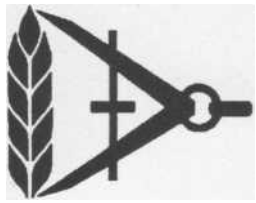
DEVELOPMENT AND PROJECT PLANNING CENTRE		UNIVERSITY OF BRADFORD

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No. 7

SUSTAINABLE RURAL ECONOMIC DEVELOPMENT IN SUB-SAHARAN AFRICA: REFLECTIONS ON GHANA AND UGANDA

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Sustainable Rural Economic Development in Sub-Saharan Africa: Reflections on Ghana and Uganda[1]

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1. Introduction

The objective of this paper is to set sustainable rural development into an economic context. There is a tendency to interpret the issue of rural 'sustainability' either purely on an environmental basis, or exclusively with the agricultural sector. However, there are many elements of rural sustainability outside these two areas. If the economic dimension has been under-emphasised then this is probably due a degree of overemphasis by economists on macro-economic questions which exclude a holistic view of the economics of LDCs and particularly of the rural sector, and to the fact that development economists who do not regard themselves as 'agricultural economists' often tend to concentrate on industrial and 'modem' institutions to the exclusion of the rural economy. On the other hand, some contributions to the literature on African rural development do not seriously address economic issues (see for example Bernstein, 1992).

It can be emphasised that large parts of the private sector in sub-Saharan African, and not least in Ghana, are in the rural areas, particularly in smallholder farming and trading. Issues of 'privatisation' do not arise, although agricultural marketing and large scale plantations will have been recent candidates for various types of institutional change through 'structural adjustment'. Equally, it sometimes needs to be emphasised that large scale rural enterprises such as mines, plantations and agricultural processing can be agents of rural economic development through the phenomenon of 'growth poles' in a long-term strategical view (Perroux, 1971), just as much as smaller-scale agricultural and non-agricultural activities.

The main parts of this paper will focus on the application of economic growth theory to the concept of sustainable rural economic development, on the measurement of economic development in Ghana and Uganda, and on some relevant recent Ghanaian survey data and policy experience. The paper will end with some overall conclusions.

2. Economic Growth Theory and Sustainable Rural Economic Development

The development economics literature makes a distinction between 'growth' and 'development' (for example see Todaro, 1997, Chap 1). 'Growth' involves increases in measurable variables, such as the level of per capita income, the production of foodstuffs, the level of exports and so on. 'Development' is defined in terms of structural change (such as a changing composition of production between agriculture, industry and services, or a change in the proportional contribution of exports to GDP and in the commodity composition of exports), institutional change (such as the development of the financial sector and changes in the legislative superstructure), and of the population characteristics (such as the level of literacy, age structure, patterns of disease, and living conditions).

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a) Investment-based Growth Theory - Many of the approaches to the theory of economic growth have a substantial emphasis on capital accumulation. This applies particularly to the Harrod-Domar approach (Herrick and Kindleberger, 1983, pp.28-32; Hogendorn, 1992, Appendix 1 Chap 11; Todaro, 1997, pp.72-74) which is based on the capital-coefficient (the inverse of the incremental capital-output ratio). In this literature little emphasis is placed on the fact that the investment referred to in the model is net investment rather than gross investment, and on the fact that the rate of technological change in large parts of the economy is dependent on the rate of gross investment (giving the opportunity of embodying new technology in the production system). However, the economic analysis of growth, and the selection of values for the capital-coefficient, often tend to be based on a view of the production system which underemphasises the significance of agriculture in many of the LDCs, not least in sub-Saharan Africa. Influential development economists writing four or five decades ago, such as Walt Rostow (Rostow, 1990, Chap 4)[1] and Arthur Lewis (Lewis, 1955, Chap V)[2], also placed considerable emphasis on capital investment as a basis for sustained economic growth in the economy as a whole.

In our view of sustainable economic growth and development in the rural areas of sub- Saharan Africa the significance of investment should not be overlooked. Investment for sustained rural development includes not only that directly associated with agricultural production, but also that for transportation systems (including roads which often absorb significant amounts of capital), marketing systems (including storage), other elements of communications, water supply and sanitation systems, dwellings, schools, health centres and so on. Economists who bemoan the small proportion of public sector investment devoted to the agricultural sector in development programmes should consider the fact that much agricultural investment is in the private sector (and so is not fully covered by public sector programmes), that private sector investment in Sub-Saharan African economies is likely to be significantly under-recorded, and that much public sector investment in the infrastructure sector (including ports, railways, roads etc.) is an essential complement to agricultural development and to sustained rural economic development and growth.

