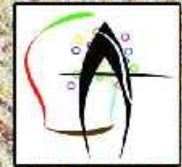




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L'Afrique et les défis du XXIème siècle
Africa and the Challenges of the Twenty First Century
A África e os desafios do Século XXI

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**Africa's population dynamics in the 21st century:
Rethinking demography as opportunity**

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Introduction

The study of population dynamics is an examination of drivers of population change, positive or negative. The mathematical roots of population dynamics is the exponential growth model which expresses the relationship between an initial population and its growth in the future as

$$P(t+n) = P e^{rn} \quad (\text{Newell, 1988})$$

What this means is that the size of a population P at time $(t+n)$ in the future depends on the initial population (P) at beginning time (t) , multiplied by the exponential of the product of its growth (r) and the difference between time periods (t) and $(t+n)$ which is n . Since the growth rate (r) is obtained from the birth, death and immigration/emigration rates, this equation incorporates all the basic components of population change. The study of population dynamics also includes an understanding of the political, social and cultural context that influences these components.

Any attempt to write the population dynamics of Africa requires due consideration to two main challenges. The first is the importance of recognising Africa's diversity and complexity and therefore avoid underplaying these differences through a continent approach. The second is to avoid overemphasising the differences and fragmenting Africa into meaningless regions, a situation which has dogged our understanding of Africa for far too long. In this paper we make a deliberately choice to focus on a continental approach, choosing to agree with Kofi Annan's position that "despite their differences, African countries are linked by a number of common themes and experiences" (Anan, 1998:114). We believe these similarities have shaped the population dynamics of the continent.

Having made the bold decision to focus on a continental focus, we also take certain liberties with various concepts used in the paper. We use demography and population interchangeably and argue that their subtle differences will not detract from the main arguments of the paper. We also interchange the words "Third World", "developing countries" and "less developed countries" to refer to Africa and those other regions that are not Europe or United States. In referring to Europe and United States, we use the terms "the West", as well "more developed countries" and "developed countries" interchangeably. This is done to facilitate easier presentation of arguments in this paper and does not in any way suggest that this as a universal way of classifying these regions.

About this paper

This paper has three main objectives. The first is to present evidence showing the different motivations behind the West's interest in Africa's population dynamics in the 20th century. We argue that these motivations were less to do with Africa's population growth than the West's own domestic concerns. Africa's population in the 20th century was used as a scapegoat for various developed country concerns.

For clarity, we periodize our evidence and present the various populations concerns in the 20th century according to four distinct time periods. We begin with the period before 1950's up to the Bucharest conference in 1974; This is followed by the period from 1975 to the Mexico conference in 1984; and then the period 1985 to the Cairo conference in 1994 and finally the post Cairo period which covers 1995 to the 21st Century. Each of these periods shows us the role that the West's concerns played in defining and redefining Africa's *so called* population problems.

The second part of the paper looks at what know at current 21st African population data and discusses the difficulties of getting to the "demographic truth" using African data. We present evidence based on African database documentation which clearly shows that for most African countries, population data are based on *UN estimates* whose origin is never clear.

In the third section of the paper, we use what we currently know and can accept about African population data to show how demography can become opportunity. We focus on the importance of population momentum rather than growth; on how Africa can reap the demographic dividend in the 21st Century and we argue that the merits of international migration through an examination of the role of remittances.

Motivations for the West's interest in developing countries population issues

a) From 1950's to Bucharest 1974

Before 1950, the West took little interest in the population dynamics of the developing world including Africa. Although colonialism had facilitated the penetration of Africa by various European countries, there was lack of focus on African population issues. Demeny and McNicoll (2006) propose that there was a demographic reason for this lack of interest. They argue that before the 1950's there was little and incorrect knowledge about world population growth. Evidence of this lack of knowledge of global population growth is shown in the

work of Notestein, an eminent demographer whose world population projections for 2000 published in 1945 turned out to be 82% lower than reality (Notestein, 1950). So there was lack of knowledge about the rate at which the world population was growing.

However, other reasons have also been proposed. Europe and America had been involved in the Second World War. The end of the Second World War led to competition for influence and fears of the resurgence and spread of Russian communism in Africa; a continuation of cold war tactics. Africa and its largely poor and rapidly growing populations became a battleground for the major superpowers' struggle. Controlling the population growth of Africa and the third world countries in general to avoid the Communist threat, became a motivation for putting money into population programmes.

