

---

## ***Population Ageing and Poverty in Rural Ghana.***

---

***Chuks J. Mba, Ph.D.***

Regional Institute for Population Studies, University of Ghana, P.O. Box 96, Legon, Ghana.

Tel: Office: (233 21) 500274; Home: (233 21) 514574

Fax: (233 21) 500273.

E-mail: [chuksmba2@yahoo.com](mailto:chuksmba2@yahoo.com) , [chuksmba@ug.edu.gh](mailto:chuksmba@ug.edu.gh)

Mobile Number: (233 20) 8183860

Alternative Contact Details: Mrs. Araba Mba (233 24) 509521

**1. Problem under Study:** Partly because they constitute the smallest size in the age structure of Africa's youthful populations, and partly because they most usually live with their extended families throughout the older years, elderly persons have long been a neglected area of demographic and sociological enquiry. With the anticipated rapid increases in the population of the elderly and the consequent greater potential need for food security and comprehensive social welfare services, it is necessary and urgent to gain a firm understanding of the demographic, social, and economic characteristics as well as the implications for poverty alleviation among the elderly persons in Ghana, with particular emphasis on rural areas where the phenomenon of population ageing is predominant.

**2. Objectives:** (i) Examine the demographic and socioeconomic characteristics of the rural elderly persons in Ghana; (ii) Estimate the structure of future rural elderly populations in Ghana on the basis of available evidence; (iii), and make recommendations on the basis of the findings.

**3. Background:** The significant achievements of global declines in infant and maternal mortality, reductions in fertility, decreases in infectious and parasitic diseases, as well as improvements in nutrition and education, have resulted in the numerical growth of elderly populations around the world (United Nations, 2001a; World Health Organization, 2000). Defined as persons aged 60 years and over (Mba, 2002a; United Nations, 2001a), the world's elderly population is expected to rise from 606 million in 2000 to almost 2 billion by 2050, representing an increase of about 230 percent over

the period. As a result of gains in life expectancy and declines in fertility, the older population in most countries is growing faster than the population as a whole. What is more, if the envisaged reductions in mortality and fertility occur as currently projected, population ageing will inevitably become a universal phenomenon in Africa and all the other regions of the world in the coming decades (United Nations, 2003; 2001a). The demographic profile of Ghana, the country which provides the context for this study, reveals that currently persons aged 60 years and over constitute about 7 percent of the total population (which is among the highest in Africa. Most of these elderly persons reside in rural areas. Ghana's population ageing had been precipitated more by rapid fertility decline and improvements in public health measures, personal hygiene, sanitation and nutrition. The impact of rural-to-urban migration, as well as death due to HIV/AIDS of able-bodied young people added to the burgeoning of the rural population.

**4. Data used:** The data for this study are taken from a variety of sources. Paramount among these are the 1960, 1970, 1984, and 2000 census results of Ghana, as well as the 1998, 1993, and 1988 Ghana Demographic and Health Survey data.

**5. Results:** The census results showed that the proportion of the aged population in each age group (60-64, 65-69, 70-74, 75-79, 80+) has generally risen over the years. Additionally, both the number and proportion of the elderly to the total population have consistently increased for both sexes. The number of the elderly rose from 0.6 million to 2.3 million between 1960 and 2000. The census results showed that the proportion of rural elderly persons rose markedly from 4.1 percent of the total population in 1960 to 7.9 percent in 2000, and that there were more elderly women than men in rural Ghana. Furthermore, the latest national empirical evidence revealed that overwhelming majority of these older people had no formal education and were engaged in agricultural activities (8 out of every 10 in each case). The preponderance of large family sizes is not in doubt, however the incidence of single living and living with grandchildren is noticeable. The projection results indicated that Ghana's rural population would rise from 10.6 million in 2000 to 22.1 million by 2050, while the proportion of the elderly people would increase from 7.9 percent to 15.7 percent (or from 838,000 to 3,461,000) over the same period. Majority of the aged would be in the age range 60-69 years, and by 2050 Ghana's rural population would be an old population.

**6. Conclusion:** Because of modernization and urbanization, the traditional solidarity network, particularly the extended family system, is disintegrating, leaving the elderly population with little or no means of support and care. As a result, Ghana's rapidly increasing number of older citizens are in a precarious situation that is likely to perpetuate poverty.

**7. Limitations of the methodology:** Population projections by the component method are as good as the assumptions used. Different fertility, mortality, and migration assumptions will yield different projection results. Although the assumptions used for

the study are based on past and current demographic profile of Ghana, no one can say with point-blank accuracy that such demographic trends will continue into the future. Additionally, the observed data used are cross-sectional; thus, implications about causality cannot be drawn.

**8. Contribution to the field (demography or population studies):** The paper seeks to raise awareness on Africa's population ageing and the challenges of care and support for the elderly.

## **1. Introduction**

### **1.1. Statement of the Problem and Rationale of the Study**

The significant achievements of global declines in infant and maternal mortality, reductions in fertility, decreases in infectious and parasitic diseases, as well as improvements in nutrition and education, have resulted in the numerical growth of elderly populations around the world (United Nations, 2001a; World Health Organization, 2000).

Defined as persons aged 60 years and over (Mba, 2002a; United Nations, 2001a), the world's elderly population is expected to rise from 606 million in 2000 to almost 2 billion by 2050, representing an increase of about 230 percent over the period. As a result of gains in life expectancy and declines in fertility, the older population in most countries is growing faster than the population as a whole. What is more, if the envisaged reductions in mortality and fertility occur as currently projected, population ageing will inevitably become a universal phenomenon in Africa and all the other regions of the world in the coming decades (United Nations, 2003; 2001a).

Unfortunately, though, the phenomenon of population ageing has been a prominent issue largely in the developed economies of North America, Europe, and Asia. What is yet to be widely appreciated is that population ageing is also occurring in the developing world, particularly in Africa, and that the elderly populations in Africa and the other developing regions are growing much more rapidly than those in the economically advanced countries. In the developed world, the demographic transition process leading to an ageing population has taken place over the span of about a century (Angel and Angel, 1997; 1982; Olson, 1994). This furnished plenty of warning and preparation time for coping with increased numbers of elderly people. In Africa, this process of transition is occurring a few decades (Mbamaonyeukwu, 2001a).

The demographic profile of Ghana, the country which provides the context for this study, reveals that currently persons aged 60 years and over constitute about 7 percent of the total population (which is among the highest in Africa), and as a result of future fertility and mortality declines, by 2050 this proportion will rise to 15 percent (United

Nations, 2001b; World Bank, 2000). Most of these elderly persons reside in rural areas.<sup>1</sup>

Indeed, Africa's populations are predominantly rural (United Nations, 2001; 1991; Stloukal, 2001). Ghana fits into this picture as the 1984 and 2000 census results indicate that 68 percent and 56 percent, respectively of the population live in the rural areas (Ghana Statistical Service, 2002a). Rural life is generally characterized by poverty and underdevelopment. These are reflected in the poor and inadequate housing structures, poor nutrition, low levels of life expectancy, water problems, low income levels, poor transport and communication facilities.

