evidence that aid impacts positively on both short- and long-run growth in private consumption. Admittedly the long run aid elasticity of about 0.05 reported in the study is quite low and only significant at about 10 per cent compared with the export elasticity of about 0.3. However they show that the low elasticity is due to the fact that the efficiency of aid flows to Ghana over almost half of the sample period (1970-1983) – the period preceding the start of the World Bank/IMF supported adjustment program – was very low. Decomposition results also showed that aid/government investment contributed more to growth over the period studied (1970 – 1997) than did export growth. This in no way belittles the effect that exports have on private consumption and output growth in Ghana. It merely suggests that exports relative to aid/government investments did not increase by much over the period studied. The average annual growth in exports over the period was about 2 per cent. This compares with aid and government investments which both grew at an annual average of about 14 per cent – suggesting that aid was allocated to investment. An implication of

the findings in the study is that Ghana has the potential of significantly increasing its growth rate through a more aggressive export-oriented growth strategy.

The results from Lloyd, *et al* (2001) provide a strong case for the argument that the net resources transfers from relief under the HIPC initiative could have a positive effect on growth in Ghana. This is premised on the assumption that the savings are used in the same way as aid. This is a reasonable assumption to a large extent. However if all the savings is spent on social sectors it may improve the welfare of the poor but may not have necessarily have a positive impact on growth (i.e. it may not alter the income poverty measure). For instance another way in which these transfers could be made available to the HIPCs is when donors give back the money from debt servicing as aid. A `Poverty Action Fund' can then be created by the recipient country, which can later be earmarked for poverty eradication. The fund can be used to develop rural infrastructure, promote small businesses and micro-enterprises, create jobs, and improve health services and education. Uganda is one of the few countries that have reaped target outcomes from such a scheme (*World Development Report*, 2000/2001).

Debt relief under the HIPC initiative could also have an indirect effect on growth if it helps create an enabling environment for private investments. Krugman (1988) argues that an excessive debt 'overhang' could deter private investment as it creates uncertainty about inflation and exchange rate movements. Although macroeconomic imbalances were reduced to some degree in Ghana during the reform period, domestic prices and the exchange rate had not been stable. According to Brownbridge, *et al* (2000), the fluctuating inflation rate and rapid depreciation of the exchange rate must have exacerbated the risk for long-term investment. It is well documented that private investments in Ghana had been abysmal (Osei, 2001; Killick, 2000).

Private investment in Ghana during the ERP was 4.8 per cent of GDP, only slightly higher than it had been before the reforms and well below levels recorded in other parts of the world including Africa (Brownbridge, *et al*, 2000). Relief under the HIPC initiative cannot make private investments any worse. There is evidence that debt accumulation over time has deterred investments in Sub-Saharan Africa (World Bank Global Development Finance, 2001). If under

HIPC the government is able to restore the economic fundamentals – low inflation, low budget deficits, reduced money supply, stable exchange rates, and improve the institutional capacity – then it could signify an increase in efficiency and productivity of investment and therefore increase private investments to Ghana.

One key issue is whether the resources to be realized from debt relief will lead to increases in government expenditure on basic needs in Ghana. Osei (2001) analyses the impact of net resource flows (net ODA aid) on government fiscal behaviour in Ghana over the period 1966 to 1998. The theoretic basis for the analysis is Fiscal Response Models. Evidence from the study suggests that net foreign aid has not had a direct effect on public expenditure patterns in Ghana. Rather aid appears to have been used as an alternative to domestic borrowing. Given its expenditure plans the government considers which sources of finance in addition to tax revenue it can use. An example used to support this point is when in the 1990s domestic borrowing was increased in response to an increase in government expenditures and a decline in foreign aid flows. Over the medium to long term any induced expenditure effect of aid is matched by an increase in tax revenue so that aid is used to reduce domestic borrowing. In the short run, aid has no effect on government expenditures but rather it induces increased tax effort and reduces domestic borrowing. Some evidence of categorical fundability is found, although one has to be careful with that interpretation as a significant portion of aid was received under the structural adjustment facility (SAF) – about 18 per cent of total net aid was received under SAF between 1987 and 1991.

The findings of Osei (2001) have interesting implications for possible effects that relief under the HIPC initiative will have for poverty reduction in Ghana. First if net resource transfers have a negative impact on domestic borrowing then debt relief could ensure more stable macroeconomic fundamentals, which will in turn improve the efficiency of investment and attract more private investment. Second, there is evidence that tax effort increases with net resource flows to Ghana. This increased tax revenue could release more resources for health, education and other social sectors, which will in turn have the effect of reducing poverty. How the taxes are raised is equally important for poverty reduction. The fact that net resource inflows

tend to decrease domestic borrowing and increase tax revenue in Ghana means it is likely to impact positively on poverty reduction.

Osei and Quartey (2001) outlined the potential through which HIPC initiative can work to reduce poverty. On the topic "The HIPC Initiative and Poverty Reduction in Ghana: An Assessment" the paper presents a review of the current debt problem in Ghana and assesses whether debt relief under the HIPC initiative could be effectively translated into poverty reduction. They indicated that evidence suggests that debt relief could have a positive effect on poverty reduction in Ghana. They projected that Ghana stands to save about US$558 million in annual debt service payments between 2002 and 2004 alone through the HIPC debt relief initiative. Hence, the decision of the government to take advantage of the HIPC initiative was a step in the right direction.

Furthermore, according to estimates drawn up by ISSER Ghana could save US$183 million, US$179 million, and US$183 million in 2002, 2003 and 2004, respectively. In nominal terms, debt service payments of US$397 million in 2000 would be reduced to US$155 million in 2002 after HIPC assistance (*Ghana Review International*, 2001).

Sachs, *et al* (1999) write that relief under the HIPC initiative is one way of getting more resources to invest in sectors of the economy such as health and education which have a direct link with poverty reduction and promoting growth. They argued further that with debt relief, more resources can be made available for investment in both human and physical capital with the consequent result that HIPC can make significant impact in reducing poverty and into achieving pro-poor growth targets as well as attaining sustainable debts.

Lykke and Nina (2000) revealed that Bolivia met almost all the targets set by the initial HIPC initiative and in the few areas that failed to meet targets, substantial progress was made. Water and sanitation projects reached more than 180,000 households, compared with target of 132,000 (IMF, 2000). This indicates that Bolivia has a good record of linking debt relief with poverty reduction.

Zulu (2002) work, using critical observation method, found and reported that the HIPC initiative as it has been experienced in Zambia does not truly offer any relief. In his perspective HIPC has

several inbuilt and fundamental flaws and concluded that one can say the HIPC initiative has not helped to reduce poverty or improved upon the standard of living of the people, especially, the poor in Zambia.

Abugre (2004) on his work concluded that the impact of HIPC on the Ghanaian economy was not significant though, yet better than nothing. This study was quite early, only three year into the implementation of the initiative. After the eight years of implementation and at the end of the initiative, there is the need to assess its impact.

A similar work entitled was undertaken by Kuteesa and Nabbumba (2004). The main objective of the study was to highlight the main issues relating to Uganda's experience in debt stock management and debt relief, explore the benefits of the HIPC Initiative, and by looking at the relationship between the HIPC resources, debt sustainability and poverty reduction. Using Development Indicators the study found that the additional resources from the HIPC Initiative have been instrumental in reducing poverty. However, it concluded that the HIPC initiative fund did not result in debt sustainability as expected.

In another study, the World Bank Independent Evaluation Group (2006) empirically investigated the update builds on the findings of the 2003 evaluation of the HPIC initiative. The study was a review, which found that the HIPC Initiative was highly relevant in addressing a key obstacle facing many poor countries, and noted that the initiative would substantially achieve its goal of reducing the excessive debt burden of the qualifying countries, if the anticipated debt relief was delivered in full. The study used the Country Policy and Institutional Assessment Index, which assess the quality of a country's present policy and institutional framework. The results of the study indicated that; the initiative reduced debt ratios by half, on average, in 18 countries. But in 11 of 13 countries the key indicator of external debt sustainability has deteriorated since completion point. In 8 of these countries, the ratios once again exceed HIPC thresholds. It further stated that 6 of 8 post-completion-point countries with new debt sustainability analyses were considered to have only a moderate risk of debt distress, but all remained vulnerable to export shocks, and required highly concessional financing and prudent debt management. On the other hand, it revealed that debt reduction alone was not a sufficient instrument to affect multiple

drivers of debt sustainability. Sustained improvements in export diversification, fiscal management, the terms of new financing, and public debt management were needed, measures that are outside the ambit of the HIPC Initiative. The study however used the Country Policy and Institutional Assessment Index, which assess the quality of a country's present policy and institutional framework.

A research by Anders (2000) objected to assess reduction in poverty in that country and its debt sustainability level resulting from applying the initiative. The study calculated the Net Present Value (NPV) of total debt service and debt service ratios before and after HIPC relief and compared them. The author also itemized the uses of the HIPC funds. The study found that the adoption of HIPC culminated in huge savings otherwise meant for debt servicing. The author, however, stated that the extent to which this could initiate poverty reduction depended to a large extent on how the funds were spent and the policies vigorously pursued to ensure economic growth. The author, however, observed that even though per capita income increased, non-income poverty in particular increased because the system was implemented in line with the conditionalities to curb inflation and install some fiscal discipline. The study used data from Tanzania but the present study is concentrated on Ghana. Once more, the two studies have different focuses. While that of Anders uses debt servicing and debt ratios and only looks at government expenditure priorities, that of the present study has a broader coverage; it focused on poverty reduction based on objective and subjective approaches, the relative share of HIPC funds disbarment to income enhancement through micro-credit, capability building, social services provision and their relative effectiveness.

Amber (2005) on a study to show community participation on the programmes financed by HIPC funds found that the communities were keenly involved in the implementation of the HIPC programmes and projects. On the other hand it did not assess the impact of such programmes and project on poverty reduction.

The African Development Bank in 2007 did a study with the objective of deepening the bank's knowledge of whether and how countries benefiting from debt relief have used the proceeds to improve social service delivery to their citizens. With four country cases (Ghana, Malawi,

Senegal and Uganda) the study reviewed the sources, amount and types of financing, delivery methods and timing, intended uses and results published from the country, and the monitoring systems. The study found that debt relief has a major positive impact on the millennium Development Goals (MDGs) if it is accompanied by stable or rising high-quality aid and high accountability and capacity in MDG spending. It says however that debt relief can be undermined by volatile or low-quality aid, less effective spending, and allure to execute or be accountable for effectiveness of MDG spending.

2.6 Summary of Related Literature Review

Review of literature shows that poverty is a commonly known concept often identified with such human deprivation as starvation, malnutrition and homelessness. While it may not be so difficult to comprehend the notion of poverty, the conceptualization of poverty for the purposes of production and analysis of needed quantitative information may not be as straightforward. Before the 1980s poverty was defined and measured from income point of view. The World Bank came up with income consumption or expenditure as poverty indicator. The indicator of poverty was set as living on income or spending less than one US dollar ($1.00) a day. This was measured by simple head count, poverty gap and squared poverty gap developed by Foster-Greer–Thorbecke Index. However, from Van Praag, Barrientos, and Amartya Sen it came out that poverty is multi-dimentional and subjective concept. It therefore needs subjective-multidimensional model like asset, need-base and capability functioning models for measurement. This has led to the use of several poverty indicators and respective targets and thresholds.

It also came out that at the dawn of the 1990s poor countries owe a large amount of money to rich nations and international financial institutions such as the World Bank and the International Monetary Fund. This debt was over $2 trillion for developing countries as a whole. Most of this was owed by "middle-income" developing countries, but some of the lowest-income countries in the world and particularly Sub-Sahara Africa were heavily indebted, owing around $250 billion. What was worse about these countries was that they were caught up in debt overhang such that the traditional means of mitigating the debt were no more possible. There was therefore the need for innovation to help these poor countries. The proposed solution was the introduction of the

Heavily Indebted Poor Country (HIPC) Initiative, which is an agreement among official creditors designed to help the poorest, most heavily indebted countries escape from unsustainable debt. It enables poor countries to focus their energies on building the policy and institutional foundation for sustainable development and poverty reduction.

From the literature it became conspicuous that at the end of year 2000 the over-all performance of the Ghanaian economy was very precarious and extremely disturbing. The targets on real gross domestic product (GDP) growth, inflation rate, exchange rate depreciation, fiscal deficit, monetary growth and external trade and payment situation in the 2000 budget statement were all mixed. Ghana's economy also exhibited high debt burden with high external debt servicing arrears at the end of December 2000. Ghana also experienced high over-all poverty and deepening poverty among some groups and in some areas, especially in the north of the country (the savanna zones) and rural areas.

Another revelation was that the lunching of the HIPC initiative met diverse views; positive and negative. Prominent people like James D. Wolfensohn, Joseph Stieglitz, Jeffrey Sachs, Krugman, and others supported the HIPC initiative or one way or the other initiated the idea. Others like Susan George, Anup Shah, Jubilee Debt Coalition Group, etc, criticized the HIPC initiative and rather opted for debt cancellation. In Ghana many people expressed several miss-feelings about the viability of the initiative. Even, after eight years of implementation there were still so many controversies and arguments surrounding the HIPC initiative.

The literature further demonstrates that in deed Ghana at the time of opting for the initiative in 2001 was in debt overhang and the performance of the economy was very poor. The debt stock of Ghana as at the end of 2000 exceeded its gross domestic product (GDP) in absolute terms and its average growth rate since 1983 was higher than the annual average economic growth rate Between 1983 and 2000, the external debt stock rose from $1.9 billion to over $6.0 billion, whilst cedi denominated domestic debt stock surged from $1.0 billion to $1.8 billion over the same period. There was therefore the dead need to opt for the HIPC initiative.

The empirical review also portrays interesting and diverse results. One group, Lloyd, *et al*, Krugman, Brownbridge, *et al*, World Bank Independent Evaluation Group, etc, provides strong case for the argument that the net resources transfers from relief under the HIPC initiative could have a positive effect on economic growth. This group supports the argument that an excessive debt 'overhang' could deter private investment as it creates uncertainty about inflation and exchange rate movements. There was evidence that debt accumulation over time has deterred investments in Sub-Saharan Africa. The work on the HIPC initiative in Bolivia revealed that Bolivia met almost all the targets set by the initial HIPC initiative and in the few areas that failed to meet targets, substantial progress was made. Uganda's experience also shows that the additional resources from the HIPC initiative have been instrumental in reducing poverty. It came out that if under HIPC the government is able to restore the economic fundamentals then it could increase private investments to Ghana. Another study also indicated that evidence suggests that debt relief could have a positive effect on poverty reduction in Ghana.

The second group expressed that HIPC initiative has not had any significant impact on poverty reduction. For example, Zulu's work on Zambia revealed that Debt Relief under the HIPC initiative does not truly offer any relief. Also, Abugre concluded that the impact of HIPC on the Ghanaian economy was not significant.

ESSAY ONE

ECONOMIC IMPACT ASSESSMENT OF THE UTILISATION OF HEAVILY INDEBTED POOR COUNTRIES (HIPC) INITIATIVE ON POVERTY REDUCTION

3.1 General Overview

At the end of the year 2000 Ghana's economy was experiencing high poverty, with over-all poverty incidence of 39.5 and even higher among the rural areas and particularly rural savanna with poverty incidence of 49.5 and 70.0, respectively. To reduce poverty and subsequently achieve economic growth and development, the Government of Ghana opted for the Heavily Indebted Poor Countries (HIPC) initiative in 2001. Government committed itself to poverty reduction with support from HIPC Relief Funds. After 8 years of the implementation there is the need to address the following questions (as stated under section 1.2);

a. Has poverty incidence, both at the community and individual levels changed during the period of HIPC?
b. Has the HIPC initiative impacted on poverty reduction?
c. Which of the HIPC funded programs has been relatively more effective in the reduction of poverty?

This essay covers five main analyses: change in poverty incidence during the period of HIPC by using Foster-Greer-Thorbecke (FGT) Index; impact of HIPC on the community by employing community poverty ratio; relationship between HIPC and poverty reduction in the form of regression analysis; the relationship between the various components of HIPC expenditures and poverty reduction also in the form of regression analysis; and finally the relationship between HIPC and human development outcomes.

3.2 Theoretical Framework

3.2.1 Estimate of Poverty Incidence at Individual Household level

In this study household is defined as group of people that live together and share the same pot (i.e. eat from the same bowl). It can simply be taken to mean a family unit that is under one head and consume from common source. To determine whether poverty level of the individual household has been reduced the study concentrated on incomes of the household's head (income

poverty) by employing the Foster-Greer-Thorbecke (FGT) Index to measure Head Count Ratio (HCR), Poverty Gap Index (PGI) and the Squared Poverty Gap (SPG), which assess, respectively, proportion of the population under the poverty line, depth of poverty and the severity of poverty (Foster, *et al*, 1984).

The Foster-Greer-Thorbecke (FGT) Index model is given as follows;

$$\text{FGT} = \frac{1}{n}\sum_{i=1}^{q}\left(\frac{z - y_{ii}}{z}\right)^{\alpha} \qquad 1$$

where, n = the number of sample individual household,

z = the poverty line income (In Ghana the Poverty line is GH¢370.81 per adult equivalent per year and is defined as earning income less than half of the per capita income in Ghana (GLSS 5, 2005/2006),

i = 1, 2, 3, …, qth individual household whose incomes are below the poverty line,

y = the income of the individual household among the poor, and

α = weight society gives to the poverty problem; for α, $0 \leq \alpha \leq \infty$.

The parameter α, $0 \leq \alpha \leq \infty$, indicates the degree of aversion to poverty such that as α increases there is increasing weight given to the poorest household. When α = 0, the implication is that society wants to know only the number of poor below the poverty line within a given population (Head Count Ratio or Poverty Rate). Head Count Ratio (Poverty Rate), $P_0 = \frac{q}{n}$ represents the proportion of the population that is poor. Given a poverty line z, a person is poor if y < z.

Given $\alpha \geq 1$ means society is interested in distinguishing among the poor. Where α = 1, each poor is weighted by his or her relative distance, from the person who is nearer the poverty line and the same incremental income accruing to the person who is further away from the poverty line. In this case, the poverty measure reduces to a measure of the aggregate poverty gap (P_1) and shows the percentage of total income needed to be transferred from the non-poor to the poor household to lift them above the poverty line. That is, the aggregate poverty gap is measured as;

$$g = \sum_{i=1}^{q}\max\left(\frac{z - y_i}{z}\right), \text{ for } q \leq n, \qquad 2$$

which reflects income deficit as a proportion of the poverty line income among the poor population. The average poverty gap is then found by dividing the aggregate by the total poor to yield the poverty gap per poor person, i.e. $\frac{g}{q}$.

If society is particularly averse to inequality among the poor, the poverty measure must give higher weight to an income transfer to the poorer compared with a less poor household. Thus, the value of α must be more than unity. When α = 2, it is the Squared Poverty Gap. This measures the intensity or severity of poverty. While the Poverty Gap Index takes into account the distance separating the poor from the poverty line, the Squared Poverty Gap takes the square of the distance into account i.e. the poverty gap is weighted by itself, so as to give more weight to the very poor. This accounts for the inequality among the poor. For the purpose of simplicity and availability of data, the paper uses α = 2 to cater for the distributional effect.

3.2.2 Estimate of Poverty Incidence at Community level

A community is considered poor when it lacks or is deprived of basic social amenities that go to enhance the well-being of the people living in that community. These basic social amenities (indicators) include; good and safe drinking water, hospital and health care facilities, emergency health facilities (drug, chemical stores and pharmacies), standard basic school, all weather road system, available security system, good sanitation system, electricity, banking and financial institutions, telephone network, post office, internet services, and community centers (GLSS 5).

The evaluation of the community poverty status is given by the Community Poverty Ratio (CPR) (Sullivan, 2002), which is modified by the author as follows;

$$CPR = \frac{1}{N}\left[\frac{1}{M}\sum_{i=1}^{M}\sum_{j=1}^{N} X_i D_j\right]$$

where, $D = \begin{bmatrix} 1 & \text{for lack of the facility} \\ 0 & \text{for availabili ty of the facility} \end{bmatrix}$

X = social amenity

j = 1, 2, 3, … N communities

i = 1, 2, 3, … M amenities

The concept of community as used here refers to a group of interacting people living in close proximity that share some common values, and live within a shared geographical location, generally in social units larger than a household. In simple term it is taken to mean a town or a village (as understood in Ghanaian literature). The Community Poverty Ratio (CPR) measures the proportion of the sampled communities that lack these facilities (indicators). It works on the principle that when a community lacks a facility it is scored 1, otherwise it is scored 0. Every community is scored against all the amenities and a horizontal summation is taken for all the amenities. The sum is therefore divided by the number of communities to yield the proportion of communities that lack these facilities on average.

3.2.3 Relationship between HIPC and Poverty Reduction

The theoretical frameworks under sections 3.2.1 and 3.2.2 estimate incidence of poverty at individual and community levels respectively, which determine change in poverty incidence between the periods of HIPC implementation (2001-2008). However, if there is any change in poverty incidence it cannot wholly be attributed to the impact of the HIPC initiative since other funds were spent on poverty reduction activities and programmes.

To be able to isolate the impact of HIPC initiative on poverty incidence there was the need to run a multiple regression using HIPC funds and the other poverty related funds as determinants. The relationship between HIPC funds and poverty reduction has its theoretical foundation on the work of Shenggen Fan, Pham Lan Huong, and Trinh Quang Long (2004). Their key proposition is that government spending reaches the poor through many different ways with linkage effects. Their study postulates that government spending in infrastructure and education may also promote growth in employment and wages in the non-farm sector, thereby contributing to poverty reduction. Their study used a simultaneous equation model to track these different effects on rural poverty.

The study therefore estimates a regression of change in District mean per capita income on HIPC fund/capita, District Assembly Common fund/capita, and District Assembly Internally Generated funds. The model is given by;

$$LnCMPCY_i = \beta_0 + \beta_1 Hipc_i + \beta_2 Dacf_i + \beta_3 Igf_i + \beta_4 Hs_i + \beta_5 Povi + \beta_6 Pov^2 + \varepsilon_i \quad 3$$

where $i = 1, 2, \ldots, 110$ districts

$\beta_1 > 0, \beta_2 > 0, \beta_3 > 0, \beta_4 < 0, \beta_5 > 0$ and $\beta_6 > 0$

where, Pov_i is rate of poverty defined by the incidence of poverty i.e. the proportion of the population whose consumption or expenditure was below the upper poverty line of Gh¢370.81 per year at 2000 (GLSS 5). Poverty and squared poverty incidences were used as interactive variables to find out whether or not the district's poverty status did matter in the disbursement and implementation of the HIPC initiative and therefore the rate of poverty reduction of the district. CMPCY is change in mean per capita income and it was derived by finding the difference between the MPCY of 2000 and 2008. Hipc is total HIPC funds per capita spent within the period under study and it is a vector of the various expenditures of HIPC funded programmes in districts (education, health, water and sanitation, micro-credit, private sector development, and good governance) divided by the total population of the district. Dacf is District Assemblies Common funds per capita, which was arrived at by dividing the District Assemblies Common funds by the population of the district. Igf is internally generated funds of the District Assemblies. Hs is the mean household size in the district and Pov and Pov^2 are the poverty and squared poverty incidence, respectively, of the district.

The mean household size in the district is inversely related to change in mean per capita income. The intuition is that the higher the size of the household, the greater the consumption and the lower the saving, leading to low investment and invariably low income.

Poverty incidence of the district is expected to be positively related to improvement in per capita income. Intuitively the higher the intensity of poverty in the district the more committed is the district to poverty reduction strategy and hence more fund from the HIPC and other funds to poverty reduction activities and programmes. In this case it was expected that per capita income will improve. Squared poverty incidence indicates the depth of poverty (rate of inequality). This is expected to relate positively with change in per capita income because it is hypothesized that more funds will be spent on the poorest income quintiles.

The β_0 is the constant term which captures unexplained items like expenditures by NGOs, the millennium challenge goal funds that came in later, change in population, and the characteristics of households which were used for the poverty estimation like age of the household head, household sizes, educational background, employment types of the household head, etc and the ε is the error term that entails sampling error because not all households in the country were used. Also, average values were used which obscure details and extremities. Here, it was assumed that incomes were normally distributed around the country or location mean.