A large amount of private sector investment in the agricultural sector, contributing significantly to sustained rural economic development, is either of a monetary nature but unrecorded in the national income statistics, or is of a non-monetary nature and is equally unrecorded. This, of course, particularly applies to smallholder farm improvements, which are such an important part of the basis for economic growth in sub-Saharan Africa. The implications of this are that aggregate gross capital investment in these economies is under-estimated, and that, in particular, gross investment in the rural (and specifically agricultural) sector is under-estimated. The extent to which this factor leads to a serious problem in the analysis of economic growth and development in these economies has been given insufficient attention by economists and would certainly bear significant research effort.

Thus, the central importance of gross investment in the process of economic growth and investment, and as a basis for sustained rural economic development, needs to be emphasised, implying that such investment has to be matched by real savings, much of which have to be mobilised within the rural economy.

b) Endogenous Growth Theory and Rural Development - In recent years economic literature has placed somewhat less emphasis on capital accumulation alone as a basis for growth, and more emphasis on other factors such as technological change and education, which may be regarded as complements to, rather than as substitutes for, investment. Much of the analysis of economic growth which took place during the 1960s, 1970s and early 1980s, depended upon the identification of a mysterious ‘residual’ which tended to account for about 50 per cent of all growth (Todaro, 1997, p.91). That part of growth which was accounted for by factors other than this ‘residual’ tended to be attributed to net capital investment and growth in the labour force.

Factors such as technological change (embodied in net investment and in replacement investment), improvements to the quality of the labour force (not least to enable the labour force to use these new forms of technology so that technology becomes embodied in the labour force), improved management and organisation, and so on, were the main elements in the 'residual'.

More recently economists have attempted to incorporate this 'residual' directly into their theory of economic growth. The 'residual' has been 'endogenised', so that 'endogenous growth theory' (otherwise known as the 'new growth theory') regards the factors listed as parts of the 'residual' in the previous paragraph as integral parts of the growth equation (see for example Todaro, 1997, Chap 3; Agénor and Montiel, 1996, Chap 15). A particular emphasis has been placed on the role of human capital (investment in the quality of the labour force through education expenditure - see Gemmell, 1995). An interesting recent publication which emphasises technological change in agricultural sector growth relates particularly to an analysis of the determinants of increases in rice yields in China (Huang and Rozelle, 1996). One might be forgiven for wondering why this evolution of economic theory did not happen earlier, and perhaps the explanation is that these 'residual' elements are not easily integrated into the neo-classical economic models of the recently prevailing economic paradigm. However, these same elements fit very comfortably into approaches to the analysis of economic growth and development used by 'structural economists'. The change from regarding so many essential elements in the process of economic growth and development as 'residuals', to regarding them as integral 'endogenous' parts of the process, can be described as a change of paradigm.

The question is then how this change of paradigm relates to sustained rural economic development. Even while greater attention needs to be given to factors other than capital investment as an explanation for sustained economic growth in rural areas of sub- Saharan Africa investment is a necessary condition of growth and development. It is, however, essential to emphasise contributions to economic growth which are provided by factors such as technical change (in product characteristics, production, and storage/ distribution); by diffusion of technology; by improved quality of the labour force (e.g. high levels of literacy, numeracy and other skills contributed by formal and informal education); by better organisation and management; and by institutional change. Rather than regarding these factors as peripheral to the process of economic growth, economists need to regard them as of central importance and, like capital investment, necessary but not sufficient conditions for sustained economic growth and development, not least in rural areas. In addition, the provision of improved water supply and sanitation, for example, might be regarded as better 'incentive goods' than improved supply of consumer goods such as bottled beer and cigarettes. Water supply and sanitation have the added advantage of contributing to an improved quality of life, and to the productivity of the labour force.

Given the fact that a high proportion of the national income of sub-Saharan African countries originates in rural areas, and that a high proportion of the population lives in rural areas, it is perhaps incumbent upon macro-economists to consider more carefully the relationship between sustained rural economic growth and development and the performance of these economies as a whole.

3. Sustainable Rural Economic Development

Recent experience in Africa has made it clear that both growth and development can proceed 'backwards' and 'forwards'. The two countries that the writer is most familiar with, Ghana and Uganda, illustrate this point clearly. Taking the period from 1970, both countries experienced a decline in the recorded Gross Domestic Product per capita of about 25 to 30 per cent, followed by recovery and sustained economic growth (see Table 1 below). Countries such as Mozambique, Angola, Zaire/Congo, Ethiopia and Sudan have equally had very mixed experience over the last

three decades. Indeed, for all its riches, Zaire remains in the 'other economies' section of the 1996 "World Development Report" (World Bank, 1996, Table la, p.222), presumably due to a paucity of reasonably reliable statistics.