Ghanaian women constitute about 52 percent of the agricultural labour force and produce about 70 percent of the total crop output. They also process and market nearly all grains and starchy staple foods, and feature prominently in agro-industries such as oil palm processing, oil extraction, and fish preservation. Despite their importance in agricultural activities, only about 26 percent of women are farm owners or managers, and they face institutional discrimination in their attempts to gain access to land and credit, particularly as they age (Manuh, 1989). Yet access to natural capital is central to the livelihood strategies of rural households in much of Africa. The rural poor tend to be reliant on incomes, employment derived from natural capital, and opportunities for diversification within which gender and age are key mediating factors. Access to common property resources can be especially important for the poverty-stricken rural elderly men and women who often have specific needs and a less prominent voice in decision-making, especially women.

The agricultural programmes of Ghana's government are designed to accelerate rural development and improve the living standards of the rural dwellers. However, none of these programmes exclusively target the aged, who are among the most vulnerable in society. Specific provisions in some general programmes, such as exemptions, subsidies, tax holidays, etc. that benefit the older population are conspicuously absent but highly desirable in order to arrest the increasing marginalisation of the rapidly growing elderly rural persons and reverse the systematic perpetuation of rural poverty.

As in many African societies, the family continues to be the primary institution equipped to provide support for the elderly in Ghana (Mba, 2002b; Mbamaonyekwu, 2001a; Wright, 1999; Fonchingong, 1999; Apt, 1996; Ardayfio-Schandorf, 1994). An ageing population poses a threat because families will now have fewer descendants available to care for the increasing number of surviving elderly persons. Furthermore, urban wage earners, whose incomes have appreciably declined in real terms owing to

---

(a) <sup>1</sup> There has been no internationally recognized standard definition of rural population or rural areas nor of its complimentary part, urban population or urban areas (United Nations, 1991; Mba, 2002a). Each country decides for itself what it considers to be an urban area; the remaining area is then defined as rural. In many developing countries, however, rural areas are considered to be agricultural and the so-called rural population is assumed to be equivalent to agricultural population. In Ghana, a rural area is an area with a population of less than 5,000 (Ghana Statistical Service, 2002a).

unfavourable economic conditions are finding it increasingly difficult to remit resources to the aged relatives in rural areas. Additionally, in the absence of universal social security, the processes of modernization and urbanization are beginning to erode the traditional social welfare system, the extended family, that caters for the welfare of the aged (Mbamaonyeukwu, 2001a; Mba, 2001; Apt, 1996). Also, the substantial rural out-migration of able-bodied men and women in Ghana (as indicated above), as well as the impact of HIV/AIDS (which generally affects persons within the productive and reproductive age groups), implies a significant reduction of valuable hands to help in food and agricultural production to assist their elderly family members.

What has been said about the rural elderly people can also be said concerning the urban older population. The economic and social environment is ill-equipped to manage the rapid demographic change occurring in Ghana, characterized by high levels of poverty, low pension coverage, inadequate social protection, and deteriorating traditional family support structures.

Given these realities, the emerging phenomenon of population ageing represents a major challenge to Ghana's political leaders. As highlighted previously, very little is known in Ghana and many African countries about population ageing, as well as the linkages between population ageing and poverty reduction. In particular, what are the implications of rapid increases in the proportion and number of rural elderly persons for poverty alleviation in Ghana? This is the critical question this paper attempts to address in the hope that it will furnish baseline information to guide poverty reduction strategies, policies and programmes in Ghana and elsewhere that target the older population.

## **1.2 Data and Methods**

The data for this study are taken from a variety of sources. Paramount among these are the 1960, 1970, 1984, and 2000 census results of Ghana, as well as the 1988, 1993, and 1998 Ghana Demographic and Health Survey data. Additionally, the latest available comprehensive tables of the United Nations (2003; 2001b) are employed.

It is necessary to find out the future structure the rural elderly population in Ghana on the basis of available evidence in order to provide a solid foundation for raising awareness on rural population ageing and the challenges of poverty alleviation. In this respect, population projections by the component method are carried out using the SPECTRUM software developed by The Futures Group International (The POLICY Project, 1999), while the medium variant projections are used because of their direct relevance to policy formulation and decision-making (technical details are available upon request).

## **2. Determinants of Rural Ageing**

Population ageing or the increasing percentage of people in the older age groups, is a direct consequence of the interplay of forces of fertility and mortality, and to a lesser

extent, migration in the Ghanaian context. As fertility and mortality remained high in Ghana and parts of Africa, various child survival and family planning programmes were given considerable attention during the past several decades. Both governments and international organizations intensified their efforts to improve child health and survival. The result was a substantial reduction in mortality across Africa. In fact, the results of the most nationally representative surveys in Ghana, the 1988, 1993, and 1998 Ghana Demographic and Health Surveys (GDHSs), show that infant mortality declined from 100 per 1,000 live births to 57 per 1,000 live births in the last two decades, representing a decrease of 43 percent (Ghana Statistical Service and Macro International Inc., 1999; Ghana Statistical Service and Macro International Inc., 1994; Ghana Statistical Service and Institute for Resource Development/Macro Systems, Inc., 1989). As a result, expectation of life at birth has been increasing steadily in the country, rising from 42 years in the 1950s to 57 years for the 2000-2005 period, and is projected to reach 73 years during 2045-2050 period (United Nations, 2003; 2001b).

Because fertility did not decline that fast, African countries concentrated more efforts on aspects of family planning such as child spacing, maternal health, and direct intervention to reduce the birth rate, and for that matter, the rate of population growth. Interestingly, these efforts have paid off in some settings, to the extent that remarkable fertility declines have occurred in countries such as Cote d'Ivoire, Ghana, Kenya, Northern Sudan, Southern Nigeria, Tanzania, and Zimbabwe, as well as all countries in Southern Africa (Mba, 2002b; 2002c; Mbamaonyekwu, 2000a ; Chimere-Dan, 1998; Blacker, 1994; Casterline, 1994; Caldwell et al., 1992). Indeed, it is important to observe that Ghana has today made significant progress in reducing fertility. The results of the 1998 GDHS indicate that there is a dramatic decline in fertility to the tune of about 2 births in a decade. The findings show that the total fertility rate (TFR) slumped from 6.4 births per woman in 1988 (to 5.5 in 1993, and then) to 4.6 births per woman in 1998 (Ghana Statistical Service and Macro International Inc., 1999). Indeed, it can be argued that Africa's ageing populations are triggered more by the rapid fertility decline that is currently sweeping accross parts of the region (Mba, 2002b; Vimard, 2000; Mbamaonyekwu, 2000a; Chimere-Dan, 1998; Orubuloye, 1995; Blacker, 1994; Casterline, 1994; Caldwell and Caldwell, 1993; Caldwell et al., 1992). Given the prevailing favourable political commitment to population programmes, and the noticeable increase in the participation of grassroots organizations and non-governmental organizations in population management, some policy analysts are sanguine that the unfolding demographic transition in Ghana will be greatly accelerated in the next couple of years.