The assumptions imposed on the coefficients are based on the following argument; the expenditure would help to reduce poverty and therefore as more is spent, the poverty rate should fall (see section 3.2.6).

3.2.7 Relative Impact of the Components of HIPC Funds on Poverty Reduction

Here, change in mean per capita income of Districts is regressed on total expenditures of the various compositions of HIPC funds in the districts; education, health, water and sanitation, micro-credit, private sector development, and good governance. This regression was aimed at finding which of the sectors that attracted HIPC funds was more potent at poverty reduction. This is expressed mathematically as;

$$LnCMPCY_i = \beta_0+\beta_1 Edu_i+\beta_2 H_i+\beta_3 WS_i+\beta_4 MC_i +\beta_5 PS_i +\beta_6 GG_i +\beta_7 Hs_i+\beta_8 Pov_i+\beta_9 SPov_i+\varepsilon_i \quad 4$$

where $i = 1, 2, \ldots, 110$ districts

$\beta_1 > 0, \beta_2 > 0, \beta_3 > 0, \beta_4 > 0, \beta_5 > 0, \beta_6 > 0, \beta_7 < 0, \beta_8 > 0$ and $\beta_9 > 0$

where, CMPCY is change in mean per capita income of Districts. Edu, H, WS, MC, PS, GG, Hs, Pov and SPov are total HIPC expenditures on education, health, water and sanitation, micro-credit, private sector development, good governance, mean household size, poverty incidence, and squared poverty incidence in the district, respectively, and ε is the error term which covers sampling error because not all households in the district are used and also α comprises unexplained items like expenditures by NGOs, household characteristics, Household head's characteristics, etc. Per capita income measures the standard of living. The underlying assumption is that change in per capita income indicates change in standard of living and hence

change in poverty situation. Hence, the magnitude, sign and the statistical significance of each coefficient of the independent variables will indicate the relative importance of that expenditure to poverty reduction and its potential to poverty reduction in the near or far future.

The parameters (βs) are assumed to be positive, meaning the higher the expenditure on them, the higher the increase in the per capita income of the people. The HIPC funds on education include basic school infrastructure, provision of furniture, supply of exercise and text books to basic schools, capitation grant in all public basic schools, school feeding program to selected deprived schools, etc. The intended objective were to increase access to basic education, reduce disparities in access, promote gender equity in enrolment, reduce or remove financial barriers to access, improve the quality of education, and expand and improve post-basic education. Moneys that the people are supposed to spend on education are available to spend on income generating investment, which lead to increase their incomes.

Health included primary health care, health infrastructure, free maternal delivery, etc. The objectives were increasing geographical and financial access to health services, bridging the gap in access, with emphasis on deprived regions, ensuring better quality of care in health facilities, and sustaining financial arrangement that protect the poor (Health insurance seed money). The intended results were improvement in the health status of the poor, which will improve the labour productivity and therefore the income. Also, moneys the people were supposed to pay on health would be available for productive investment.

The goal of water and sanitation are provision of good drinking water, waste management, water closet toilets, KVIP, etc. The intended objectives in the rural areas are to accelerate water provision in unserved areas and in guinea worm endemic areas, to provide for new investments in deprived regions, and to enhance the operation and maintenance of water facilities. The intended results are for rural communities to own and manage their own supply systems and be fully responsible for operation and maintenance. These will improve the health status of the poor increase their labour productivity and hence their income. Moneys the people were supposed to pay on health would be available for productive investment and therefore increase their incomes.

Micro-credit scheme provided direct financial capital for productive investment which increases their incomes. Private sector development includes establishment of markets, community initiated projects and capacity building, electricity, agriculture and industrial development, energy, feeder road construction and rehabilitation, etc. The intended results are to increase the capacity of the people and their labour productivity and hence their income.

The HIPC expenditure on Good Governance included disaster management, security, staff accommodation, strengthening capacity of departments, civic education, etc. These were intended to create an enabling environment for investment and increase income.

The relationship between mean household size, poverty incidence, and squared poverty incidence are as explained under section 3.2.4.

3.2.8 Relationship between HIPC and Human Development Outcomes

This section presents the relationship between HIPC and human development outcomes of the districts. The objective of the section is to find out whether or not changes in the human development outcomes had any relationship with HIPC funding of the districts.

Generally, datum on a particular outcome was gathered from each district for the two periods (2000 and 2008) and the change was regressed on fund earmarked for poverty reduction in the districts; HIPC funds per capita, District Assemblies common funds per capita, and internally generated funds. This is expressed mathematically as;

$$LnCHDO_i = \alpha + \beta_1 Hipc_i + \beta_2 Dacf_i + \beta_3 Igf_i + \beta_4 Pov_i + \beta 5 SPovi + \varepsilon_i \qquad 5$$

where $i = 1, 2, \ldots, 110$ districts

$CHDO$ = change in mean human development outcome.

The study assumes a positive relationship between Regressors and enrolment, attendance, retention, completion rate, school performance, adult literacy rate, life expectancy at birth, coverage of vaccination, and delivery assistance. The reason is that as more funds are spent it is expected that there would be improvement in these outcomes. On the other hand the study

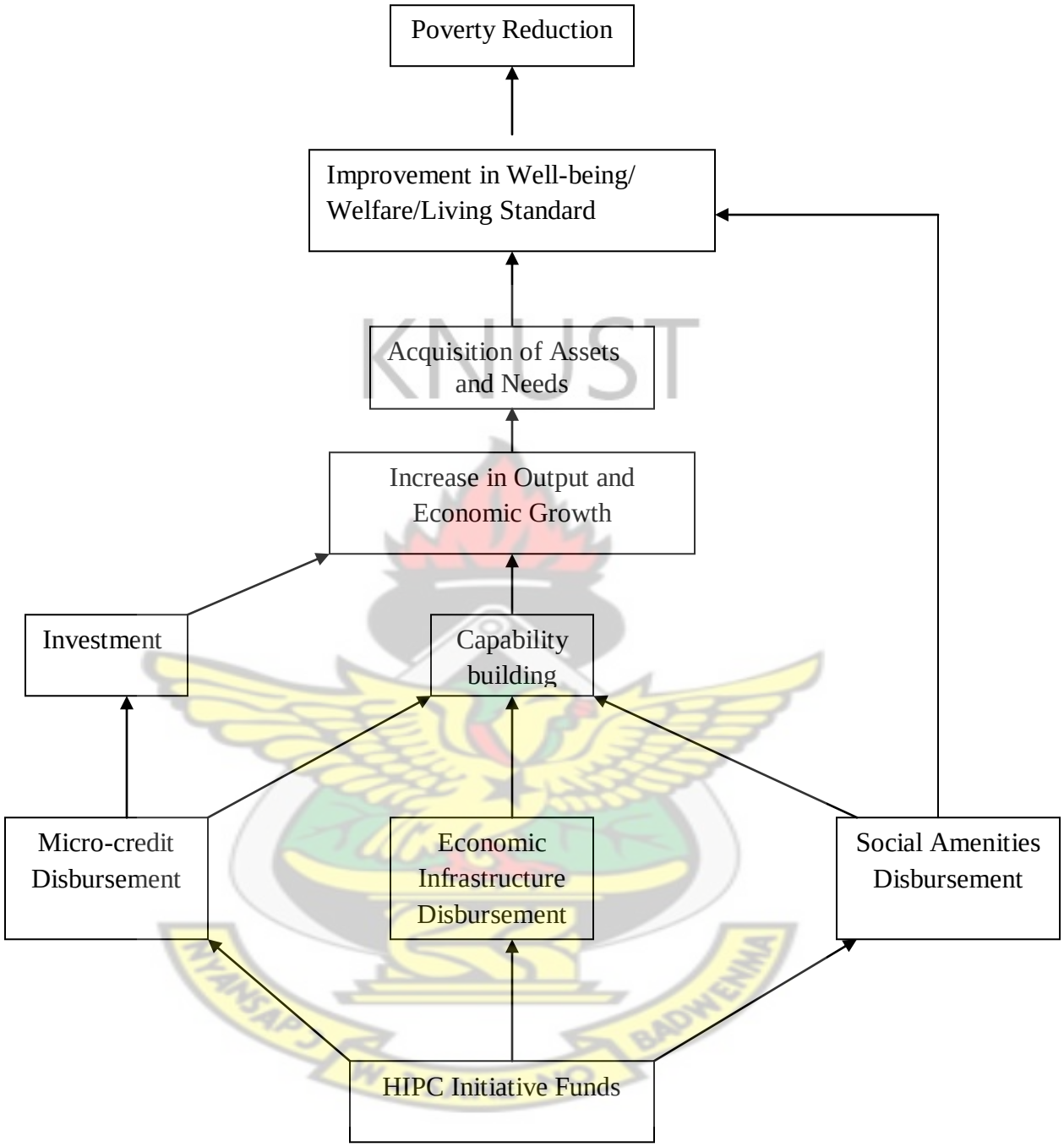
expects a negative relationship between the Regressors and infant mortality, maternal mortality, malnutrition, malaria rate, cholera cases, and guinea worm cases. As more funds are spent there would be improvement in medication, sanitation, safe water, etc that lead to fall in these outcomes.

3.2.6 The Conceptual Framework

The relationship between the HIPC initiative and poverty reduction is illustrated in the following conceptual framework (Figure 3.1). From the framework, the phenomenon of interest is HIPC Initiative Funds and the objective is Poverty Reduction of the poor in the communities where the initiative was implemented. The framework works from bottom upwards. That is the HIPC funds are disbursed to achieve poverty reduction in the country. The immediate constructs or sectors that the funds are spent include Micro-credit scheme, provision of economic infrastructure and provision of social amenities. The next levels, which are at par, are investment and capability building. This stage is followed, in upward, by; increment in production/income and economic growth; acquisition of assets and needs; improvement in well-being/welfare/living standard; and finally, poverty reduction.

The idea, according to the author, is that the HIPC funds are spent on three sectors indicated; Micro-credit scheme, provision of economic infrastructure and provision of social amenities. The micro-credit is supposed to generate investment or lead to enhance the capabilities of the recipient, which would in turn lead to increase production/income and economic growth. Investment here could be the purchase of new capital for productivity or used for expansion of business ventures. The economic infrastructure basically leads to the enhancement of capabilities of the recipient, which would also in turn lead to increase production/income and economic growth. The capabilities attributes are; Health Status, Education/Skills, Financial Control, Land, Occupation, Financial Assets, Durables, Income, Debt Servicing, Investment, Social Participation, and Political Participation. Again, part of the improvement in social services due to the expenditure on them leads to enhance capabilities and part directly on improvement in well-being/welfare/living standard. Assets and needs impact on well-being/welfare/living standard, which indicates reduction in poverty.

Figure 3.1 Conceptual Frameworks of HIPC Initiative Funds and Poverty Reduction



Source: Author's Design, 2008

3.3 Empirical Strategy

3.3.1 Sample and Sampling Technique

The unit of analysis of the estimate of the poverty incidence and change at the individual household level is the sampled households. The households' selection involved three main stages; (a) selection of districts from among 110 (b) the selection of communities from these districts and (c) the choice of households within these selected communities. For logistics and time constraints the study intended to use 6 districts from the entire country. To make these 6 districts representative the study decided to select 2 each from the northern belt (Northern, Upper West and Upper East Regions), middle belt (Ashanti, Brong-Ahafo, Volta and Western Regions) and the southern belt (Eastern, Central and Greater Accra Regions). The choice of region from which the districts were selected was based on purposive sampling method with poverty incidence of 1998/1999 as the guide. From Table 2.4 under section 2.1.3 the regions within these respective belts were Upper East, Brong Ahafo and Central regions.

Furthermore, the selection of the two districts from each of the three regions was based on convenience sampling method due to the easiness of collaboration during the reconnaissance survey. The districts that were selected included; Kassena-Nankana and Builsa districts (Upper East); Nkoranza and Wenchi districts (Brong Ahafo); and Assin and Komenda-Edina-Eguafo-Abirem districts (Central region).

Finally, in each district 10 communities (towns or villages) were selected. The researcher obtained list of communities in the district from the district assembly and randomly selected 10 since there appeared to be no significant difference in the number of communities in each district (see Appendix C). Since there were no records on the total number of communities available the researcher selected 20 households from each community based on convenient sampling method based on the household readiness to respond during the preliminary survey. This therefore gave an over-all sample size of 1,200 households for the study. Each household was given a unique identity number (H1, H2 …) on a continuous form for all the 60 communities, with their respective house number as the reference points.

In the case of the analysis on the community level and the regression analyses, the study used secondary data at district level from all the 110 districts in Ghana. On the other hand, with respect to community deprivation ratio index, the study used random sample of 120 communities from the case study districts.

3.3.2 Type and Description of Data

The study uses both primary and secondary data. The primary data were derived from household survey. Primary data include; households income, household head's age, level of education of household head, household size, and the communities status of social amenities and security system.

Data on households income were collected for the estimation of poverty indices at the household level. Income measurement was based on Ghana Living Standard Surveys (GLSS) methodology (the output approach of national income accounting; income aggregates at the household level are on the household as a producer). The study assembled all income categories; namely, wages (income from employment), income from agriculture, income from non-farm self-employment, income from rent (actual and imputed), income from net remittance, and other incomes, with their respective sub-aggregate variables. In many households there were more than one individual who was an active member of the labour force so the study added such incomes. Moreover, such individuals who undertake more than one economic activity during the year, week, or at any period of time were taken into consideration. Lastly, all these incomes received were aggregated into this final component.

For the first regression analysis of impact of HIPC on change in per capita income, secondary data were collected, which include; population of districts (districts so population was used to derive per capita as HIPC funds and the District Assemblies common funds were shared equally in order to randomize their distribution), per capita income of districts, HIPC fund to the districts, District Assembly Common fund, and District Assembly Internally Generated funds.

Also to estimate the second regression the study collected data on HIPC funds to education (basic school infrastructure, provision of furniture, supply of exercise and text books to basic

schools, capitation grant in all public basic schools, school feeding program to selected deprived schools, etc); health (primary health care, health infrastructure, etc.); water and sanitation (provision of good drinking water, waste management, water closet toilets, KVIP, etc); Micro-credit scheme; Private sector development (establishment of markets, community initiated projects and capacity building, electricity, agriculture and industrial development, etc); and Good Governance (disaster management, security, staff accommodation, strengthening capacity of departments, civic education, etc) (see Table 3.1). These data were organized on district basis for each year because the funds were usually released to the districts and were spent at district level. To arrive at the total for each district for the period, a simple horizontal summation was done. The change in the mean annual per capita incomes of households is the difference between mean per capita incomes of households in 2000 (before HIPC) and that in 2008 (after eight years of HIPC).

For the estimation of poverty incidence at community level secondary data were collected on availability of basic social amenities including; good and safe drinking water, hospital and health care facilities, emergency health facilities (drug, chemical stores and pharmacies), standard basic school, all weather road system, available security system, good sanitation system, electricity, banking and financial institutions, telephone network, post office, internet services, and community centers.

The description and valuation of variables were based on the Ghana Living Standard Survey (GLSS, 5) standardization. A community is said to have good and safe drinking water when that community has pipe-borne water or well or well protected spring but does not fetch from pond or running water. Availability of hospital and health care facilities is defined as less the 10 kilometers access to such facility. Existence of drug, chemical stores and pharmacies in the community means availability of emergency health facilities. According to GLLS 5, a cluster of basic school with BS 1-6 classroom blocks, BS 7-9 classroom blocks, set of 6 teachers for BS 1-6 and set of teachers for all subjects for BS 7-9 and set of text-books for every pupil is considered a standard basic school. All weather road system is considered as feeder roads whose surfaces are graded and vehicles are able to ply on during the raining season to transport passenger and food stuff to market centers. Availability of security system is equivalent to

existence of police post or station to the reach of the community (i.e. within less than 10 kilometers). Good sanitation system is described as the existence of public place of convenience of KVIP status and regular waste disposal system without pile ups. Any community that travels less than 10 kilometer to access banking facility is considered to possess banking and financial institution. Electricity, telephone network, post office, internet services, and community centers are considered by their existence in the community (GLSS 5).

The study also used data on outcomes of the community service delivery, namely; education, health, and water and sanitation. These data were collected for the analysis of the impact of the HIPC initiative on human development outcomes of the districts. Under education the study looked at percentage of children of school going age enrolled (enrolment), the average percentage of the school days attended by school pupils (attendance), percentage of school pupils enrolled who stay in school up to the end of the academic year (retention), percentage of pupils who start school that complete the basic level (completion rate), percentage of candidate who sat for the Basic Education Certificate Examination (BECE) who pass all subjects with at least aggregate 36 (school performance), and the percentage of adults who can read and write, and do basic arithmetic (adult literacy rate). In the case of health the outcomes that were measured included the proportion of babies who survive at birth (life expectancy at birth), the number of children per 1000 who die in a year (infant mortality), number of mothers per 1000 who die in a year (maternal mortality), number of children per 1000 who are malnourish in a year (malnutrition), the percentage of children under 5 years immunized in a year (coverage of immunization/vaccination), and percentage of mothers who give birth under supervision by health workers (delivery assistance). Under water and sanitation the study considered the percentage of reported sickness that were malaria (malaria rate), the percentage of reported sickness that were cholera (cholera cases), and number of reported guinea worm cases (guinea worm cases).

3.3.3 Sources of Data

The primary data were derived from household survey. The unit of analysis were households. Household in the analysis refers to a family that shares the same bowl, with a head.

The secondary data, on the other hand, were derived from the Ministry of Finance and Economic Planning (MOFEP), Ghana Statistical Service (GSS), Budget Statement (2000-2008), Ghana Living Standard Survey (GLSS 4 and 5), and the District Assemblies' Annual reports.

3.3.4 Techniques of Data Collection

Technique of data collection principally involved questionnaires of all kind; structural, open-ended, check list, rating, etc. The researcher, with the help of field assistants, carried out the administration of the questionnaires. This was to ensure universal retrieval of the questionnaires and also make sure that the respondents understood the questions for them to give the 'right' responses and also to get prompt responses. The questionnaires were supplemented by interviews, both formal and informal as well as focus group discussion and observations of projects implemented in the communities.

The study conducted preliminary survey in 2005 when the study began and collected baseline data on the households for 2000. This was followed up in 2008 for the final data collection on the same sampled households.

3.3.5 Method of Data Analysis

In Ghana the HIPC funds were distributed equally to the districts. The funds were spent in the districts and benefit every body in the district, depending on the programme or project they were used for. As a result the study does not have treatment and control groups. Furthermore, the study was not experimental but depended on observations of units involved. Finally, it was a retrospective study based on what had already been done. The study therefore used method with no counterfactual. Here, the most important approach was before and after, which compares the performance of key variables after the initiative with those prior to the initiative. The approach uses statistical methods to evaluate whether there was a significant change in some essential variables over the period. To take care of price changes between the two periods the values for 2000 and 2008 were assessed based on 2008 constant prices.

The study conducted five main analysis: measuring the change in poverty level of individual household by using Foster-Greer-Thorbecko (FGT) Index; measuring the change in poverty level

of the community by employing community poverty ratio (Sullivan's was modefied by the author with check-list of deprivation of basic social amenities); relating change in per capita income to HIPC funding in the form of regression analysis; relating various composition of HIPC expenditures to change in per capita income also in the form of regression analysis; and finally relating HIPC to human development outcomes;

3.3.6 Summary of Sampled Data

Table 3.1 shows the summary statistics of the variables used for the study (see details in appendices D, E, F and G). There were 110 observations for each variable, indicating the number of districts. From the table HIPC funds, District Assemblies common funds, Assemblies internally generated funds and the various expenditures on the components of HIPC were measured in million Ghana Cedis (GH¢' million). On the other hand the per capita values (HIPC funds per capita, and District Assemblies Common funds per capita) were obtained by dividing the total by the total population of the respective metropolitan, municipal and district assemblies, and were measured in Ghana Cedis (GH¢).

Table 3.1: Summary Results of Expenditure on Poverty Reduction

Variable	Mean	Std. Dev.	2001	2008
HIPC funds	131.15	79.90366	13.56	203.00
HIPC funds per capita	75.74	45.1885	19.18	340.38
District Assemblies Common funds	108.73	103.7747	23.61	345.70
District Assemblies Common funds/capita	75.48	49.8807	20.91	315.80
Assembly Internally Generated funds	1.45	2.0741	0.28	18.15
Expenditure on Education	3.34	1.5511	2.18	12.85
Expenditure on Health	2.89	1.1762	2.04	12.21
Exp. on Water and Sanitation	0.90	2.8966	0.04	20.71
Exp. on Private Sector Development	0.79	2.2382	0.33	20.76
Expenditure on Micro-credit	1.25	1.4155	0.56	12.69
Expenditure on Good Governance	0.49	0.8855	0.02	5.29
Ln of Change in mean per capita income	5.28	0.4669	3.43	6.29
	Mean	Std. Dev.	Min	Max
Incidence of Poverty in 2000 (ICPOV)	39.57	22.4671	8	99
Square of Incidence of Poverty in 2000	1560.25	26.6293	64	9801

Notes: Data include incidence of poverty in 2000 as interactive variable.

Table 3.2 shows the summary statistics of districts and sample household characteristics. The table covers the characteristics for 2000 and 2008 of 1,200 sampled households from 60 communities. Part A covers households' characteristics at district levels. From the table the mean annual income and mean per capita income of the districts were GH¢3,538.42 and 610.07, respectively for 2000 and GH¢4,764.10 and 882.24 respectively, for 2008. Part B shows the sampled household characteristics. The mean sample household income is GH¢3,535.73 and the sample household size is 5.6 in 2000 and GH¢4,755.26 and 5.5, respectively in 2008. The table also shows that the mean age of sample household was 41.1 years. Part C shows the summary statistics of the intervening variables of the sampled household.

Table 3.2: Summary characteristics of Households from District data and Sample survey

	2000		2008	
	Mean	Std. Deviation	Mean	Std. Deviation
A. Districts characteristics				
Population (in millions)	0.17	0.4422	0.21	0.4119
Households size	5.8	0.1308	5.4	0.0851
Households annual income	3,538.42	1.3743	4,764.10	0.0351
Household annual per capita income	610.07	0.4825	882.24	0.2145
B. Sampled households characteristics				
Age of household head	41.9	0.3518	48.9	0.0837
Households size	5.8	0.1735	5.5	0.2581
Household annual income	3,535.73	1.2947	4,755.26	1.0594
Access to School (Km)	3.7	2.4916	3.1	2.6218
Access to Health facility (Km)	6.5	4.9273	5.3	5.0117

C. Intervening variables (2008)	Mean	Std. Dev.	Min	Max__
Level of Education	1.09	0.5143	0	3
Working hours	9.5	0.3481	6	12
Years in job	32	2.8516	7.5	38
Leisure hours	3.2	1.5723	1	5

Table 3.3 presents the summary results of human development outcomes of districts for 2000 and 2008. Apart from guines worm cases, all other variables were in percentages. The table shows the mean percentages for all the districts in Ghana. In all case there were improvement of the outcomes from 2000 to 2008 and the differences were statistically significant at less than 1% error level.

It is glaring that enrollment, attendance, retention, completion rate, school performance, adult literacy rate, life expectancy at birth, coverage of vaccination, and delivery assistance rates incresed, while infant mortality, maternal mortality, malnutrition, malaria rate, cholera cases, and guinea worm cases dropped significantly.