We may, however, interpret 'development' as being positive rather than negative, implying improvement rather than deterioration. To some extent the meaning of 'improvement' is subject to value judgements and cultural bias, but as long as these are made explicit there is not too much of a problem. 'Sustainable rural economic development' could then be taken to mean that there is continuous economic growth and change over a long period leading to steady improvement in the standard of living of the rural population.

The interest of this paper is then in three particular areas. First, how would we know that there has been 'sustainable rural economic development'? Second, what are the economic conditions for the achievement of 'sustainable rural economic development'? Third, is there any evidence on the measurement of and conditions for 'sustainable rural economic development'?

a) Measurement - Measurement of 'sustainable rural economic development' raises problems of principle and of practice. In principle it would be possible to obtain rural per capita income data, implying that data for rural population and for rural GDP (aggregate value added) are both available. Per capita income measures suffer from familiar problems associated with inter-personal income distribution, index numbers and the exclusion of significant economic issues (including the concept of economic welfare). An enhancement of per capita income levels is represented by the Human Development Index (HDI) developed by the UNDP and included in the annual Human Development Report (United Nations Development Programme, 1996, p.106 and Table 1 pp.135- 137). The HDI makes the index of the standard of living broader, including life expectancy and literacy as well as per capita income within a fairly complex formula. In practice there is likely to be very considerable difficulty in obtaining separate reliable data relating to GDP and to the HDI for urban and rural areas of most of the African countries south of the Sahara. Indeed, there might even be difficulty in obtaining this type of data for many relatively well-developed countries.

Broadly, it should be possible to distinguish between those Districts which are more 'urban' and those which are more 'rural' within the new decentralised system of government in Ghana. There is evidence that some data does exist in Ghana giving GNP by district and which are used in allocating the District Assembly Common Fund between the 110 Districts (Buabeng, 1997). However, without referring to the original source for this data it is not possible to make any assessment of its quality. Population estimates exist for each of the Districts based on the former local council areas and on the 1984 Population census. However, it is far from clear that life expectancy and literacy data would be available on a District basis, making application of the HDI problematical.

Table 1 - Population and Gross Domestic Product – Ghana and Uganda

	Ghana			Uganda				
Year	Population (a)	Total GNP (million cedis – 1975 constant prices) (b)	Total GNP per capita (cedis – 1975 constant prices) (b)	Population (d)	Monetary GDP – million Ushillings (1991 constant prices) (e)	Non-monetary GDP – million Ushillings (1991 constant prices) (e)	Total GDP – million Ushillings (1991 constant prices) (e)	Total GDP per capita – Ushillings)1991 constant prices) (e)
1970	8,600,000	5,161	599	11,864,898	1,134,911	497,105	1,634,081	137,700
1975	9,970,000	5,241	526	12,244,500	1,061,834	588,480	1,650,314	134,800
1980	11,500,000	5,453	473	12,636,200	851,159	521,199	1,372,358	108,600
1985	12,720,000	5,345	420	14,296,000	983,778	545,001	1,528,779	107,016
1990	14,470,000	6.724	465	16,371,000	1,333,214	651,969	1,985,183	120,849
1995	15,640,000(c)	7,742 (c)	495(c)	19,262,600	2,040,653	737,017	2,777,669	144,731

Notes: Ghana - (a) The estimate for Ghana's population for 1970 has been calculated from published GNP and per capita GNP statistics, (b) Part of the constant price series has been calculated using a crude estimate for the deflator using statistics from overlapping years between the series based on 1968 and 1975 prices, (c) Data for 1993.
Uganda - (d) 1970 and 1975 figures for population have been estimated on the basis of the 3.1 per cent per annum rate of natural increase from the 1969 population census (page 183 of the 1992-1993 Background to the Budget), (e) Part of the constant price series has been calculated using a crude estimate for the deflator using statistics from overlapping years between the series based on 1966, 1987 and 1991 prices.
Sources: Ghana - Republic of Ghana, 1977, Table 1.1 p3; Republic of Ghana, 1981, Table 1.1 p20; Republic of Ghana (various issues); *Quarterly Digest of Statistics*, March 1984; March 1990; June 1993; June 1995, Table 1.
Uganda - Republic of Uganda (various years); *Background to the Budget*, 1982-83; 1989-90; 1993-94; 1996-97; Republic of Uganda (1993).