The result of smaller family sizes and more people surviving to adulthood is population ageing. However, two more factors have possibly, albeit less significantly, precipitated population ageing in Ghana, especially in the rural areas. These are migration and HIV/AIDS. Ghana's major cities have become too large and are growing too rapidly compared with the rural areas. For example, it has been found that the regions where

most potential migrants expect to migrate to are Greater Accra (Ghana's capital city), Ashanti (Ghana's commercial nerve center), and Eastern (the region closest to Ghana's capital city), while Upper East Region is the least attractive area, because it is among the least developed and 'rural-most' regions in the country (Ghana Statistical Service, 1995). Consequently, it can be argued that internal migration in Ghana may be a rational response to the wide disparities in economic and social conditions between the rural and urban areas. Migration to the cities tends to draw away more dynamic members of the rural communities, and further diverts national investment resources toward the towns and cities. This increases the proportion of the aged as compared to other subgroups in rural areas and handicaps them in connection with acquiring labour force for agricultural activities. Additionally, many migrants return to rural communities when they grow old since they may have retired from employment and can no longer cope with the high cost of living in towns and cities. The result is that there are disproportionately more elderly persons in rural than urban areas in Ghana. It is commendable that rural development strategies often have the explicit goal of retaining potential migrants in the rural areas. Since rural dwellers often migrate because they lack jobs and/or adequate incomes, increasing the range of agricultural and non-agricultural job opportunities and raising incomes could be expected to reduce migration from the rural areas.

Available evidence suggests that 3.6 percent of the adult population in Ghana are living with the HIV/AIDS virus (United Nations, 2001a; World Health Organization, 2001; UNAIDS, 2000). In Ghana, the estimated number of persons infected with the HIV virus in 2000 was 350,000, consisting of 330,000 adults and 20,000 children (Ministry of Health, 2001). Furthermore, more than 150,000 Ghanaians have died from AIDS since the beginning of the epidemic in the early 1980s. Among adults, the largest proportion of persons with HIV/AIDS have contracted the disease through multiple heterosexual partners (Ministry of Health, 2002; Mbamaonyekwu, 2001b; 2000)<sup>2i</sup>. The disease continues to spread at an alarming rate, and the virus is most prevalent among young people in the prime of life. The high rate of the HIV/AIDS is already placing a strain on the social welfare system, a burden that is likely to increase dramatically in the next few years. The effect of HIV/AIDS is felt by all population subgroups. However, some population subgroups, such as the elderly persons, are more vulnerable as they are left alone to take care of their grandchildren following the death of their children through AIDS. The HIV/AIDS scourge also results in food insecurity by the loss of agricultural farmers due to AIDS and inability to cultivate large farm lands due to reduction in the number of people available to farm as a result of the decimation of the number of farmers.

---

(b) <sup>2</sup> These findings should be accepted because even though more recent studies argue that about 60 percent of HIV/AIDS infections are contracted through medical lapses, such as use of unsterilised syringes, one syringe for more than one person, and contaminated blood transfusion, they have not yet been internationally peer-reviewed and validated

### 3. Characteristics of the Rural Population

Table 1 shows trends in the age and sex structure of Ghana's rural ageing population over four decades (1960-2000). The proportion of the aged to the total rural population has doubled in 40 years (from 4 percent in 1960 to 8 percent in 2000). As expected, there are more female elderly persons than males in rural Ghana. Although the percentage of the elderly persons has risen significantly in rural Ghana, there is no evidence to suggest a corresponding rise in social care for the aged. In spite of the demographic shift, older persons' concerns have remained marginal to the major social and economic debates in the country. As a result, many older people, who cannot engage in large-scale agricultural activities, are faced with inadequate and insecure income as they are left to fend for themselves.

Although there are more elderly women than men in rural Ghana, the women suffer from discrimination with respect to access to land for farming<sup>3ii</sup>. A report on the status of women in Ghana suggests that there is a gradual removal of the more discriminatory provisions relating to land tenure and more definite efforts to improve the access of women farmers to land formation (National Council on Women and Development, 1994). This notwithstanding, there are regional differences regarding access to land for farming. For example, only 2 percent of women in Northern Ghana are holders of land as against 50 percent in Ashanti Region, a situation attributable to family land tenure practices unfavourable to women, coupled with a system of patrilineal inheritance (Prah, 1995). Furthermore, in parts of Western Region, there is evidence to support the contention that land inheritance is gradually favouring sons (Quismbing et al., 1995), and a similar development has been observed in the Volta Region (Greene, 1995).

**Table 1: Percentage Distribution of Ghana's Rural Elderly Age Structure by Sex: 1960-2000**

Age Group	1960			1970			1984			2000		
	Both Sexes	Male	Female									
60-64	1.34	1.00	1.68	1.31	1.15	1.64	1.44	1.20	1.73	2.10	2.01	2.24
65-69	0.84	0.67	1.03	0.88	0.65	1.34	0.92	0.77	1.44	1.73	1.74	1.73
70-74	0.74	0.77	0.68	0.72	0.89	0.59	0.67	0.73	0.63	0.99	0.93	1.04
75-79	0.39	0.32	0.47	0.49	0.41	0.57	0.54	0.53	0.55	0.86	0.88	0.85
80+	0.82	0.66	1.01	0.99	0.69	1.34	1.03	0.72	1.47	2.21	2.23	2.18
Total	4.13	3.42	4.87	4.39	3.79	5.48	4.60	3.95	5.82	7.89	7.79	8.04

(c) <sup>3</sup> All four constitutions promulgated in Ghana since independence in 1957 grant equal legal and constitutional rights to men and women. The latest, the 1992 Constitution is the most forward with respect to gender rights. (It includes provisions on fundamental human rights and freedoms, education, economic and property rights, integration into the mainstream of public office, female reproductive rights and facilities for pre-school children, and control over traditional practices injurious to women). Under Article 18 of the Constitution, every Ghanaian has the right to own and administer property either alone or in association with other persons. Specifically, and in the interest of women, Article 22 provides that spouses shall have equal access to property jointly acquired during marriage, and upon dissolution of the marriage, assets that have been jointly acquired must be shared equitably between the spouses. Furthermore, Ghana is signatory to a number of international instruments (including the African Charter on Human and People's Rights and the Convention on the Elimination of All Forms of Discrimination against Women) aimed at eliminating discrimination against women in all its forms. Despite all the legal provisions, the Ghanaian woman is generally identified with the home and the family.