Table 3.3: Summary Results of District Human Development Outcomes

	2000		2008	
	Mean	Std. Deviation	Mean	Std. Deviation
A. Education				
Gross Enrolment	86.5	0.0423	95.2	0.0521
Attendance	83.0	0.1519	96.4	0.1632
Retention	81.6	0.4081	94.5	0.3917
Completion Rate	76.1	0.2058	91.2	0.2122
Performance	65.9	0.1095	82.6	0.0985
Adult Literacy	47.0	0.2503	56.3	0.1758
B. Health				
Life Expectancy	48.0	0.0110	58.3	0.0418
Infant Mortality	54.5	0.0866	47.1	0.0935
Maternal Mortality	62.2	0.0854	51.8	0.0796
Supervisory Delivery	48.9	0.2145	65.0	0.4916
Immunization/Vaccination	70.0	0.0518	85.4	0.0837
Malnutrition	25.0	0.1735	22.4	0.1581
C. Water and Sanitation				
Malaria cases	95.3	2.4916	82.0	2.6218
Cholera cases	54.7	4.9273	41.5	5.0117
Rural Water Coverage	47.0	0.0851	54.9	0.0422
Guinea Worm cases	7,402	0.0351	501	0.0308

Source: Compiled from Metropolitan, Municipal and District Assemblies Data

3.4 Results and Discussion

3.4.1 Poverty Incidence of Individual Household

The results of the Foster, Greer and Thorbecke (FGT) Poverty Indices are shown in Table 3.4. Columns 2 and 3 present the indices for 2000 and 2008, while column 4 shows the percentage change in the indices. From the table the head count index in 2000 was 46 indicating that about 46 percent of the sample population was earning income below the poverty line income and therefore were poor. This conforms to the national poverty index for rural areas of about 45.9 at 2000. The index reduced to 37 in 2008 showing a percentage reduction of 19.57. The implication is that as at 2008 about 37 percent of the sample population was poor. That is between 2000 and 2008 the poverty rate has reduced by 19.57 percent point. These indices are found to be statistically significant at less than 5 percent level.

Table 3.4: Foster, Greer and Thorbecke (FGT) Poverty Indices

Poverty Indices	2000	2008	Percentage change
Head Count Index	46*	37*	19.57*
	(0.1053)	(0.2184)	0.0619)
Poverty Gap Index	0.34**	0.28**	17.65**
	(0.2715)	(0.5194)	(0.0961)
Squared Poverty Gap Index	0.22*	0.23**	-4.55*
	(0.4961)	(0.5143)	(0.0264)

* Significant at less than 1%, ** significant at less than 5%, and *** significant at less than 10% and numbers in parenthesis are standard errors

The next picture depicted from the table is the poverty gap index. The estimated poverty gap index for 2000 is 0.34, which gives the aggregate of 15.64 (the poverty gap index multiply by the head count rate, i.e. 0.34 x 46). This means in 2000 the aggregate income deficit (total amount required to transfer to the poor to move them above the poverty line) was GH¢5,799.47 (the aggregate poverty gap index multiply by the poverty line income i.e. 15.64 x GH¢370.81), giving an average of GH¢126.08(the average poverty gap index multiply by the poverty line income i.e. 0.34 x GH¢370.81). The poverty gap index reduced to 0.28 in 2008 indicating a reduction of 17.65 percent. This means that the aggregate income deficit and the average income deficit were reduced to GH¢3,841.59 and GH¢103.83, respectively. The implication is that the

amount required to move the poor above the poverty line between 2000 and 2008 has been reduced by 17.65 percent.

From the table the squared poverty gap index increased from 0.22 in 2000 to 0.23 in 2008 giving a percentage increase of 4.55. This implies that the inequality between the less and more poor has been widened over the period under consideration. With respect to the reduction in the head count and the poverty gap, the meaning is that it was the less poor (those closer to the poverty line) who captured greater proportion of the benefit incidence of the poverty reduction expenditures and programmes and therefore have moved out of poverty or closer to the poverty line while the poorest did not benefit from such expenditures and programmes and have become more poorer. For the poorest (hard core poor) it cannot be said that the poverty level went down for them over the period of study. The only comment is that the distribution among poverty groups was not quite 'fair' as indicated from the discussion on the squared poverty gap index. It appears the poorer and the less poor did not receive the same benefit incidence and therefore the impact on the poorer was less. This may be explained by the fact that due to lack of base line data on poverty the implementers used geographical criteria for the disbarment.

Furthermore, some of the poorest group could not access some of the HIPC programmes and projects. For example, some pregnant poor could not take advantage of the maternal free delivery due to the cost of travelling long distances. Also some could not and hence were not spending on their children education so the capitation grant and school feeding programmes did not change their income levels.

3.4.2 Poverty Incidence of Community

Table 3.5 provides the deprivation results of community social amenities. Columns 2 and 4 show the number of sampled communities lacking various social amenities in 2000 and 2008, respectively. Columns 3 and 5 depict the respective percentages of the entire sampled communities. Finally, columns 6 and 7 present the difference in number of communities lacking between 2000 and 2008, and the percentage changes.

Table 3.5: Summary of results of communities lacking social amenities for 2000 and 2008

Social Amenities	2000		2008		Difference	Percentage change
	Number of Communities lacking	%	Number of Communities lacking	%		
Good and safe drinking water	44	36.7	21	17.50	23	52.3
Hospital and Health care facilities	72	60.0	45	37.50	27	37.5
Emergency health facilities	21	17.5	9	7.50	12	57.1
Standard Basic school	43	35.8	18	15.00	25	58.1
All weather road system	76	63.3	43	35.83	33	43.4
Available security system	87	72.5	85	70.83	2	2.3
Good sanitation system	25	20.8	7	5.83	18	72.0
Electricity	46	38.3	15	12.50	31	67.4
Banking and financial institutions	66	55.0	54	45.00	12	18.2
Telephone network	75	62.5	35	29.17	40	53.3
Post office	75	62.5	75	62.50	0	0.0
Community centers	89	74.2	71	59.17	18	20.2
CPR	55.3	46.1	36.8	30.6	18.5	37.1

Source: Author's construction from field survey, 2000 and 2008. Note: For this analysis 20 communities were randomly selected from each of the 6 districts making a total of 120 communities.

From the table more than 60 percent of the communities were lacking 6 out of the 13 social amenities in 2000. For example, 82 communities, making 77.5 percent lack security system in 2000. The amenity that recorded least deprivation was emergency health facilities. The over-all community poverty ratio (CPR) was 55.3, which implies that on average in 2000 about 55 communities (46.1%) were lacking the 13 basic social amenities and therefore were poor communities.

The table indicates that the number of communities deprived of the various amenities reduced for all, except in the case of post offices. Some like good sanitation system and electricity registered reduction in deprivation as high as 72% and 67.4%, respectively. The mean percentage change between 2000 and 2008 for the amenities was 37.1. This mean community poverty rate has reduced by 37.1% over the period from 55.3 to 30.6.

The test statistics conducted indicates there was significant statistical difference between the numbers of communities deprived of social amenities in 2000 and 2008 at less than 1% error level. Hence, it can be said that with respect to the provision of social amenities in communities the HIPC initiative has done marvelously well to reduce poverty in Ghana.

3.4.3 Relationship between HIPC and Poverty Reduction

The results of the regression analysis presented in Table 3.6. The table shows three separate regression results; (1) without district poverty index, (2) with poverty index and (3) with poverty index and squared poverty index.

From Table 3.6 there is positive relationship between HIPC/capita and change in mean per capita income meaning there is positive relationship between HIPC and poverty reduction. An increase in per capita HIPC funds by 1% leads to a positive response of per capita income by about 0.18 and therefore response of poverty reduction by that margin. The responsiveness even increases as the national poverty index fixed factor was introduced but responses less as squared poverty incidence was added.

From students''t' test the coefficient of the HIPC per capita funds was found to be statistically significant at less than 1% error level. The coefficients of the district assembly's common funds per capita and generated funds were also found to be statistically significant. However, when the squared poverty index was added the coefficients were found not statistically significant indicating that depth of poverty was not basis of the various expenditures. Hence, the study ignores squared poverty incidence as a regressor in the model. Furthermore, student t test of equality indicates that among the funds ear-marked for poverty reduction at the district levels the coefficient of HIPC was the highest, followed by that of internally generated funds and then the

district assembly's common funds. Household size of the district had the correct sign for all the three regression results but they were found not statistically significant. This means that the household size does not impact on poverty reduction.

Table 3.6: Results of Regression of Impact of HIPC on Change in mean Per Capita Income

Independent Variable:	Ln of Change in Mean Per Capita Income of Districts		
	(1)	(2)	(3)
HIPC funds/capita	0.183***	0.241***	0.027
	(0.002)	(0.002)	(0.013)
District Assemblies Common funds/capita	0.125***	0.194***	0.097
	(0.022)	(0.005)	(0.068)
District Assemblies Internally Generated funds	0.128***	0.226***	0.101
	(0.003)	(0.003)	(0.024)
Mean Household Size	-0.071	-0.066	-0.068
	(0.430)	(0.064)	0.073
District Poverty Index		0.009***	0.044
		(0.003)	(0.011)
District Poverty Index^2			0.000
			(0.000)
Constant	4.728	4.913	3.314
	(0.255)	(0.255)	(0.530)
R Square	0.692	0.716	0.731
Adjusted R Square	0.675	0.693	0.710
F Change	5.052	5.032	5.016
Sig. F Change	0.036	0.007	0.000
Variance Inflation Factor (VIF)	1.01-3.41	1.28-3.42	1.51-42.45

* Significant at less than 10%, ** significant at less than 5%, and *** significant at less than 1% based on t test and numbers in parenthesis are standard errors.

Table 3.6 also indicates R^2 of 0.692 and 0.716 for the first and second regressions respectively. These show that at least the independent variables (poverty expenditures) put together explains 69% of changes in mean per capita income. This was found to be statistically significant by 3.6% error from significance of F change of 0.036. Finally, from the Variance Inflation Factor (VIF) of

1.01 – 3.41 and 1.28 – 3.42 for the two regressions, the study concludes that the problem of multicollinearity among the expenditure was not strong and it could be ignored (according to Guajarati when VIF is less than 10 it means that multicollinearity problem is insignificant and can be ignored).

The general conclusion, however, is that per capita income has significant positive response to the HIPC initiative. Hence, HIPC initiative has significant positive relationship with poverty reduction in the country.

3.5.4 Relationship between Components of HIPC Funds and Poverty Reduction

Table 3.7 shows the results of the regression of change in mean per capita income on the components of expenditures of the HIPC funded programmes.

The table presents three regression results indicated by 1, 2, and 3 for three different groups of explanatory variables; the covariate, covariates with poverty incidence of 2000 as interactive variable, and covariates with poverty incidence and the square of poverty incidence as interactive variables. In all the first two regressions education, health, and water and sanitation coefficients (the responsiveness of change in mean per capita income) have correct signs, i.e. positive (the third regression is ignored as none of the coefficients were found statistically significant). The other three variables; private sector development, micro-credit and good governance have negative coefficients. The results further show that in the first two regressions the coefficients of education tend to be the highest, followed by health and finally water and sanitation. Furthermore, the table revels that the coefficients of education was statistically significant at less than 5% while water and sanitation was significant at less than 1% error level and health at less than 10% error level. All the regressions have over-all goodness of fit at less than 5% error level. However, they have low coefficient of determination (R-square of 0.565, and 0.616). This implies that the regressor explain 56.6% and 61.6% of variations in change in the mean per capita income.

Table 3.7: Regression results of relative impact of the components of HIPC funds

Dependent Variable: Ln of Change in Mean per Capita Income	Coefficients		
	(1)	(2)	(3)
HIPC Expenditure on Education (TEF)	0.124**	0.147**	0.192
	(0.071)	(0.076)	(0.067)
HIPC Expenditure on Health (THF)	0.100*	0.109*	0.125
	(0.125)	(0.085)	(0.075)
HIPC Expenditure on Water and Sanitation (TWSF)	0.069***	0.102***	0.107
	(0.057)	(0.055)	(0.053)
HIPC Expenditure on Private Sector Development (TPDF)	-0.078	-0.075	-0.072
	(0.038)	(0.036)	(0.035)
HIPC Expenditure on Micro-credit (TMCF)	- 0.005	-0.007	-0.002
	(0.144)	(0.140)	(0.134)
HIPC Expenditure on Good Governance (TGGF)	-0.221	-0.267	-0.298
	(0.128)	(0.110)	(0.119)
Mean Household Size		-0.053	-0.036
		(0.105)	(0.102)
Incidence of Poverty in 2000 (ICPOV)		0.947**	0.054
		(0 .364)	(0.011)
Square of Incidence of Poverty in 2000 (SQICPOV^2)			0.000
			(0.016)
Constant	4.617	4.617	3.059
	(0.241)	(0.390)	(0.508)
R Square	0.565	0.616	0.317
Adjusted R Square	0.543	0.593	0.263
F Change	5.397	5.032	5.863
Sig. F Change	0.003	0.007	0.000
Variance Inflation Factor (VIF)	1.23-7.09	1.28-8.42	4.22-40.64

* Significant at less than 10%, ** significant at less than 5%, and *** significant at less than 1% and numbers in parenthesis are standard errors

The results imply that HIPC expenditure on education, health and water and sanitation have positive relationship with change in per capita income and hence poverty reduction. This implies that when more money is spent on these programs poverty levels in the country will be reduced. For example, GH¢1million of HIPC funds spent on education, health and water and sanitation will increase per capita income by about 34.27%, 30.19% and 26.49%.

Basically, this may be attributed to the expenditures on school feeding and capitation grants. The moneys the household should have paid were retained and used for other things including investment into business to generate further incomes. The next important program was health. This also helps to improve the well-being of households which in turn enhances the labour productivity of the households and hence the increase in the per capita income. Also, expenditure on water and sanitation improves the health status of the households and their labour productivity, as well as conserve money that they would have spent on health care. These therefore help to increase the per capita income of the households.

Interestingly, HIPC expenditures on private sector development, micro-credit and good government rather reduce per capita income and therefore increase poverty in the country. The explanation to this relationship may be in three folds; first, the programs include; disaster management, staff accommodation, logistical support, project management, provision of market, road, ICT, tourism, sports, culture, community initiative projects, and capacity building. These programs might not be what the poor needed and therefore did not patronize. Secondly, they might have been provided generally without reference to the poor and hence the benefits were captured by the non-poor or the less poor. Finally, these programs might have long term effects on poverty reduction whose impact cannot be immediately felt.

The greatest concerned was expenditure on micro-credit which was also negatively related to change in per capita income. This finding is contrary to the work of Osei-Fosu (2008) on the impact of HIPC initiative fund micro-credit on poverty reduction. His study revealed that poverty incidence of beneficiary of the micro-credit reduced more than the control samples (those who did not benefit from the micro-credit). This may be explained that many of the poor did not benefit from the micro-credit and lend credence to the reason why there was increase in the squared poverty gap index. The impression is that the micro-credit was captured by the non-poor, due to the conditions required to access the micro-credit. It was explained by the district assemblies and households that prospective beneficiary should have an on-going business, belong to a group, and may show evidence of the ability to pay back the loan. It is inclined to believe that many of the poor might have been denied as they lack such conditions.

The table also indicates that there are no problems of autocorrelation and multicollinearity with Durbin-Watson statistics of 1.57 and 1.545, and Variance Inflation Factor of 1.23-7.09 and 1.28-8.42. Hence the regression has goodness of fit.

3.5.5 Relationship between HIPC and Human Development Outcomes

The results of the regression analysis are shown in Table 3.8. There were 15 regression results with 4 explanatory variables each.

The table shows that all the explanatory variables (HIPC funds per capita, District Assemblies common funds per capita, internally generated funds, and the MPs common funds per capita) in each regression had correct signs. Enrolment, attendance, retention, completion rate, school performance, adult literacy rate, life expectancy at birth, coverage of vaccination, and delivery assistance as respective dependent variables have positive relationship with the explanatory variables, while infant mortality, maternal mortality, malnutrition, malaria rate, cholera cases, and guinea worm cases as respective dependent variables had negative relationship with the explanatory variables. This implies that the various expenditures in the districts had positive impact on human development outcomes and poverty reduction.

However, in comparison, HIPC funds per capita as independent variable has the highest and statistically significant impact on the human development outcomes, except in the case of school performance, adult literacy rate and malaria cases. These exceptional cases might be explained by the fact that the outcomes do not necessarily related to poverty. Hence, it can be concluded the HIPC initiative has significant positive relationship with human development outcomes and therefore has significant relationship with poverty reduction in Ghana.

Table 3.8: Results of Regression of Impact of HIPC on Human Development Outcomes

Independent Var.:	Human Development Outcomes of Districts					
A. Education	Enrolment	Attendance	Retention	Completion	Performance	Literacy
HIPC funds/capita	0.6374***	0.3719**	0.3580*	0.0180*	0.0092	0.0013
	(0.1072)	(0.1108)	(0.1065)	(0.1486)	(0.1327)	(0.1339)
DAcf/capita	0.0710	0.0095	0.0026	0.0091	0.0075	0.0056
	(0.2049)	(0.3206)	(0.3367)	(0.3650)	(0.4216)	(0.3514)
Igf	0.0195	0.0153	0.0031	0.0021	0.0075	0.0039
	(0.1538)	(0.3372)	(0.4108)	(0.2848)	(0.3355)	(0.4077)
MPcf/capita	0.0554	0.0109	0.0092	0.0099	0.0045	0.0072
	(0.4768)	(0.3406)	(0.4380)	(0.3518)	(0.3425)	(0.3383)
Constant	15.0596	12.8524	13.0620	8.1584	10.0217	13.0053
	(3.0527)	(3.1860)	(5.0389)	(5.0117)	(3.4066)	(4.0068)
B. Health	Life Exp	Infant Mort	Mat Mort	Delivery As	Vaccination	Malnutrition
HIPC funds/capita	- 0.1856**	-0.3051**	-0.2966**	0.8045***	0.3307**	-0.06632*
	(0.1099)	(0.1846)	(0.1475)	(0.1493)	(0.1378)	(0.1341)
DAcf/capita	-0.0534	-0.0822	-0.0673	0.0746	0.0684	-0.0931
	(0.2668)	(0.2537)	(0.2979)	(0.2655)	(0.3165)	(0.3802)
Igf	- 0.3281	-0.4526	-0.5003	0.0021	0.0075	-0.0039
	(0.3546)	(0.3819)	(0.4538)	(0.2991)	(0.4575)	(0.2267)
MPcf/capita	-0.0743	-0.0558	-0.0923	0.0689	0.0721	-0.0499
	(0.3122)	(0.5676)	(0.3054)	(0.3288)	(0.3925)	(0.5701)
Constant	-36.1167	-33.4133	-35.162	32.0563	30.9056	-33.4487
	(15.1248)	(14.3764)	(15.8450)	(15.2298)	(18.7305)	(14.1355)
C. Water/San	Malaria cases		Cholera cases		Guinea worm cases	
HIPC funds/capita	-0.0156		-0.3569***		-0.8307***	
	(0.0253)		(0.0475)		(0.0138)	
DAcf/capita	-0.0277*		-0.0933*		-0.0981*	
	(0.1763)		(0.2286)		(0.1743)	
Igf	-0.0823*		-0.0891*		-0.0659*	
	(0.3045)		(0.3084)		(0.3378)	
MPcf/capita	-0.0198		-0.0886		-0.0845	
	(0.4208)		(0.5331)		(0.3740)	
Constant	-14.6603		-15.0987		-13.7499	
	(14.2265)		(14.8432)		(15.6940)	

* Significant at less than 10%, ** significant at less than 5%, and *** significant at less than 1% and numbers in parenthesis are standard errors

The test statistics of each regression results in Table 3.8 are shown in Table 3.9.

Table 3.9 Test Statistics of Results from Table 3.8

Independent Variable	R^2	R Adjusted	F	Sig of F	VIF
Enrolment	0.705	0.682	5.227	0.033	1.01-2.14
Attendance	0.558	0.541	5.185	0.042	1.28-3.54
Retention	0.473	0.419	5.729	0.005	1.23-3.42
Completion	0.500	0.479	5.201	0.075	1.06-2.95
Performance	0.490	0.437	5.720	0.064	1.32-3.66
Literacy	0.211	0.207	5.623	0.285	1.27-3.67
Life Expectancy	0.349	0.334	5.571	0.350	1.21-2.54
Infant Mortality	0.298	0.266	5.558	0.163	1.23-3.55
Maternal Mortality	0.428	0.386	5.626	0.074	1.13-3.63
Delivery Assistance	0.709	0.690	5.920	0.009	1.16-3.95
Vaccination	0.732	0.704	5.735	0.002	1.06-2.62
Malnutrition	0.544	0.517	5.418	0.009	1.25-3.45
Malaria cases	0.263	0.225	5.284	0.074	1.33-3.96
Cholera cases	0.622	0.608	5.830	0.005	1.38-3.44
Guinea worm cases	0.738	0.713	5.562	0.001	1.05-2.45

Source: Table 3.8

From Table 3.9 eight of the dependent variables (enrolment, attendance, completion rate, coverage of vaccination, delivery assistance, malnutrition, cholera cases, and guinea worm cases) have R^2 above 0.5, indicating they have goodness of fit. This means that the regressor explain more than 50% of the variations in their respective independent variables. The significance of the F changes for these entire variables is less than 5% error level. In the other seven independent variables (retention, school performance, adult literacy rate, life expectancy at birth, infant mortality, maternal mortality, and malaria rate cholera) R^2s were less than 0.5. This indicates that the regressors explain less than 50% of the variations in their respective independent variables. There may be other variables that are responsible to the variations in their respective independent variables. On the other hand in all the 15 cases there were no problems of autocorrelation and multicollinearity. This is shown by the variance inflation factor (VIF) of less than 10.

3.6 Conclusion

This essay investigates the impact of the HIPC initiative on poverty reduction on both the individual and the community. The essay conducted five main analysis: measure of incidence of

poverty of individual household by the Foster-Greer-Thorbecke (FGT) Index; measure of incidence of poverty of community employing community poverty ratio; finding the relationship between HIPC and poverty reduction with OLS regression analysis; the relationship between the various compositions of HIPC expenditures and poverty reduction in the form of regression analysis; and finally the relationship between HIPC and human development outcomes also in the form of regression analysis.

The study found that over the period of study (2001-2008) per capita income has increased and hence poverty incidence has reduced. Again, the proportion of income required to move the poor above the poverty line has reduced. With respect to the community, the level of deprivation to social amenities reduced over the period indicating that community poverty also went down. It also came out that there was improvement in human development outcomes; school enrolment, attendance, retention, completion rate, school performance, adult literacy rate, life expectancy at birth, coverage of vaccination, and delivery assistance increased over the period while infant mortality, maternal mortality, malnutrition, malaria rate, cholera cases, and guinea worm cases went down.

The analyses in the essay also revealed that the increase in per capita income is positively related to the HIPC initiative funded programmes and statistically significant implying that the reduction in poverty over the period under study can significantly be attributed to the HIPC initiative. Furthermore, the study found that the most effective programme to poverty reduction was education, which was followed by health and water and sanitation. This means that when funds are spent on these programmes and projects, the rate of poverty will fall.

Furthermore, the study found that the improvement in the human development outcomes significantly related to HIPC initiative funds, except in the case of school performance, adult literacy rate and malaria cases.

It however found that over the period the intensity of poverty (inequality among the poor) increased implying that the HIPC initiative appears not pro-poorest. This means that greater proportion of the benefit incidence of the initiative was captured by the less poor or the non-

poor. Also, some of the programmes; micro-credit, private sector development and good governance were poorly implemented.

The general conclusion is that the HIPC initiative funds and the strategy adopted have helped to reduce poverty at both the individual and community levels and therefore the strategies used under the initiative has the potentials for poverty reduction in Ghana in future if the recommendations outlined in section 6.3 would be adhered to.

ESSAY TWO

THE HEAVILY INDEBTED POOR COUNTRIES (HIPC) INITIATIVE MICRO-CREDIT AND POVERTY REDUCTION IN GHANA: A PANACEA OR A MIRAGE?

4. 1 Theoretical Link between Microcredit and Poverty reduction

The analysis in the first essay reveals that the HIPC initiative has significantly impacted positively on poverty reduction. However, assessing the relative importance of the various HIPC expenditures on poverty reduction revealed that micro-credit has insignificant impact on poverty reduction in Ghana. Available literature on the other hand indicates that microcredit is sin-qua-non to poverty reduction.

Microcredit has become an important instrument for poverty reduction in developing countries today. In many developing economies lack of savings and capital make it difficult for many poor to engage in self-employment and undertake productive employment-generating activities (Khandker, 1998). The widely held argument in the development economics literature is that formal credit markets tend to fail the poor due to the collateral requirements that the poor cannot satisfy and due to the belief that the incentives to repay for the poor are limited given the associated asymmetric information and high monitoring costs of micro individual borrowers (Ray, 2004). Often, the poor rely on informal financial markets such as moneylenders and rotating savings and credit associations that have simpler terms of credit. However, the high cost of credit from the informal sector implies that the poor cannot gainfully invest in productive income-increasing activities. Interest rates charged by moneylenders in developing countries are several times higher than those in the formal financial market. For instance, Chipeta and Mkandawire (1991) observe that interest rates in the informal financial market in Malawi range from 300 to 1200 percent per annum, much higher than the interest rates in the formal financial sector. Coleman (1990) also notes that moneylenders in developing countries often charge annual interest rates of more than 100 percent.

