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ACGS/MPAMS Discussion Paper No.3



Growth, Inequality and Poverty in Nigeria

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Prepared for United Nations Economic Commission for Africa (UNECA)
Addis Ababa, Ethiopia

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1 Introduction

Poverty reduction has received increased focus in development debate in the past two decades. Progress on poverty reduction has become a major measure of success of development policy. In the 1970s and 1980s, the pre-occupation was with growth, the need to grow the economies and incomes. Thus, growth was seen as a prerequisite for improved welfare. Many developing countries in the 1980s implemented structural adjustment programmes (SAP) aimed at enhancing growth. Following these programmes, many countries recorded positive real growth rates. The development literature in the 1990s was dominated by the view that growth is central to any strategy aimed at poverty reduction. Studies suggest that countries that made noticeable progress on poverty reduction were those which recorded fast and high growth rates (World Bank 2000, Dollar and Kraay 2000). This view was somewhat modified to suggest that it is not growth per se, but the structure of growth that matters (Ravallion and Datt, 1996, Mellor 1999). It has further been recognized that income inequality matters when it comes to making progress on poverty reduction. It is noted that little progress can be made in poverty reduction when inequality is high and rising (Addison and Cornia, 2001). This contradicts earlier theories of development which suggest that inequality is good for growth and, therefore, for poverty reduction through growth. This has, therefore, called attention to the role of inequality in the growth and poverty reduction process.

Studies have reported rising inequality in many countries over the last two decades and half, even as the period has witnessed increased focus on poverty reduction. Cornia and Kiiski (2001) listed 15 developing countries in which inequality was rising (South Africa is in this group), 12 in which inequality was constant (including Cote d'Ivoire, Senegal, and Tanzania) and 7 in which it was declining (Tunisia is the only African country in this group). Nigeria was not included in any of the groups. The apparent under-representation of sub-Saharan Africa (SSA) countries, and in particular the non-inclusion of Nigeria points to a gap in knowledge on what has been happening to inequality in relation to growth and poverty reduction in these countries.

Nigeria, like many developing countries, implemented SAP policies in the 1980s, which continued in varying degrees till the late 1990s. The new democratic government in 1999 introduced further series of reforms, culminating in the National Economic Empowerment and Development Strategy (NEEDS) launched in mid-2004.

Following the reforms, the real growth rate became positive from 1988, turning from an average of minus 1.7 per cent in 1980/86 to 4.7 percent in 1986/92. The strong growth performance continued in the 1990s and into the 2000s, rising to 6.6 percent in 2002/2004 and 6.24 percent in 2004/2006.

However, despite this strong growth performance, poverty incidence has remained high, rising from 42.7 percent in 1992 to 65.6 percent in 1996. Although estimated to have declined to 54.4 percent in 2004, poverty incidence could still be considered high. The decline gives an annual average of 1.6 percentage points since 1997. Considering the arguments in the theoretical literature and evidence from the empirical literature that faster economic growth is associated with faster poverty reduction, why has the rate of poverty been so high in Nigeria? Could it be a result of the apparent lack of explicit concern with inequality in government policies? Could it, therefore, have been because of rising income/expenditure inequality, especially since 1992? Could it be a reflection of low growth elasticity of poverty reduction in Nigeria? These are the questions that concern this paper. These questions are important because, by the Millenium Development Goals target,

Nigeria would need to achieve a poverty incidence of 21.4 percent (from the 42.7 percent reported in 1992/93) by 2015.

Given the recognized influence of growth and income/expenditure inequality in poverty reduction, it is necessary to ascertain empirically the nature of the relationships in the Nigerian context to inform policy design for pro-poor equitable growth in pursuit of the MDG target.

To this end, section 2 presents an analysis of growth performance and structure in Nigeria. The section also presents comparative analysis of growth performance in Africa. Section 3 analyses the income inequality trend, while section 4 discusses the trend in poverty incidence. Section 5 then examines the growth –inequality-poverty nexus in the Nigerian context during the period 1980/2004. Section 6 concludes the report with a discussion of the way forward in designing pro-poor and equitable growth policies.

2 Growth Performance of the Nigerian Economy

Growth in the Nigerian economy until the early 1970s was driven by the agricultural sector. Following the 1973/74 oil price shocks, the oil sector emerged as the leading source of growth. The share of agriculture in gross domestic product (GDP) declined from 47.6% in 1970 to 30.8% in 1980, while that of petroleum rose from 7.1% to 22.0%. By 2001, the share of agriculture was 34.4% and that of oil and gas was 36.3% (NBS, 2006). After the initial spur in the early 1970s, growth performance of the economy was generally sluggish in the late 1970s and early 1980s, recording an average of -0.4% in 1982/85 (see Table 1).

To revamp the economy, the government introduced series of economic reform measures, starting with the Economic Stabilization Measures of 1982, Economic Emergency Measures in 1985, and the more wide-ranging Structural Adjustment Programme (SAP) in mid-1986. Components of SAP include market-determined exchange rate and interest rates, liberalized financial sector, trade liberalization and commercialization and privatization of a number of public enterprises.

The new democratic government in 1999 re-invigorated the reform programmes.

The privatization programme, commenced a decade earlier, was continued in the major sectors of the economy. Deregulation of the downstream petroleum sub-sector was introduced, designed to allow for variable petroleum product prices across the country instead of a regime of uniform prices that existed until 2000.

Economic reform in Nigeria was taken to a higher platform with the launching in mid – 2004 of NEEDS. The package recognizes the fact that for economic reform to be successful it must be anchored on institutional reform, hence the latter forms a key component of NEEDS. This marks a notable departure from earlier reform efforts.

NEEDS has as its focus wealth creation, employment generation, poverty reduction, corruption eradication and general value re-orientation (FGN, 2004:29). Like earlier reform packages, the strategy considers economic growth as crucial to poverty reduction. A real gross domestic product (GDP) growth rate of between 5 and 7 percent was the target for the period 2004 to 2007, with non-oil GDP expected to grow at between 7.3 and 9.5 percent during the period. This is expected to produce a 5 percent reduction in poverty incidence annually. As outcomes of its anti-poverty initiatives, NEEDS aims to attain:

- average per capita consumption growth of 2 percent per annum
- creation of 7 million jobs between 2004 and 2007.
- increase in immunization coverage to 60 percent by 2007
- increase access to safe drinking water to an average of 70 percent
- adult literacy rate of at least 65 percent by 2007.

Fiscal policies under NEEDS are expected to produce a total expenditure/gross domestic product ratio which will decline from 25 percent in 2003 to 22 percent in 2007, and a budget deficit ratio of 3 percent annually between 2004 and 2007.

Some key elements of NEEDS have been implemented, and this has resulted in strong macroeconomic performance, evident in robust economic growth, lower inflation and significantly strengthened

fiscal and external positions. The impact on poverty may, however, not be tracked by existing survey data, as the latest survey (2003/2004) preceded the launching of NEEDS.

Following these reforms, there was an upsurge in growth. Average growth rate in 1986/90 was 5.62% and it declined to 3.5% in 1990/98 (see Table I). These rates, however, fell short of the prescribed rate of over 6.0%. It has been estimated that for any appreciable reduction in poverty to be achieved in Sub-Saharan Africa (SSA), an annual growth rate of 6.5% is required, World Bank (1996). For Nigeria, it is estimated that, given a population growth rate of 2.9%, the country's growth elasticity with respect to poverty is -1.45 (World Bank 1996:18), which implies that a 1% increase in income reduces poverty by 1.45%.

As for the structure of growth, Oil GDP grew by 4.17%, 0.13% and 1.85% in 1982/90, 1991/96 and 1997/98, while non-oil GDP grew by 2.84%, 2.45% and 3.4% respectively. Agriculture output grew by 5.2%, 3.43% and 4.1%. Manufacturing grew by -0.5%, -0.8% and -1.8%. Business services grew by 5.7%, 3.2% and 4.2%, while telecommunications sector grew by 3.9%, 3.3% and 5.5% (see Table 1). Thus, in addition to the average aggregate growth rate being below the prescribed threshold of 6.5%, the structure of growth is distributed against the sectors which have high potentials for employment generation, namely agriculture, small scale manufacturing, telecommunications and other business services. This, explains the worsened incidence of poverty in the 1990s, as shall be further argued in section 4 below.