Source: 1960-2000 Population Censuses of Ghana.

The characteristics of Ghana's rural elderly people are displayed in Table 2. The findings reveal that four out of every five older person in rural Ghana have not had any formal education. This partly explains why more than 80 percent of them are engaged in agriculture. The pronounced differences in educational levels are likely to have profound implications for the productive roles of the aged. While one has to be cautious about speculating as to the direction of causality, nevertheless, it is important to suggest that the apparent association between higher levels of schooling and occupational status is highly significant. The table indicates that 56 percent of the rural elderly persons are household heads. In the Ghanaian traditional system of reciprocal rights and obligations, it is the overriding responsibility of the household head to provide for all members of the household over which he/she has authority. In exchange he /she will expect to be able to call on the labour of all individual members of the household in farming collectively for the household. Also, the living arrangements of the aged indicate that large family size predominates in rural Ghana, which is advantageous for labour-intensive agricultural production. However, due to the impact of urbanization and migration, more older persons are increasingly living alone or living with grandchildren.

**Table 2: Percent Distribution of Rural Elderly Persons by Characteristics in Ghana, 2000.**

Characteristics	Age Group					Total (%)	Number
	60-64	65-69	70-74	75-79	80+		
<b>Sex</b>							
Male	25.9	18.8	16.5	11.3	27.5	49.7	412,548
Female	27.9	18.5	17.5	10.1	26.0	50.3	418,356
<b>Education</b>							
No Education	25.5	18.0	17.7	11.2	27.6	82.8	688,268
Primary	39.7	24.0	15.2	8.2	12.9	10.3	87,906
Secondary	37.7	23.5	14.1	7.5	17.2	2.7	19,676
Tertiary	19.9	16.2	10.8	8.7	44.4	4.2	35,054
<b>Occupational Status</b>							
Agricultural	34.7	19.9	17.7	12.9	14.8	81.7	678,849
Non-agricultural	30.6	23.7	15.9	13.7	16.1	18.3	152,055
<b>Marital Status</b>							
Never married	19.4	15.2	11.7	8.6	45.1	4.9	40,607
Married	30.8	19.9	16.5	10.0	22.8	57.1	474,448
<b>Divorced/Separated/ Widowed</b>							
Widowed	22.1	17.2	18.4	12.0	30.3	38.0	315,849
<b>Relationship to Household Head</b>							
Head	28.2	20.0	18.8	11.6	21.4	55.8	464,046

Spouse	41.4	20.9	14.7	6.2	16.8	9.7	80,324
Child	59.5	22.4	11.9	4.2	2.0	0.7	6,227
Parent/Parent-in-law	17.7	15.0	18.0	11.8	37.5	8.4	70,181
Other Relatives	20.0	15.7	13.4	10.2	40.7	23.7	196,805
Others unrelated	28.6	17.8	16.9	9.4	27.3	1.7	13,321
Living Arrangement							
Living alone	28.7	19.7	15.2	10.7	25.7	5.6	46,531
Living with							
spouse only	33.8	21.4	17.7	14.7	12.4	6.1	50,685
Living with grand-							
children only	19.4	18.4	21.1	22.5	18.6	7.3	60,656
Living with spouse,							
children and others	35.1	22.2	15.7	15.1	11.9	81.0	673,032

---

*Source: The 2000 Population and Housing Census of Ghana.*

Table 3 suggests that Ghana's rural population will rise from 11 million in 2000 to 16 million in 2020, and then to 22 million by 2050, representing a growth rate of 1.4 percent per annum. It is noteworthy that these projection results are close to the United Nations projections for the whole country (United Nations, 2001b). The rapid increase in the size of Ghana's rural elderly population is likely to lead to high demand for agricultural land, which will force the poor farmers to cultivate marginal lands such as steep slopes and fragile soils. The traditional bush fallow and shifting cultivation system may prove to be dysfunctional owing to drastic declines in fallow periods.

Ghana and most other developing countries are characterized by youthful populations with children under 15 years representing more than 40 percent of total population (United Nations, 2001a; 2001b). Tables 3 and 4 reinforce this argument. As a result, most national resources are directed toward providing education, healthcare and other needs for these children, with very little attention to the needs of the aged. The tables point to the fact that the number and proportion of rural elderly persons in Ghana will increase tremendously in the coming decades, rising from 838,000 persons (representing 7.9 percent of total rural population) in 2000 to 3,461,000 persons (representing 15.7 percent of total rural population) by 2050. Rural Ghana's median age of 18.9 years is a further indication of a youthful population. But as indicated in Table 5, due to the anticipated continued rapid fertility decline in the country, the median age is expected to rise to 25.9 years in 2030, representing an intermediate stage of ageing, and then to 32.5 years, implying an old population. Additionally, while the overall dependency ratio is projected to remain around 111 percent over the period under review, the aged dependency ratio, extreme aged dependency ratio, and family support ratio are expected to rise markedly. These findings suggest that an overwhelming majority of the rural aged will be in need of assistance, and supports the proposition that ageing is "predominantly a rural phenomenon, and it is thus in the villages that the consequences of ageing are likely to be felt" (Stloukal, 2001: 19). However, since a substantial proportion of the elderly persons will be concentrated in the

younger age range (60-69), many of them will still be able to engage in agricultural activities for subsistence and for commercial purposes.