Theoretically, microcredit is considered to be an essential input to increased productivity, especially agriculture. Microcredit enables the poor to overcome their liquidity constraints and undertake investments. It helps the poor to acquire inputs and land, employ labour, and improve farm technology, which lead to increased agricultural productivity. Furthermore, microcredit

helps the poor to smooth out their consumption patterns during the lean period which enables them to maintain their productive capacity (Khanbker, 1998). It is also argued that improved consumption is an investment in the productivity of the labour force (World Bank, 1989).

From another perspective, Diagne and Zeller explained that access to microcredit affects welfare outcomes by alleviating the capital constraints on agricultural household, hence enabling the poor with little or no savings to acquire agricultural inputs. This reduces the opportunity costs of capital intensive assets relative to family labour. This therefore encourages the adoption of labour saving, high-yielding technologies and then increasing land and labour productivity (Diagne and Zeller, 2001).

There is a general agreement in the literature that most microfinance have helped to reduce poverty. For example, the United Nations General Assembly, in its resolution 52/194 of 18 December 1997, noted that, in many countries microcredit programmes have proved to be an effective tool in freeing people from poverty and have helped to increase their participation in the economic and political processes of society. Among other provisions, the Assembly called upon the relevant organs, organizations and bodies of the United Nations system, in particular its funds and programmes and the regional commissions, as well as relevant international and regional financial institutions and donor agencies involved in the eradication of poverty, to explore including the microcredit approach in their programmes as a tool for the eradication of poverty. The assembly requested the Secretary-General, in collaboration with relevant organizations of the United Nations system, including funds and programmes and the World Bank, to submit to it at its fifty-third session a report on the role of microcredit in the eradication of poverty (Report of the Secretary General, 1997).

The World Summit for Social Development, held in Copenhagen in March 1995, also underlined the importance of improving access to credit for small rural or urban producers, landless farmers and other people with low or no income, with special attention to the needs of women and disadvantaged and vulnerable groups. Governments were called upon to review national legal, regulatory and institutional frameworks that restrict the access of people living in poverty, especially women, to credit on reasonable terms; to promoting realistic targets for access to

affordable credit, providing incentives for improving access to and strengthening the capacity of organized credit systems to deliver credit and related services to people living in poverty and vulnerable groups; and to expanding financial networks, building on existing networks, promoting attractive opportunities for savings and ensuring equitable access to credit at the local level (Report of the Secretary General, 1997).

Robinson says that the potential of microfinance to reach large numbers of the poor is now well understood. It is therefore being promoted as a key development strategy for promoting poverty eradication and economic empowerment (Robinson, 2001). According Sheraton micro-credit has the potential to effectively address material poverty, the physical deprivation of goods and services and income; to attain them by granting financial services to households who are not served by the formal banking sector (Sheraton, 2004). Microfinance institutions could play a pivotal role in meeting the financial needs of both households and micro enterprises. Traditional financial institutions have failed to provide adequate saving and credit services to the poor, and microfinance institutions and programmes have developed over the years to fill this gap. On the supply side microfinance could be the best instrument to bring about poverty eradication by loosening constraints on capital, opening up doors for investment, smoothening consumption over time and meeting emergency liquidity needs. On the demand side microfinance institutions could mobilise poor people's savings and enable them to accumulate interests on their deposits (United Nations, 1997).

The material benefits of micro-financing can extend beyond the household into the community. At the personal level, microfinance can effectively address issues associated with "non-material poverty, which includes social and psychological effects that prevent people from realizing their potential. The Secretary-General of the United Nations on his request to report to the General Assembly on the subject of microcredit in the broader context of the international fight against poverty highlights the strengths and weaknesses of the micro-lending approach from which some conclusions about the future course of action were drawn. The report recognizes the fact that, while access to credit and savings facilities is crucial, it is usually not enough by itself to ensure the sustainable development of the rural poor, who also need links to an efficient distribution system for their productions, including viable roads to market places, access to appropriate

technology, technical training, fair prices for inputs and a favourable regulatory climatic (United Nations, 1997).

According to Bakhtiari (2006) micro-finance has proven to be an effective tool for poverty reduction. He argues that microfinance can be considered an important element for an effective poverty reduction strategy. It shows that access and efficient provision of microcredit can enable the poor to smooth their consumption, better manage their risks, gradually build their assets, develop their micro enterprises, enhance their income earning capacity, and enjoy an improved quality of life. Microfinance services can also contribute to the improvement of resource allocation, promotion of markets, and adoption of better technology; thus, microfinance helps to promote economic growth and development.

Latifee (2003) concluded that Poverty reduction is undoubtedly a doable proposition. It can be significantly and rapidly reduced with Grameen type micro-credit programs provided; required funds are available to the nascent micro-credit industry at reasonable costs; a professionally, competent and motivated staff is engaged in performing the operational tasks; the communication or knowledge gap between donors and practitioners is minimized; the gap between words and deeds, assurances and actions, is narrowed down; and an enabling environment is created by removing the obstacles that stand in the way of growth of micro-credit industry. It is against this background that this essay seeks to investigate the impact of the HIPC micro-credit on poverty reduction.

This general view was manifested in the Heavily Indebted Poor Countries (HIPC) Initiative. Part of the HIPC funds was given out in the form of micro-credit to poor households to help reduce their poverty situation. The HIPC funds were used generally in the country or districts on poverty reduction programmes and projects. However, the micro-credit component was the only part that was given directly to support the poor households. The District Assembly upon receiving the HIPC funds gives some amount, which differ from assembly to assembly, depending on the priority of the assembly, to the Microfinance and Small Loan Centre (MASLOC) for onward distribution to the poor in the form of loan groups. The loan groups constitute the poor who are related or have mutual interest or in similar occupation. The size of the groups ranged from five

to about fifteen. Each group is then given an amount based on the number of people in the group and the purpose for which the loan was applied for. Once the total amount was given the group members shared it equally and all the group members were mutually responsible for the repayment of the total amount plus the interest at the end of the stated date.

This leads to the questions; was the HIPC micro-credit panacea or mirage? Who were the beneficiaries of the HIPC micro-credit? What were the challenges of the HIPC micro-credit? To address these questions it was necessary to assess the impact of the micro-credit separately by comparing the poverty situations of the beneficiaries with non-beneficiaries of the HIPC micro-credit between 2000 and 2008. It was also necessary to investigate the benefit incidence of the micro-credit. The basic hypothesis tested was; the HIPC initiative micro-credit has reduced level and intensity of poverty in the beneficiary communities. The outcome would be a guide to policy makers about the distribution of micro-credit (microfinance) funds in future for poverty reduction.

4.2 Empirical Strategy

The unit of analysis was the sampled households. The study purposively selected 50 beneficiaries and 50 non-beneficiaries of the HIPC micro-credit from each of the six districts, based on the list obtained from Microfinance and Small Loan Centre (MASLOC). In all, 600 households were used for the analysis (for sample selection see section 3.2.1).

The study uses both primary and secondary data. The primary data were derived from household survey. The primary data was basically households income. The income measurement was based on Ghana Living Standard Surveys (GLSS) methodology (see section 3.2.2). Secondary data included data on micro-credit from Microfinance and Small Loan Centre (MASLOC).

Technique of data collection is explained in details under section 3.2.4. The study used treatment (beneficiaries) and control (non-beneficiaries) groups. The two groups; treatment and control had the similar characteristics in terms of occupation, income levels, and poverty status at the time of selection. The difference was that the target group received the credit and the control group did not receive it. The study conducted two main analysis: measuring the change in poverty level of

individual household by using Foster-Greer-Thorbecko (FGT) Index and comparing the indices of the treatment (beneficiaries) and control (non-beneficiaries) groups between 2000 and 2008; and the measure of benefit incidence of the disbursement of the micro-credit.

4.3 Summary of Sampled Data

Table 4.1 shows the composition of the HIPC expenditures by area (rural and urban) and the household characteristics from author's field survey. From the table more of the HIPC micro-credit funds were spent in the urban areas than in the rural areas. The total amount spent on the micro-credit in rural areas was GH¢1.42 million (30.87%) as against GH¢3.18 million (69.13%) in urban area. Part B also shows the household income and size of urban and rural areas. The mean household's income was GH¢2.29 and GH¢1.90 for urban and rural respectively, and mean household sizes were 4.7 and 6.6 for urban and rural respectively.

Table 4.1: Summary of Composition of HIPC Micro-Credit by Area and Household Data

Variables	HIPC Micro-Credit (in GH¢' million)		
	Rural Area	Urban Area	Total
A. HIPC Micro-Credit			
Amount of credit disbursed	1.42	3.18	4.60

	Rural Area		Urban Area	
	Mean	Std Deviation	Mean	Std Deviation
B. Household Characteristics				
Incomes	1.90	0.4422	2.29	0.4119
Household Size	6.5	0.1308	4.7	0.0851
Number of observation	300		300	

Note: This table gives the composition of HIPC Micro-Credit and the household characteristics by area from author's field survey.

4.4 Theoretical Framework

4.4.1 Assessing the Impact of the HIPC micro-credit on Poverty Reduction

To determine whether or not there was any significant differences in the impact of the HIPC micro-credit on the poverty situation of the beneficiaries and non-beneficiaries over the implementation period the study employed the Foster-Greer-Thorbecke (FGT) Index (outlined in essay one, sub-section 3.3.1).

The study compared the poverty indices of the beneficiaries and the non-beneficiaries of the HIPC micro-credit for 2000 and 2008 in each of the six districts under the study.

4.4.2 Benefit Incidence Analysis of the HIPC micro-credit

This analysis tells us who benefited from the HIPC micro-credit, and describes the welfare impact on different groups of people or individual households of such spending. It does this by combining information about the amount of credit that were given out (obtained from the Microfinance and Small Loan Centers of the Social Welfare data) with information on the use of these services (usually obtained from the households themselves through a sample survey). In effect, the analysis imputes to those households enjoying a particular programme the cost of providing that service. This imputation is the amount by which household income would have to increase if it had to pay for the programme used, Demery (2003). Two benefit incidence analysis methods were used; the Standard (Average) Incidence Analysis and the Marginal Incidence Analysis.

Standard (Average) Benefit Incidence Analysis

The HIPC micro-credit can be formally written as:

$$x_j \equiv \sum M_{ij} \frac{S_i}{M_i} \equiv \sum \frac{M_{ij}}{M_i} S_i \qquad 1$$

where x_j is the share of the micro-credit that benefits income group j, S and M refer respectively to the amount of HIPC funds and the number of beneficiaries, and the subscript i denotes the number of loan groups. The benefit incidence of total HIPC micro-credit imputed to group j is given by the number of beneficiaries from the group (M_j) times the unit amount given to each member in the loan group. Note that S_i / M_i is the mean unit amount of HIPC micro-credit to loan group i.

The share of total amount of the HIPC micro-credit imputed to group j (x_j) is:

$$x_j \equiv \sum_{i=1}^{n} \frac{M_{ij}}{M_i} \left(\frac{S_i}{S} \right) \equiv \sum_{i=1}^{n} m_{ij} s_i \qquad 2$$

It can be seen that this depends on two major determinants:

• The $m_{ij}'s$ ($m_{ij} = \frac{M_{ij}}{M_i}$), which are the shares of the income group in total HIPC micro-credit, which reflect household behavior.

• The s_i ($s_i = \frac{S_i}{S}$) is the shares of HIPC spending across the different types of programmes, reflecting government behavior.

Marginal Benefit Incidence Analysis

This measures the share of public expenditure on poverty reduction programmes that goes to each quintile of the poverty groups. That is whether or not the poverty reduction programme benefits are captured by the poor. Two estimates are done under this model; the Average Odds-ratio of Participation (AOP) and the Marginal Odds-ratio of Participation (MOP).

The average odds-ratio of participation for each quintile (20%) is given as the ratio of the quintile-specific average participation rate, the m_{ij} (equation 2) to the overall average participation rate (the rate of participation of the sample surveyed in each poverty reduction program *i*). The overall average participation rate is given by;

$$e_{ih} = \frac{M_i}{M_h} \qquad 3$$

where, M_h is the total number of households in the sample surveyed and M_i is as defined above.

The average odds-ratio of participation (AOP) for quintile *j* of programme *i* is given as;

$$AOP_{ij} = \frac{m_{ij}}{e_{ih}} \qquad 4$$

Lanjouw and Ravallion (1999) defined marginal odds-ratio of participation as the increment to the programme participation rate of a given quintile associated with a change in aggregate participation in that programme. It is the regression of the quintile-specific participation rate across all areas on the average participation rate for each programme, using an ordinary least squares. The MOP model is given by;

$$MOP_{ij} = m_{ih} = \alpha_{ij} AOP_{ij} + \mu_i \qquad 5$$

4.5 Results and Discussion

4.5.1 Assessing the Impact of the HIPC micro-credit on Poverty Reduction

The results of the Foster, Greer and Thorbecke (FGT) Poverty Indices are shown in Table 4.2 Panels A, B and C represent Head Count Index, Poverty Gap Index and Squared Poverty Gap for 2000 and 2008, and their respective percentage changes for the six districts. Under each district there are indices for beneficiaries and non-beneficiaries.

From Table 4.2 the head count index in 2000 was 50 for both beneficiaries and non-beneficiaries in Kassena-Nankana and Builsa districts indicating that all the targeted households in these districts used by the study were sample population who were earning income below the poverty line income and therefore were poor. In the cases of Nkoranza, Wenchi, Assin and KEEA the Head Count Indices were 45, 46, 48 and 49, respectively for both beneficiaries and non-beneficiaries representing 90%, 92%, 96% and 98%, respectively.

Table 4.2: Foster, Greer and Thorbecke (FGT) Poverty Indices for Micro-Credit

Poverty Indices		Kassena Nankana		Builsa		Nkoranza		Wenchi		Assin		KEEA	
		Ben	Non	Ben	Non	Ben	Non	Ben	Non	Ben	Non	Ben	Non
A	2000	50	50	50	50	45	45	46	46	48	48	49	49
HCI	2008	36	45	41	49	32	43	34	45	38	47	40	48
	% Δ	28	10	18	2	28	4	26	2	21	2	18	2
B	2000	0.21	0.21	0.22	0.22	0.19	0.19	0.18	0.18	0.20	0.20	0.21	0.21
PGI	2008	0.14	0.19	0.15	0.21	0.13	0.17	0.13	0.16	0.15	0.18	0.16	0.20
	% Δ	33	10	32	5	32	11	28	11	25	10	24	5
C	2000	0.15	0.15	0.17	0.17	0.13	0.13	0.14	0.14	0.16	0.16	0.15	0.15
SPG	2008	0.09	0.13	0.11	0.16	0.06	0.12	0.08	0.12	0.09	0.14	0.07	0.14
	% Δ	40	13	35	6	54	8	43	14	44	13	53	7

Note: HCI = Head Count Index, PGI = Poverty Gap Index, SPG = Squared Poverty Gap, KEEA= Komenda-Edina-Eguafo-Abirem District, Ben = Beneficiaries and Non = Non-beneficiaries of HIPC micro-credit.

In 2008 the Head Count Indices for the beneficiaries dropped to 36, 41, 32, 34, 38 and 40 for Kassena-Nankana, Builsa, Nkoranza, Wenchi, Assin and KEEA, respectively, representing 72%, 82%, 64%, 68%, 76% and 80%, respectively. By implication, the Head Count Indices of the beneficiaries reduced by 28%, 18%, 28%, 26%, 20% and 18% for Kassena-Nankana, Builsa, Nkoranza, Wenchi, Assin and KEEA, respectively. On the other hand, the Head Count Indices of the non-beneficiaries only reduced slightly to 45, 49, 43, 45, 47 and 48 for Kassena-Nankana, Builsa, Nkoranza, Wenchi, Assin and KEEA, respectively. This indicates that as at 2008 over 90% of the non-beneficiaries sample population were earning income below the poverty line income and therefore were poor. The reduction in the Head Count Index among the non-beneficiaries sample population was between only 2% - 10%.

The results in the table reveal that there is significant reduction in the Head Count Indices between 2000 and 2008 for the beneficiaries targeted sample population as against the non-beneficiaries targeted sample population. This was confirmed by a two-sample equal variance student t-test of significance at 5 percent error level. There was a significant difference, with a probability value of 0.000253 (less than 0.025% error) between beneficiaries and non-beneficiaries in 2008 for the poverty indices of the districts. Meanwhile the poverty indices of the beneficiaries and non-beneficiaries in 2000 were the same. Also, from the t-test there was significant difference in the HCI of beneficiaries between 2000 and 2008 (less than 0.0028% error). However, there was no significant difference in the HCI of non-beneficiaries between 2000 and 2008 (probability value of 0.0663, i.e. more than 5% error). The conclusion is that the HIPC micro-credit has significantly reduced the proportion of the beneficiary population who were below the poverty line than the non-beneficiaries sample and therefore it has impacted positively on poverty reduction of those who benefited from the credit.

Panel B of Table 4.2 portrays the Poverty Gap Indices of the six districts and their respective percentage decrease between 2000 and 2008 for the two groups of households. One interesting revelation is that the Poverty Gap Indices, the proportion of income needed to move the poor above the poverty line, in 2000 were the same for both the beneficiaries and non-beneficiaries targeted sample population. The Poverty Gap Indices were 0.21, 0.22, 0.19, 0.18, 0.20 and 0.21 for Kassena-Nankana, Builsa, Nkoranza, Wenchi, Assin and KEEA, respectively. This means on

average in 2000 the amount required to transfer to the poor to move them above the poverty line was GH¢0.31 per day. The Poverty Gap Indices however dropped significantly for the beneficiaries in 2008 to an average of 0.16, giving the amount required to transfer to the poor to move them above the poverty line as GH¢0.24 per day. This contrast the mean Poverty Gap Indices for the non-beneficiaries of 0.20 with the amount required to transfer to the poor to move them above the poverty line was GH¢0.30 per day. This shows that the Poverty Gap Index reduced by average of 24% - 33% for beneficiaries and only 8% - 14% for the non-beneficiaries. From the two-sample t-test there was a significant difference in the PGI between the beneficiary group and non-beneficiary group in 2008 at less than 0.101% error level. However, the PGI were the same for the two groups in 2000. Furthermore, the difference in PGI between 2000 and 2008 for the beneficiaries was significant at less than 0.0021% error level, while there was no significant difference for the non-beneficiaries (probability value of 0.1171 or 11.71% error level). It can therefore be concluded that the HIPC micro-credit has reduced the extent of poverty among the beneficiary groups and moved those beneficiaries still poor relatively closer to the poverty line income. That is the HIPC micro-credit has helped to reduced significantly the depth of poverty among the beneficiaries.

Panel C of the table shows the indices for Squared Poverty Gap, the depth of income inequalities among the poor. From the base-line indices in 2000 the income inequalities were almost the same for beneficiary and non-beneficiary groups in each district. On average, the Squared Poverty Gap was 0.15, which indicates that the average income deficit required to bridge the gap between the poorest and the next poorer immediately is about GH¢0.22 per day. As a result of the HIPC micro-credit the situation significantly changed for the better for the beneficiary group. In 2008 the Squared Poverty Gap dropped by about 50% to an average of 0.08. This shows that the income deficit is about GH¢0.12 per day. This cannot be said about the non-beneficiary group which witnessed only 12% reduction to 0.12, indicating an income deficit of GH¢0.18 per day. The t-test supports the finding that there was significance difference in the SPG between beneficiary and non-beneficiary groups in 2008 (probability value of 0.000276 or 0.0276% error level). There was also significant difference in the SPG between 2000 and 2008 for the beneficiaries (less than 0.007% error) but no significant difference for the non-beneficiary group (more than 22.87% error level).

4.5.2 Benefit Incidence Analysis of the HIPC micro-credit

Table 4.3 shows the amount of HIPC Micro-Credit that went to each income quintile of the sampled population. The most striking picture from the table is the quintile distribution of the micro-credit. It was revealed that the poorest income quintile received small amount of the micro-credit compared to the less poor. For example the first income-quintile (the poorest) received (GH¢0.28 million) while the amount increases toward the 5th (the least poor income-quintile) with amount of GH¢1.62 million. It was also clear that more urban dweller benefited from the micro-credit at all levels of income quintile. This means that more of the micro-credit funds went to the urban dwellers than the rural households, who were the poorest.

Table 4.3: Benefit Incidence of HIPC Micro-Credit

Quintile of Income	Standard (Average) Benefit Incidence			Average Odds-Ratio of Participation			Marginal Odds-Ratio of Participation	
	Rural	Urban	All	Rural	Urban	All	MOP	Std Dev.
Poorest	0.04	0.24	0.28	0.14	0.38	0.30	0.24	(0.2618)
2nd	0.09	0.39	0.48	0.32	0.61	0.52	0.59	(0.2877)
3rd	0.25	0.61	0.86	0.88	0.96	0.93	0.94	(0.1725)
4th	0.48	0.88	1.36	1.69	1.38	1.48	1.05	(0.0915)
5th	0.56	1.06	1.62	1.97	1.67	1.76	1.10	(0.0967)

Note: The numbers in parentheses are standard errors.

Average Odds-Ratio of Participation shows the participation of sample household of each income quintile for the micro-credit in different areas. This presents different picture with respect to micro-credit disbursement. There was no significant statistical difference between the average Odds-Ratio participation rates of rural and urban areas. There were some income-quintiles where average participation of the rural was higher than their corresponding urban. Example, the 4th and 5th income-quintiles have 1.69 and 1.97 respectively for rural areas, against urban of 1.38 and 1.67, respectively. However, for the 1st to 3rd income quintile the rural participation was less.

The implication is that few of the poorest benefited from the micro-credit, and it was even fewer in the rural area. The serious concern is that even though more of the rural households in the less poor income quintile benefited from the micro-credit than the urban centers, the over-all amount

that went to them was lesser than what went to their urban counterparts. It came out from the field survey that on average each poorest income quintile received about GH¢50.00 while the less poor received about GH¢500. This means that the rural people who even benefited from the micro-credit got relatively smaller amounts compared to their urban counterparts.

The marginal odds of participation ratios (MOP) show that there was statistical significant difference at less than 1% between marginal impacts of the micro-credit on the less poor than the poorest income quintile. The trend from the poorest (0.24) to the less poor (1.10) remains the same as shown by benefit incidence and average odds of participation (AOP) indices. One basic implication from the results was that the distribution of the micro-credit funds between the rural and urban areas defeats the core tenant of the HIPC initiative that funds should be used in poverty-prone areas. Meanwhile before the initiative (2000) poverty incidence was higher in the rural areas than the urban areas (49.5 against 19.6 for rural and urban, respectively). This indicates that the targeting has not been progressive to the poor.

4.5.3 Analysis of the Disbursement of the Microcredit

The estimations and discussions from sections 3.4.4, 4.5.1, and 4.5.2 indicate apparent contradictory results; firstly, the general impact of microcredit on poverty reduction, vis-à-vis, other HIPC programmes, was not significant; secondly, the beneficiaries had significant improvement in their incomes and therefore significant drop in their poverty situation compared to the non-beneficiaries; and finally, among the beneficiaries, the less poor had greater proportion of the microcredit than the poorest.

To explain these differing results the study looked at the analysis of the microcredit disbursement. From appendix E out of the total HIPC funds of GH¢985.74 million, only GH¢80.16 million making 8 percent were given out as microcredit. This explains why even though the beneficiaries experienced significant impact in their incomes, the relative impact of the microcredit was found to be insignificant. The explanation to this was that the microcredit was supposed to be a revolving fund such that when beneficiaries pay back then it would be given to others. However, it turned out that many of the beneficiaries refused to pay back. The repayment rate is shown in Table 4.4.