The emergence of democratic governance in May 1999 ushered in a wave of institutional and economic reforms. Coupled with the government's programme of economic reform, new sources of growth with potentials for employment generation were unleashed. Of particular relevance is the privatization programme which broke the public monopoly in the telecommunication sector, and the liberalization policies in other key services sectors such as education.

As shown in Table 2, whereas real GDP growth rate averaged 2.9% in 1993/99, it doubled to 6.1% in 2000/2006 (see also fig. 1). Noteworthy is that in 2003/2005 growth rate exceeded the prescribed 6.5% under the Millennium Development Goals (MDGs). Also noteworthy is that the growth was driven by the non-oil sector. As shown in the table, except for 2000 and 2003, during the period, oil GDP growth was lower than aggregate GDP growth. Non-oil GDP growth, on the other hand, was much higher than aggregate GDP growth. This is particularly noticeable for 2002, and 2004/2006.

To appreciate the "new sources" of non-oil-led growth, table 2 shows sectoral growth profile. Two sectors stand out, namely Telecommunications, and Educational Services.

Following the liberalization of the telecommunications sector in 2001 which witnessed the entry of three major private operators – Econet/V-mobile/Celtel, Mobile telecommunications network (MTN), and Global Communications (Globacom), and the public sector Mtel, the country's teledensity rose dramatically from 0.62 to 19.96. As shown in table 3, mobile telephones accounted for 31% of total telephone lines in 2001. This had risen to 89.7% and 94.3% in 2004 and 2006 respectively. In the same vein, private telephone operators accounted for 10% of total in 2001, which rose to 50.5% and 72.3% in 2004 and 2006 respectively. In terms of employment generation, the two sectors still stand out. As table 4 shows, communications, and education services are very outstanding. The index of employment rose from 163 in 2000 to 1867 in 2004 and to 2684 in 2005 in communication. For education services, the corresponding figures are 107.7, 266.0 and 313.4. When compared to other sectors, and particularly national aggregate which rose from 96.7 in 2000 to 119 and 123.6 in 2004 and 2005 respectively, it is obvious that these two sectors propelled the labour intensive growth recorded in the 2000/2004 period which resulted in unemployment rate declining from 18.1% in 2000 to 14.8% in 2003, 11.8% in 2004 and 11.90% in 2005 (see Table 5). A figure of 5.3% is reported for 2006 (NBS 2006). With the expansion in the number of private mobile telephone operators, many youths who would have been openly unemployed have resorted to sale of recharge cards and operation of telephone Kiosks. This meant that many were taken out of the category who earn less than US \$ 1 (N128) a day, and this may explain a part of the decline in measured poverty incidence of 54.4% in 2004 from its level of 65.6% in 1996, shown in Table 16.

Also, there has been significant increase in the number of private educational institutions. Number of primary schools (public and private) increased from 49,306 in 2001 to 59,174 in 2003, the number of secondary

schools (public and private) rose from 6,292 in 2001 to 10,964 in 2004, and the number of university equivalent from 51 in 2001 to 63 in 2004, NBS (2006). All these provided employment opportunities for teaching and non-teaching staff.

In addition to these two sectors, table 4 further shows that services sectors, namely, banking and finance, professional and business services, and agriculture are the new sources of employment growth in the Nigerian economy.

The foregoing demonstrates that since the 1990s, non-oil sector has driven Nigeria's growth. However, it is observed in table 2 that though non-oil sector growth has been phenomenon, the agricultural sector lagged behind the other sectors. As is argued in section 5, agricultural sector-driven growth has been found to offer higher opportunities for accelerating poverty reduction.

Table 1: Real Growth Rates, 1982-98

Year	Total GDP	Oil GDP	Non-Oil GDP	Agriculture	Manufacturing	Tele-comm.	Educ. Serv.	Other Buss. Services
1982	-2.7	-10.5	1.6	2.3	12.9	-1.9	2.3	0.5
1983	-7.1	-9.0	-6.1	-2.9	-29.4	-35.4	2.3	13.6
1984	-1.1	12.5	-7.5	-4.5	-11.2	46.5	2.2	7.7
1985	9.5	7.9	10.5	24.0	19.8	20.5	2.2	16.2
1986	2.5	-1.9	4.9	11.3	-3.9	-0.7	2.1	8.0
1987	-0.6	-2.5	0.5	-4.0	5.1	1.0	2.1	1.2
1988	7.4	2.6	9.8	10.8	12.8	1.0	2.0	1.0
1989	7.7	12.0	5.6	5.0	1.6	2.0	2.0	1.5
1990	13.0	26.4	6.3	4.4	7.6	2.0	2.0	2.0
1991	-0.8	-8.9	4.0	4.5	9.3	2.0	1.1	1.5
1992	2.3	2.5	2.1	3.0	-4.8	3.5	2.9	3.0
1993	1.3	0.2	1.8	2.9	-4.1	3.5	2.9	4.0
1994	0.2	-2.6	1.7	3.0	-0.9	1.0	1.4	3.5
1995	2.2	2.4	2.1	3.4	-5.5	5.0	-0.1	3.7
1996	4.4	7.2	3.0	3.8	1.0	5.0	2.9	3.6
1997	2.8	1.5	3.5	4.3	0.3	6.0	1.7	3.5
1998	2.9	2.2	3.3	3.9	-3.9	5.0	1.7	5.0

Source: CBN Statistical Bulletin Vol. 14, December 2003.