b) Aggregate GDP data - Some comparative data for Ghana and Uganda have been presented in Table 1. These two countries have been chosen for comparison because they are of similar size in terms of population and land area, are representative of West and East Africa, both have reasonably reliable and comparable data available, and the writer is familiar with the recent economic development experience of both. The National Income data have been presented in an elongated series, but the degree of approximation involved in using GDP deflators over a 25 year period must be considered very high, particularly for the calculation of the 'overlap' between different constant price series which has been used in compiling Table 1. It can be seen that for the Ugandan monetary GDP there was a significant fall from 1970 through to 1985, followed by a strong recovery over the ten years to 1995. For Ghana total GNP stagnated over the period 1970 to 1985, followed by a strong recovery to 1993, a pattern which is directly comparable with that experienced in Uganda. The population data for Uganda are probably more uncertain than those for Ghana (partly because of the long inter-censal gap before the census of 1991, and partly because of the uncertainty over the statistics due to deaths associated with civil strife and with the AIDS epidemic). The estimates in Table 1 show that Ugandan total population grew by 62 per cent between 1970 and 1995, and Ghanaian population grew by 82 per cent between 1970 and 1993. For Uganda it is estimated that about 86 per cent of the population lived in rural areas in 1995 (Republic of Uganda, 1996, Table 35 p.A37), and for Ghana the 1984 population census gave 68 per cent of the population living in rural areas (Republic of Ghana, 1995a, Table 101 p. 125). Allowing for the elements of uncertainty with the statistics (and assuming that any inaccuracy is constant and in the same direction) the aggregate level of per capita income for Uganda fell from 1970 to 1985 by about 22 per cent and then rose by about 35 per cent between 1985 and 1995. Making the same assumptions for the Ghanaian statistics per capita income fell by 30 per cent between 1970 and 1985, and then rose by about 18 per cent between 1985 and 1993.

A familiar problem with the use of per capita income estimates for international comparisons between countries is the fact that international exchange rates do not necessarily reflect the relative purchasing power of the individual national currencies. For this reason, international comparisons of per capita income now tend to be made on the basis of 'purchasing power parity' calculations (World Bank, 1996, Table 1 pp.188- 189 and p.225). A similar economic problem applies within individual countries, so that the purchasing power of national currencies is likely to vary significantly between different regions. In particular, there is likely to a difference in the purchasing power of currencies between major urban centres, smaller urban centres and rural areas. That is to say that the 'cost of living' varies between different regions of the same country. This would obviously affect the interpretation of any 'rural' estimates of GNP by district, and the comparison of economic growth and development between rural and urban areas and between different regions within individual countries.

d) The Economic Significance of the Non-Monetarv Sector - Another issue associated with the use and interpretation of National Income statistics is raised by the 'nonmonetary GDP' statistics presented in Table 1 for Uganda. Such statistics have been published for Uganda (and for Kenya and Tanzania) for several decades, and go some way towards addressing the limitations of monetary GDP statistics which do not include 'subsistence' income (i.e. output and services which do not enter the market).[3] It can be seen that the Ugandan non-monetary GDP amounted to about 36 per cent of the total in 1975, and 27 per cent of the total in 1995. There are three important points which arise from this. First, the estimate for the size of the non-monetary contribution to the total GDP makes it a very significant part of total economic activity. Second, as the monetary GDP declined with the disruption of the monetary economy over the period from about 1972 to 1986 the proportion of total GDP contributed by the non-monetary economy increased. As the monetary economy recovered and continued expansion

the proportion of total GDP contributed by the non-monetary sector declined. Third, and closely associated with this second point, is the fact that, as the monetary sector declined, the non-monetary sector provided the essential stabiliser in the economy, particularly for rural areas, perhaps even being comparable with a 'social security' system stabilising economic welfare.

The types of economic activity included in the non-monetary GDP are rural dwelling construction, other types of non-monetary capital formation, and non-market production/consumption of foodstuffs. Without going into detail it is not possible to explore the intricacies of the basis for the estimates. However, it is clear that, in principle, the non-monetary GDP statistics pick up both 'pure' non-monetary and also some unrecorded monetary economic activity. The Ugandan estimates are rather 'conservative', and a more enthusiastic approach could lead to much higher estimates of this element of the economy. It should also be emphasised that the uncertainties about the statistics arise for both physical estimates of output, and for the prices used for valuation of these physical estimates.