Table 4.4: Repayment Rate of HIPC Microcredit, 2001-2008

Year	New Amount Disbursed (GH¢' Million)	Amount Paid Back (GH¢' Million)	Repayment Rate (Percentage of New Amount)	Total Amount Disbursed (GH¢' Million)	Repayment Rate (Percentage of Total)
2001	58.11	1.82	3.13	58.11	3.13
2002	10.57	0.90	8.51	12.39	7.26
2003	5.73	0.44	7.68	6.63	6.64
2004	2.18	0.18	8.26	2.62	6.87
2005	1.55	0.07	4.52	1.73	4.05
2006	1.03	0.06	5.83	1.10	5.45
2007	0.67	0.03	4.48	0.73	4.11
2008	0.32	0.01	3.13	0.33	3.03
Total	80.16	3.51	4.38	83.64	4.20

Source: Compiled from MMDAs Annual Reports, 2001-2008

From the table the repayment rate was very low (less than 10%). The year that had the highest rate was 2004 with only 8.51%. Because the beneficiaries did not pay back the amount of credit disbursed year-by-year decreased from GH¢58.11 million in 2001 to GH¢0.32 million in 2008. If beneficiaries paid back then the total for each year would have been the cumulative from 2001 to that year. The total for the whole period (2001-2008) would have been GH¢595.10 million, without interest. However, due to default in paying back the total amount of loans (the credit from the HIPC amount for that year plus repayment with interest) was GH¢83.64 million.

It was difficult to obtain list or the number of defaulter from MASLOC but during the field survey some beneficiaries indicated that they did not pay back the loan and explain why they could not pay back the loan. Out of the 300 beneficiaries who were used as the sample, 251 voluntarily indicated their inability to pay back. There were combination of reasons and some of them are shown in Table 4.5.

Table 4.5: Responses on reasons for non-payment of Microcredit by Beneficiaries

Reason	Frequency	Percentage
The amount was not sufficient for the activity	251	100.00
It was gift from Party	216	86.32
Business was not successful	162	64.67
Time for the credit was not good	38	15.10
High interest rate	6	2.56
Did not use credit for economic activity	15	5.98
Needed the credit for next season	251	100.00
No re-payment procedure	68	27.07

Source: Compiled from field survey, 2008

From the table 4 main reasons were commonly given for the refusal to pay back the loan; namely, insufficiency of the loan (100%), loan was seen as compensation for rallying behind the party for winning elections at 2000 (86.32%), business were not successful (64.67%), and the need for the money in the subsequent season (100%).

The reason for less amount of the HIPC funds that went into micro-credit and hence the insignificant impact on poverty reduction was that the initial amount was supposed to be paid back and be given to others. The general explanation was that the beneficiaries needed the funds for further investment in their respective jobs and that one time loan was not enough. In that case in terms of absolute amount in relation to the entire HIPC funds, it was insignificant proportion and therefore insignificant impact. However, since those beneficiaries held on to the loan, they re-ploughed back into their businesses and that helped to improve their incomes more significantly than the non-beneficiaries.

The next most important reason was the fact that beneficiaries saw the credit as gift. The reason adduced from interview results was that the disbursement of the credit was at the priority of the Member of Parliament (MP) and the party functionaries. The implication was that the disbursement of the funds was politically motivated instead of basing it on difference in poverty incidence.

The results from section 4.5.2, the poorest income quintile receiving small amount of the credit were investigated. From the 300 non-beneficiaries sampled, only 26 did not apply for the credit. The reasons were; they did not hear about the credit (14), and did not need credit (12). The rest (274) non-beneficiaries applied for the credit but were not given and gave different reasons why they did not receive the credit (see Table 4.6).

Table 4.6: Responses on reasons for not receiving Microcredit

Reason	Frequency	Percentage
Did not have existing business	19	7.10
Did not have potential to pay back	60	22.04
Did not have bank account	17	6.19
Could not find or form group	13	4.92
The process was cumbersome	12	4.55
Could not pay processing fees	4	1.28
Not a member of party on power	142	51.91
The timing was not good	2	0.73
The amount was small for my business	1	0.36
Cannot explain	2	0.91
Total	271	100.00

Source: Compiled from field survey, 2008

From Table 4.6 the major reason for not receiving the credit was not being a member of the ruling party (51.91%). From the interviews it came out that there were no evidence to that claim but respondents said the names of potential beneficiaries were compiled by party functionaries and that they knew those who were not party members, since members had earlier on registered.

The second reason was the ability to pay back (22.04%), judged by the size and prospect of existing business. Furthermore, there were conditions outlined for the access of the credit; namely, formation of mutual groups who would be responsible for the repayment of the entire loan (9.2%); having an existing occupation (7.10%); demonstrating the ability to pay back the loan; and having bank account (6.19%). However, some of the poorest income quintiles did not

possess the needed requirement to attract the credit. This confirmed the marginal odds of participation ratios which were in favour of the less poor and urban dwellers, and explained by the economy of large scale enjoyed with large amounts of the credit against the small amount given to the poorest and the rural dwellers.

4.6 Conclusion

In each district the study selected 50 beneficiaries and 50 non-beneficiaries of the HIPC micro-credit. These targeted samples were of the same characteristics in their respective districts and were subject to all other conditions that could impact on poverty reduction, except the HIPC micro-credit treatment effect.

The study found that, with respect to micro-credit, in 2000 the proportion of the beneficiaries and non-beneficiaries who were earning income below the poverty line income were the same (90%). However, in 2008 the proportion of the beneficiaries earning income below the poverty line income was reduced to 70% (down by 25%). On the other hand it was reduced by only 5% to 85% for the non-beneficiary.

With respect to the Poverty Gap Index, both the beneficiary and non-beneficiary groups had 0.15 mean in 2000. This was significantly reduced to 0.16 in 2008 for the beneficiary group (down by about 28%). This indicates that the proportion of income required to move the poor above the poverty line income has reduced by 28%. However, it only went down by 11% (to 0.20) in the case of the non-beneficiary group.

Furthermore, the Squared Poverty Gap index was about 0.15 for the two groups in 2000. By 2008 the beneficiary group had experienced a 50% reduction bringing it down significantly to 0.08, while the non-beneficiary group only had a reduction of 12% reaching 0.12. These results indicate that over the period of HIPC implementation and for that matter the microcredit the income inequalities among the poor reduced significantly among the beneficiary group than the non-beneficiary group.

Finally, the study revealed that all the differences in the head count index, poverty gap index, and squared poverty gap index observed between the beneficiary and non-beneficiary groups were statistically significant at less than 5% error level from standard student 't' test.

The general conclusion was that, since the beneficiary and non-beneficiary groups had the same characteristics and poverty indices at the base year, the difference in the poverty indices witnessed in 2008 between the beneficiary and non-beneficiary groups could be attributed to the impact of the HIPC micro-credit. Hence, the study concludes that the HIPC micro-credit was a panacea to poverty reduction in Ghana. Therefore the regression analysis in essay one, sub-section 3.4.4 which found that the HIPC micro-credit was not generally significant, could be explained by the relatively small amount of HIPC funds that went into microcredit and the poor repayment rate.

However, from the benefit incidence analysis, via average odds of participation (AOP) and marginal odds of participation (MOP) rates the study found that both the standard and the marginal benefits were distributed regressively to the rural areas and the poorest income-quintile of the population. This therefore explains why the impact of the micro-credit was found not statistically significant. That is the poorest did not get significant proportion of the credit.

ESSAY THREE

ASSESSMENT OF IMPACT OF HIPC ON POVERTY REDUCTION: THE SUBJECTIVE-MULTIDIMENSIONAL AND DEPRIVATION APPROACH

5.1 General Overview

Essay one investigated the impact of HIPC initiative on poverty at both the individual and community levels and found that over the period of HIPC implementation per capita income has increased and community deprivation to social amenities also reduced leading to improvement in human development outcomes and hence poverty incidence has reduced. It also found that the increase in per capita income was positively related to the HIPC initiative funded programmes and it was statistically significant. Therefore, the general conclusion was that the HIPC initiative strategy has helped to reduce poverty in Ghana.

However, these findings were based on the objective assessment and focuses on income or consumption (expenditure) and community deprivation approaches. In the objective approach the government or 'experts' decide below which consumption or income level per day corresponds to poverty. Also, authorities decide on what standard constitutes deprivation. However, it is by no means clear that the household classified as 'poor' according to the objective definition of poverty recognizes itself as poor, while also households that feel poor are classified as being 'non-poor'. That is poverty is a feeling and therefore there is the need for a psychological construct.

Furthermore, the objective approach implicitly assumes that poverty is one-dimensional. It assumes that someone with a low income, and consequently in financial poverty, will also suffer from bad health, and hence be 'health- poor' as well. Or it is very probable that someone with a low income, and consequently in financial poverty will have bad housing and poor in terms of housing standard or will have bad job or live in bad environment and be poor with respect to job type or environmental condition. In that case there would be no need for a concept of multidimensional poverty. These arguments lead to the question, do the poor themselves feel the initiative has benefited them and has improved their living standards and therefore reduced their poverty levels? This essay is based on the idea that the opinions of people concerning their own situations should ultimately be the decisive factor in defining poverty.

Very few studies have been done in the area of subjective and multidimensional poverty analysis. Recent studies in developing countries demonstrate that well-being is not only based on monetary income or consumption, but also on other factors such as employment and health. For example, Javier Herrera, *et al.* (2006) examined the factors that determine households' subjective evaluation of their living standards, through a comparative analysis in the two countries. The study was based on a first-hand database grouping objective individual variables (the households' socio-economic characteristics, environment and individual trajectories, provided by the two surveys' panel studies), and identical questions on subjective well-being for both countries. The study indicated that there is a weak correlation between the monetary approach to poverty and household's subjective perception of wellbeing.

Narayan, *et al*. (2000) confirmed how important and interesting it is to study the non monetary dimensions of poverty in developing countries. They indicated that these dimensions count, even in the poorest countries. Including these dimensions in their study doubled the explanatory power of the econometric models. Their results confirm overall the results obtained in developed countries. These results speak in favour of applying a methodology in developing countries that has been well-proven in developed countries.

Van Praag and Ferrer-i-Carbonell (2004) addressed two key issues in modern policy-oriented poverty research; firstly, they recognized that poverty is an individual feeling and not an objective status, describable in terms of command over goods; and secondly, they distinguish several domains of life, and consequently, several types of poverty, each pertaining to a specific life domain. They found that, although the chance on being poor in one domain enhances the chance to be poor in another domain, it is justified to see poverty as a multi-dimensional concept.

Furthermore, Geeta Gandhi and Knight (2003) published that any attempt to define poverty involves a value judgment as to what constitutes a good quality of life or a bad one. They argue that an approach which examines the individual's own perception of well-being is less imperfect, or more quantifiable, or both, as a guide to forming that value judgment than are the other potential approaches. They develop a methodology for using subjective well-being as the

criterion for poverty, and illustrate its use by reference to a South African data set containing much socio-economic information on the individual, the household and the community, as well as information on reported well-being. They conclude that it is possible to view subjective well-being as an encompassing concept, which permits one to quantify the relevance and importance of the other approaches and of their component variables.

There is therefore the need for subjective-multidimensional approach where households would evaluate their own situation in terms of verbal labels 'bad', 'sufficient' or 'good', whether they feel the initiative has reduced their poverty situation and also include other dimension counts in our poverty reduction analysis. Literature states that there is a high positive correlation between income welfare and subjective welfare (Narayan, *et al*, 2000; and Van Praag and Ferrer-i-carbonell, 2004). That is those with high income are expected to have high subjective view of their welfare, and vice versa. In line with this view point if poverty levels have reduced, then it is expected that from the subjective measure individuals should feel that their poverty situation has reduced from all counts of life domains.

Furthermore, poverty is a widely used and understood concept but its definition is highly contested and diverse. Chronologically, from Adam Smith (1776) through Rowntree (1899), Townsend (1979) to Sen (1983) and by the Ghana Living Standard Survey (2006), the term 'poverty' can be considered to have a cluster of different overlapping meanings from what angle it is being examined. Putting all the various definitions together, poverty may be summed as lack of four main things in the life of an individual or a community, namely; living on income or expenditure below certain defined minimum; lack of access to or inadequate of basic needs and social services such as health care quality education, potable drinking water, decent housing, security from crime and violence; lack of capabilities to function and to participate in wealth creation and to partake in wealth created irrespective of their socio-economic status or where they reside; and the denial of ability to participate in social and political decisions that affect their lives.

From section 2.2.2 HIPC funds to support GPRS were to be spent on human resources development and basic services, private sector development, and good governance. Private sector

development entails; energy, roads, agriculture, industry, micro-credit and employment sub-sectors. The objectives include; increase access by the poor and vulnerable to modern forms of energy, modernizing and expanding power infrastructures, ensuring full cost recovery for power supply and delivery while protecting the poor, improving spatial access to markets by developing farm-market access roads, rehabilitating roads that link rural and urban markets, provision of irrigation infrastructures, enhancing access to credit and inputs for agriculture, promoting selective crop development, and improving access to mechanized agriculture.

Expenditure on private sector development is supposed to increase access to or to provide the poor with adequate basic needs and social services such as health care, quality education, potable drinking water, decent housing, security from crime and violence; enhance the capabilities of the poor to function and to participate in wealth creation and to partake in wealth created irrespective of their socio-economic status or where they reside; and create the ability to participate in social and political decisions that affect their lives.

The question is has the HIPC initiative helped to improve basic asset and needs of the poor, and improved capabilities functioning of the poor, which increase or create the ability for the poor to function as social beings and participate in decisions that affect them?

Not many studies have been done on asset, needs, and capabilities approach to poverty reduction analysis. The few done indicate that there is the need for asset, needs, and capabilities approach to poverty reduction analysis. For example, Orazio and Székely (1999) argue that poverty is normally measured using income as welfare indicator, mainly for two reasons. The first is that income provides some indication about the capability of individuals to achieve a certain standard of living. The second is that information on income is more readily available than for other variables. In fact, among the possible options, income is not necessarily the best alternative, but it has been widely used to measure poverty mainly because of its availability. Due to the widespread use of income as welfare indicator public policies aimed at reducing poverty have concentrated on increasing such incomes through a variety of instruments, or even "subsidizing" incomes directly through cash transfers. Some poverty reduction programmes have included other mechanisms such as providing the poor directly with a range of services under the idea that

if the problem for the poor is lack of income; the solution is to provide them with income or transfers in kind. Although this standard approach might be adequate in certain circumstances such as periods of economic stagnation, natural disasters or unexpected negative income shocks, it does not lead to a solution to the problem because it is focused on the "consequences" of poverty rather than on its causes.

There is therefore the need to assess the economic impact of the utilization of the HIPC relief fund on poverty reduction in Ghana by examining the extent to which the initiative has improved the asset-needs, basic-needs and capability and functioning of the poor within the period.

This essay therefore seeks to assess the economic impact of the HIPC initiative on poverty reduction from the subjective-multidimensional and deprivation point of view. It looks at subjective poverty analysis, asset- and need-based analysis, and capability functioning analysis.

5.2 Empirical Strategy

The sample and sampling technique, sources of data, and techniques of data collection are as described under sections 3.3.1, 3.3.2, 3.3.3 and 3.3.4. Summary of Data for this analysis is taken from Table3.2.

The study estimated a simple count of domain poverties for the households and compared with the minimum satisfaction evaluation. A subjective poverty line, which is income level that corresponds to a specific minimum evaluation level as the beginning of poverty, was estimated. All those households who evaluate themselves below the subjective poverty line were considered as being poor. The analysis looks at the percentage of the households who fall below the subjective poverty line for each count and the 'life as a whole'. Satisfaction-equations were presented that are keys to determine poverty levels. Domain of satisfaction about 'life as a whole' is determined by the financial situation, health status, job type, housing standard, leisure state and environmental conditions.

The study also adapts Barrientos (2003) asset- and need-based model (see section 5.3.2 and Table 5.7), and Sen (1983) capabilities functioning model (see section 5.3.3 and Table 5.9). The variables used included 12 well-being indicators and 12 human capabilities attributes.

5.3 Theoretical Framework

5.3.1 Subjective-Multidimensional Analyses

The basis of the subjective approach is by asking households how they evaluate their own well-being in terms of verbal labels ‘very bad’, 'bad', 'sufficient', 'good' and ‘very good’. Here, satisfaction questions are used to operationalise the well-being concept (see Figure 5.1). By assigning numerical values, 0 and 10 to these ordered labels, it is possible to estimate a function $U=f(y)$. This describes the relationship between household income y and the resulting satisfaction evaluation U. When U_{min} is defined as the minimum specific satisfaction evaluation level (beginning of poverty), it becomes possible to estimate the corresponding minimum income level y_{min} (subjective poverty line) by solving the equation;

$$y_{min} = F(U_{min}) \text{ for } y_{min} \qquad 1$$

Considering that there are 'intervening variables' like family size, age, health, (in short a vector of variables x), the satisfaction evaluation U function is $U=f(y;x)$, yielding an x-differentiated poverty line $y_{min}(x)$. For example, if x is the age of the household head, then the poverty line is differentiated according to age of the household head. Using the subjective poverty line, the study estimated the Foster, Greer and Thorbecko (FGT) Poverty Indices (see section 3.2.1 for the model specification)

Using the questions in Figure 5.1, it is possible to get an idea how satisfied the respondent is with his income, his health, his job, his leisure, etc. Assuming that life has different aspects, which is call life domains, it becomes possible to assess domain satisfactions.

Figure 5.1: Satisfaction Question Module

How satisfied are you today with the following areas of your life? Please answer using the following scale:

O means totally unhappy and 10 means totally happy

How satisfied are you with …

Your household income(financial situation) 0—1—2—3—4—5—6—7—8—9—10

Your health status 0—1—2—3—4—5—6—7—8—9—10

Your job 0—1—2—3—4—5—6—7—8—9—10

… … …

The question is; how is information extracted from such questions with the objective of poverty analysis? Considering financial satisfaction it is assumed that the individual's financial satisfaction $S1$ depends on his income and possibly other variables like family size, given by;

$$S_1 = f(x_1; \beta_1) \qquad 2$$

where x_1 stands for personal variables, including income.

The evaluation is assumed to follow the cardinal principles. If somebody is evaluating his satisfaction level by a 'five', it is assumed that all respondents who are satisfied for a five feel equally satisfied. When the function $S_1 = S_1(x_1; \beta_1)$ is normalized between 0 and 1 it specified as $S_1 = N(\beta_1' x_1 + \beta_{1,0}; 0,1)$, where $N(.;0,1)$ stands for the normal distribution function with variance 1, which is a flexible increasing function on $(-\infty, \infty)$ and bounded between 0 and 1. If the variance would be σ, we could write $S_1 = N(\beta'_1 x_1 + \beta_1; 0, \sigma) = N(\frac{\beta_1' x_1 + \beta_{1,0}}{\sigma}; 0,1)$. A similar argument applies for the normalization $\mu = 0$.

Now assume a respondent answers '5', it does not necessary imply that his satisfaction is exactly 5 on a [0, 10]-scale. In this case his satisfaction will be in the range of 5 and thus the exact evaluation might be in the interval (4.5, 5.5). For normalization of the scale from [0, 10] to the

[0, 1] - interval, the intervals will be [0, 0.05] ,…, (0.95, 1]. In order to account for omitted variables, errors and rounding-off we now add an $N(0, \sigma)$ –disturbance term ε and we assume

$$S=N(\beta'x + \beta_0 + \varepsilon; 0, 1) \quad 3$$

The parameter σ has to be estimated. As usual, we assume that the distribution of ε does not depend on x, which is just as any econometric specification. In that case the chance on finding a response '5' is;

$$P[0.45 < S \leq 0.55] = P[N^{-1}(0.45) < \beta' x + \beta_0 + \varepsilon \leq N^{-1}(0.55)$$

$$= N(\mu_{0.55} - \beta'x - \beta_0;0,\sigma 0 - N(\mu_{0.45} - \beta'x - \beta_0;0,\sigma)$$

The β's are estimated by maximizing the log-likelihood. It follows that it is possible to estimate a cardinal satisfaction. This Cardinal Probit (CP) -approach is known as Interval Regression Method

There is also the need to define the latent satisfaction variable $s = \beta'x + \beta_0 + \varepsilon$ with $N(s) = S$. Here, satisfaction changes when income changes and other causal relationships hold for the other variables. For instance, if financial satisfaction depends on income *y* and household size *hs*, the following estimated relationship holds;

$$s = 0.5ln(y) + 0.2ln(fs) + \beta_0 \quad 4$$

where it is assumed ε = 0 as equation 4 has become an exact relation. If we fix the value for s_1, say at *A*, the equation describes an indifference curve in (*y*,*fs*)- space, corresponding to the satisfaction level *A*.

Returning to the satisfaction question, it is clear that satisfaction may take any of the values 0,1,2,…,10. These values correspond to adjacent ranges of the latent variable s_1. For instance, when we assume that poverty starts if somebody evaluates his income satisfaction by 4, this corresponds with a value of $u_{0.4}$ for the latent variable with $N(u_{0.4})=4$. Hence the indifference curve in (*y*,*fs*)- space, corresponding to 'the beginning of poverty', is given by the equation;

$$0.5\ln(y) + 0.2\ln(fs) + \beta_0 = u_{0.4} \quad (5)$$

If the coefficient of *fs* is zero, we find only one solution for y, which we may call the poverty line y_{min}. In all other cases we find a poverty border. When we distinguish between 'severe poverty', 'poverty', and 'near- poverty' and identify those labels with the satisfaction levels 4, 5, 6 respectively, the corresponding borderlines are given by equation (6), with $u_{0.4}$, $u_{0.5}$, *and* $u_{0.6}$. In general, if $s_1(x) = \beta 1'x + C$, the corresponding poverty border corresponding to level *i* becomes;

$$0.5\ln(y) + 0.2\ln(fs) + \beta = u\,I \quad (6)$$

Let us now define poverty classes. We call a household *n* '*i*-poor' if for him holds $\mu_{i-1} < s_1(x_n) \leq u_i$. The fraction of households in a population of size N, who are '*i*-poor', is now

$$P_i = \frac{1}{N}\sum_n N(\mu_i - \beta' x_n - \beta_0) - N(\mu_{i-1} - \beta' x_n - \beta_0) \quad (7)$$

From the illustrations of financial satisfaction it is obvious that the same approach may apply to the other satisfaction types like job satisfaction, health satisfaction, etc and even life as a whole, in short with respect to all domain satisfactions. If those domain satisfactions are explained by latent variables $s_j(x; \beta) = \beta_j' x + \beta_0$ we may also define poverty borderlines for those other life domains.

Figure 5.2: The two layer Satisfaction model

In the same manner the domain satisfaction questions was used to find status about General Satisfaction (GS). The only difference is that a question was asked about 'satisfaction with life as

a whole' instead of 'satisfaction with a particular domain'. Hence, S_{GS} is defined and explained by the domain satisfactions s_1, …, s_k. Graphically, a two-layer- model structure is assumed as shown in Figure 5.2.

5.3.3 Asset- and Need-Based Analysis

Under the asset- and need-based analysis, the study adapted Barrientos (2003) measure of multidimensional deprivation model. It used well-being indicators, which are the assets and basic needs that go to improve well-being and therefore poverty reduction. The twelve (12) well-being indicators are operationalised. This is done in the form of description on the table of indicators (Table 5.7). Each indicator is scored on a scale, ranging from 1 to 5, with 1= very poor, 2 = poor, 3 = average, 4 = good and 5 = very good or their equivalent. Aggregate at the individual level is computed by simple addition or counting, so that each person has a score out of 60 and the average score out of 5. An average score of 1 indicates that a person has very low assets and basic needs and therefore has low well-being. This in effect makes the person hard-core poor. On the other hand, an average score of 5 indicates that the person has all the necessary assets and needs and therefore non-poor. Within the two extremes the score indicates the degree of deprivation and the level of poverty. The mean of the means for the population indicates the level of poverty in that community.

Here, the current (2008) mean score of households for each indicator is compared to what was obtained before the implementation of the initiative (2000). The difference therefore measures the rate of poverty reduction in the community. If the mean score has gone up, then it indicates that human capabilities have increased leading to improvement in functioning and improvement in living standards and hence poverty reduction. The study also compared the proportion of household the rated their needs and assets as poor in 2000 with that of 2008.

5.3.3 Capabilities and Functioning Analysis

In the case of the Capabilities and Functioning analysis the study adapted Sen's model (Sen, 1983), with modification to suit Ghana. The modification is based on the human capability attributes included in the present study. The model works on the principles that the attributes

enhance the capabilities of the person and that in turn enable the person to function as economic and social being to improve his standard of living and hence reduce his poverty situation.