Figure 1: Nigeria Real GDP Growth

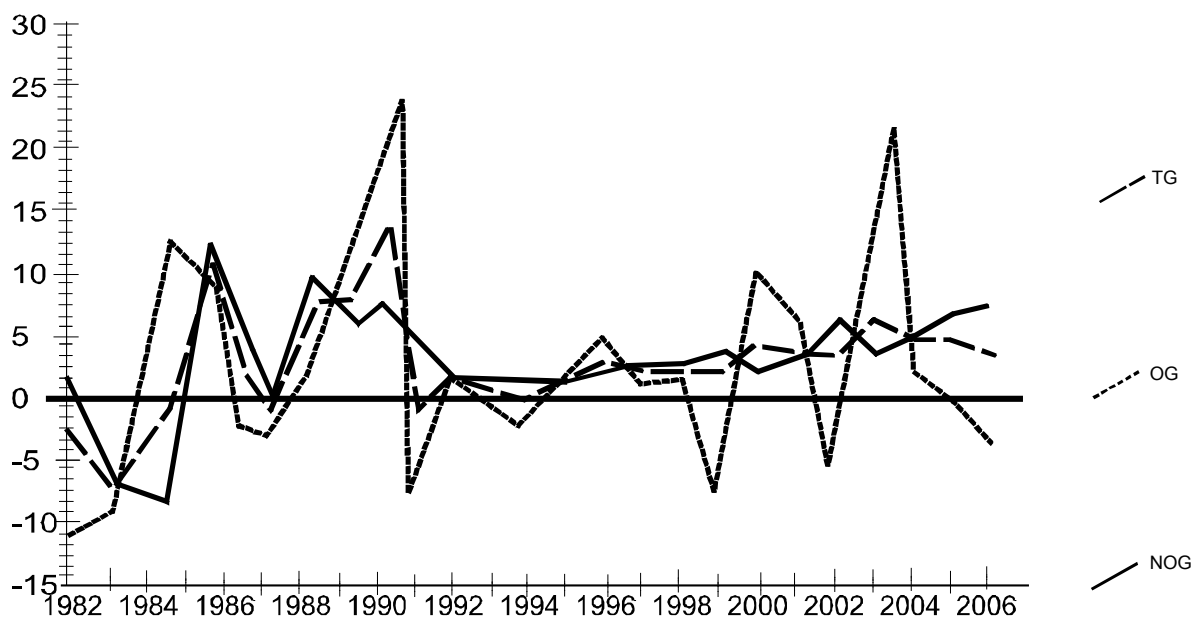


Table 2: Aggregate and Sectoral real GDP growth rate 1982-2006

Year	Total GDP	Oil GDP	Non-Oil GDP	Agric	Manu- facture	Tel. Comm.	Edu. Serv.	Buss. Other Services
1982/85	-0.4	0.9	-0.4	4.7	-2.0	7.4	2.3	9.5
1986/92	4.5	4.3	4.7	5.0	4.0	1.5	2.3	2.6
1993/96	2.1	1.8	2.2	3.3	-2.4	3.6	1.8	3.7
1997/98	2.9	1.9	3.4	4.1	-1.8	5.5	1.7	4.3
1999	2.8	-7.81	4.2	5.3	3.4	5.2	1.7	19.9
2000	5.4	10.99	3.0	3.0	3.4	6.1	1.6	8.0
2001	4.6	5.2	4.3	3.9	14.48	29.9	1.6	10.0
2002	4.63	-5.61	7.96	4.2	10.09	13.3	7.9	15.1
2003	9.57	23.70	4.44	6.64	5.66	85.1	7.0	13.1
2004	6.58	3.37	7.50	6.50	10.00	85.		19.8
2005	6.51	0.50	8.59	7.06	9.61	85.4		26.5
2006	5.63	-4.67	8.93	7.14	9.51	31.88		7.67

Source: NBS (2006) The Nigerian Statistical Fact Sheets on Economic and Social Development, Abuja (November) and CBN (2003) Statistical Bulletin Vol. 14 (December)

Table 3: Telephone Services in Nigeria, 1999-2006

Fixed nd Mobile Telephone Lines	1999	2000	2001	2002	2003	2004	2005	2006*
Fixed (Million)	0.53	0.55	0.60	0.70	0.87	1.03	1.21	1.59
Mobile (Million)	-	0.19	0.27	1.57	3.15	9.15	17.66	26.36
Total (Million)	0.53	0.74	0.87	2.27	4.02	10.20	18.87	27.95
Teledensity (%)	0.01	0.31	0.62	1.62	2.87	7.29	13.48	19.96
Operators								
NITEL (Public) (Million)	0.50	0.52	0.54	0.56	0.54	0.51	0.45	0.44
Private Telephone Operators (Million)	0.03	0.05	0.06	0.15	0.33	0.52	0.78	1.15
Total (Million)	0.53	0.57	0.60	0.70	0.87	1.03	1.22	1.59

*As at August 2006

Sources: National Communications Commission, Abuja

Table 4: Index of Employment by Economic Activity

Economic Activity	1999	2000	2001	2002	2003	2004	2005
Agriculture	100	104.42	105.44	106.16	115.48	143.08	161.70
Manufacturing & Processing	100	95.74	99.39	96.47	101.42	103.69	99.80
Building & Construction	100	105.96	163.97	141.08	137.24	148.58	157.97
Hotels, Restaurants & Tourism	100	94.90	106.51	103.57	101.35	100.21	96.93
Transport	100	102.25	115.83	124.68	131.40	122.27	156.02
Communications	100	162.80	1112.56	1142.51	1809.66	1867.15	2684.06
Education Services	100	107.65	151.25	223.67	247.86	266.01	313.35
Mining & Quarrying	100	33.38	33.38	35.51	56.90	60.03	63.89
Utilities	100	97.41	97.78	99.63	101.85	103.70	100.00
Banking	100	60.54	85.89	88.09	86.52	89.56	105.73
Distributive Trade	100	99.27	110.85	120.82	125.22	130.27	134.07
Private Professional Services	100	119.89	108.40	110.64	124.93	136.13	144.82
Real Estate & Business Services	100	103.74	114.06	123.97	125.60	125.32	137.79
Health	100	98.61	104.08	113.14	113.54	116.30	107.90
Finance	100	116.82	116.93	119.24	105.15	111.36	217.35
Total	100	96.74	11.48	109.84	116.01	119.00	123.63

Source: National Bureau of Statistics (2006)
Quick National Employment Generation Survey 2006.

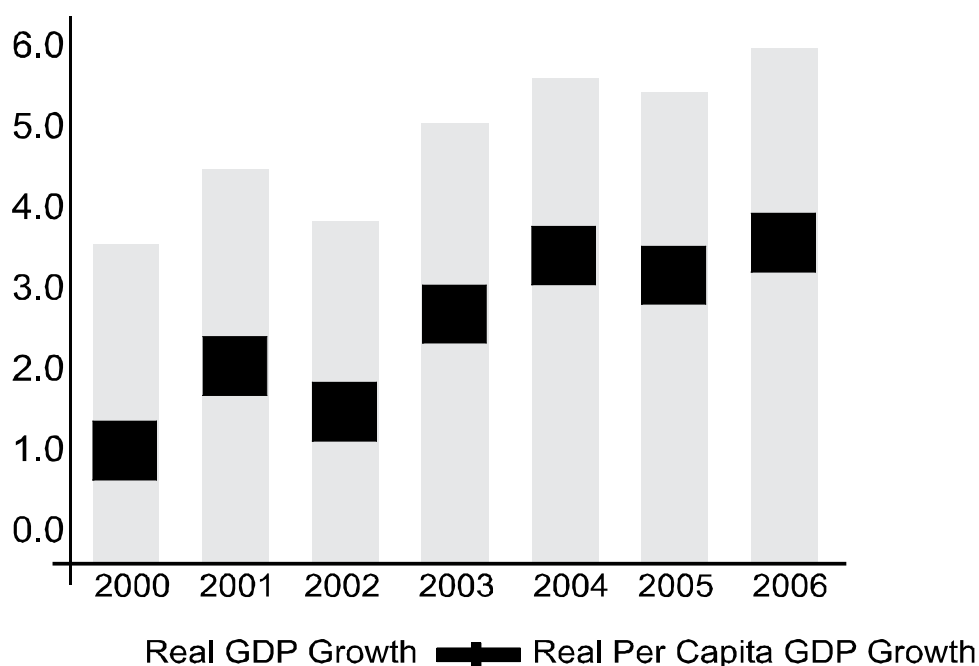
Table 5: Unemployment Rates, 1987-2005

	Composite	Urban	Rural
1987	6.2	10.3	5.2
1996	3.4	6.1	2.8
1999	13.0	10.8	13.4
200	18.1	14.2	19.8
2001	13.7	10.3	15.1
2002	12.2	9.5	13.3
2003	14.8	17.1	13.8
2004	11.8	11.0	12.1
2005	11.9	11.1	12.3

Source: FOS Labour Force Sample Survey various years and June 2003, Statistical News, September 29, 2004, and National Bureau of Statistics (2005) The Nigerian Statistical Fact Sheets on Economic & Social Development, Abuja.