Schindlmayr (2004:39) refers to this period as the period of "population hysteria with its age of apocalyptic prognostications". He argues that Europe and America entered a period of population hysteria which was fuelled by the works of Malthus, and beliefs in the population -food debate. Paul Ehrlich's *Population Bomb* published in 1968 claimed "inevitable population food crisis" (Ehrlich, 1968:17). Neo Malthusian explanations were plucked from Europe to explain various population problems experienced in the third world. The Club of Rome's *Limits to Growth* gave academic backing to Malthusian scenarios, where uncontrolled population growth in the third world, led to food shortages in the developed world (Meadows et al, 1972). Piotrow (1973) argues that the Indian famine of 1960-61 was used as evidence of how runaway population growth could not keep up with food production. By 1967, American efforts moved from passive support of population issues to active response. In 1967 President Johnson declared in the State of the Nation address that "next to the pursuit for peace, the really great challenge to the human survival is the race between food supply and population increase" Piotrow, 1973:132.

Economic theory played its part in the population debate. Issues of the importance of quality versus quantity of children began to appear in the fertility debate, reviving old ideas of the eugenics movement which had roots in the late 19th century and which had also attracted some notoriety in the first part of the 20th century. In its revival however, eugenics showed a different face. As Demeny and McNicoll state, "tainted by Nazi eugenics, the aim of selected breeding was abandoned and western eugenic transmuted into advocacy of birth control, better prenatal care and provision of better information on genetic diseases." (Demeny and McNicoll 2006: 13).

The increasing importance of developing country population issues is reflected in the number of population agencies that started in the 1950's. IPPF was established in 1952 as well as the Rockefeller funded Population Council (Population Council, 1973). Ford's Population Reference Bureau was also established in 1952. Pathfinder followed in 1957. All these agencies played a critical role in population control activities in Africa. By 1966, international support for family planning programmes was endorsed in the United Nations General Assembly through the adoption of resolution 221 (XXI) which stated that technical assistance for population should be made available when requested.

Such was the developed countries' interest and confidence on a consensus on reducing population growth of developing countries that the Bucharest Conference focussed on how to slow population growth. Developed countries' total and open support for family planning was cleared stated without fears of any controversy. But as Finkle and Crane (1975) argue, resentment over population assistance in the 1970s at a time when the US and others were decreasing their ODA (overseas development aid) as a percentage of GNP had been slowly building. Too little money was being spent on economic development, while a lot of was going into population programs. For example, the World Bank gave its first initial population control loan in 1970. The Norwegian government decreed that 10% of its development assistance had to be dedicated to population activities in 1971 (Wolfson, 1983). Salas, (1979) reported that Sweden had an executive policy allocating 9% of its overseas development aid to population.

Developing countries began to frequently perceive population assistance as a diversionary tactic used by developed countries to maintain global economic imbalances by diverting attention away from the real causes of poverty and creating the myth of excess population growth in the third world. At the Bucharest conference of 1974, developing countries led by Algeria and Argentina argued that little could be done about population until economic and social conditions were improved in the third world. The agenda of the conference had to be changed from population control to restructuring the world economy.

1975 to Mexico Conference 1984

After the Bucharest conference, although many developing countries celebrated their ability to have brought economic development as the agenda of the conference, instead of population control, they also began to slowly accept that socio-economic development and family planning programmes played complimentary roles in reducing fertility. Many

developing countries in Africa were now prepared to openly accept help from family planning organisations. UNFPA and other population agencies began to enjoy a period of good funding. Crane and Finkle (1981) reported that during this period, developing countries found agencies competing against each other for the opportunity to assist their population programmes.

The World Bank also began to play a big part in family planning. Robert McNamara the World Bank President had in 1969 likened the threat of rapid population growth to that of nuclear war and had during his years as president supported family planning programmes in the developing world (McNamara, 1981). By the 1984 Mexico conference, it appeared as if the support for family planning programmes was strong, from both developing countries and developed countries.

There were however global economic problems. By 1978, demands for population assistance by developing countries began to outstrip available funds (Sinding and Quandt, 1993). Funding for developing countries' population projects became scarcer as many began to adopt population policies and hoped to receive support. Meanwhile developed countries were reducing their support due to economic pressure in their own countries. By 1984, there was tension between the expectation of developing countries for population funding, and the West' inability to provide this funding, clearly something had to give.

At Mexico conference, developing countries and population agencies were in agreement that population control was critical for development. But the United States had an ace up its sleeve. The United States decided at this conference not to support the funding of family planning and population control programmes in the Third world. The United States took a radical shift in the population control debate declaring that the effect of population growth on economic development was neutral and that population issues could be resolved by market issues. A White House document went as far as reporting of "demographic overreaction in the 1960s and 1970s." US White House Office of Policy Development, 1984:577).