At this stage the attributes are operationalized in the form described in the Table 5.9 of attributes. The estimation, analysis and interpretation are as explained under asset and need base (section 5.3.2)

5.4 Summary Results

5.4.1 Subjective-Multidimensional Analyses

Table 5.1 presents the FGT poverty indices, namely; simple head count, poverty gap index and the squared poverty gap index. Columns 2 and 3 show the indices for 2000 and 2008, respectively and column 4 shows the percentage change between 2000 and 2008.

Table 5.1: Foster, Greer and Thorbecke Poverty Indices based on Subjective Poverty Line

Poverty Indices	2000	2008	Percentage change
Head Count Index	73.5	71.8	2.31
Poverty Gap Index	0.68	0.65	4.41
Squared Poverty Gap Index	0.35	0.36	-2.86

Note: Subjective Poverty Line = GH¢3.90 per day ≈ GH¢1,432.50 .per annum.

From the table the head count index in 2000 was 73.5 meaning that about 73.5% was living below the subjective poverty line. This figure was far higher than the over-all poverty incidence of 39.6 from Ghana Statistical Service (2000) and 46.0 from essay one based on objective poverty line. In 2008 the head count index slightly reduced by 2.31% to 71.8, as against 28.1 from Ghana Statistical Service (2000) and 37.0 from objective assessment in essay one. The poverty gap index only reduced from 0.68 to 0.65, with percentage reduction of 4.41 between 2000 and 2008, compared to a reduction from 0.34 to 0.28 (17.65%) from objective approach in essay one. The squared poverty gap index rather increased from 0.35 to 0.36 (2.86%) from 2000 to 2008, which is smaller than what was found in essay one, 0.22 to 0.23 (4.55%).

The student t-test indicated that there was no significant statistical difference between the poverty indices in 2000 and 2008 at less than 1% error level. The implication is that, based on the subjective approach, the number of the population under the poverty line and therefore poor did not significantly reduce over the study period. Also, the proportion of income required to transfer to the poor to move them above the poverty line did not significantly reduce. Furthermore, the inequality among the less poor and the poorest remained almost the same and no significant difference. The section concludes that from the subjective point of view poverty situation did not significantly reduce during the period of HIPC implementation.

Tables 5.2 and 5.3 show the simple counts of domain poverties for 2000 and 2008. They express the proportion of households that evaluate various welfare indicators at a particular satisfaction level.

Table 5.2: A Simple Count of Domain Poverties (Proportion of Households) for 2000

Level of Satisfaction	Life as a Whole	Financial Situation	Health Status	Job Type	Housing Standard	Leisure Status	Environmental Condition
0	0.24	0.20	0.20	0.22	0.15	0.28	0.10
1	0.27	0.33	0.18	0.25	0.20	0.31	0.15
2	0.21	0.17	0.16	0.23	0.21	0.25	0.20
3	0.14	0.11	0.11	0.16	0.16	0.11	0.20
4	0.06	0.10	0.12	0.09	0.08	0.03	0.23
5	0.05	0.06	0.10	0.02	0.11	0.01	0.11
6	0.02	0.02	0.06	0.01	0.06	0.01	0.05
7	0.01	0.01	0.05	0.01	0.03	0	0.02
8	0	0	0.02	0.01	0	0	0.01
Proportion Poverty	0.86	0.81	0.65	0.86	0.72	0.95	0.65

Note: The minimum evaluation is $3.9 \approx 4$

From Table 5.2 the proportion of households below the minimum valuation (approximately 4) in 2000 were; financial situation (0.81), health status (0.65), job type (0.85), housing standard (0.75), leisure status (0.95), environmental condition (0.65) and life as a whole (0.86). The 2008 results are shown in Table 5.3 as follows; financial situation (0.78), health status (0.61), job type

(0.85), housing standard (0.70), leisure status (0.97), environmental condition (0.62) and life as a whole (0.81). There are about 81% of the sample households who evaluated themselves as not satisfied with life as a whole and therefore feeling that they are poor. At least, on average, in 2008 over 60% of the households feel they are poor by all the welfare indicators.

Table 5.3: A Simple Count of Domain Poverties (Proportion of Households) for 2008

Level of Satisfaction	Life as a Whole	Financial Situation	Health Status	Job Type	Housing Standard	Leisure Status	Environmental Condition
0	0.19	0.19	0.17	0.18	0.15	0.27	0.01
1	0.26	0.33	0.19	0.34	0.18	0.33	0.18
2	0.22	0.15	0.11	0.22	0.23	0.25	0.21
3	0.13	0.11	0.14	0.11	0.14	0.12	0.22
4	0.11	0.09	0.12	0.12	0.08	0.03	0.38
5	0.06	0.13	0.10	0.03	0.13	0	0
6	0.02	0	0.04	0	0.06	0	0
7	0.00	0	0.03	0	0.03	0	0
Proportion Poverty	0.81	0.78	0.61	0.85	0.70	0.97	0.62

Note: The minimum evaluation is $3.9 \approx 4$

Student t-test conducted revealed that there is no significant statistical difference between 2000 and 2008 count of poverty domains. Hence, the hypothesis that households feel their poverty situation has been reduced by the HIPC initiative is rejected. This means income poverty is inadequate in determining poverty in Ghana. The implication is that, even though the objective results point to the fact that the HIPC initiative has improved upon incomes of the people and therefore has reduced poverty incidence, the poor do not feel their poverty situation has improved for the better base on the domain of welfare. The improvement in income probably was not enough to transform other life domains.

The study intended to find the relationship between the welfare indicator and household characteristics and other intervening variables of poverty. Since the welfare indicators were ordered variables (0-10) the study used ordered logistic (ologit) regression. The regression results are shown in Table 5.4.

Table 5.4: Ordered Logistic Regression Results of Domain Satisfactions

Dependent Variables:	Financial Situation	Health status	Job type	House standard	Leisure state	Environmt'l Condition	Minimum Valuation
	(1)	(2)	(3)	(4)	(5)	(6)	(8)
Income	0.2734*	0.1925*	0.2040	0.3560	0.3117	-0.1385	0.3064***
	(0.0012)	(0.9340)	(0.0152)	(0.0442)	(0.0062)	(0.0717)	(0.0032)
Size	-0.1417*	-0.1601	0.1841*	-0.0237*	-0.2074	-0.1492	-0.1375**
Household	(0.0002)	(0.0025)	(0.0067)	(0.0086)	(0.0430)	(0.0418)	(0.0045)
Level of	0.1331*	0.0834	0.3386	0.3084	0.0205	-0.1315	0.3286**
Education	(0.1616)	(0.0086)	(0.0372)	(0.0915)	(0.0038)	(0.0509)	(0.0032)
Age	-0.1714*	-0.1439*	-0.0854	-0.0055	-0.1754	0.0459	-0.1098
	(0.0068)	(0.0021)	(0.6141)	(0.0063)	(0.5508)	(0.0036)	(0.5006)
Age^2	-0.1801*	-0.1804	-0.0095	-0.1182	0.1158	-0.0010	0.1322
	(0.0024)	(0.0052)	(0.0832)	(0.0043)	(0.0525)	(0.0054)	(0.0084)
Working			-0.1703		-0.3864*		-0.1523
Hours			(0.0196)		(0.0522)		(0.0562)
Years in job			0.1536				0.1341
			(0.0382)				(0.0810)
Self-	-0.1931**		-0.0963*				-0.1372
employed	(0.0063)		(0.0284)				(0.0028)
Health		0.2894*					0.1336*
Insurance		(0.2084)					(0.0038)
Leisure time					0.3872*		0.1318
					(0.0066)		(0.0027)
Second	0.1547						0.0088
earner	(0.0035)						(0.1274)
Own House				0.2084*			0.0147
				(0.0304)			(0.0503)
Social						0.0485***	0.1283*
Amenities						(0.0852)	(0.0084)
Security						0.1705***	0.1348**
system						(0.0062)	(0.0065)
/Cut 1	0.0413	0.0294	0.0574	0.1005	0.0948	0.0280	0.0856
	(5.6485)	(3.7106)	(5.0033)	(7.0634)	(5.1052)	(3.9721)	(5.1286)
/Cut 2	0.0595	0.0890	0.1554	0.1826	0.1645	0.0709	0.0732
	(5.7821)	(4.0078)	(5.2815)	(7.3056)	(5.2298)	(5.0005)	(5.2650)
/Cut 3	0.0974	0.1727	0.1873	0.1906	0.1906	0.1171	0.1105
	(5.9673)	(5.1145)	(5.3628)	(7.3772)	(5.3934)	(5.1600)	(5.3289)
/Cut 4	0.1582	0.1834	0.2438	0.2164			0.1472
	(6.0035)	(6.1078)	(5.7704)	(7.5497)			(5.5636)
/Cut 5		0.1237	0.2635				0.2189
		(6.7104)	(5.7992)				(5.7815)
/Cut 6		0.2041	0.3087				
		(9.0183)	(5.8736)				

Note: Numbers in parenthesis are standard error and the coefficients are significant at * less than 1%, ** less than 5% and *** less than 10%

From the table all the covariates have correct signs and many of them are statistically significant at least less than 10%. The results in Table 5.4 support the fact that so many intervening variables come into play to determine poverty and hence poverty measure based only on income (objective measure) is inadequate and gives a misleading picture. This supports the notion that poverty is a multi-dimensional phenomenon and non-financial poverty is a realistic phenomenon, especially because it is not usually easy to give money as compensation for lack of satisfaction. It implies that poverty depends on intervening factors like age, size of household, level of education of the household head, whether self-employed, having health insurance, owning house, availability of social amenities, availability of security system, etc.

The cut points indicate the expected cumulative distribution of answers for individual with respective zero welfare indicator or household characteristics or other intervening variables of poverty. Ordered logit model simply models the cumulative logit as a linear function of independent variables. The intercept will increase over the category for the baseline group (when all independent variables are zero). The number of cut points is determined by the number of categories of answers (category less one). The various cut points indicate the threshold points for the relationship between the observed ordinal variables and the unmeasured latent variables. That is they are ancillary parameters to define the changes among categories. For example, the cut point 1 under financial situation indicates that the unobserved respond (Y*) corresponding to observed respond (Y = 1) will be less than 0.0413 and (Y = 2) will be between 0.0413 and 0.0595.

The results from Table 5.4 are also confirmed by the ordered logistic regression results in Table 5.5 which show the relationship between satisfaction valuation of life as a whole with the other welfare indicators satisfaction valuations (financial situation, health status, job type, housing standard and environmental condition). Satisfaction valuation of life as a whole is positively related to the covariates and they are statistically significant.

Table 5.5: Ordered Logistic Regression Results of Life as a Whole

Dependent Variable:	Life as a Whole	
	Estimates	Standard errors
Financial Situation	0.5503*	0.0032
Health status	0.3017**	0.0056
Job type	0.2794**	0.0064
House standard	0.1525*	0.0045
Leisure state	0.1268***	0.0108
Environmental Condition	0.0784**	0.0188
/Cut 1	0.1634	2.9647
/Cut 2	0.2086	3.0058
/Cut 3	0.2144	3.2875
/Cut 4	0.2472	3.8109
/Cut 5	0.3365	4.2685
/Cut 6	0.3798	5.0006

Note: The coefficients are significant at * less than 1%, ** less than 5% and *** less than 10%

Critics may argue that income poverty is related to other dimensions of poverty and therefore poverty is one-dimensional. This argument is addressed from Spearman's correlation matrix in Table 5.6.

From Table 5.6 there is a general significant positive correlation between the domain satisfactions. However, some of the coefficients are small, example job and financial satisfaction (0.0028) and environmental condition and financial satisfaction (0.0021). The reason is that you cannot buy environmental condition with money. There are also some exceptions in the coefficients. For instance, older people live in better houses or at least enjoy more housing satisfaction, while at the same time their health is worse than that of younger people. This may explain the negative correlation between health and housing. A similar explanation may hold for the negative correlation between Job and leisure satisfactions and Housing and leisure satisfactions. From the forgoing, although there is linear correlation, it is not perfect at all. It follows that it is justified to distinguish between different types of poverty and to see poverty as a multi-dimensional concept.

Table 5.6: Correlation Matrix for Welfare Indicators Satisfaction Valuation

	Financial Situation	Health status	Job type	House standard	Leisure state	Environmental Condition
Financial Situation	1.000					
Health status	0.6144	1.000				
Job type	0.0028	0.2180	1.000			
House standard	-0.3971	-0.0749	0.0261	1.000		
Leisure state	-0.4763	0.1847	-0.0176	-0.1083	1.000	
Environmental Condition	0.0021	0.3185	0.0020	0.0047	0.0152	1.000

5.4.3 Asset- and Need-Based Analysis

Table 5.7 presents the summary of mean scores of asset and basic needs (well-being indicators) for 2000 and 2008. The mean scores are estimated to the nearest whole number. From Table 5.7 only half of the indicators, health facilities, water, access to health care, transport and communication, sanitation, and children schooling witnessed difference of 1 each while the rest of the indicators did not change at all. The total mean scores of the welfare indicators for 2000 and 2008 are 19 and 25 respectively. The estimated mean of means scores are 1.18 (19/12) and 2.08 (28/12) for 2000 and 2008 respectively, with a difference of 0.90 (estimation shown in Table 5.8).

Student's t-test of difference between means of two sample was conducted and the results indicated that there was no significant statistical difference between the mean scores of 2000 and 2008 (see Table 5.8). Hence, the study concludes that, with respect to asset- and needs-based (well-being indicators), the initiative did not impact on poverty reduction. The use of the HIPC funds could not help the poor to acquire basic needs and assets that go to improve well-being and therefore reduce their poverty situation.

Table 5.7: Summary of Mean Scores of Asset and Basic Needs (Well-being Indicators)

Label	Description	Scale of valuation	Mean Scores	
			2000	2008
Health Facilities	Availability of Health delivery system	1 Nil, 2 Very few, 3 Few, 4 more, 5 very many	2	3
Water	Main source of drinking water	1 Rivers/dam, 2 Borehole, 3 Public tap/water carrier, 4 Pipe water on site, 5 Pipe water in dwelling	1	2
Food	The adequacy of food for respondent and family	1 None, highly inadequate, 3 inadequate, 4 adequate, 5 highly adequate	2	2
Access to Health Care	Ability to pay for health care services and subscription to NHIS	1 No access, 2 less access, 3 some access, 4 good access, 5 very good access	1	2
Transport and Communication	Availability and condition all year round	1 Very poor, 2 poor, 3 average, 4 good, 5 very good	1	2
Housing	Availability type and condition	1 Very poor, 2 poor, 3 average, 4 good, 5 very good	1	1
Sanitation	How clean is the environment	1 Very poor, 2 poor, 3 average, 4 good, 5 very good	2	3
Energy Consumption	Type of energy used for lightening	1 Wood, 2 paraffin, 3 gas, 4 electricity, 5 all kinds	2	2
Safety	Provision of security services	1 worst, 2 worse, 3 bad, 4 good, 5 Very good	2	2
Clothing	Availability and type	1 Very few, 2 few, 3 average, 4 much, 5 very much	2	2
Children Schooling	Ability to pay school fees, buy books and uniform	1 Not able, 2 Less able, 3 Able, 4 more able, 5 Highly able	1	2
Household Appliances	Number of Household Appliances	1 Nil, 2 Very few, 3 Few, 4 more, 5 very many	2	2
		Total	19	25

Source: Author's Design, 2008

Table 5.8: Summary Results of Statistical Test for Asset and Basic Needs

	2000 Mean scores	2008 Mean scores	Mean Score Difference	Student 't'-test	Correlation Coefficient
Well-being Indicators	1.18	2.08	0.90	0.0108	0.1512
	(0.6215)	(0.6686)	(0.4924)		

Note: Numbers in parenthesis are standard errors. Significant at less than 5%

5.4.3 Capabilities and Functioning Analysis

Table 5.9 shows the summary of mean scores of human capabilities and functioning attributes for 2000 and 2008. Here also, the mean scores are estimated to the nearest whole number. The total mean scores of human capabilities attributes for 2000 and 2008 were 19 and 23 respectively. The estimated mean of means scores were 1.58 (19/12) and 1.92 (23/12) for 2000 and 2008 respectively, with a difference of 0.06 (estimation shown in Table 5.10). Furthermore, out of the 12 human capabilities indicators only 4 of them had increment in their mean scores between 2000 and 2008. These are financial control, income, number of durables owned and debt servicing reducing from High to average score.

From the results in Table 5.9 it is clear that the households did not experience any significant change in their capabilities between 2000 and 2008. The only exceptions are financial control, income, number of durables owned and debt servicing reducing. This shows that there was small change in their income and hence financial control which confirms the earlier findings in essay one that HIPC initiative had small impact on income poverty. However, the over-all mean score improved only slightly from 1.58 to 1.92 from 2000 to 2008. These mean scores fall below the mean of 2.5 meaning the households were severely deprived of capabilities. This situation did not improve after the implementation of the initiative. This means that the initiative did not enhance the capabilities of the households which could enable them to function as economic and social being to improve their standard of living and hence reduce their poverty situation.

From test of difference between means there was no significant statistical difference between the mean scores of capabilities of 2000 and 2008. It can therefore be concluded that the initiative did not impact on capacity development and hence poverty reduction. The hypothesis that there are significant statistical difference in basic needs, asset needs and the capabilities of the poor between 2000 and 2008 is rejected in favor of the alternative that there are no significant statistical difference in basic needs, asset needs and the capabilities of the poor between 2000 and 2008.

Table 5.9: Summary of Mean Scores of Human Capabilities Attributes

Label	Description	Scale of valuation	Mean Scores	
			2000	2008
Health Status	Self-reported health status; Sound health, no frequent illness,	1 Very poor, 2 poor, 3 average, 4 good, 5 very good	2	2
Education/Skills	Level of educational attainment or skills acquisition;	1 None, 2 Basic level/Trade 3 Secondary/Vocational/Technical, 4 Tertiary, 5 Postgraduate	2	2
Financial Control	Amount of savings from own income	1 None, 2 very little, 3 some, 4 much, 5 very much	1	1
Land	Number of hectares of farm land owned	1 Nothing, 2 less than three hectares, 3 less than five hectares, 4 less than ten hectares, 5 more than ten hectares	2	2
Occupation	Type of work the person does	1. No work, 2 Farming, 3 Artisan, 4 civil servant, 5 Business/others	2	2
Financial Assets	Financial securities owned	1 Nil, 2 Very few, 3 Few, 4 more, 5 very many	1	2
Income	Frequency, reliability, sources and amount received	1 Very low, 2 Low, 3 good, 4 high, 5 very high	2	3
Durables	Number of durables in the house	1 None, 2 very few, 3 few, 4 many, 5 very many	1	2
Debt Servicing	Monthly debt repayment as proportion of total debt	1 Very high, 2 High, 3 average, 4 Low, 5 Very low	2	2
Investment	Amount of money spent to expand the work	1 None, very little, 3 some, 4 much, very much	1	1
Social Participation	Number of social organizations	1 Nil, 2 Very few, 3 Few, 4 more, 5 very many	2	2
Political Participation	Opportunity to participate in decisions that affect the person	1 Nil, 2 Very few, 3 Few, 4 more, 5 very much	1	1
		Total	19	23

Source: Author's Design, 2008

Table 5.10: Summary Results of Statistical Test for Human Capabilities Attributes

	2000 Mean scores	2008 Mean scores	Mean Score Difference	Student 't'-test	Correlation Coefficient
Capabilities Indicators	1.58	1.92	-0.34	-2.345	0.798*
	(0.5149)	(0.7930)	(0.4924)		

Note: Numbers in parenthesis are standard errors. * Significant at less than 1% and ** Significant at less than 5%

5.5. Conclusion

The specific objective of this essay was to assess the impact of the HIPC initiative on poverty reduction from subjective-multidimensional point of view and the basic-needs, asset-needs and capability approach. It estimated Foster, Greer and Thorbecke (FGT) Poverty Indices and count of domain satisfaction on welfare indicator; 'life as a whole', which is determined by the financial situation, health status, job type, housing standard, leisure state and environmental conditions with some intervening variables like income, age, size of household, level of education of the household head, whether self-employed, having health insurance, owning house, availability of social amenities, availability of security system, etc. It also employed Barrientos (2003) measure of multidimensional deprivation and Sen (1983) capabilities and functioning models.

The study found that from subjective poverty line over 70% are poor and from counts of domain satisfaction on average over 60% of the households feel that they are poor by all the welfare indicators and therefore the HIPC initiative has not reduced their poverty situation. It also came out that poverty is multidimensional and is affected by intervening factor. Hence, poverty measurement base on income alone is inadequate and gives a misleading picture.

The study also found that the initiative did not significantly improve the households' basic-needs, asset-needs and capabilities. There was no significant statistical difference between the conditions of the households in 2000 and 2008. The essay therefore concludes that the initiative did not positively impact on poverty reduction over the implementation period.

GENERAL CONCLUSION, SUMMARY AND RECOMMENDATIONS

6.1 Conclusion

Ghana applied to join the Heavily Indebted Poor Countries (HIPC) nations in 2001. The argument was that HIPC spending will help to develop capacity of the poor (through human development), give them capital for investment (through micro-credit), improve their labour productivity (through improvement in health and rural water and sanitation), enhance rural agriculture (through feeder roads construction and rehabilitation), give them skill training, etc. These will enhance the incomes of the poor in the immediate future and help them come out of the vicious cycle of poverty. After eight year of implementation there was the need to assess the impact of the initiative on poverty reduction.

This study therefore investigates the economic impact of the utilization of the HIPC relief fund on poverty reduction in Ghana. Specifically, it assesses the extent to which the HIPC relief fund has helped to reduce poverty, both at the individual and community levels, determines the relative effectiveness of the various HIPC funded programmes to the reduction of poverty, assesses the impact of the HIPC micro-credit on poverty reduction and its benefit incidence, examines how the poor themselves feel about the programmes and how the programmes have improved their welfare and hence reduced their poverty situation, and examines the extent to which the HIPC initiative has improved the asset, need-base and capabilities of the poor that will make them function as economic and social being.

The following method were used for the analyses: Foster-Greer-Thorbecke (FGT) Index for measuring the poverty level and changees in incomes of individual household; Community Poverty Ratio for measuring the level and change in poverty of the community; OLS for examining the relationship between HIPC funding and poverty reduction, the relationship between various compositions of HIPC expenditures and poverty reduction and also the relationship between HIPC funding and humen development outcomes; Demery (2003) benefit incidence analysis methods (the Standard Incidence and the Marginal Incidence Analysis); the Van Praag et al (1982) subjective-multidimensional model to assess the subjective views of the poor; and finally Barrientos (2003) multidimensional deprivation and Sen (1983) capabilities and

functioning models to analysis the impact of HIPC on asset, need-base and capabilty functioning of the poor.

The study used method with no counterfactual (before and after), which compares the performance of key variables after the initiative with those prior to the initiative. The approach uses statistical methods to evaluate whether there is a significant change in some essential variables over the period. The study uses both primary and secondary data. The primary data were derived from household survey and secondary data came from metropolitan, municipal and district assenblies records, Ghana Statistical Service (GSS), Ministry of Finance and Economic planning, and GLSS 5.

6.2 Summary of Major Findings

Some of the major findings of the study are summarised as follows:

In the first essay, the study found that over the period when the Heavily Indebted Poor Countries (HIPC) initiative was implemented per capita income of the households have significantly increased and therefore decreasing the proportion of the people below the poverty line. The Foster-Greer-Thorbecke (FGT) Poverty Gap Index (PGI) also indicates that the proportion of income needed to transfer the poor above the poverty line has also significantly reduced over the period. By implication over the period poverty incidence has been reduced.

Secondly, the extent of community deprivation of social amenities reduced. That is over the period more social amenities were provided to the communities. For example 27 more communities were provided with health facilities, 30 were connected with electricity, 40 got access to telephone facilities and 33 communities had their feeder roads re-shape to all weather roads, etc. It also came out that there was improvement in human development outcomes; school enrolment, attendance, retention, completion rate, school performance, adult literacy rate, life expectancy at birth, coverage of vaccination, and delivery assistance increased over the period while infant mortality, maternal mortality, malnutrition, malaria rate, cholera cases, and guinea worm cases went down. Furthermore, the study found that the improvement in the human development outcomes significantly relate to HIPC initiative funds, except in the case of school performance, adult literacy rate and malaria cases. Hence, it can be said that with respect to the

provision of social amenities for communities the HIPC initiative has done marvelously well to reduce poverty in Ghana.