**Table 3: Numerical (000s) and Percentage Distribution of Ghana's Rural Population: 2000-2050**

Age Group	2000	Per-cent	2010	Per-cent	2020	Per-cent	2030	Per-cent	2040	Per-cent	2050	Per-cent
0-4	1658	15.6	2030	15.4	2295	14.5	2531	14.0	2734	13.6	2757	12.5
5-9	1701	16.0	2095	15.9	2327	14.7	2640	14.6	2794	13.9	2823	12.8
10-14	1499	14.1	1845	14.0	2026	12.8	2260	12.5	2613	13.0	2580	11.7
15-19	1095	10.3	1344	10.2	1504	9.5	1700	9.4	1809	9.0	1875	8.5
20-24	755	7.1	949	7.2	1108	7.0	1248	6.9	1367	6.8	1500	6.8
25-29	638	6.0	804	6.1	997	6.3	1103	6.1	1206	6.0	1367	6.2
30-34	585	5.5	738	5.6	918	5.8	1049	5.8	1166	5.8	1257	5.7
35-39	510	4.8	633	4.8	792	5.0	904	5.0	1025	5.1	1147	5.2
40-44	415	3.9	527	4.0	665	4.2	759	4.2	844	4.2	948	4.3
45-49	383	3.6	474	3.6	617	3.9	723	4.0	804	4.0	860	3.9
50-54	308	2.9	382	2.9	491	3.1	597	3.3	684	3.4	816	3.7
55-59	244	2.3	303	2.3	412	2.6	488	2.7	563	2.8	662	3.0
60-64	223	2.1	277	2.1	380	2.4	434	2.4	523	2.6	640	2.9
65-69	181	1.7	224	1.7	317	2.0	398	2.2	462	2.3	595	2.7
70-74	106	1.0	138	1.0	237	1.5	325	1.8	382	1.9	551	2.5
75-79	96	0.9	138	1.0	206	1.3	271	1.5	342	1.7	485	2.2
80+	232	2.2	278	2.2	539	3.4	650	3.6	785	3.9	1190	5.4

Total 10629 100.0 13179 100.0 15831 100.0 18080 100.0 20103 100.0 22053 100.0

Sources: The 2000 figures are from the 2000 Population and Housing Census of Ghana, while the other values are computed from the 2000 figures using the SPECTRUM software.

Note: The projections shown here are based only on the medium variant assumptions.

**Table 4: Structure of Ghana's Rural Population, 2000-2050**

Year	Number (thousands)			Percent Distribution		
	0-14	15-59	60+	0-14	15-59	60+
2000	4858	4933	838	45.7	46.4	7.9
2010	5970	6154	1055	45.3	46.7	8.0
2020	6648	7504	1679	42.0	47.4	10.6
2030	7431	8571	2078	41.1	47.4	11.5
2040	8141	9468	2494	40.5	47.1	12.4
2050	8160	10432	3461	37.0	47.3	15.7

**Table 5: Measures of Rural Population Ageing in Ghana: 2000 –2050**

Measure	Year					
	2000	2010	2020	2030	2040	2050
Median age of the population	18.9	20.5	23.0	25.9	28.8	32.5
Overall dependency ratio	115.5	114.2	111.0	110.9	112.3	111.4
Aged dependency ratio	17.0	17.1	22.4	24.2	26.3	33.2
Extreme aged dependency ratio	4.7	4.5	7.2	7.6	8.3	11.4
Family support ratio	57.4	55.5	77.3	78.1	79.7	96.4

Source: Computed from Tables 3 and 4.

Note: The median is expressed in years while the ratios are expressed in percent.

## **4. Conclusion and Policy Implications**

### **4.1 Concluding Remarks**

The present study was concerned with raising awareness about the rapidly emerging phenomenon of population ageing in Africa, with particular emphasis on rural Ghana. In doing this, the determinants of rural ageing were examined. This furnished a veritable platform for a discussion on the characteristics of Ghana's rural population. In this respect, levels and trends of the rural older population, as well their living arrangements were examined. It was necessary to find out the structure of future rural elderly population in Ghana on the basis of available evidence in order to provide a solid foundation for raising awareness on rural population ageing and the challenges of care and support for the aged. In this respect, population projections by the component method were carried out for the period 2000-2050.

Ghana's population ageing is being precipitated by rapid fertility decline and improvements in public health measures, personal hygiene, sanitation and nutrition. The impact of rural-to-urban migration, as well as death due to HIV/AIDS of able-bodied young people is adding to the burgeoning of the rural population.

The census results showed that the proportion of rural elderly persons rose markedly from 4.1 percent of the total population in 1960 to 7.9 percent in 2000, and that there were more elderly women than men in rural Ghana. Furthermore, the latest national empirical evidence has revealed that overwhelming majority of these older people have no formal education and are engaged in agricultural activities (8 out of every 10 in each case). The preponderance of large family sizes is not in doubt, however the incidence of older persons living alone and living with grandchildren is noticeable. The projection results indicate that Ghana's rural population would rise from 10.6 million in 2000 to 22.1 million by 2050, while the proportion of the elderly people would increase from 7.9 percent to 15.7 percent (or from 838,000 to 3,461,000) over the same period. Majority of the aged would be in the age range 60-69 years, and by 2050 Ghana's rural population would be an "old" population.

### **4.2. Policy Issues: Food Security and Agricultural Production**

Greater household food security is essential for breaking the vicious circle of rural poverty and malnutrition. This requires measures to promote subsistence farming among the rural elderly people and to raise the returns these farmers receive on marketed crops. This should include, *inter alia*, a policy environment targeting the older population that promotes increased food production. Such an environment should provide adequate land tenure arrangements, and appropriate pricing and incentive policies for rural farmers. It should also provide better infrastructure, especially feeder roads, improved access to credit and inputs.

Indeed, infrastructural constraints serve as serious obstacles to agricultural development in rural communities. Because of the absence of good roads,

transportation is a big problem as farmers cannot market their produce readily and hence do not receive maximum benefits from the sale. Also, absence of depots for inputs in the rural areas makes the acquisition of inputs a difficult proposition.

Food insecurity for the rural aged may arise for other reasons in Ghana. Generally, people with food security problems lack access to food because they lack income, assets, or entitlements with which to produce, buy, or exchange sufficient food for a healthy active life. Transitory food insecurity is caused by factors such as seasonal changes in the availability and price of food. Civil conflict, droughts, and famine affect the poor and vulnerable elderly most severely. To the extent that temporary factors destroy assets (land, food storages, or livestock), transitory food insecurity may result in chronic rural poverty and destitution. This has been the case for some people in countries such as Burundi, Cote d'Ivoire, Liberia, Rwanda, Sierra Leone, Somalia, and Sudan. Large-scale movements of refugees and displaced persons interfere with production activities, disrupt food markets, and place severe pressures on local food supplies available for the rural elderly people. Indeed, the extent to which agricultural production can alleviate rural poverty and improve food security for the aged will depend greatly on the extent to which conflicts are avoided. Therefore, the relative peace Ghana has enjoyed over the years should be guarded and sustained for improved food security, rural development and poverty reduction.

It has been pointed out that Ghana ranks among the lowest in the world in terms of savings rates (Achiaw and Kwarteng, 2003; Steel and Aryeetey, 1994; Aryeetey, 1993). Rural adult persons who are engaged in small-scale farming or any form of self-employment should as a matter of utmost urgency start contributing to the Social Security and National Insurance Trust, Ghana's Pension Scheme, to ensure a financially secure and peaceful retirement when they become old.