The US position proposed by the Reagan administration led to withdrawal of funding and leadership in population issues after Mexico conference. Key US agencies involved in family planning work in the third world lost their funding during this period. UNFPA lost about US\$10 million in 1985 (USAID, 1986); The World Bank funding to UNFPA also ceased in August of that year (Green, 1993); IPPF lost a quarter of its budget in the same year. For population agencies and developing countries, 1984 Mexico conference and the period

immediately after ended with a lot of confusion as leadership and funding of population activities were hugely threatened by US domestic politics.

1985- to 1994 Cairo conference (ICPD)

The shock of US withdrawal tactics at the Mexico conference led to a lot of repositioning and strategizing among groups involved in population. In the early 1980's onwards there was a flourishing of American women's groups who were concerned with women's rights in the developing world. In the United States, population agencies sought common ground with feminists and women's groups. A subtle shift in the population and family planning debate occurred from a macro focus to a micro focus in fertility control. This shift was strengthened by the safe motherhood initiative of 1987. Donaldson and Tsui (1990) described this shift as a change of emphasis from a fixation with aggregate effects of population to concerns for impact of family planning on individual users and their families. By the 1994 Population conference, the ground had been adequately prepared for a programme of action which shifted from macro interest in population control to micro approach in which women's health, their sexuality and reproductive health became the main focus.

The 1994 Cairo ICPD was hailed as one of the major successes of women's groups in influencing population issues in the US and globally. The conference also led to the adoption of the final draft of the World Population Plan of Action in which for the first time abortion was referred to in clear terms in para8.25: *in circumstances in which abortion is not against the law, such abortion should be safe (ICPD, 1994)* .

While the move to women's health should be applauded, it is important to also highlight that the ICPD also reflected the interplay of American domestic politics whereby family planning issues in the third world provided platform on which US women's groups and population agencies challenged their own government successfully.

1994 onwards- into the 21st century

After 1994 population issues enjoyed a new renaissance due to environmentalists (Mazur, 1994). The focus shifted from the population food debate to anxieties about global warming, environmental degradation and greenhouse effect. Homer-Dixon (1993) and Huntington (1996) suggested that population also enjoyed a second renaissance due to political analysts who raised fears linking population size in developing countries to political instability among countries experiencing below replacement fertility.

At a global level, funding for family planning and population programmes declined quite substantially. Economic recession in the 1990 led to stagnation of donor funding. Many donors failed to live up to their pledges after Cairo (UNFPA, 1997a; Conly and de Silva, 1997). Wahren (1991) suggested that donors reduced funding for population programmes because of the perceived success of family planning programmes (even though demographers continued to highlight how Africa was the only continent in which fertility had remained largely stagnant). In the 21st century, funding was further threatened by the global financial crisis that is still affecting the world.

Schindlmayr (2004) suggested that funding declined simply because donors lost interest in population after Cairo. He concludes that "post 1994 interest in population declined because reproductive health does not have the same political appeal as apocalyptic arguments of yesteryear" p.46. This conclusion is supported by the vast support the HIV and AIDS and the resurgence of interest on African sexual behaviour. The projected numbers of deaths and ridiculous estimates of life expectancy due to HIV and Aids, Death of does have that apocalyptic appeal as the Malthus scenarios. It is also clear that funding for population issues can only be available if dressed in the guise of HIV and AIDS epidemic.

So can we learn from this review?

It is clear that the driving force behind the West's interest in African population dynamics in the 20th century was less to do with population growth, than other concerns.

Before Bucharest various western interests including fears of the spread of communism, misplaced Malthusian and neo-Malthusian interpretation of problems affecting Third World countries and eugenic leanings all influenced the *importance* of third world's population problems among European countries and the United States.

Just before and during the Mexico conference, American domestic politics and the deliberate decision to de-fund population and family planning organisations at a period when developing countries had begun to accept the importance of reducing fertility clearly shows that Third World population growth or fertility decline was never really the issue but American politics. The Reagan administration's withdrawal of funding and leadership in population issues showed that American domestic politics overrode the needs of developing countries.

Between 1984 and 1994, we see the interplay of other western groups strategizing to forge links between women's groups, feminists and population agencies in the west. We also see

how the shift from a macro approach to fertility decline to micro fertility strategies is more a strategy for domestic power among American organisations rather than a real concern with the health of third world women.