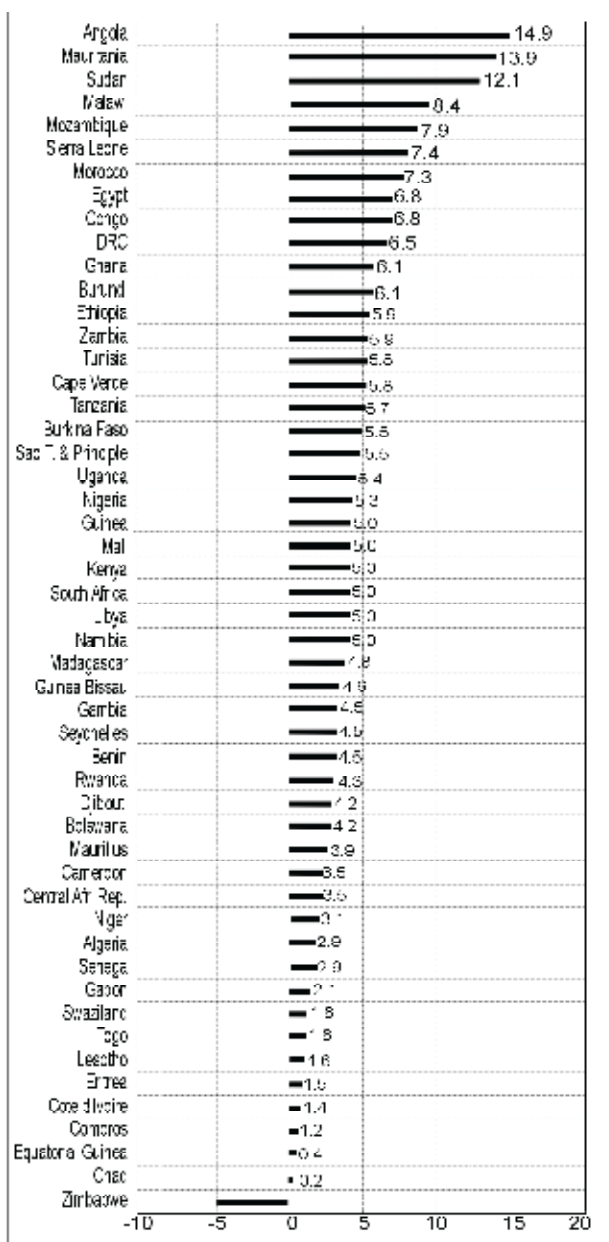
2.1 Nigeria's Growth Performance in Regional Context

Nigeria's growth record in the past decade and half is perhaps a reflection of the general trend in Africa, which gives cause for both optimism and caution. Alan Gelb and Ramachandran (2007) noted that average per capita GDP in Africa has been rising since 1994, relieving some of the Afro-pessimism that has been so prevalent in development discourse. As shown in fig 2, the aggregate growth rate for Africa exceeded 5% since 2004, and has been above 3% since 2000, compared to a little above 1% in the early 1990s (see also fig.3). The marked improvement in growth was quite widespread across countries. Of a total of 51 SSA countries, 27 recorded growth rates of above 5%, 8 recorded 4% and above, and 4 recorded 3% and above, with 11 others recording between 0.2 and 2.9% growth rate in 2006. Only Zimbabwe recorded negative growth rate, as shown in fig. 3. It should, however, be noted that the remarkable growth performance of Africa, and Nigeria in particular was still below that recorded by Korea since 1961. Between 1961 and 1997, Korea's average annual GDP growth was as follows: 8.5% in 1961/70, 7.8% in 1991/80, 9.1% in 1981/90, and 7.2% in 1991/ 97 (Kim 2007:62).

Figure 2: Africa: Real GDP/Real Per Capita GDP Growth (%)

Source: ADB (2007) P.43

Figure 3: Real GDP Growth Rated by Country, 2006 (%)



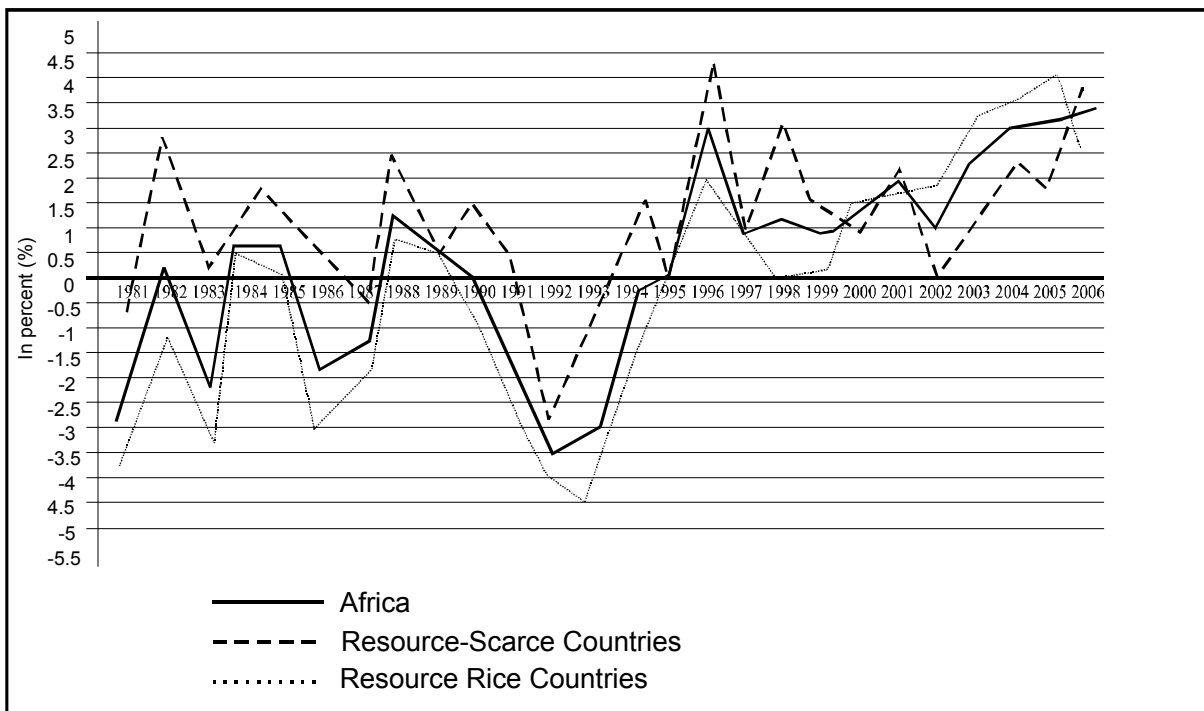
Source: ADB(2007)

Two important questions are: How sustainable is the growth performance? And, how far has growth been pro-poor, that is, poverty reducing? The latter is addressed in section 5 below. Suffice it to state at this stage that the sectoral composition of growth is important, to the extent that different sectors may have different factor intensities. If growth occurs in sectors that require skills and capital that the poor do not possess, although the economy may grow, it may have little impact on poverty reduction. It is in this regard that the discussion in section 2 sheds some light on the structure of Nigeria's growth performance.

On the sustainability, there is a basis for concern. Recent acceleration in growth, it has been observed, is partly the result of high prices of commodity exports. Collier (2007) noted that, globally high prices for commodity exports give rise to a disturbing growth dynamic. For the first five years growth is faster, but then on average all this growth is lost in the following decade. Fifteen years after the start of a commodity price boom most economies are much worse off than if it had not happened. For example, the 1976 commodity price boom was followed by a decade

of unparalleled economic disaster (Collier 2007:6-7). For resource-rich countries like Nigeria, the process is exacerbated by the three processes often associated with 'resource curse', namely, the Dutch disease, macroeconomic volatility, and deteriorating governance (see Sala-i-Martin and Subramanian 2003). Indeed, evidence shows that growth performance of Africa's resource-rich countries is poor, compared to resource-scarce countries in 1981/2001, followed by a reversal since then, reflecting the current boom which started in 2002 (see fig. 4). It is for this reason that, as Collier (2007) has noted, there is need for growth that is driven by improved policies rather than improved prices. Also, as Bigsten and Levin (2001) noted, growth can be substantial if the policy and institutional environment is right.

Figure 4: Real GDP Per Capita Growth - Resource



Source: ADB (2007)

3 Trends in Inequality in Nigeria

As mentioned above, there has been a resurgence of interest on the nature of relationship between growth and inequality since Simon Kuznets's seminal paper predicted an initial negative and subsequent positive relationship, the so-called "inverted -u" relationship. The resurgence of interest in the issue derives from the effect of growth on poverty. The poverty-reducing effect of a growth pattern which is inequality-neutral would be different from one which is accompanied by rising inequality. It also follows that even if growth has resulted in a decline in poverty incidence, the decline would have been larger if it was accompanied by declining inequality. As is shown in section 4, poverty headcount has risen since 1980.