#### **4.3. Policy Issues: Gender Considerations**

Beside taking care of their grandchildren, cooking meals, doing housework, and taking part in community affairs, elderly women in Ghana engage in much agricultural work that includes planting, weeding, watering, harvesting, processing, and storage of the food their families eat. In fact, it has been found that in most activities in the rural areas, the roles of older wives are not statistically different from those of their younger counterparts (Warner and Balcombe, 1996). Elderly women farmers often make long and tedious journeys to the market, sometimes with grandchildren on their backs and carrying heavy headloads of farm produce to sell. Additionally, in many rural areas, the aged women are the heads of the households mainly because of the death of their husbands<sup>4</sup>. Despite the fact that they do much agricultural work, rural elderly women are yet to benefit from agricultural support programmes such as extension and credit. Due to reasons that include domestic duties, status, false assumptions, and illiteracy

---

<sup>4</sup> In Ghana, women marry men much older than themselves, and coupled with the fact that females live longer than males in most societies, the elderly women usually survive their husbands (Mba, 2002; United Nations, 2001a; 2001b).  
(d)

men receive most loans and control most of the land, while most of Ghana's real farmers are women. In fact, according to the World Bank (1992), women in Ghana constitute 47 percent of total labour force in agriculture, and they account for as much as 70 percent of the total food production. These women should not be thought of as bystanders or burdens but as a valuable asset and a key target group for rural advancement and the reduction of poverty. Indeed, a study of women's income generation groups in Northern Ghana concludes that while some groups were successful in raising the incomes of women, "because of the intricate linkages of wealth and social status as a socio-cultural phenomenon, it is obvious that the women have not attained higher social status within their families and communities" (Atengdem, 1995: 22). It is therefore important that the government should create an overall enabling environment for rural women farmers by ensuring that resources that go into agricultural support such as seeds, fertilizers, and technology reach them. The overall implications of this for rural prosperity and family well-being are profound.

There are also other institutions like the rural banks, the Ghana Co-operative Credit Union, and Women's World Banking that help improve women farmers' access to credit. Yet these efforts seem like a drop in the bucket because the vast majority of the women farmers, including the elderly, have not been reached. There is therefore the need for much greater commitment and investment in such schemes with a special focus on, and package for, the elderly women. In this respect, it is necessary to provide a country-wide network of alternative nontraditional credit facilities to the older women like revolving funds, taking into account their special needs.

To circumvent the problem of discrimination against women, encouraging the acquisition of land for women's groups might be a useful approach in the short term. A long-term strategy would be educating people to change their negative attitudes, and reminding them that laws are already in place that guarantee women's access to land, which should be respected. Additionally, it is imperative to mount a permanent or long-term campaign on local FM radio, national radio, and television, with the help of media practitioners, to discuss gender issues and create gender awareness.

Women have a significant role in farming and post-harvest activities in Ghana and most African countries. Nevertheless, a complex set of rights and obligations reflecting social and religious norms prevail within rural communities. These conditions dictate the division of labour between men and women and act as constraints to women farmers. Consequently, an understanding of women farmers' role and its importance, as well as these constraints is a prerequisite to devising policies to improve productivity and socio-economic development.

#### **4.4. Policy Issues: HIV/AIDS, Extended Family, Migration and Modernization**

The implication of the prevalence of HIV/AIDS in rural Ghana and parts of Africa is the reduction in the number of adults in the agriculturally productive ages in these countries due to the ravages of the HIV/AIDS pandemic. This is likely to undermine economic progress and pose enormous challenges to these governments. The elderly persons, who are the grandmothers and grandfathers, are likely to be the most active persons to manage the agricultural and other family affairs in the event of the death of their adult children. A death in the rural household as a result of AIDS can have profound implications for agricultural resource allocation, production, consumption, savings, investment and the well-being of survivors. This condition is likely to impoverish the rural elderly population.

It should be stated that in Ghana and many parts of Africa, the extended family usually plays the role of the social welfare systems. However, due to the rising levels of AIDS-related deaths, rapid disintegration of the extended family system, orphanhood and the loss of traditional support mechanisms for the rural elderly as a result of AIDS will unquestionably become increasingly large problems. Therefore, the government of Ghana should provide agricultural assistance to the rural elderly poor in the form of free inputs, special agricultural credits and grants. Also, because an overwhelming majority of Ghana's elderly men and women reside in the rural areas, their primary means of subsistence are agricultural activities, which by definition require much physical strength. With advancing age and concomitant frailty, these activities are likely to be deleterious to the health of the rural elderly persons. It is thus suggested that the government should institute alternative less tedious and viable income-generating programmes, such as handicraft and other physically less demanding activities, that will provide means of livelihood for these rural elderly people, many of whom are widows and live alone.

Migration of the elderly persons' children to the cities could have a dramatic effect on the well-being of the rural elderly by reducing intergenerational wealth flows to the elderly and causing neglect of the elderly parents left behind. Worse, still, not only are the rural elderly persons left with less family support, they are also left with little or no health services since medical facilities are generally concentrated in urban areas.

Formal education is critical to the attainment of economic security in old age as societies respond to the modernization process. The 2000 Census of Ghana presents a dismal picture of educational attainment in the country as 43 percent of the population do not have any formal education (many of whom live in rural areas) and only 7 percent have post-secondary education (Ghana Statistical Service, 2002a). Since an overwhelming majority of the elderly persons, particularly women did not go beyond primary education, the government should encourage girls especially and boys to pursue higher education for their own good and that of the society.

#### **4.5. Policy Issues: Government's Response to Ageing**

It is gratifying to note that successive governments of Ghana have shown some concern for the aged. For instance, July 1, Ghana's Republic Day has also been declared as Senior Citizens Day, which is one way of responding positively to the concerns of the elderly and a clear indication of national commitment to the well-being of the aged. Similarly, the revised national population policy stipulates, *inter alia*, that "deliberate measures shall be taken to alleviate the special problems of the aged and persons with disabilities with regard to low incomes and unemployment" (Republic of Ghana, 1994: 39). Also, the government of Ghana is planning a new National Health Insurance Scheme (NHIS) under which some exemption benefits for the aged that will take into account their vulnerability and special circumstances will be provided (*Daily Graphic*, 2003). The scheme is expected to go a long way toward defraying the medical bills of the elderly sick. In the same vein, efforts to address issues impacting negatively on older people through a National Ageing Policy are underway<sup>5</sup>. However, efforts should be made to attain this objective at the shortest possible time to alleviate the sufferings of the aged. Not all elderly persons have access to health services, especially in the rural areas. Currently, the cash-and-carry system (a user-fee scheme that entails full cost recovery for medical attention) affects all population subgroups. As a result of the economic situation in the country and its concomitant low standard of living and poor quality of life, the average rural elderly person finds it increasingly difficult to pay hospital bills. It goes without saying that ill-health slows down agricultural activities. The ageing process exposes individuals to increasing risk of illness and disability. As Ghana is a poor country, lifetime exposure to health problems means that many Ghanaians may enter old age already in chronic ill-health. Personal health consistently ranks alongside material security as a priority concern for the aged. Indeed, physical health is for many rural elderly persons their single most important asset, bound up with their ability to work in the farms, to function independently and to maintain a reasonable standard of living. Illness in old age is therefore an ever-present threat. Moreover, the cut-off point for the qualification under the proposed NHIS scheme for the aged should be reviewed to cover the elderly persons aged 60 years and over since that is the official retirement age in the country.