Thirdly, the ordinary least square (OLS) analysis proved significantly that the poverty reduction is positively related to the initiative. Hence, the hypothesis that the HIPC initiative has reduced poverty in Ghana is accepted and therefore the strategies used under the initiative have high potential to Ghana's future poverty reduction, growth and over-all economic development.

Furthermore, the study found that the most effective programmes to poverty reduction were education, health and water and sanitation. These programmes proved statistically significant relationship to the poverty reduction over the period. This means that when funds are shifted from micro-credit, private sector development and good governance, the rate of poverty will fall.

The study however found that over the period the intensity of poverty (inequality among the poor) increased implying that the HIPC initiative was not pro-poorest. This was shown by the increase in the Foster-Greer-Thorbecke (FGT) squared poverty gap index from 2000 to 2008. This means the proportion of income needed to move the more poor to catch up with the less poor has increased over the period. This implies that the initiative was more regressive to the poorer and hence not pro-poor. This suggests that even though the initiative has helped to reduce poverty, it impacted significantly on the less poor in the country than the poorest.

Moreover, some of the programmes; example, the micro-credit, private sector development and good governance did not to impact on the poor meaning they were either poorly implemented or they have long term effects on poverty reduction whose impact cannot be felt immediately.

From the second essay, the study found that the HIPC micro-credit is a panacea to poverty reduction in Ghana. However, both the standard and the marginal benefits of the micro-credit were distributed regressively towards the rural areas and the poorest income-quintile of the population. This therefore explains why the impact of the micro-credit was found not statistically significant.

The third essay (subjective-multidimensional analyses) revealed that both the head count and poverty gap indices from Foster-Greer-Thorbecke (FGT) were very high. Also, over the period there was no significant reduction. From counts of domain satisfaction on average over 60% of the households feel that they were poor by all the welfare indicators and therefore it is clear that from the subjective point of view the initiative did not significantly reduce the poverty situation of the populace.

Furthermore, the study found that the initiative did not significantly improve the households' basic-needs, asset-needs and capabilities. There was no significant statistical difference between the conditions of the households' basic-needs, asset-needs and capabilities in 2000 and 2008. The study therefore concludes that with respect to basic-needs, asset-needs and capabilities the initiative did not positively impact on poverty reduction over the implementation period.

6.3 Recommendations and Policy Implications

The following recommendations are made for policy implementation for poverty reduction in future;

Firstly, from the study the general conclusion was that the HIPC initiative module has the potential for poverty reduction. It is recommended that for future poverty reduction, any aid or grant or debt relief funds that would flow into the country should be utilized in line with the HIPC module, or the government should set aside certain proportion of the budget funds, equivalent to the annual HIPC funds to be utilized in line with the HIPC module.

Secondly, the study found that only three programmes were significantly effective for poverty reduction. This means that when government and assemblies focus on these programmes the rate of poverty will significantly fall. Government and assemblies should focus more attention on these programmes for future poverty reduction agenda.

Thirdly, the study however found that over the period inequality among the poor increased implying that the HIPC initiative appears not pro-poorest. The problem was that distribution of some programmes was based on spatial analysis without cognisant to who is poor. For example,

the school feeding was done by selecting schools assumed to be located in poverty areas. However, nobody knows whether the beneficiaries were poor or non-poor. There are pupils in such school enjoying the school feeding who do not belong to poor homes, yet there many in schools not designated school feeding but belong to poor families. The field survey found that within the same community with two primary schools, one benefit from school feeding while the other does not. There should be data collection exercise which should be the basis for the HIPC funds disbarment. Instead of implementing on mass basis the distribution should be in the form of subsidy to specific poor households once there is data.

Fourthly, the study found that the HIPC micro-credit for example was a panacea to poverty reduction in Ghana it was distributed regressively towards the rural areas and the poorest income-quintile of the population. To overcome such problem with poverty reduction, the study recommends that expenditures on these should be restructured to make them progressive to the rural areas and the poorest income quintiles.

From counts of domain satisfaction on average over 60% of the households feel that they were poor by all the welfare indicators even though the objective results proved otherwise. This indicates that poverty is also a subjective concept and multidimensional and therefore the efforts to reduce poverty should not only concentrate on only income and the objective dimension.

Moreover, the study found that the initiative did not significantly improve the households' basic-needs, asset-needs and capabilities. It is here recommended that future poverty reduction efforts should also focus on the provision of households' basic-needs, asset-needs and improve their capabilities. For example, there is the need for skills training to build the capacity of the households; extension services for the farmer to increase their labour productivity; and civic education or adult education to enable the poor to participate in decision making that affects them.

Furthermore the study identified one major fundamental irony under the implementation of the HIPC initiative in Ghana. The main tenant of the initiative is to tackle poverty. It is a common knowledge in Ghana that poverty rates differ between regions, climatic zones, communities, etc.

However, the study discovered that the HIPC funds were distributed to the districts equally without regards to difference in the incidence of poverty. For much impact on the country and to do away with inequality the funds should be shared according to the rate of poverty. Projects that are pro-poor and regions or areas with high incidence of poverty should be given greater share of the funds.

To understand and provide vivid explanation to some of the finding, the study recommends, for further studies the following; (a) benefit incidence analysis of HIPC funded programmes to determine the targeting of the programmes and which categories of the population capture the benefits of the HIPC programmes, and (b) the impact of the HIPC initiative on human and private sector development, and impact of HIPC on debt sustainability.

6.4 Limitations

The first limitation was the fact that the regression analysis used limited explanatory variables (financial expenditures). There were other variables like; rate of unemployment, type of work (small scale manufacturing, agriculture, commercial activities, etc), level of education of the district, availability of credit facilities, etc that could have impact on per capita income that were omitted for lack of data. The district did not have data on these variables but what they have were the national average and therefore the respective variables had identical values for all the districts. For logistic and time factor the study could not undertake primary survey to collect district data on these variables. Omission of these variables could have adversely affected the overall fitness of the regression model. This could explain the relatively low R-Square and Adjusted R-Squared values of 0.692 and 0.675 respectively. It is suggested that for future study the researcher must collect primary data on these variables.

Secondly, the regression analyses could suffer from the problem of multicollinearity. The variance inflation factor ranged between 1.23 -7.09. This indicates that there was the presence of multicollinearity. However, since multicollinearity is not a matter of existence but level of severity, the degree of multicollinearity present was accepted based on variance inflation factor criteria.

Thirdly, the main method of analyses (difference method) employed by the study has its own limitations. The study compared the key indicators of before with the after. Between the period (2000 and 2008) conditions of other fixed variables which were not included in the model might have changed. For example prices of goods and services, minimum wage, preference, job types, etc. These could have different impact on poverty reduction. To control price effect, the study used 2008 prices for the measurement of values and income of both 2000 and 2008. However, change in price between the periods might affect preference for the different periods.

The other limitation with respect to the method of analysis was that simple change does not take into consideration variations within the periods. The best method could have been the use of panel data analysis which considers all such changes. However, the district assemblies did not have data for all the years. The study was also limited in its capacity to collect data for all the years.

The study also faced the problem of improper records keeping on the part of the respondents. Data were always historical or past records because the study dealt with what had happened. However, respondents, who were households, depended on guesses and share approximations. They did not have codified record but depended on memories which may under or over estimate phenomenon. On the other hand the study took consolidation in the fact that the under and over will normalized to approximate the true estimations.

There was also the general problem of national income accounting from output approach. In the rural areas most part of the economy is subsistence and most of the activities are not marketed. Sometimes some of the respondents do not think they have earned income or they have engaged in economic activities so it was difficult to assess the true incomes. In some cases the study needed to use contingency valuation methods to assess some economic activities which might have either under or over estimated value of the activity.

The regression analysis used data from the district levels. Currently there are 170 Metropolitan, Municipal and District Assemblies (MMDAs), made of 6 metropolitan, 40 municipal and 124 district assemblies. However, at 2001 when HIPC implementation started there were 110

MMDAs; 4 metropolitan, 2 municipal and 104 district assemblies. The study used the original 110 MMDAs for consistency in the data as the study compared 2000 records with 2008. The limitation was that since new ones were created and others combined to for municipal and metropolitan it became difficult to collect data from those that overlapped. For example Tain was curved from Wenchi district in June 2004 so to make the data complete the study added data on Tain district to Wenchi municipal data. Another example is Nkoranza North that was created from Nkoranza South (original Nkoranza) in February, 2008, Assin South from the Assin North, and Kassena Nankana West from original Kassena Nankana (now Kassena Nankana East) in February, 2008.

Furthermore, the districts provided demographic data at different years. For consistency the study was compiled to use the 2000 demographic data from the official Ghana Population Census and Housing Survey which was the current. This might have had adverse effect on the per capita data in 2008 because in the 2000 census data districts had different rate of growth of their population. However, it can be said that the effect might be minimal because the districts population growth rate were within a range of 0.1 to 0.5 of the national growth rate.

Moreover, some of the benefits of the initiative have long gestation period to exhibit their impact on poverty reduction. For example, impact of expenditure on school infrastructure and capitation grant will increase enrolment but its direct impact on poverty reduction will be a long term. However, these expenditures do not increase income in the short run or will make the people feel it has improved their well-being. It was also difficult to capture their impact from the community poverty ratio. Again, some of such programmes and projects do not have direct impact on the household head who responded to the questionnaires and interviews and therefore the impact, if any was not captured.

Finally, the responses on subjective analysis were likely to have some biases as respondent might be answering from relative point of view. Psychologically, they may not compare their life situation at 2008 with what it was at 2000 but might have compared with other people currently. Nevertheless, relative poverty is also another dimension that needs to be eradicated.

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APPENDIX A

QUESTIONNAIRE FOR THE HOUSEHOLDS OF BENEFICIARY COMMUNITIES

This questionnaire is designed to assess and analyse the utilisation of the HIPC Funds in the District. I would be very grateful if you could provide answers to these questions. This study is for purely academic exercise and all information given will be treated with outmost confidentiality.

Kindly tick or answer where appropriate.

District: ..... Town: .....

House No: ..... Name (Option): .....

A) PERSONAL INFORMATION

1. Age: 18-30 years ☐ 31-60 years ☐ ☐ 60 years and above
2. Sex: Male ☐ Female ☐
3. Occupation: ……
4. How long have you been in this job? 1-3 years ☐ 4-6 years ☐ 7-9 years ☐ 10 and above ☐
5. Educational Level: None ☐ Basic ☐ Secondary ☐ Tertiary ☐
6. How many hours do you work in a day? 1-3 hours ☐ 4-6 hours ☐ 7-8 hours ☐ 9 and above ☐
7. How many hours leisure do you take in a day? 1-3 hours ☐ 4-6 hours ☐ 7-8 hours ☐ 9 and above ☐
8. On average how many kilometres do you cover to access health facilities? 0-3 km ☐ 4-6 km ☐ 7-8 km ☐ 9 and above ☐

B) PERCEPTION AND AWARENESS OF THE HIPC INITIATIVE

9. Have you heard about the HIPC Initiative? Yes ☐ No ☐
10. How long have you known about the HIPC initiative?

    Recently ☐ A long time ago ☐ Never heard of it ☐
11. How did you get to know about HIPC? .....
12. What do you think is the HIPC initiative? …….....

.....

13. How did you perceive the benefit of the HIPC initiative to your poverty situation?

to worsen it ☐ no effect ☐ to reduce it ☐ to alleviate it ☐

14. Have you been better-off or worse-off since the country went HIPC?

Better-off ☐ Worse-off ☐ the same ☐ Don't know ☐ Other reasons (State) ……...

15. What evidence do you have for your answer above? .....

.....

C) KNOWLEDGE OF THE EXISTENCE OF THE HIPC MICRO CREDIT SCHEME.

16. Have you heard about the HIPC initiative micro-credit scheme? Yes ☐ No ☐

If no skip questions 17 – 37 and jump to section D

17. If yes to (16) how did you get to know about the HIPC Micro Credit Scheme? Through

☐ District Assembly ☐ Assembly member ☐ Friend ☐ Relative

☐ MP ☐ A Beneficiary ☐ Radio ☐ Others (Specify)…….....

18. Did you apply for the credit? Yes ☐ No ☐

19. If no explain why .....

20. If yes how did you apply for the credit? …….....

21. Were you given the credit? Yes ☐ No ☐

22. If no explain why .....

23. If yes how much was given to you? ☐ GH¢20.00-¢50.00 ☐ GH ¢50.01-¢70.00

☐ GH¢ 70.01-¢100.00 ☐ Others (Specify)…….....

27. Was the amount sufficient for your needs? Yes ☐ No ☐

28. What did you use the loan for? Farming ☐ Trading ☐

Livestock Rearing ☐ Others (specify)…….....

29. How cumbersome or difficult was the procedure to acquire the HIPC micro-credit loan?

Very cumbersome ☐ Somehow cumbersome ☐ Slightly cumbersome ☐

Not cumbersome at all ☐

30. What time of the year did you need the loan the most? Between ☐ January-March

☐ April-June ☐ July-September ☐ October-December ☐ Anytime of the year

31. What time of the year did you receive the loan? Between ☐ January-March

☐ April-June ☐ July-September ☐ October-December

32. Were you required to pay any process fee when applying for the loan?

Yes ☐ No ☐

33. How often did the Assembly reach out to you for monitoring? Every:

Month ☐ Two month ☐ Three Months ☐ Once a while ☐

Never visited ☐

34. Did you pay back the credit? Yes ☐ No ☐

35. If no explain why .....

.....

36. If yes explain the payment modalities .....

.....

37. State your comments and suggestions about the HIPC micro-credit

.....

.....

D) OUTPUT LEVEL OF RESPONDENTS

38 Please, fill in the tables below:

A. Agricultural Output

Product	Average output level per year	Average expenditure per year on output produced

B. Non-agricultural Output

Enterprise	Average Revenue per year	Average expenditure per year on job

39. On average how much extra income do you earn per day apart from your regular job?

GH¢1.00 – GH¢2.00 ☐ GH¢3.00 – GH¢4.00 ☐ GH¢5.00 - GH¢6.00 ☐

GH¢7.00 - GH¢ 8.00 ☐ GH¢9.00 - GH¢10.00 ☐ GH¢11.00 and above ☐

E) EXPENDITURE ON THE HOUSEHOLD

40. How many people are in the household that depend on you?

1- 3 ☐ 4-6 ☐ 7-10 ☐ 11 and above ☐

41. On average how much do you spend on food per day on the household?

GH¢1.00 – GH¢2.00 ☐ GH¢3.00 – GH¢4.00 ☐ GH¢5.00 - GH¢6.00 ☐

GH¢7.00 - GH¢ 8.00 ☐ GH¢9.00 - GH¢10.00 ☐ GH¢11.00 and above ☐

42. On average how much do you need to spend on food per day on the household?

GH¢1.00 – GH¢2.00 ☐ GH¢3.00 – GH¢4.00 ☐ GH¢5.00 - GH¢6.00 ☐

GH¢7.00 - GH¢ 8.00 ☐ GH¢9.00 - GH¢10.00 ☐ GH¢11.00 and above ☐

43. How many of your dependants are in school? .....

Please, state the number in each level of schooling:

Basic level..... Second cycle..... Tertiary level.....

44. On average how much do you spend on their schooling per term or semester

Basic level..... Second cycle..... Tertiary level.....

45. On average how much do you give to each child at basic level as pocket money for school per day? Less than GH¢.50 ☐ GH¢0.51 - GH¢1.00 ☐ GH¢1.01 – GH¢2.00 ☐

GH¢2.01 and above ☐

46. On average how much do you spend on non-food items per day on the household?

GH¢1.00 – GH¢2. 00 ☐ GH¢3.00 – GH¢4.00 ☐ GH¢5.00 - GH¢6.00 ☐

GH¢7.00 - GH¢ 8.00 ☐ GH¢9.00 - GH¢10.00 ☐ GH¢11.00 and above ☐

47. On average how many kilometres do your children cover to access school?

0-3 km ☐ 4-6 km ☐ 7-8 km ☐ 9 and above ☐

F) SIMPLE COUNT OF DOMAIN POVERTIES

48. How satisfied are you today with the following areas of your life using the scale; 0 for totally unhappy (not satisfied at all) and 10 means totally happy (completely satisfied)

Financial situation..... Health status..... Job type .....

Housing condition..... Environmental condition..... Leisure.....

Life as a whole.....

G) CAPABILITIES AND FUNCTIONING ATTRIBUTES

49. How do you score the following capabilities and functioning attributes? Score each indicator on a scale, ranging from 1 to 5, with 1= very poor, 2 = poor, 3 = average, 4 = good and 5 = very good

Label	Description	Scale of valuation	Score
Health Status	Self-reported health status; Sound health, no frequent illness,	1 Very poor, 2 poor, 3 average, 4 good, 5 very good	
Education/Skills	Level of educational attainment or skills acquisition;	1 None, 2 Basic level/Trade 3 Secondary/Vocational/Technical, 4 Tertiary, 5 Postgraduate	
Financial Control	Amount of savings from own income	1 None, 2 very little, 3 some, 4 much, 5 very much	
Land	Number of hectares of farm land owned	1 Nothing, 2 less than three hectares, 3 less than five hectares, 4 less than ten hectares, 5 more than ten hectares	
Occupation	Type of work the person does	1. No work, 2 Farming, 3 Artisan, 4 civil servant, 5 Business/others	
Financial Assets	Financial securities owned	1 Nil, 2 Very few, 3 Few, 4 more, 5 very many	
Income	Frequency, reliability, sources and amount received	1 Very low, 2 Low, 3 good, 4 high, 5 very high	
Durables	Number of durables in the house	1 None, 2 very few, 3 few, 4 many, 5 very many	
Debt Servicing	Monthly debt repayment as proportion of total debt	1 Very high, 2 High, 3 average, 4 Low, 5 Very low	
Investment	Amount of money spent to expand the work	1 None, very little, 3 some, 4 much, very much	
Social Participation	Number of social organizations	1 Nil, 2 Very few, 3 Few, 4 more, 5 very many	
Political Participation	Opportunity to participate in decisions that affect the person	1 Nil, 2 Very few, 3 Few, 4 more, 5 very much	

H) ASSET AND NEED (WELL-BEING) ATTRIBUTES

50. How do you score the following asset and need (well-being) attributes? Score each indicator on a scale, ranging from 1 to 5, with 1= very poor, 2 = poor, 3 = average, 4 = good and 5 = very good

Label	Description	Scale of valuation	Score
Health Facilities	Availability of Health delivery system	1 Nil, 2 Very few, 3 Few, 4 more, 5 very many	
Water	Main source of drinking water	1 Rivers/dam, 2 Borehole, 3 Public tap/water carrier, 4 Pipe water on site, 5 Pipe water in dwelling	
Food	The adequacy of food for respondent and family	1 None, highly inadequate, 3 inadequate, 4 adequate, 5 highly adequate	
Access to Health Care	Ability to pay for health care services and subscription to NHIS	1 No access, 2 less access, 3 some access, 4 good access, 5 very good access	
Transport and Communication	Availability and condition all year round	1 Very poor, 2 poor, 3 average, 4 good, 5 very good	
Housing	Availability type and condition	1 Very poor, 2 poor, 3 average, 4 good, 5 very good	
Sanitation	How clean is the environment	1 Very poor, 2 poor, 3 average, 4 good, 5 very good	
Energy Consumption	Type of energy used for lightening	1 Wood, 2 paraffin, 3 gas, 4 electricity, 5 all kinds	
Safety	Provision of security services	1 worst, 2 worse, 3 bad, 4 good, 5 Very good	
Clothing	Availability and type	1 Very few, 2 few, 3 average, 4 much, 5 very much	
Children Schooling	Ability to pay school fees, buy books and uniform	1 Not able, 2 Less able, 3 Able, 4 more able, 5 Highly able	
Household Appliances	Number of Household Appliances	1 Nil, 2 Very few, 3 Few, 4 more, 5 very many	

I) SOCIAL ACCOUNTABILITY

51. Has there been project built in your community with HIPC funds? Yes ☐ No ☐

52. List down the projects which were financed by the HIPC funds in your community

.....

.....

53. Which of the projects were not in your interest? .....

.....

54. How did the district select the projects that were financed by the HIPC funds? By;

The coordinating committee ☐ the assembly ☐ central government ☐ tender board ☐ DCE ☐ the people ☐ others (specify).....

55. How did the district determine the disbarment of the HIPC funds to various used? By;

The coordinating committee ☐ the assembly ☐ central government ☐ tender board ☐ DCE ☐ the people ☐ others (specify).....

56. Do you use the projects financed by the HIPC funds? Yes ☐ No ☐

57. If no to (56) give the reason(s) for your refusal to use them

.....

.....

58. List down the projects that you need for your community in order of priority;

.....

.....

59. Give your general comment about the use of the HIPC initiative funds in your town

.....

.....

60. Give your general comment about your poverty situation after the utilisation of the HIPC initiative fund in your community

.....

.....

THANK YOU VERY MUCH FOR YOUR RESPONSE

APPENDIX B

QUESTIONNAIRE FOR THE DISTRICT ASSEMBLY

This questionnaire is designed to assess and analyse the management of the HIPC funds in the District. I will be very grateful if you could provide answers to these questions. This study is for purely academic exercise and all information given will be treated with outmost confidentiality.

Kindly tick (where appropriate) or answer.

District: .....

A) **PERSONAL INFORMATION:**

1. Position at the District Assembly. ☐ DCE ☐ DCO ☐ Presiding Member
   Accountant ☐ Planning Officer ☐ Assembly Man/Woman ☐
   Others (Please specify)……
2. How many years have you been working with this District Assembly……..

B) THE MANAGEMENT OF HIPC FUNDS IN THE DISTRICT

3. How were the HIPC funds given to the District Assembly?
   .....
   .....
4. How much has been paid so far into the HIPC Account in the district?

Year	2001	2002	2003	2004	2005	2006	2007	2008
Amount (in GH¢ m)								

5. What amount of the HIPC funds were spent in the following areas? Please fill in the table

Year	2001	2002	2003	2004	2005	2006	2007	2008
Education (GH¢ m)								
Health								
Water and sanitation								
Private sector development								
Micro-credit								
Good Governance								

6. How did the appropriate District officers know that HIPC funds have been paid to the District Assembly? ……..……...

7. Were the members of the District Assembly informed about this payment?

   Yes ☐ No ☐

8. Did the public know about this payment? Yes ☐ No ☐

9. When was the public informed? .....

10. Has a HIPC Drawings Account been opened by the District? ☐ Yes ☐ No

11. When was it opened? .....

12. At which bank is the HIPC Drawings Account? .....

13. Who are the signatories for the HIPC Drawings Account?

    .....

    .....

14. What has been the District's main source of the Fund (Before HIPC)?

    .....

15. How sufficient have these Funds been to the District? Very sufficient ☐ sufficient ☐ insufficient ☐

16. How much has been used so far from the HIPC Drawings Account?

    .....

17. Which "Poverty focused" projects are the HIPC funds used on?

PROJECT	NO	LOCATION	AMOUNT SPENT (GH¢)	AMOUNT FROM HIPC (GH¢)	STATE OF PROJECT

18. How does the District assembly give information about HIPC funds to the public?

    ☐ Radio ☐ Circulars/Brochures ☐ Local Assembly Meetings

    ☐ Peoples Assembly ☐ Others (Please Specify) …….....

18. What kind of information about HIPC funds do the District political and Administrative officers normally give out to the people?

    .....

    .....

19. How often is such information given to the public?

    .....

    .....

20. Do District officers ask for comments or the opinion of the people on the information that is given out? Yes ☐ No ☐

21. Do the people in the District comment or give their opinion on the information they get from the District officers? Yes ☐ No ☐

22. Do the opinions or views of the people concern HIPC funds and HIPC funded projects? Yes ☐ No. ☐

23. Do the people often come forward for information about HIPC funds or HIPC funded projects for the District? ☐ Yes ☐ No.