As table 6 shows, inequality, as measured by the Gini coefficient, has been rising since 1985, except for slight decline in 1992. It declined from 0.43 in 1985 to 0.41 in 1992 and rose to 0.49 in 1996, and remained unchanged at 0.488 in 2004 at the national level. However, at the sectoral and regional levels, in addition to there being variations around the national average, there seems to be a more marked increase in inequality between 1996 and 2004. Thus, the national average may have concealed rising inequality across states and sectors since the mid-1990s.

Table 6: Inequality trend by sector and zones

	1985	1992	1996	2004
National	0.43	0.41	0.49	0.488
Sector				
Urban	0.49	0.38	0.52	0.544
Rural	0.36	0.42	0.47	0.519
Geo-political zone				
South South	0.48	0.39	0.46	0.507
South East	0.44	0.40	0.39	0.449
Sout West	0.43	0.40	0.47	0.554
North Central	0.41	0.39	0.50	0.393
North East	0.39	0.40	0.49	0.469
North West	0.41	0.43	0.47	0.371

Source: Aigbokhan (2000) and Federal Office of Statistics (1999) Poverty Profile for Nigeria 1980 – 1996, and National Bureau of Statistics (2005) Poverty Profile for Nigeria p. 27

4 Incidence and Dimension of Poverty in Nigeria

Poverty is defined today as a state of long-term deprivation of well-being, a situation considered inadequate for decent living. There is, however, much debates on how well-being should be measured and what indicators should be used. There are two broad approaches to defining well being. These are the 'welfarist' approach and the 'non-welfarist' approach. The 'welfarist' approach defines well-being in terms of the level of utility attained by an individual. The approach attaches great importance to the individual's perception of what is useful to him or her. The 'non-welfarist' approach defines well-being independently of the individual's perception of it. The approach relies on what planners consider desirable from a social point of view.

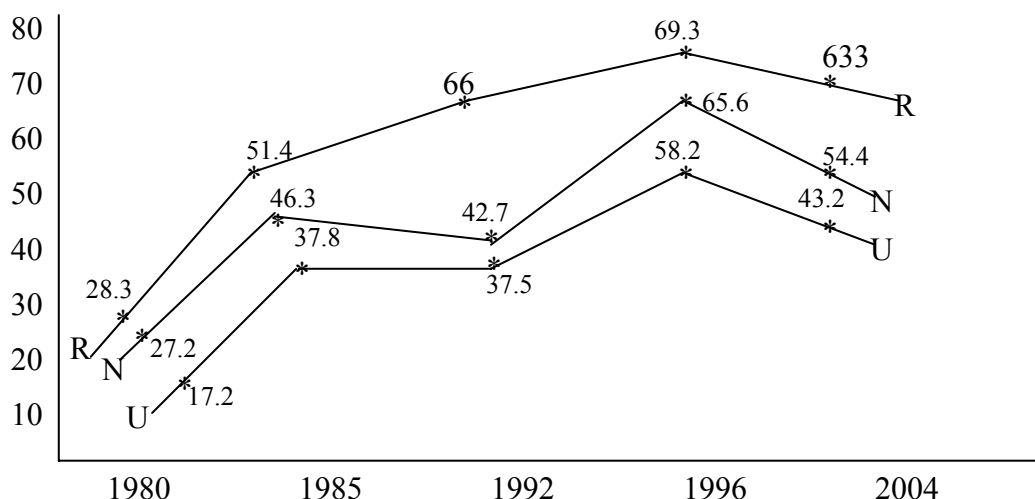
Among the various dimensions of well-being considered in the literature, a distinction could also be made between those approaches which focus on living standards and those which focus on the rights, opportunities and capabilities of individuals. The former are frequently used by economists who generally emphasise the real consumption of goods and services. The latter favours a broader social vision and emphasises the 'rights' and 'opportunities' and 'capabilities' of individuals in terms of their access to resources and their potential consumption. The latter dimension has its root in the view that well-being may not be determined by actual consumption alone, but also by 'opportunities' for consumption, for which income may be a measure.

Opportunities for consumption for the poor would from having access to remunerative employment opportunities, which could be from wage employment or self-employment. This is necessarily so since the main asset owned by the poor is human capital. The human capital could be utilized directly through access to wage employment, or through access to credit which could be used to create self-employment. Thus, given employment opportunities, a major source of poverty is removed, or at least substantially weakened

Nigeria's statistical agency, National Bureau of Statistics, has conducted The more nationally representative surveys were conducted in 1980, 1985/86, 1992/93, and 1996/97. The latest is the living standard survey 2003/2004. Estimates of poverty incidence from 1980 to 2004 discussed in this report are based on these surveys. Relative poverty measure, based on $\frac{1}{3}$ and $\frac{2}{3}$ mean per capita expenditure, respectively core poor and total poor, was used by the NBS.

As seen in Table 7 and fig. 5, the total poor rose from 27.2 percent in 1980 to 65.6percent in 1996, an increase of 141.2 percent. Over the same period, percentage of population in core poor category rose from 6.2 to 29.3percent, an increase of 380percent. However, between 1996 and year 2004, total poor declined by 17.1percent to 54.4percent, while the core poor declined by 24.9percent to 22.0percent. It is also observed from the table that despite the decline in the proportion of the population in poverty between 1996 and 2004, in absolute terms the population in poverty rose from 67 to 68.7million, while those in core poverty declined by 2.2million. It should be noted that World Bank (2001) estimated that 70.2percent of Nigerians live on less than \$1 per day. The fact that over 50 percent of total population are poor should be of concern to policymakers. It should be noted also that a more recent estimate carried out for this report suggests that poverty incidence in 2004 may have been 57.0% instead of the 54.4% reported by NBS (2005) (see Appendix 1).

Figure 5: Relative Poverty Trend by Sector, 1980 – 2004



Source: FOS (1999) Poverty Profile for Nigeria 1980-96, Lagos, and NBS(2005) Poverty Profile for Nigeria, Abuja.

More insight into the challenge of poverty in Nigeria is gained by considering the dimension of poverty. Urban poor rose from 17.2percent in 1980 to 58.2percent in 1996, but declined remarkably to 43.2percent in 2004. Rural poor rose from 28.3percent in 1980 to 69.3percent in 1996. This again declined, but less remarkably to 63.3percent in 2004(Table 8).

There is also educational dimension to poverty in Nigeria. As shown in Table 9, the higher the educational attainment level the lower the incidence of poverty. Poverty is concentrated among persons with no education and those with only primary education.

Studies have demonstrated that economic growth is critical to poverty reduction. The pace of economic growth is important. But the structure of growth is equally important, some would argue that it is even more important. Economic growth must be broad-based and inclusive for it is to result in improved welfare.

A consequence of lopsided, non-broad based economic growth, and lack of sound economic management, is the problem of unemployment. Unemployment has become an endemic and almost permanent feature of the Nigerian economy. Umo(1996) estimates that an annual average of about 2.8million graduates enter the labour market, with only about 10percent of them securing employment. Various surveys by the National Bureau of Statistics show that the unemployed constitute a critical component of the core poor.

Table 7: Incidence of Poverty in Nigeria, 1980-2004

	Poverty Level (%)		Population in Poverty (million)		Estimated Total Population (million)
	Total	Core	Total	Core	
1980	27.2	6.2	17.7	4.0	65.0
1985	46.3	12.1	34.7	9.1	75.0
1992	42.7	13.9	39.2	12.7	91.5
1996	65.6	29.3	67.1	30.0	102.5
2004	54.4	22.0	68.7	27.8	126.3

Source: FOS (1999) Poverty Profile for Nigeria 1980-96, Lagos, and NBS(2005) Poverty Profile for Nigeria, Abuja.

Table 8: Incidence of Poverty By Sector and Zones, 1980-2004.

	1980	1985	1992	1996	2004
National	28.1	46.3	42.7	65.6	54.4
Urban	17.2	37.8	37.5	58.2	43.2
Rural	28.3	51.4	66.0	69.3	63.3
South South	13.2	45.7	40.8	58.2	35.1
South East	12.9	30.4	41.0	53.5	26.7
South West	13.4	38.6	43.1	60.9	43.0
North Central	32.2	50.8	46.0	64.7	67.0
North East	35.6	54.9	54.0	70.1	72.2
North West	37.7	52.1	36.5	77.2	71.2

Source: FOS (1999) Poverty Profile for Nigeria 1980-96, Lagos, and NBS(2005) Poverty Profile for Nigeria, Abuja.