The government further supports various non-governmental organizations working for the aged. These organisations, which include HelpAge Ghana and Christian Action on Ageing in Africa have been very instrumental in bringing to the fore the problems that confront the aged in our society, and helping to create national awareness about the responsibility of the young toward the welfare of the elderly. But these organizations are few and concentrate their activities mainly in the urban areas. As a result, the very few existing old-age institutions (old people's homes) they operate are generally

---

<sup>5</sup> The draft National Ageing Policy was submitted to the Cabinet in March 2003; it is yet to be considered by the Parliament.  
(e)

located in towns and cities<sup>6</sup>. Consequently, the activities of these organizations are yet to reach the overwhelming majority of elderly persons who reside in rural communities.

#### **4.6. Policy Issues: Study Limitation, Research, and Final Word**

Policy implications shown here need to be considered in the light of the study's limitations, however. In the first instance, the data used are cross-sectional; thus, implications about causality cannot be drawn. Additionally, the data came from various sources with differing techniques of data collection.

This analysis is the first such study to be conducted on Ghana. Future research might build on the findings of this study. Due to pervasive rural poverty, it is hypothesized that there is an inverse relationship between modernization and family support for the elderly, resulting in a growing incidence of low levels of well-being among the elderly persons. Yet, very little is known in parts of Africa about intergenerational transfers. In the traditional African society, children are expected to support their parents in old age because there is no universal social security system. With increasing urbanization and modernization, it is vitally important to know something about intergenerational transfers from adult children (who live in towns, cities, and outside the country) to their rural elderly parents, and characterize the elderly persons' food security strategies in a fast-changing social and economic environment.

Although old people have existed throughout recorded history, few studies have been done to systematically investigate attitudes toward old age and the elderly persons' actual conditions in many African countries. Such research is absolutely essential because we need to have reliable baseline information by which to assess the current conditions of the aged and on which to premise our projections and expectations about old people's situation in the future.

Finally, rural areas house and feed most of the ageing populations of Africa but agriculture, which is the lifeline of rural Africa, is not fulfilling its vital function of feeding the aged. Failure by policy makers, development planners and practitioners to take sufficient account of the real complexity of African rural societies lies at the root of the continued failure of many policies and interventions to genuinely meet the pressing needs of rural peoples throughout the continent.

## **5. References**

- Aboagye, K., 2003. "Inflation and Interest Rates in Ghana". *The Ghanaian Times* of Wednesday, June 25, p.15.
- Achiaw, N. O. and E. K. Kwarteng, 2003. "Prez Fetes Aged". *Daily Graphic* of Wednesday, July 2, front page.
- African Development Bank, 2001. *African Development Report 2001: Fostering Good Governance in Africa*. Oxford: Oxford University Press.

---

<sup>6</sup> It is conceded that a generational effect may be operating inasmuch as older parents tend to be more traditional and may expect more care at home from their children and other relatives, thereby making patronage of these institutions less likely assuming they exist in rural areas.

(f)

- Akaba, J. 2003. "High Interest Rates Killing Business". *The Ghanaian Times* of Monday, June 16, p.22.
- Angel, R.J. and Angel, J.L. 1997. *Who Will Care for Us? Ageing and Long-Term Care in Multicultural America*. New York University Press.
- Apt, N. A. 1996. *Coping with Old Age in a Changing Africa: Social Change and the Elderly Ghanaian*. Averbury Aldeshot, Brookfield.
- Ardayio-Schandorf, E. 1994. *Family and Development in Ghana*. Ghana Universities Press, Accra.
- Aryeetey, E. 1993. "Saving among the Rural Poor in Ghana". Proceedings of the Fourth CROP Conference, Paris, 16-18 April.
- Atengdem, P. 1995. "Increasing the Relative Income of Women and its Effect on Socio-economic Status: A Case in Northern Ghana". Paper presented at the *Transitions in West Africa* Conference, University of Central Lancashire, September 2.
- Blacker, J. 1994. Some Thoughts on the Evidence of Fertility Decline in Eastern and Southern Africa. *Population and Development Review* vol. 20 No. 1, pp.200-205.
- Boante, D. 2003. "Financing Agriculture". *The Ghanaian Times* of Wednesday, June 18, p.13.
- Caldwell, J.C. and P. Caldwell, 1993. The South African Fertility Decline. *Population and Development Review* vol. 19 No. 2, pp.225-262.
- Caldwell, J.C., Orubuloye, I.O. and P. Caldwell, 1992. *Africa's New Kind of Fertility Transition*. Health Transition Working Paper No. 13. Center for Epidemiology and Population Health, Australian National University, Canberra, Australia.
- Casterline, J. B., 1994. "Fertility Transition in Asia", in Locoh, T and Hertrich, V. (eds.), *The Onset of Fertility Transition in sub-Saharan Africa*, Derouaux, Ordina, Liege, pp.69-86.
- Chimere-Dan, O. 1998. Celebrating the Onset of Fertility Decline in Africa, *African Population Studies*, vol. 13, No. 1, pp.6-7.
- Coale, A. J. and Demeny, P. 1983. *Regional Model Life Tables and Stable Populations* Princeton University Press, Princeton, New Jersey.
- Daily Graphic*, 2003. "Aged to be Granted Exemption Under NHIS". *Daily Graphic* Newspaper, Monday, February 10, Front Page.
- Fonchingong, C. 1999. Structural Adjustment, Women and Agriculture in Cameroon. *Gender and Development* vol. 7, No. 3, pp. 73-79.
- Ghana Statistical Service (GSS), 2002a. *2000 Population and Housing Census: Summary Report of Final Results*. The GSS, Accra.
- Ghana Statistical Service (GSS), 2002b. *Statistical Newsletter* No. B1/2002, February. The GSS, Accra.
- Ghana Statistical Service (GSS) and Macro International Inc. (MI). 1999. *Ghana Demographic and Health Survey 1998*. Calverton, Maryland: GSS and MI.
- Ghana Statistical Service (GSS), 1995. *Migration Research Study in Ghana*. Vol. 1 Internal Migration. The GSS, Accra.
- Ghana Statistical Service (GSS) and Macro International Inc. (MI). 1994. *Ghana Demographic and Health Survey 1993*. Calverton, Maryland: GSS and MI.
- Ghana Statistical Service (GSS) and Institute for Resource Development/Macro Systems, Inc. (IRD). 1989. *Ghana Demographic and Health Survey 1988*. Columbia, Maryland: GSS and IRD.
- Greene, S.E. 1995. "Women, the Family and the Commercialization of Agriculture in 19<sup>th</sup> and 20<sup>th</sup> Century Anlo. In Prah, M. (ed.), *Women's Studies with a Focus on Ghana: Selected Readings*. Schriesheim, Germany: Books on African Studies.
- Institute of Statistical, Social and Economic Research (ISSER), 2003. *The State of the Ghanaian Economy in 2002*. ISSER, University of Ghana, Legon, Ghana.
- Institute of Statistical, Social and Economic Research (ISSER), 2002. *The State of the Ghanaian Economy in 2001*. ISSER, University of Ghana, Legon, Ghana.
- Manuh, T. 1989. "A Study of Selected Voluntary Development Organisations in Ghana". In *Women as Agents and Beneficiaries of Development Assistance*. Association of African Women for Research and Development (AAWORD) Occasional Paper Series, No. 4, Dakar: AAWORD.
- Mba, C. J. 2002a. *Population Studies: A Glossary of Basic Terms and Concepts*. Benediction Press, Accra, 2002.
- Mba, C. J. 2002b. "Determinants of Living Arrangements of Lesotho's Elderly Female Population" in *Journal of International Women's Studies*, Vol. 3, No.2, (online): <http://www.bridgew.edu/DEPTS/ARTSCNCE/JIWS/June02/index.htm>
- Mba, C. J. 2002c. "Ghana's Reproductive Revolution: Analysis of the Determinants of Fertility Transition" in *African Population Studies* journal, vol. 17, No.1, pp.47-67.
- Mbamaonyekwu, C. J. 2001a. "The Ageing of Africa's Populations", in *BOLD* Quarterly Journal