The reason that so much emphasis has been given to this issue is that a large proportion of non-monetary economic activity takes place in rural areas, so that the lack of regularly published statistics for non-monetary GNP in Ghana suggests that the significance of the rural sector may be considerably under-recorded in the national income statistics. This is rather important for the discussion of sustainable rural economic development. Further implications of this will be discussed later in the paper in the context of recent research undertaken under the auspices of the Ghana Statistical Service (Republic of Ghana, 1996).

d) Levels of Living Analysis - The fact that there are so many deficiencies in the conventional economic measures of the standard of living has led a number of social scientists to reduce emphasis on such measures and to rely instead (or as well as) on a range of indicators. A number of these approaches are discussed in the most recent edition of Todaro's substantial book *Economic Development* (Todaro, 1997, Appendix 2.1). Notable among the social scientists active in this area have been Nancy Baster, Irma Adelman and Cynthia Taft Morris (Baster, 1972; Adelman and Taft Morris, 1972). These approaches are reflected in the presentation of a range of indicators in the World Bank's "World Development Report" (World Bank, 1996, Tables 1 to 8, pp. 188-203). The "Basic Indicators" in the 1996 Report include both Life Expectancy at Birth and Adult Illiteracy. Health Indicators include access to Health Care, Safe Water and Sanitation; Infant Mortality; Prevalence of Malnutrition; Contraceptive Prevalence; Total Fertility Rate and the Maternal Mortality Rate. Additional indicators presented by the World Bank include a range related to Education, and also to Commercial Energy Use, both of which are strongly associated with the standard of living and with

economic development. It should be noted that the UNDP's annual *Human Development Report* now regularly publishes a very wide range of development indicators (United Nations Development Programme; 1996, pp. 124-229).

One problem with the use of such 'levels of living' indicators in LDCs is that while they have the positive attribute of avoiding the problems associated with the more conventional economic measures, there is still a considerable problem in assembling consistent and reliable data on many of these other measures. Further, if there is a problem in obtaining national level data for these variables, then these problems are likely to be compounded if consistent and reliable data distinguishing between urban and rural areas within one nation are required. Some considerable progress has been made in this area in Ghana in recent years, and further discussion will follow in Section 4 of this paper.

On a more positive note, national strategies relating to rural development can target measures

associated with increases in the availability of services which contribute directly to the standard of living. For example, a significant improvement in the availability of safe water in rural areas through a centrally funded development programme[v] without any direct charge on the rural population, will have a direct impact on levels of living indicators without showing up in any of the conventional economic indicators. In this respect the levels of living indicators may give a better measure of the real income of rural populations than some of the more directly economic indicators. The same line of argument would apply to any services provided for the rural population without charge or on a subsidised basis. This is analogous to the phenomenon described in the 1970s as the 'social wage' in the United Kingdom.

e) Growth. Development and Rural Inequality - One of the principal limitations of the use of average per capita income data as an indicator of economic growth and development, and of the standard of living, is that they abstract from the issue of inequality of income distribution. Data on national income distribution is one of the most difficult to assemble on a consistent basis, particularly if the data is to be presented in real terms and net of the impact of direct taxes and of indirect taxes and subsidies. It will therefore be apparent that the assembly of income distribution data for LDCs such as those in sub-Saharan Africa, and even more so for a distinction between urban and rural populations, is fraught with difficulties. It is necessary to be aware of the fact that data on urban and rural per capita income, and on urban and rural levels of living, have to make allowance for the income distribution issue.

Somewhat surprisingly the World Bank's "World Development Report" does actually publish data for the national household income distribution of a number of LDCs, including both Ghana and Uganda (the two countries for which earlier comparison was made). Table 2 presents this data from the 1996 Report.

Table 2 – Income Distribution in Ghana and Uganda

	Ghana	Uganda
GNP per capita 1994 US$	410	190
PPP GNP per capita 1994 US$	2,050	1,410
PPP GNP per capita US 1994 = 100	7.9	5.4
Gini Index	33.9	40.8
Per cent share of Lowest 10%	3.4	3.0
Per cent share of Lowest 20%	7.9	6.8
Per cent share of 2nd quintile	12.0	10.3
Per cent share of 3rd quintile	16.1	14.4
Per cent share of 4th quintile	21.8	20.4
Per cent share of Highest 20%	42.2	48.1
Per cent share of Highest 10%	27.3	33.4

Note: Data based on 1992 surveys relating to expenditure per capita Source: World Bank (1996); Table 1 pages 188-189 and Table 5 pages 196-197

While the data in Table 2 do not shed much light on the issue of sustainable rural economic development, they do at least show that after calculating national income per capita on the 'purchasing power parity' basis Ghana's per capita income falls from 2.16 times that of Uganda, to 1.45 times, indicating the power of this particular adjustment. It also shows that on the purchasing power parity basis Ghana's per capita income was 7.9 per cent of the USA's in 1994, and Uganda's was 5.4 per cent. The table also shows that, if the data is sufficiently robust to be at all meaningful, Uganda had a significantly higher degree of inequality of income distribution with a Gini coefficient of about 41%, compared with that of Ghana at about 34%.