Table 9: Poverty Incidence By Education Group in Nigeria 1980-2004

	1980	1985	1992	1996	2004
No schooling	30.2	51.3	46.4	72.6	68.7
Primary	21.3	40.6	43.3	54.4	48.7
Secondary	7.6	27.2	30.3	52.0	44.3
Post secondary	24.3	24.2	25.8	49.2	26.3
All Nigeria	27.2	46.3	42.7	65.6	54.4

Source: FOS (1999) Poverty Profile for Nigeria 1980 – 96, and NBS (2005) Poverty Profile for Nigeria, Abuja.

4.1 Determinants of Poverty in Nigeria

To shed further light on the dimensions of poverty in Nigeria, and to empirically quantify the strength of the above dimensions in explaining poverty in Nigeria, results of simple regression analysis is reported here.

Using total household expenditure as an indicator of well being, a multivariate analysis was carried out. The indicator, transformed into logarithms, was regressed on a set of hypothesized determinants of poverty, namely, age and education of household head, household size, and sector of residence. Other factors that could have been considered but for lack of relevant data from the survey data set are institutions (corruption, deficit, land ownership), access to credit, and sectoral/regional growth rate.

Education, being a measure of human capital, is hypothesized to be positively correlated with income, and therefore welfare. It follows that the more educated the household head the less the probability

that the household will fall into poverty. Years of educational attainment of household head is used (0 for no formal schooling, 6 for primary, 11 for secondary, and 15 for post-secondary).

Household size influences household welfare. The larger the size the larger the resources required to meet basic needs of food and other necessities. It is, therefore, often hypothesized that the larger the household size the higher the likelihood of falling among the poor. Household size-squared is also included, because the relationship between PCE and household size appears non-linear.

Age of household head also influences household welfare. Welfare rises with age as more human capital (education and/or working experience) is accumulated. Income, however, tends to fall after retirement and when in old age. It is for this reason that a negative correlation is usually hypothesized to exist between income and the quadratic of age.

Lastly, sector of residence, urban versus rural, was also considered to ascertain the influence of location on poverty.

Based on the above theoretical arguments, the estimated equation is

$$\log \text{THE} = a_0 + a_1 \text{Age} + a_2 \text{Age}^2 + a_3 \text{Sex} + a_4 \text{Edu} + a_5 \text{Size} + a_6 \text{Size}^2 + U \quad U \text{ is an error term.}$$

Regression Results

Table 19 reports the results from the regression analyses based on 2004 survey data.

Table 10: Regression Results: Poverty Determinants, 2004

Dependent Variable:		
log Household Expenditure in local current prices		
	Coef.	t
Education	0.09	31.15
Age	0.01	5.47
Age-squared	0.0001	-3.22
Household size	0.17	32.64
Household size-squared	-0.01	-15.47
Sector	0.19	-16.24
Constant	10.54	192.30
R-squared	0.21	
F(6, 19151)	867.32	
Prob > F	0.0000	
No. of obs.	19158	

The results show that welfare rises with the level of education. The coefficient is positively signed and statistically significant. It implies that the less educated the head, the more likely that the household would be poor. It should be noted this is consistent with the evidence in Table 10.

As expected, the results indicate that expenditure-based welfare tends to be significantly lower among larger households. Indeed, it is the most statistically significant determinant of welfare of the variables considered. The implication is that the larger the household size the higher the probability of falling into poverty. The results also indicate that as household size declines over time, household welfare improves, as implied in the statistically significant negative correlation between THE and household size squared. In other words, the larger the household size the lower the welfare.

Age of household head seemed to play a less important role in determining welfare. Though the coefficient is statistically significant, the value is low. The same observation applies to the age-squared coefficient. Moreover, the negative signed age-squared coefficient is consistent with the hypothesized relationship that income tends to fall after retirement and when in old age.

Lastly, sector of residence is also an important determinant of poverty in Nigeria. With a negative and statistically significant coefficient, the result suggests that being a rural dweller raises the probability of being poor.

In summary, consistent with hypothesized relations, education, old age, household size, and location are major determinants of poverty in Nigeria. These results are also consistent with evidence from 1992 and 1996 dataset. (Aigbokhan, 2000)

4.2 Poverty Reduction Programmes in Nigeria to Date

Various strategies have been advocated in the literature to address poverty challenges. Prominent among these are economic growth strategy, basic needs approach, rural development approach, targeting approach, and employment-oriented approach.

Economic growth approach, which goes back to the 1950s and 1960s development policy literature, emphasizes growth as central to any policy on poverty reduction. As already pointed out above, studies have found that growth accounts for income growth for the poor in a large number of countries. However, because of the reliance on the 'trickle down' effect and on the pace of growth, which may be driven by capital intensive production process, the traditional growth approach has been found to produce less progress in poverty reduction. This has, therefore, led to a shift in emphasis from the "pace of growth" to the "structure of growth" strategy.

The basic needs approach has as its main objective the need to satisfy the essential requirements for minimum standard of living. The approach is concerned with improving first the income earning opportunities for the poor, second, the public services that reach the poor, third, the flow of goods and services to meet the needs of all members of households, and fourth, the participation of the poor in the ways in which their needs are met.

Rural development approach derives from the perspective that the majority of the poor in developing countries live in the rural areas. The approach, therefore, emphasizes the need to focus development efforts on the sector. Though there are variants to this approach, the most prominent is perhaps the integrated rural development variant. This variant recognises that poverty is multi-dimensional and, therefore, requires a multi-pronged approach. The approach seeks to develop all sectors of the rural economy and link them up effectively. The components of the approach include infrastructure development, provision of social services and employment and income generating opportunities to the rural dwellers in general and the rural poor in particular.

The targeting approach requires the directing of poverty alleviation programmes to specific groups within the country. Components of the approach include micro credit, school meal, medical care, safety nets, and public works programmes. The approach requires proper identification of the target groups for effective targeting.

The employment- oriented approach emphasises employment promotion as the principal means of spreading the benefits of economic development more evenly throughout the economy. The "pace of growth" objective was modified so as to maximize not only output but also the rate of labour

absorption. This is to be complemented with credit facilities to integrate the trained unemployed persons into the labour market on a sustainable basis.

In summary, it is seen above that employment generation is common to these various strategies. Rural development, structure of growth approach, basic needs approach each has components which focus on creating employment opportunities for the poor.

These various strategies have been adopted by Government of Nigeria over the years. Poverty alleviation has been an integral component of the country's development plans. Specialized agencies were established to promote the objective of poverty reduction. These include Agricultural Development Programmes, Nigerian Agricultural and Cooperative Bank (now NACRDB), National Agricultural Insurance Scheme, National Directorate of Employment, National Primary Health Care Agency, Peoples Bank, Urban Mass Transit, National Agricultural Land Development Agency, National Directorate for Food, Roads and Rural Development, and National Economic Reconstruction Fund. Others are Better Life Programme, and Family Employment and Advancement Programme.

In 1994, the Poverty Alleviation Programme Development Committee was established, which produced the Community Action Programme for Poverty Alleviation (CAPPA). In 1999, the Poverty Alleviation Programme (PAP) was established, with the objective of creating 200,000 jobs annually. The programme, however, failed to have any appreciable impact on poverty reduction in the country, due to "state capture" and leakages, among other reasons. It was replaced in 2003 by the National Poverty Eradication Programme (NAPEP), with five main programme areas, as shown in Table 11. It is observed from the table that four of the programmes have employment components. It is estimated that since inception, NAPEP has been able to train 130,000 youths and engaged 216, 000 persons who are attached to various establishments (Olaniyan et al, 2005). However, like the PAP, beneficiaries are largely non-poor.