24. How often do they come for such information? ☐ Very often ☐ Often ☐ Quite often ☐ Not at all

25. How much were you receiving as the District Assembly's Common Fund in a year? ……

26. How much does the District now receive from the HIPC common fund in a year? ……

C) THE HIPC MICRO-CREDIT SCHEME

27. When was the HIPC micro-credit scheme instituted in the district?

    .....

28. How much from the HIPC funds have been used or are intended for this purpose**?**

    .....

29. What are the conditions for the acquisition of the fund?

    .....

    .....

30. What is/are the aim(s) of the HIPC micro-credit scheme?

.....

.....

31. Who are the target beneficiaries of the scheme? Males ☐ Females ☐ All ☐

32. Explain your answer in (32) above?

.....

.....

33. How many people have benefited from the scheme so far?

.....

34. How much has been given out to the beneficiaries over the years?

Year	2001	2002	2003	2004	2005	2006	2007	2008
Amount (in GH¢ m)								

35. Were they supposed to pay back and at what rate of interest?

.....

36. How much is disbursed through the Micro-credit Scheme each year?

Year	2001	2002	2003	2004	2005	2006	2007	2008
Amount (in GH¢ m)								

37. Into which activities were beneficiaries expected to put the funds? ☐ Farming ☐ Petty Trading ☐ Any activity of choice others (Please Specify)……

38. What is the occupational distribution of the fund? Petty Trading …… …… Farming…….. Others (Please Specify)……

39. How did the beneficiaries get to know about the HIPC micro-credit scheme?.....

.....

40. How is the scheme being managed?

.....

.....

41. Is there a project officer in charge of monitoring the rate at which repayment is honoured?

Yes ☐ No ☐

42. How encouraging is the repayment rate of the loan from the micro credit programme?

☐ Very encouraging ☐ Just encouraging ☐ Not encouraging

43. How much of the credit disbursed have been repaid? .....

44. Are there any problems encountered in the management of the credit scheme? Please state

i……...

ii……..

iii…….

45. Please give recommendations as to how effectively the problems stated in (43) above can be solved.

i……...

ii……..

iii…….

D) PROFILE OF POVERTY

46. What features do you describe as poverty? Please state them.

I. ……

II. ……

III. ……

IV. ……

47. List down the most important causes of poverty in the district?

I. ……

II. ……

III. ……

IV. ……

48. What was the average income per day earned in the district before HIPC (2000)?

……

49. What was the average income per day earned in the district after HIPC (2008)?

……

50. What is the poverty rate in the district before HIPC?

……

51. What is the poverty rate in the district after HIPC?

☐

……

52. What projects were needed before HIPC?

……

53. What projects are still needed after HIPC?

……

54. What capacity building programmes were in place before the HIPC?

……

55. What capacity building programmes are put in place during the HIPC period?

……

56. What was the level of participation in decision making by the people in district and national issues before HIPC?

Nil ☐ very low ☐ low ☐ satisfactory ☐ high ☐ very high ☐

57. What is the level of participation in decision making by the people in district and national issues after HIPC?

Nil ☐ very low ☐ low ☐ satisfactory ☐ high ☐ very high ☐

E) SOCIAL ACCOUNTABILITY

58. How did the district determine the disbarment of the HIPC funds to various used? By;

The coordinating committee ☐ the assembly ☐ central government ☐ tender board ☐ DCE ☐ the people ☐ others (specify).....

59. How did the district select the projects that were financed by the HIPC funds? By;

The coordinating committee ☐ the assembly ☐ central government ☐ tender board ☐ DCE ☐ the people ☐ others (specify).....

60. Do the people use the projects financed by the HIPC funds? Yes ☐ No ☐

61. If no to (65) give the reason(s) for their refusal to use them

.....

.....

THANK YOU VERY MUCH FOR YOUR RESPONSE

APPENDIX C

TOTAL NUMBER OF COMMUNITIES AND LIST OF SAMPLED COMMUNITIES

Kassena Nankana	Builsa	Wenchi	Nkoranza	Assin	KEEA
NUMBER OF COMMUNITIES					
58	45	45	56	54	43
SAMPLED COMMUNITIES					
Navrongo	Sandema-Fiisa	Wenchi	Nkoranza	Assin Fosu	Komenda
Kanania	Sandema-Nyansa	Awisa	Nkwabeng	Assin Asamankese	Elmina
Kandiga-Atibabisi	Sinyangsa-Badomsa I	Akrobi	Dromankese	Assin Nsuaem	Eguafo
Kaniga-Kurugu	Gbedema-Kunkwak	Awoase	Sikaa	Assin Ongwa	Abrem Agona
Korania	Fumbis-Kasisa	Tromeso	Busunya	Assin Jakai	Bronyibima
Nakolo	Fumbisi	Nkonsia	Donkro-Nkwanta	Assin Adiembra	Abrem Berase
Natugnia Akumbisi	Awchana-Yeri	Koase	Kranka	Assin Dompem	Amisano
Paga	Fumbis-Baansa	Beposo	Bonte	Assin Juaso	Aboransa
Sirigu-Guwonko	Gbedema-Jagsa-Garibiemsa	Seikwa	Maaso	Assin Nyankomasi	Ampenyi
Chiana	Kanjarga-Jiningsa	Nsawkaw	Bonsu	Assin Brofoyedur	Abeyee

Source: Author's field survey, 2005 and 2008

APPENDIX D

HIPC funds to Metropolitan, Municipal and District Assemblies, 2001-2008 (GH¢ million)

	2001	2002	2003	2004	2005	2006	2007	2008	Total
District Assemblies	10.64	13.74	67.21	136.75	142.79	130.62	139.49	121.5	762.74
Municipal Assemblies	0.34	0.44	2.15	4.7	4.9	4.51	5.11	4.21	26.36
Accra Metropolitan Assembly	0.85	1.1	5.39	11.76	12.24	11.27	11.78	10.54	64.93
Kumasi Metropolitan Assembly	0.68	0.88	4.31	9.41	9.79	9.01	10.22	8.43	52.73
SAE Metropolitan Assembly	0.6	0.77	3.77	8.23	8.57	7.89	7.95	7.38	45.16
Tema Metropolitan Assembly	0.44	0.57	2.8	6.11	6.37	5.4	6.65	5.48	33.82
Total	13.55	17.5	85.63	176.96	184.66	168.7	181.2	157.54	985.74

Source: MMDAs Annual Reports, 2001-2008

APPENDIX E

Composition of HIPC funds of the MMDs, 2001-2008 (GH¢ million)

	Education	Health	Water and Sanitation	Private Sector Dev't	Micro Credit	Good Governance	Total
Kumasi Metropolitan	10.93	11.55	18.23	3.25	2.42	4.36	52.74
Asante Akim North	3.92	2.23	0.28	0.23	0.41	0.19	7.26
Adansi West	3.71	2.21	0.24	0.55	0.24	0.31	7.26
Amansie East	3.41	2.53	0.45	0.23	0.22	0.42	7.26
Adansi East	3.45	3.2	0.05	0.04	0.45	0.07	7.26
Ejisu Juaben	3.43	2.32	0.43	0.47	0.52	0.09	7.26
Afigya-Kwabre	3.31	2.24	0.44	0.25	0.49	0.53	7.26
Ahafo Ano North	3.09	2.04	0.65	0.54	0.43	0.51	7.26
Ahafo Ano South	2.93	1.95	0.76	0.47	0.42	0.73	7.26
Offinso	3.03	2.65	0.14	0.46	0.77	0.21	7.26
Amansie West	2.92	2.45	0.44	0.25	0.72	0.48	7.26
Asante Akim South	3.11	2.85	0.25	0.06	0.75	0.24	7.26
Bosomtwi/Atwima/ Kwanwoma	2.78	2.53	0.31	0.64	0.74	0.26	7.26
Atwima	3.1	2.65	0.24	0.32	0.76	0.19	7.26
Ejura/Sekyedumase	3.2	2.7	0.07	0.15	0.85	0.29	7.26
Sekyere East	3.18	2.55	0.28	0.32	0.71	0.22	7.26
Afigya Sekyere	2.99	2.45	0.37	0.24	0.62	0.59	7.26
Sekyere West	3.02	2.46	0.51	0.43	0.72	0.12	7.26
Asunafo	3.01	2.21	0.54	0.55	0.6	0.35	7.26
Berekum	3.27	2.53	0.25	0.23	0.66	0.32	7.26
Asutifi	2.35	2.48	0.56	0.68	0.65	0.54	7.26
Dormaa	3.13	2.62	0.43	0.17	0.82	0.09	7.26
Atebubu	2.81	2.54	0.43	0.45	0.78	0.25	7.26
Sunyani	3.11	2.74	0.23	0.04	0.81	0.33	7.26
Jaman	3.03	2.55	0.21	0.47	0.7	0.3	7.26
Techiman	3.07	2.65	0.14	0.42	0.77	0.21	7.26
Wenchi	2.62	2.45	0.54	0.25	0.71	0.69	7.26
Kintampo	2.21	2.25	0.75	0.63	0.68	0.74	7.26
Nkoranza	2.18	2.23	0.65	0.64	0.68	0.88	7.26
Sene	2.22	2.33	0.74	0.55	0.63	0.79	7.26
Tanoso	3.05	2.41	0.44	0.35	0.68	0.33	7.26
Cape Coast Municipal	3.31	2.75	4.02	1.13	1.27	0.71	13.19
Agona	3.51	2.56	0.23	0.02	0.63	0.31	7.26
Abura/Asebu/ Kwamankese	2.23	2.35	0.21	0.47	0.58	1.42	7.26
Assin	2.93	2.75	0.14	0.46	0.77	0.21	7.26

Awutu /Effutu/Senya	3.52	2.55	0.04	0.25	0.72	0.18	7.26
Ajumako/Enyan/Essiam	3.71	2.57	0.03	-0.04	0.76	0.23	7.26
Komenda/Edina/Eguafo / Abirem	2.98	2.43	0.31	0.41	1.01	0.12	7.26
Asikuma/Odoben/ Brakwa	3.02	2.53	0.24	0.34	1.09	0.04	7.26
Mfatseman	3.25	-0.2	0.22	0.32	0.63	0.24	7.26
Upper Dekyira	3.12	2.6	0.28	0.38	1.05	0.08	7.26
Gomoa	2.89	2.35	0.68	0.78	0.23	0.34	7.26
Twifo/Heman/Lower Denkyira	2.92	2.35	0.51	0.61	0.62	0.25	7.26
Akuapim South	3.25	2.64	0.05	0.15	1.15	0.02	7.26
Akuapim North	3.33	2.72	0.13	0.23	0.81	0.04	7.26
Afram Plains	2.71	2.64	0.41	0.51	0.82	0.17	7.26
East Akim	3.61	1.94	0.23	0.33	0.69	0.46	7.26
Asuogyaman	2.28	3.25	0.26	0.31	0.94	0.22	7.26
New Juaben Municipal	5.43	2.45	2.17	2.22	1.81	-0.03	14.11
Birim North	2.98	2.65	0.19	0.24	0.94	0.26	7.26
West Akim	3.57	2.45	0.09	0.14	0.78	0.23	7.26
Birim South	2.26	3.15	0.3	0.35	0.94	0.26	7.26
Fanteakwa	2.73	2.53	0.36	0.41	0.99	0.24	7.26
Kwaebibirem	3.27	2.23	0.29	0.34	0.79	0.34	7.26
Kwahu South	3.6	1.9	0.49	0.54	0.46	0.27	7.26
Suhum/Kraboa/Coaltar	3.47	1.95	0.33	0.38	1.01	0.12	7.26
Manya Krobo	2.94	2.45	0.52	0.57	0.44	0.34	7.26
Yilo Krobo	2.97	2.25	0.56	0.61	0.67	0.2	7.26
Accra Metropolitan	10.48	11.05	20.71	20.76	2.69	5.24	64.93
Dangbe East	3.87	1.93	0.63	0.68	0.16	0.24	7.26
Tema Metropolitan	8.5	4.82	11.17	11.22	2.31	2.78	33.62
Dangbe West	2.76	2.54	0.46	0.51	0.8	0.19	7.26
Ga	3.66	1.84	0.28	0.33	0.93	0.22	7.26
Tamale	2.28	3.25	0.26	0.31	0.91	0.25	7.26
East Dagomba	2.98	2.65	0.19	0.24	1.05	0.15	7.26
Bole	3.57	2.45	0.09	0.14	0.98	0.03	7.26
Chereponi-Saboba	2.26	3.15	0.3	0.35	1.14	0.06	7.26
East Gonja	2.73	2.53	0.36	0.41	0.85	0.38	7.26
East Mamprusi	3.27	2.23	0.29	0.34	1	0.13	7.26
Gushegu-Karaga	3.6	1.9	0.49	0.54	0.39	0.34	7.26
Nanumba	2.98	2.65	0.19	0.24	1.05	0.15	7.26
Savelugu/Nanton	3.66	1.84	0.28	0.33	1.09	0.06	7.26
Tolon	2.28	3.25	0.26	0.31	0.74	0.42	7.26
West Gonja	2.98	2.65	0.19	0.24	1.04	0.16	7.26

West Mamprusi	3.57	2.45	0.09	0.14	0.68	0.33	7.26
Zabzugu/Tatale	2.26	3.15	0.3	0.35	0.95	0.25	7.26
Bawku East	2.73	2.53	0.36	0.41	0.91	0.32	7.26
Bawku West	3.22	2.28	0.29	0.65	0.64	0.18	7.26
Bolgatanga	3.55	1.95	0.49	0.45	0.75	0.07	7.26
Bongo	2.23	3.3	0.26	0.57	0.72	0.18	7.26
Builsa	3.61	1.89	0.28	0.64	0.56	0.28	7.26
Kassena Nankana	2.23	3.3	0.26	0.57	0.62	0.28	7.26
Wa	3.55	1.95	0.49	0.45	0.33	0.49	7.26
Jirapa-Lambussie	3.42	2	0.33	0.68	0.43	0.4	7.26
Lawra	2.87	2.58	0.5	0.33	0.36	0.62	7.26
Nadowli	2.25	3.25	0.1	0.78	0.61	0.27	7.26
Sissala	3.33	2.37	0.48	0.57	0.22	0.29	7.26
Ho	2.93	2.7	0.19	0.56	0.47	0.41	7.26
Hohoe	3.52	2.5	0.09	0.35	0.42	0.38	7.26
Akatsi	2.21	3.2	0.3	0.66	0.45	0.44	7.26
Keta	2.68	2.58	0.36	0.74	0.43	0.47	7.26
Jasikan	3.22	2.28	0.29	0.65	0.43	0.39	7.26
Kadjebi	3.55	1.95	0.49	0.45	0.33	0.49	7.26
Ketu	2.68	2.58	0.36	0.74	0.43	0.47	7.26
Krachi	3.22	2.28	0.29	0.65	0.43	0.39	7.26
North Tongu	3.55	1.95	0.49	0.45	0.33	0.49	7.26
South Tongu	2.93	2.7	0.19	0.56	0.47	0.41	7.26
Nkwanta	3.61	1.89	0.28	0.64	0.33	0.51	7.26
Kpando	2.23	3.3	0.26	0.57	0.43	0.47	7.26
SAE Metropolitan Assembly	12.85	10.32	9.13	4.37	2.03	6.46	45.16
Nzema East	2.93	2.7	0.19	0.56	0.47	0.41	7.26
Ahanta West	3.52	2.5	0.09	0.35	0.42	0.38	7.26
Aowin/Suaman	2.21	3.2	0.3	0.66	0.45	0.44	7.26
Bibiani/Ahwiaso/Bekwai	2.68	2.58	0.36	0.74	0.43	0.47	7.26
Jomoro	3.22	2.28	0.29	0.65	0.43	0.39	7.26
Juaboso-Bia	3.52	2.5	0.09	0.35	0.42	0.38	7.26
Mpohor/Wassa East	2.21	3.2	0.3	0.66	0.45	0.44	7.26
Sefwi-Wiawso	2.68	2.58	0.36	0.74	0.43	0.47	7.26
Wassa Amenfi	3.22	2.28	0.29	0.65	0.43	0.39	7.26
Wassa West	3.55	1.95	0.49	0.45	0.33	0.49	7.26
Total	371.96	303.41	92.20	78.55	80.16	53.76	985.74

Source: MMDAs Annual Reports, 2001-2008

APPENDIX F

Distribution of District Assemblies Common Fund (DACF) and Internally Generated Funds (IGF), 2001-2008 (GH¢ million)

District Assemblies Common Fund (DACF)									
	2001	2002	2003	2004	2005	2006	2007	2008	Total
District Assemblies	18.53	20.27	45.65	58.82	73.69	82.17	112.24	271.34	682.72
Municipal Assemblies	0.59	0.65	1.46	1.89	2.36	2.63	3.60	8.70	21.88
Accra Metropolitan Assembly	1.48	1.62	3.66	4.71	5.91	6.58	8.99	21.74	54.71
Kumasi Metropolitan Assembly	1.19	1.30	2.93	3.77	4.72	5.27	7.19	17.39	43.76
SAE Metropolitan Assembly	1.04	1.14	2.56	3.30	4.13	4.61	6.30	15.22	38.29
Tema Metropolitan Assembly	0.77	0.84	1.90	2.45	3.07	3.42	4.68	11.31	28.45
Total	23.61	25.82	58.16	74.94	93.89	104.69	143.00	345.70	869.81
Internally Generated Funds (IGF)									
Total	9.57	14.3	18.9	22.6	22.8	23.3	23.6	24.2	159.00

Source: MMDAs Annual Reports, 2001-2008

APPENDIX G

Population, Per Capita Income (PCY), Internally Generated Funds (IGF) and Poverty Incidence for Metropolitan, Municipal and District Assemblies (MMDAs)

MMDAs	Population 2000	PCY 2000 GH¢	PCY 2008 GH¢	Change in Per Capita Income	Internally Generated funds 2001-2008 (GH¢ Million)	Poverty Incidence 2000
Kumasi Metropolitan	1,170,270	148	453	305	12.41	10
Asante Akim North	126,477	107	304	291	1.43	37
Adansi West	92,834	96	278	277	1.06	25
Amansie East	81,871	86	269	219	1.04	50
Adansi East	79,936	114	324	279	0.92	57
Ejisu Juaben	124,176	115	305	260	1.48	40
Afigya-Kwabre	89,967	97	268	242	1.37	36
Ahafo Ano North	71,952	93	256	168	1.04	55
Ahafo Ano South	133,632	93	246	163	1.67	57
Offinso	138,190	112	290	268	1.78	47
Amansie West	98,371	100	268	209	1.27	52
Asante Akim South	96,868	123	312	222	1.55	45
Bosomtwi/Atwima/ Kwanwoma	108,235	111	279	216	1.38	50
Atwima	129,375	122	305	243	1.59	45
Ejura/Sekyedumase	88,753	116	299	271	1.25	52
Sekyere East	157,396	104	287	237	1.15	53
Afigya Sekyere	119,093	110	275	210	1.38	43
Sekyere West	157,396	114	297	216	2.67	44
Asunafo	110,827	88	256	148	1.52	56
Berekum	93,235	99	280	297	1.25	37
Asutifi	84,475	99	250	167	1.09	60
Dormaa	150,229	102	294	213	2.11	51
Atebubu	83,957	88	261	167	1.08	69
Sunyani	180,385	111	295	316	2.17	34
Jaman	78,192	101	274	188	0.86	69
Techiman	174,600	108	287	319	3.49	41
Wenchi	155,857	105	261	269	2.12	71
Kintampo	146,770	96	237	237	1.94	73
Nkoranza	127,000	95	230	234	1.34	71
Sene	82,166	79	221	184	1.04	83
Tanoso	123,404	96	271	216	1.47	48
Cape Coast Metropolitan	82,291	132	338	347	1.05	36
Agona	158,678	75	266	350	1.17	68
Abura/Asebu/ Kwamankese	108,273	67	168	294	1.17	63

Assin	116,349	71	248	369	1.33	52
Awutu /Effutu/Senya	169,972	83	273	308	1.41	49
Ajumako/Enyan/Essiam	91,965	73	270	326	1.34	61
Komenda/Edina/Eguafo/ Abirem	112,435	72	251	196	1.25	56
Asikuma/Odoben/ Brakwa	87,796	66	167	223	1.06	62
Mfatseman	152,264	75	214	350	2.05	50
Upper Dekyira	101,425	65	252	279	1.03	54
Gomoa	102,449	64	231	277	1.37	58
Twifo/Heman/Lower Denkyira	107,787	68	169	296	1.16	55
Akuapim South	30,000	111	305	305	0.60	32
Akuapim North	104,753	106	302	310	1.20	31
Afram Plains	85,254	64	239	198	1.01	84
East Akim	190,347	100	271	217	2.58	38
Asuogyaman	80,529	111	286	194	1.06	62
New Juaben Municipal	136,768	112	359	251	1.37	20
Birim North	123,579	103	281	178	1.17	47
West Akim	91,382	100	290	191	1.49	47
Birim South	94,214	102	273	186	1.35	43
Fanteakwa	23,070	119	290	294	0.46	45
Kwaebibirem	179,209	105	279	192	2.18	44
Kwahu South	217,485	108	286	221	2.35	35
Suhum/Kraboa/Coaltar	86,142	113	295	213	1.02	44
Manya Krobo	154,301	74	245	208	2.09	58
Yilo Krobo	86,107	76	249	225	1.02	31
Accra Metropolitan	1,695,136	246	533	537	18.15	8
Dangbe East	93,112	110	296	213	1.06	54
Tema Metropolitan	361,865	253	479	457	4.24	19
Dangbe West	96,809	103	277	187	1.39	51
Ga	258,682	116	296	178	1.17	26
Tamale	293,881	68	242	381	3.88	59
East Dagomba	87,215	56	239	350	0.94	84
Bole	75,151	42	240	147	0.99	87
Chereponi-Saboba	93,847	47	226	203	0.67	88
East Gonja	174,500	47	213	208	0.75	85
East Mamprusi	180,877	47	229	216	0.45	88
Gushegu-Karaga	62,719	42	218	153	0.44	92
Nanumba	76,643	45	228	198	0.47	88
Savelugu/Nanton	91,415	49	236	213	0.53	77
Tolon	67,394	41	209	197	0.39	90

West Gonja	76,702	42	224	220	0.54	89
West Mamprusi	117,821	43	229	183	0.62	87
Zabzugu/Tatale	79,201	44	216	226	0.34	89
Bawku East	205,849	49	217	96	2.07	99
Bawku West	109,743	51	227	106	1.09	92
Bolgatanga	378,531	55	242	88	4.27	88
Bongo	77,885	41	214	73	0.41	99
Builsa	75,375	38	212	59	0.36	98
Kassena Nankana	75,548	38	207	70	0.51	91
Wa	69,284	58	229	62	0.48	79
Jirapa-Lambussie	96,834	49	216	58	0.52	89
Lawra	87,525	50	214	53	0.75	88
Nadowli	82,716	47	212	47	0.65	96
Sissala	66,828	48	228	31	0.34	91
Ho	200,000	113	281	199	1.39	45
Hohoe	114,511	106	287	151	0.64	49
Akatsi	93,477	95	256	217	0.87	60
Keta	133,661	86	245	170	0.76	46
Jasikan	111,285	100	268	165	0.48	52
Kadjebi	51,998	79	250	146	0.53	33
Ketu	320,362	83	242	151	0.41	52
Krachi	157,012	93	261	161	0.40	53
North Tongu	130,388	86	257	153	0.61	64
South Tongu	64,811	87	255	138	0.30	58
Nkwanta	213,793	89	254	153	0.28	43
Kpando	74,595	93	256	187	0.49	44
SAE Metropolitan Assembly	132,674	129	572	227	1.65	17
Nzema East	142,959	124	292	181	0.78	45
Ahanta West	95,140	127	308	233	0.89	44
Aowin/Suaman	82,053	121	282	201	0.86	29
Bibiani/Ahwiaso/Bekwai	103,256	151	310	257	0.57	23
Jomoro	111,348	126	294	214	0.69	42
Juaboso-Bia	129,862	120	301	194	0.73	22
Mpohor/Wassa East	122,595	124	285	167	0.75	29
Sefwi-Wiawso	116,927	145	304	245	0.59	28
Wassa Amenfi	115,092	124	292	161	0.74	25
Wassa West	156,256	121	292	177	0.86	16

Source: MMDAs Annual Reports, 2001-2008

APPENDIX H

PLATES OF HIPC FUNDED PROJECTS