By comparison the Gini coefficient for South Africa in 1993 was 58.4% and that for Kenya in 1992 was 57.7%, indicating even higher levels of inequality of income distribution. Interestingly, comparable data for income distribution are not presented for the higher income economies (World Bank, 1996, Table 5 pp. 196-197).

The relationship of this data to the rural-urban comparison on which this paper is focused is somewhat tangential. Note should also be taken of the issues of land ownership and of the rural distribution of wealth (rather than of income), and of the extent to which the highest incomes are likely to be concentrated in urban areas.

4. Ghana's Recent Economic Growth and Development Experience

a) Economic Recovery - Table 1 shows the extent of the recovery of the economies of Ghana and of Uganda following their respective periods of stagnation and decline. This is not the place to enlarge on the nature and extent of this recovery. However, if the experience of Ghana's cocoa production and export is taken as an example, it is clear that the 'endogenous growth' and 'institutional' approaches to the analysis of economic growth have much to recommend them. In 1975 Ghana produced 322,223 tonnes of cocoa beans, earning $US256 million in export revenue, accounting for nearly 60 per cent of total export revenue. By 1981 the volume of production had fallen to 191,503 tonnes, contributing $US396 million or 37 per cent of export revenue. The nadir of cocoa production was in 1984 at 148,873 tonnes, but by 1992 production had recovered to 223,774 tonnes, earning $US276 million or 31 per cent of export revenue (Republic of Ghana, *Quarterly Digest of Statistics*, various issues; ISSER, 1993, Tables 4.1 and 4.3). The recovery of cocoa production (even after allowing for statistical problems due to smuggling between Ghana, Togo and Cote d'Ivoire associated with exchange rate and pricing policy) can largely be attributed to investment by smallholder farmers in tree/ plant husbandry and in tree/plant replacement, increases in the real value of the price of cocoa beans to farmers, better arrangements for timely payment of farmers, and more efficient marketing and distribution systems following transport and other infrastructure investment in the early period of 'Recovery' and 'Structural Adjustment' (ISSER, various years). Similar experience applies to the production of maize, so that the official statistics show production increasing from 346,000 tonnes in 1982 (172,000 tonnes in the drought year of 1983) to 730,600 tonnes in 1992 (Republic of Ghana, **Quarterly Digest of Statistics,** various issues). If these maize statistics are to be believed much of the increase must be accounted for by price reform (decontrol) and improved marketing and distribution (perhaps leading to better recording of maize production). This experience in cocoa and maize production is consistent with the discussion of factors accounting for economic growth and development in the previous section of this paper.

b) The Statistical Basis for Estimating Rural Economic Development - In recent years the Ghana Living Standards Survey has generated quite a considerable amount of data which is relevant to the planning of policy towards rural development and towards poverty alleviation.

Table 3 - Ghana - Levels of Living Indicators Drinking Water Supply and Sanitation - per cent

	Drinking Water Supply - Urban			Drinking Water Supply - Rural				Sanitation - Urban			Sanitation - Rural		
	1987/8	1988/9	1991/2	1987/8	1988/9	1991/2		1987/8	1988/9	1991/2	1987/8	1988/9	1991/2
Inside pipe	29.4	36.5	38.4	1.1	1.7	2.6	Rush toilet	13.5	15.0	17.6	0.8	1.0	1.4
Water vendor	8.2	7.7	3.6	0.2	0.3	0.4	Pit latrine	34.5	36.6	29.6	65.1	64.4	61.2
Neighbour/Private	22.7	23.9	21.7	1.7	5.0	2.4	Pan/Bucket	29.8	24.3	24.9	5.6	5.6	4.0
Public Standpipe	10.9	8.1	13.4	5.5	3.2	8.5	KVIP	-	-	12.6	-	-	3.7
Well	16.5	13.8	13.0	21.7	26.9	37.2	Other	22.2	24.2	15.3	28.5	29.1	29.7
Natural sources	12.3	9.9	9.9	69.8	61.6	48.0							
Other	-	-	-	-	1.3	0.9							

Note: KVIP = Kumasi Ventilated Improved Pit Latrine
Source: Republic of Ghana (1995); Tables 10.4 and 10.4 pp.88 to 91.