The inevitable conclusion from the foregoing is that inspite of the various programmes implemented to date, the incidence of poverty is still high and unemployment problem remains daunting. Given the poverty unemployment nexus discussed above and experience of other countries that broad based growth holds much promise for poverty reduction through employment generation, it would appear that this may be the best option for Nigeria to adopt. Unlike in the past, focus should not be mainly on public work schemes and public sector agencies, given the limits of public works, and institutional weaknesses in public agencies discussed in the next section. Policy should shift to the promotion of private sector labour intensive growth. Evidence of existence of such potentials in the economy is presented in section 2 above.

Table 11: intervention programmes of NAPEP

	Programme	Objectives	Target groups
1.	Capacity Acquisition Programmes	To train pry/secondary school leavers in vocational trades, to settle some prog. Graduates with micro credit.	Pry. & sec. school leavers; disabled youths
2.	Mandatory Attachment Programme	To attach graduates of tertiary institutions to public/private sector establishments for 2 years to enable them practice their profession and to enhance their employability in the labour market.	Graduates of tertiary institutions
3.	Credit Delivery Programme	- Give cash micro-credit to small scale enteps.	Unemployed youths
4.	Keke NAPEP	- Cerdit employment for drivers - Improved urban mass transit - Create market for spare parts dealers - Create jobs for mechanics	Drivers and unemployed youths
5.	Vesico vaginal fistalae (VVF) Prog	- Treatment of VVF patents - Create awareness for prevention - Establish skill acquisition centers for VVF patents	Women

Source: Adapted from Olaniyan et al (2005) p.14.

5 Growth – Inequality – Poverty Nexus in Nigeria

Discussions in sections 2, 3 and 4 have profiled separately the trends in economic growth, inequality and poverty in the country over the period since the 1980s. This section examines the nature of relationship between them. Specifically, it examines the effects of growth on distribution, and, the effects of inequality on the rate of growth. The effects of each of this on poverty reduction is finally discussed.

To empirically test for the growth-inequality-poverty nexus in the Nigerian context, two levels of analysis was done. First is a simple correlation analysis in which the correlation between growth and inequality and growth and poverty, as well as between changes in them are expored. Then the correlation between inequality and poverty as well as between changes in them. The results are presented in table?.. Second is estimation of growth elasticity of poverty, in which a simple model due to Ravallion (2001) was applied with a cross-section (states) data from the 2004 National Living Standards Survey (NLSS 2004). This was complemented with estimation of theoretical elasticity formula in equations (2) and (3) above.

Since the interest is on the effect of growth on inequality and poverty, the ideal measure of growth would be GDP growth rate. However, the fact that the mean from the surveys is consistent with the date used to calculate poverty and inequality measures makes it more appropriate for measuring the growth rate. This, however, has its limitation, which derives from the likelihood of a spuriously high correlation between poverty and inequality measures and the means of the distributions on which they are based (Ravallion 2001).

The results show that correlation between GDP growth and poverty is -0.037 (0.963).

(See table 12.) The limited number of observations being below a minimum of ten, may explain the non-significance of the coefficients. Of interest, however, is the sign on the coefficients. The negative sign suggests that poverty declines with growth, while the positive sign suggests that inequality rises with growth. The corresponding coefficients when survey mean income is used are respectively 0.212 and -0.5.

Table 12: Correlation results, 1982/85 – 2003/2004

Growth rate/Gini	0.132 (0.868)
Growth rate/poverty	-0.037(0.963)
Change in growth rate/change in Gini	0.066 (0.93)
Change in growth rate/change in poverty	-0.113 (0.89)

Note: Figures in parentheses are P-values for correlation coefficients. To avoid having missing values, changes in growth rate, Gini, and poverty were set to zero for 1982/85.

Equation (4) was estimated for growth elasticity. A system Generalized Method of Moment was used. Results are shown in table 13.

$$\Delta I_n P_{it} = \alpha (1 - G_{it} - T) \Delta I_n Y_{it} + U_t \dots\dots\dots (4)$$

i.e. the proportionate rate of change in poverty incidence between surveys is directly proportional to the distribution-corrected rate growth.

P is poverty incidence, $G_{i,t-T}$ is Gini coefficient at the beginning of the spell, i.e. the initial year, T is the number of years between the surveys, Y_{it} is real value of the survey mean at date t, and α is the parameter to be estimated.

Underlying the model is the presumption that it is not growth per se, but the distribution-corrected rate of growth that is an important determinant of poverty reduction. Distribution-corrected growth rate is given by a measure of initial equality (100 minus the measure of inequality) times the growth rate.

In our analysis, 1996 survey was taken as the initial year and 2004 survey as the terminal year. Gini coefficient for 1996 was, therefore, used for the growth correction. Also, we used both ordinary growth rate and distribution-corrected growth rate. Results show that the latter is superior, supporting the view that it is the distribution-corrected growth that matters in poverty reduction. The estimated parameter, α is statistically significant and gives hypothesized negative coefficient in the latter, while the coefficient in ordinary growth rate is positive, though significant. The results from the preferred model (distribution-corrected) indicate that the elasticity of poverty to growth declines as the extent of initial inequality rises. In other words, rising inequality impedes poverty reduction. Poverty typically falls at a much slower rate than in countries with more equitable growth. Low inequality level, (with Gini coefficient less than 0.43) is considered necessary to accompany a growth rate of 4 percent if the Development Assistance Council (DAC) target of reducing poverty incidence to 15 percent by 2015 is to be met. Otherwise, a high inequality level would have to be accompanied by a 9 percent growth of income per capita (Addison and Cornia 2001:6). Thus, with inequality level of 0.49 since 1996, Nigeria requires a higher growth rate than 6.1 percent it has achieved over the period since 2003 to hope to meet the MDG target on poverty reduction to about 22 percent by year 2015.

Table 13: Regression results (Cross section) 2004

$$(i) \quad \Delta I_n P_{it} = \alpha \Delta I_n Y_{it} + U_t \text{ (non-distribution-corrected)}$$

$$-0.64$$

$$t = (4.00)$$

$$\text{Adj-R}^2 = 0.22$$

$$N = 36$$

$$(ii) \quad \Delta I_n P_{it} = \alpha (1 - G_{it} - T) \Delta I_n Y_{it} + U_t \text{ (Distribution-corrected)}$$

$$-0.79$$

$$t = (9.97)$$

$$\text{Adj-R}^2 = 0.69$$

$$N = 36$$

Estimate of growth elasticity based on the theoretical formula (equations (2) and (3) suggests lower elasticity than the regression results.

A second point to be made on the results is that growth elasticity of poverty reduction in Nigeria has been low. Estimated coefficients of -0.64 to -0.79 are consistent with Ram's (2006) contention

that a value of the order of -1 is more realistic for developing country context. This may also have been aided by the high initial inequality (Gini for 1996 is 0.49 and for 2004 it is 0.4882).

The final level of analysis is decomposition of change in poverty into its growth and redistribution components. Results from decomposition analysis are shown in table 14.

Table 14: Growth and distribution components of changes in headcount poverty.

	1992/96		1999/2004	
	P_0	P_0	P_1	P_2
Growth component	-1.44	-37.84	-37.10	-31.27
Redistribution component	0.31	62.16	42.66	32.94

Note: Figures for 1992/96 are from Aigbokhan (2000a)

Source: author's computations.

From the evidence in the table, with income distribution unchanged, poverty would have declined by 1.44 percent in 1992/96 due to growth effect. As a result of a much stronger growth performance in 1996/2004, particularly 2001/2004, poverty would have declined 37.84 percent.

On the other hand, with growth unchanged, whereas poverty would have increased marginally by 0.31 percent in 1992/96, in 1999/2004 it would have increased by 62.16 percent. It would be recalled that Gini coefficient was 0.41 in 1992 before it rose to 0.49 in 1996, and remained virtually unchanged at 0.488 in 2004. The results thus further confirm that initial inequality matters.