of the International Institute on Ageing, vol. 11, No. 4, pp. 2-7.

Mbamaonyekwu, J.C., 2001b, "The Battle Against HIV/AIDS: The Winds are Contrary", *The Spectator*, Saturday, March 24, p.3.

Mbamaonyekwu, C.J., 2000a. Signs of Fertility Transition in Nigeria. *African Population Studies*, vol. 15, No. 1, pp.23-42.

Mbamaonyekwu, C.J., 2000b. Nigeria's Population Policy: Family Planning Requirements (1990-2010). *African Population Studies*, vol. 15, No. 2, pp.109-128.

Mbamaonyekwu, J.C., 2000c, "AIDS: A Threat to Humanity", *The Spectator*, Saturday, December 2, p.3.

Mbamaonyekwu, C.J., 1992. Demographic Scenarios for the Achievement of the Nigerian Population Policy Targets. Unpublished M.Phil Thesis submitted to the Faculty of Social Studies, University of Ghana, Legon.

Ministry of Health, 2001. *HIV/AIDS in Ghana: Background, Projections, Impacts, Interventions, and Policy*. National AIDS/STI Control Programme, Disease Control Unit, Ministry of Health, Accra.

National Council on Women and Development (NCWD), 1994. "The Status of Women in Ghana 1985-1994. In *National Report for the Fourth World Conference on Women*. Accra: NCWD.

Olson, L.K. (ed.), 1994. *The Graying of the World: Who Will Care for the Frail Elderly?* The Haworth Press Inc., Binghamton, New York.

Orubuloye, I.O. 1995. The Demographic Situation in Nigeria and Prospects for Fertility Transition. *Journal of International Development* vol. 7 No. 1, pp.135-144.

Prah, M. 1995. "National Action Programme for Poverty Reduction: Background Report on Women in Development". Report prepared for the Ministry of Local Government Accra and UNDP.

Republic of Ghana, 1994. *National Population Policy* (Revised Edition). National Population Council, Accra.

Serow, W.J. and Cowart, M.E., 1998. Demographic Transition and Population Ageing with Caribbean Nation States. *Journal of Cross-Cultural Gerontology* vol. 13, No. 3, pp.201-213.

Steel, W. and E. Aryeetey, 1994. "Informal Savings Collectors in Ghana: Can They Intermediate?". *Finance and Development* 31(1): 36.

Stloukal, L. 2001. "Rural Population Ageing in Poorer Countries: Possible Implications for Rural Development". In **BOLD** Quarterly Journal of the International Institute on Ageing, vol. 11, No. 4, pp. 16-23.

The POLICY Project, 1999. *The SPECTRUM System of Policy Models*. The Futures Group International, Washington, D.C.

UNAIDS, 2000. Report on the Global HIV/AIDS Epidemic, June, 2000. Joint United Nations Programme on HIV/AIDS, Geneva, Switzerland. <http://www.unaids.org/hivaidinfo/>

United Nations, 2003. *World Population Prospects, The 2002 Revision Vol. I: Comprehensive Tables*. Department of Economic and Social Affairs, Population Division, ST/ESA/SER.A/222. New York.

United Nations, 2001a. *World Population Prospects, The 2000 Revision: Highlights*. Population Division, Department of Economic and Social Affairs, ESA/P/WP.165, New York.

United Nations, 2001b. *World Population Prospects, The 2000 Revision Vol. I: Comprehensive Tables*. Department of Economic and Social Affairs, Population Division, ST/ESA/SER.A/198. New York.

United Nations, 1991. *Ageing and Urbanization*. Department of International Economic and Social Affairs, ST/ESA/SER.R/109. New York.

Vimard, P. 2000. Demographic Policies, Family Planning and Fertility Transition in Africa. *CEPED NEWS* vol. 8 Jul-Dec., pp.4-6.

Warner, M. and C. Balcombe, 1996. *How Useful is Gender in Explaining the Economic Roles of Africa's Rural Peoples? An Application in Logistic Regression Analysis*. Series in Empirical Agricultural Economics and Econometrics No. 5, Wye College Press.

World Bank, 2000. *World Development Indicators database, July, 2000*, The World Bank Group.

World Bank, 1991. *Ghana Medium-term Agricultural Development Strategy*. Vol. 1, Main Report. Washington, DC.

World Health Organization (WHO), 2001. *1997-1999 World Health Statistics Annual*. <http://www3.who.int/whosis/>. The WHO, Geneva, Switzerland.

Wright, C. 1999. Female Singlehood and Urban Space in Lesotho. *Review of Southern African Studies* vol. 3, No. 2, pp.75-102.