Table 3 presents some of the basic data on Ghanaian levels of living which were referred to in Section 2 of this paper as being significant indicators of well-being and of economic development. This data shows distinct differences between urban and rural areas, so that the 'standard' for both drinking water supply and for sanitation appears to be considerably higher for urban areas. However, it is necessary to make allowance for the higher population densities which apply to urban areas as a whole, and for the even higher population densities which occur in the poorer urban areas (where the standards for both services would be lower than in the less densely populated higher income urban areas). High urban population densities increase the risk of disease arising from poor quality water supply and sanitation. The Ghana Living Standards Survey presents all the data by expenditure quintile of the sample surveyed, making this a rich source of information relating to distributional aspects of development. It is also of interest to note that the successive surveys over the five years which elapsed between the beginning and the end of the series of Living Standards Surveys appear to show some improvement in the standards of water and sanitation services enjoyed by both urban and rural populations even in this short period. Further information on the availability of a range of basic services, and on other relevant characteristics of the rural populations is presented in an earlier report, including access to medical services, infrastructure, agricultural advice etc., entitled *Rural Communities in Ghana* (Republic of Ghana, 1993).

The Ghana Statistical Service has also been using the results from the Ghana Living Standards Survey as the basis for estimating the economic significance of the 'informal sector' on a statistical level (Republic of Ghana, 1996). This work is within the framework of the United Nations System of National Accounts (United Nations, 1993) approach to the estimation of 'non-monetary' national income for LDCs, and the intention is to move towards incorporating a higher proportion of 'informal sector' economic activity in the published national accounts on a regular basis. The first paper in the 1996 publication, by Andrew McKay and Jeffery Round, is a valuable discussion of the methodological basis for the economic concept of the 'informal sector'; the second paper, by Matthew Powell, P. Debra, D. Amable and R. Tonhie, assesses the extent to which the 'informal sector' is already incorporated into the present system of calculating the Ghanaian national accounts; the third, by H. Coulombe, Andrew McKay and Jeffery Round, makes a detailed assessment of household economic activity based on the Ghana Living Standards Survey; and the fourth, by H. Coulombe, Andrew McKay and Jeffery Round, explores the contribution of the 'informal sector' to the Ghanaian GDP.

A review of the overall incidence of poverty in Ghana and on poverty alleviation is provided by a 1993 ISSER publication (Asenso-Okyere, Asante and Gyekye, 1993). This reviews a range of data of the 'levels of living' type, but in 1993 the authors did not have access to the full Ghana Living Standards Survey results referred to above. The paper does however draw substantially on an earlier World Bank study entitled *A Poverty Profile for Ghana 1987-88* by Oti Boateng, Kodwo Ewusi, Ravi Kanbur and Andrew McKay (1990).

Table 4 reproduces the basic table from the ISSER document, distinguishing between urban and rural poverty. It can be seen that, according to the definitions which were adopted for the study, about one-third of the Ghanaian population lived in poverty in 1987/88, of which about four-fifths were in rural areas. About per cent of the Ghanaian population were defined as living in hard-core poverty, of which well over four-fifths were in rural areas. The implication of this, of course, is that poverty alleviation policies would need to be primarily directed at rural areas, and much of the ISSER publication discusses this issue in detail

Table 4 - Rural-Urban Poverty in Ghana

Area	Share of Population (%)	Proportion of Population in Poverty (%)	Contribution to National Poverty	Proportion of Population in Hard Core Poverty (%)	Contribution to National Hard Core Poverty (%)
Rural	65.0	43.9	79.3	9.5	83.8
Urban (excl Accra)	26.8	26.4	19.8	4.5	16.2
Accra	8.3	4.0	0.9	0.0	-
All Ghana	100.0	35.9	100.0	7.4	100.0

Note: In this study the poverty line was set at 1988032,981 (SUS162.99) per annum and the hard core poverty line was set at 1988016,491 ($US81.50) per annum. It is likely that these definitions do not allow for price level differentials between regions, for physical availability of services such as education, medical, water and sanitation, or for the full impact of taxes and subsidies.
Source: O. Boateng et al (1990) cited in Asenso-Okyere et al (1993, Table 2 p6)

b) Sustainable Rural Economic Development and Government Policy - There are many elements of Ghana Government policy which address the issue of sustainable rural economic development. A first element is policy towards the economy enhancing the ability of rural populations to increase incomes through producing for the market. This includes the reform of markets (such as price decontrol and exchange rate reform) reform and development of financial institutions, and infrastructure development. A second element is the development of the education and training system so that rural populations raise their level of literacy, numeracy and ability to understand more sophisticated technology and management systems. A third element is agricultural, rural industry and other public sector development programmes which incorporate direct investment and technological / institutional change. A fourth element is improvement in rural living conditions (improving real rural incomes and economic opportunities in the process) in areas such as water supply and sanitation, improvement of medical facilities and rural electrification. A fifth element is institutional change including the system of decentralisation, adaptation of land tenure.