The table further shows that while the growth component did not change much for depth of poverty or poverty gap (P_1) and the severity of poverty (P_2) measures, the redistribution component was substantially lower for the two measures.

The evidence from the decomposition analysis further buttresses the view that distribution of income, and therefore pro-poor growth, is essential for strong growth to translate into rapid poverty reduction.

6 Conclusion and Policy Implications

Nigerian economy experienced sluggish growth rate in the 1980s up till the late 1990s. During this period, poverty incidence rose markedly from 27.2 percent in 1980 to 65.6 percent in 1996. Income inequality also rose from 0.43 in 1985 to 0.49 in 1996. Ironically, this period witnessed a resurgence of interest of the international development community in the issue of poverty and equity. Nigeria for much of this period was under military dictatorship which was not known to be particular about good economic management.

With the increased international focus on poverty reduction, the democratic government which came into office in May 1999 quickly embraced the concern and initiated a number of economic and institutional reforms aimed at improving economic management and good governance. Government specifically introduced poverty alleviation programmes and policies. The national living standard survey conducted in 2003/2004 by the National Bureau of Statistics thus provides the first opportunity to assess the impact of these reforms on poverty and inequality within the context of the much improved growth rates recorded since 2000.

Analysis based on the survey data suggest that poverty incidence fell from 65.6 percent in 1999 to around 54.4 or 57.0 percent, based on NBS estimates and estimates carried out for this report. Recall the evidence by Ravallion (2001) and Addison and Cornia (2001) that rising inequality slows down the rate of poverty reduction, given the growth rate, and that for growth to appreciably reduce poverty in the face of high inequality, a growth rate in the neighbourhood of 9 percent is required. On the basis of this argument, and the fact that measured income/expenditure inequality in Nigeria remained at 0.488 in 2004 (0.49 in 1996) and growth rate averaged 6.1%, it could be inferred that the official estimate of 54.4 percent may be an under-estimation. Recall also that other measures of inequality reported in section 4 all indicate high inequalities.

Further, analysis indicate that the relation between growth and inequality is not one of a trade-off. Rather, inequality seems to rise with growth, even when poverty seems to fall with growth. The marked decline in poverty may, therefore, have been more of growth effect than distribution effect. With high inequality (Gini 0.49) a higher growth rate is required to move from over 50% to 21.4% by 2015, especially in view of low growth elasticity of poverty reduction and rising inequality. The 9.57% real growth recorded in 2003 was due to oil sector growth of 23.7% which seems not sustainable. A more feasible option would be to pay greater attention to distribution. There has not been explicit concern with inequality in government policies. Focus has largely been on “growth first”.

In summary, it could be concluded that poverty incidence showed a marked decline since the 1990s in Nigeria, just as the economy witnessed impressive real growth rate. However, based on prevailing level of inequalities in both income and non-income dimensions of welfare, it could be argued that poverty incidence may be higher than official estimates suggest, and more progress in poverty reduction, particularly in the context of MDGs, would have been recorded if growth had been more equitable than available evidence suggests. In other words, there is room to make growth more pro-poor to enhance rapid reduction in poverty with growth.

Economic reforms can create opportunities for the poor, and thereby promote pro-poor growth. This requires that conditions are in place for the poor to take advantage of these opportunities, for absolute poverty to fall rapidly. The conditions for pro-poor growth include reducing the disparities in access to human and physical capital, reducing disparities in access to financial credit, and

narrowing differences in returns to assets. Discussion in section 4 above shows that these disparities are still prevalent in Nigeria.

Thus, the policy reforms required to make growth more pro-poor and accelerate poverty reduction with growth would include the following:

- build human capital by refocusing public spending. Invest in basic and technical education to raise the supply of skilled labour. And, given that labour is the main asset of the poor, create opportunities for them to be gainfully engaged.
- closely related to the above is the need to correct market failures, particularly in the credit market. This include regulating the banking system to ensure that shareholders do not gain at the disadvantage of the poor. A situation where the spread between deposit and lending rate is as wide as 15 percent would favour the shareholders than the depositors, which will in turn burden poor consumers more.
- redesign stabilization programmes to avoid sharp demand contraction and protect pro-poor public spending. Education and health spending traditionally suffer in stabilization programmes.
- improve governance to reduce “state capture” by the rich and leakages in poverty alleviation programmes.

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Appendix I

Relative Poverty Headcount indices, 2004

(i) based on Local Current Prices

	Po	P1	P2	Sample size (Households)
$Z = \frac{1}{3}$ Mean = 11219.68	0.23	0.08	0.15	92,516
$Z = \frac{2}{3}$ Mean = 22439.37	0.57	0.25	0.49	

(ii) based on regionally deflated current prices

$Z = \frac{1}{3}$ Mean = 10588.02	0.20	0.06	0.13	92,516
$Z = \frac{2}{3}$ Mean = 21176.03	0.56	0.23	0.46	

Dataset for the estimates was obtained from NBS website: [www:nigriantstat.gov.ng/NLSS2004](http://www.nigriantstat.gov.ng/NLSS2004)

Appendix II: Poverty Incidence by State, 2004

$Z = \frac{2}{3}$ mean per capita expenditure = N22,439.37

State – name	Popsize	p0	p-alpha1	p-alpha2
Abia	2198	0.2288	0.0668	0.1336
Adamawa	2793	0.7318	0.3515	0.7030
Akwa Ibom	2368	0.3210	0.1111	0.2222
Anambra	2194	0.1823	0.0418	0.0837
Bauchi	3626	0.8704	0.4061	0.8123
Bayelsa	1899	0.1843	0.0633	0.1266
Benue	2537	0.5625	0.1901	0.3602
Borno	2513	0.5726	0.2224	0.4449
Cross Rivers	2398	0.4262	0.1467	0.2935
Delta	1708	0.4415	0.1375	0.2750
Ebonyi	2963	0.4273	0.1543	0.3085
Edo	2306	0.3612	0.1064	0.2129
Ekiti	1621	0.3819	0.1173	0.2345
Enugu	2660	0.3068	0.0925	0.1849
Gombe	2621	0.7612	0.3316	0.6632
Imo	2215	0.2506	0.0753	0.1505
Jigawa	3747	0.9456	0.5443	1.0886
Kaduna	3516	0.5375	0.1700	0.3399
Kano	3558	0.6497	0.2595	0.5189
Katsina	3410	0.7443	0.3135	0.6270
Kebbi	2971	0.8832	0.3984	0.7968
Kogi	2671	0.8809	0.5476	1.0951
Kwara	2328	0.8630	0.5448	1.0897
Lagos	2061	0.6181	0.3288	0.6575
Nasarawa	2972	0.5935	0.2138	0.4275
Niger	2347	0.6447	0.2543	0.5086
Ogun	1647	0.3066	0.0884	0.1768
Ondo	1866	0.4169	0.1315	0.2630
Osun	1746	0.3104	0.0847	0.1693
Oyo	1992	0.2018	0.0597	0.1194
Plateau	2802	0.6213	0.2579	0.5157
Rivers	1781	0.2897	0.0961	0.1923
Sokoto	2261	0.7727	0.3534	0.7067
Taraba	2807	0.5825	0.2245	0.4490
Yobe	3037	0.8294	0.3925	0.7850
Zamfara	3079	0.7899	0.3513	0.7027
FCT	1287	0.4375	0.1578	0.3157

Source: Author's computations from NBS' www.nigerianstat.gov.ng/NLSS2004 dataset.

Appendix III

Estimates of Growth Elasticity of \$1 Headcount Poverty

Ravallion and Chen (1997: 378)	-3.12
Bruno, ravallion and Squire (1998:127)	- 2.12
Ravallion (2001: 1806)	-2.50
Collier and Dollar (2001: 1789)	-2.00
World Bank (2001:47)	-2.00
Collier and Dollar (2002:487 – 89)	-2.00
Bourguignon (2003:17)	-1.65 to –7.87
UNDP (2003:67)	-2.00
Adams (2004:2009)	-1.73 to –5.02

Source: Rati Ram (2006) p.604