The enumeration of elements of government policy in the previous paragraph are certainly not exhaustive, but serve to illustrate the need to focus on broad areas of policy rather on narrow issues associated with pure poverty alleviation. In the context of sustainable rural economic development the focus needs to be on income generation and wealth creation, and on programmes which increase the real overall income and standard of living of rural populations rather than simply on short term supplementation of household money incomes.

The ISSER publication referred to earlier in this section (Asenso-Okyere et al, 1993) reviews many of the issues implied by the previous two paragraphs, and the approach of the Ghana Government's *Vision 2020 - The First Step 1996-2000*, the first major 'development planning' document to be published for two decades is very similar (Republic of Ghana, 1995c, passim and pp.66-70).

4. Conclusions

This paper has hardly broken serious new ground. However, it is to be hoped that it has assembled a range of issues in a context which both presents the economic elements of sustainable rural development in a slightly novel manner, and also suggests some new lines of analysis of rural development in sub-Saharan Africa. The paper has emphasised the distinction between 'growth' and 'development', and the fact that 'development' may be positive or negative.

Apart from the difficulty in finding conceptually appropriate measures of sustainable rural economic development, the paper has emphasised the problem of assembling reliable data relating to any measures which might be used for a comparison of urban and rural development. This problem particularly applies if comparisons are being made over long time periods. The shortcomings of the per capita income measure have been outlined, and some of the alternative approaches (such as the Human Development Index and the Purchasing Power Parity measure) used in international comparisons were introduced as possible urban/rural comparative measures within individual countries. The use of 'levels of living' measures as complements to real (constant price) income measures was also explored. Some attention was given to the question of the distribution of income and wealth.

One of the areas given significant emphasis in the paper was that of the estimation of 'non-monetary' national income both for the measurement of comparative real income levels over time, and as a contributor to capital accumulation in rural areas including the agricultural sector. The discussion was placed in the context of a review of the relevance of economic theories of growth and development. Approaches which focus particularly on capital accumulation (and on increases in the size of the labour force) to the exclusion of the integration of factors which affect the quality of investment (and of the capital stock) and of the labour force, and which also affect the institutional framework (in its broadest sense) within which economic activity takes place, were criticised. The more inclusive theories of economic growth are referred to as 'endogenous growth theory' or 'new growth theory'.

Because poverty in sub-Saharan Africa is principally a rural phenomenon the implication is that poverty alleviation policies would primarily have to be directed to rural areas. Such policies can relate to income and wealth creation, to the provision of services, and to various forms of income transfer. Policies towards sustainable rural economic development need to be designed and implemented within a very broad perspective.

Footnotes

1. "For the present purposes the take-off is defined as requiring all three of the following related conditions:

   1) a rise in the rate of productive investment from, say, 5% or less to over 10% of national income (or net national product (NNP));

   2) the development of one or more substantial manufacturing sectors, with a high rate of growth;

   3) the existence or quick emergence of a political, social and institutional framework which exploits the impulses to expansion in the modem sector and the potential external economy effects of the take-off and gives to growth an on-going character." (Rostow, 1990, p39) (note that the 1st edition of Rostow's book was published in 1960)

2. "We have seen in the first section of this chapter that communities in which the national

income per head is not increasing invest 4 or 5 per cent of their national income or less, whilst progressive economies invest 12 per cent per annum or more. The central problem in the theory of economic growth is to understand the process by which a community is converted from being a 5 per cent to a 12 per cent saver - with all the changes in attitudes, in institutions and in techniques which accompany this conversion." (Lewis, 1955, p226)

3. For Uganda the non-Monetary GDP estimate for 1995 of 1991UShs737,017 million was made up of 87% Agriculture (of which 74% was contributed by food crops, 9% by livestock, 3% by forestry and 1% by fishing), 2½% Construction and 10½% Owner-occupied Dwelling (Republic of Uganda, 1996, Table 2 pA4). For Kenya the non-Monetary GDP estimate for 1989 of 1982K£223,350 million (5½% of total GDP) was made up of 13½% Forestry, ½% Fishing, 32% Building and Construction, 10½% Water Collection and 43% Ownership of Dwellings (Republic of Kenya, 1990, Table 2.1 p21). The Kenyan source also reports that Gross Fixed Capital Formation on account of Non-Monetary Dwelling Construction amounted to 1982KX53.93 million in 1989 - about 7% of total GFCF (Republic of Kenya, 1990, Table 2.10 p31). These data indicate that the Ugandan and Kenyan non-Monetary GDP statistics are not calculated on the same basis.

4. It should be noted that a 'development programme' would usually consist of both investment and recurrent expenditure, and the latter should also include maintenance and replacement expenditure in order to ensure sustainability.

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