After 1994 the failure of donors to honour their pledges to reproductive health funding shows again that quality of life of third world issues does not rank highest among developed countries concerns. The shift from population and reproductive health to concerns with the environment, greenhouse effect and global security issues after Cairo also suggests that for the West decides on what matters at almost every period, and all Africa and the rest of third world have to do is follow these various fads. It can only be sadly concluded that concerns with Africa's population dynamics in both the 20th and 21st centuries may have little to do with demographic growth but a lot more to do with global politics in which Africa appears to have very little say.

AIDS projections in the ridiculous estimates of the number of Africans being decimated also suggest that certain underlying motives from the 20th century have seeped into 21st perceptions of African population problems. Racism and eugenics leanings are used in some interpretation of work on sexual behaviour of Africans; apocalyptic notions of vast disasters and piles of deaths due to AIDS and deliberate ways of trying to somehow link the AIDS epidemic to be a major African problem all suggest that motivations from the 20th century are not completely dead. What this means is that contemporary African population problems when defined by the west must be viewed with a "glass darkly".

Do we really know what we think we know about Africa's demography?

The developed world's ability to manipulate African population issues arises from one major weakness in African demography, the lack of reliable data on population. Before the 1960's round of census, little was known about African populations. After the 1960-61 round of censuses good data were collected from Europeans populations living within Africa and little good quality data on the indigenous African populations (Marindo, 2000).

After the 1960's and the independence of many African countries, the availability of incomplete census data and the use of indirect methods muddled the waters further. First indirect methods lulled African countries into collecting minimum proper usable demographic data. The belief that indirect methods could be used to make reliable estimates even from the most basic data led many African countries to never bother with collecting proper population data from their populations. Little attempt was made to find ways of

gathering data from semi-literate populations. In addition, relying on indirect methods also meant that many African countries began to credit modelled data than real population data. Evidence of the fractious and poor quality of African census data is provided by the African Population database, prepared by UNEP and CIESIN. A review of 20th and 21st century African censuses indicates that although almost all African countries have had more than two censuses since the 1960s, only Algerian demographic indicators of fertility, mortality and migration have been calculated directly from the data. For the rest of African countries complete population indicators are made from estimates relying on United Nations growth rates. This is largely because in almost all Africa censuses, available data are incomplete, unavailable or so incorrect that they give ridiculous demographic indicators. In all these African countries, population estimates are projected using growth rates derived from the United Nations national level estimates and projections, the source of which is never clear (www.na.unep.net/siouxfalls/global/africa/country-specific/a-c.html). If African population censuses are largely unreliable and unusable, where does the UN get its estimates?

It is therefore reasonable to conclude that in the majority of cases, we do not know with a reasonable degree of certainty, the fertility, mortality, and emigration and immigration rates of Africa. *In other words, African population dynamics is an unknown quantity even for the Africa governments themselves. To argue otherwise is to be in continental denial.*

Population dynamics of Africa: a very short summary

Using the data in table 1, we provide a brief demographic summary of Africa.

The African population constituted roughly 8.8% of the world population in 1950; 10% in 1975; 12.9% in 2000; and is projected to be 16.6% in 2025 and 19.8% of the world population in 2050. However there are indications that the average annual growth rate of the population is declining, albeit slowly. African fertility is also on the decline, but also a slow decline.

Currently, 41% of the African population is estimated to be aged less than 15 years and 3% over 65 years. This is compared to a world average of 27% and 8%. The elderly support ratio, which is the number of people available to support an elderly person, is 9 for the world in 2010, 4 by 2050 in contrast to Africa which has 16 for 2010 and 9 by 2050. Life expectancy at birth is believed to have increased by 13.6 years from 1950 to 2000.

Africa has a population density of 34 people per square km compared to 51 for the world and 23 for more developed countries (Population Reference Bureau, 2010.)

Table 1: Broad indicators of the population dynamics of the world and Africa.

Region	Population in millions		Annual rate of growth %		CBR		CDR		TFR		e0	
	1950	2000	50-55	95-2000	50-55	50-2000	50-55	95-2000	50-55	95-2000	50-55	95-2000
World	2.521	6.055	1.77	1.33	37.3	22.1	19.7	8.9	4.99	2.71	46.5	65.4
Africa	221	784	2.15	2.36	48.2	38	26.6	13.9	6.58	5.06	37.8	51.4

Source: PRB, 2010

Demography as opportunity-Africa's population dynamics 20th and 21st centuries

Population momentum

From what we know about global population trends, we can conclude that fertility was higher in the 1950's for all African countries than currently. Women on the average are having fewer births now than their mothers and grandmothers in the 1950s. If fertility was higher in the past, and mortality is declining. What this means is that a larger generation of young adults is replacing a smaller older generation (smaller because of higher mortality in the past). This larger generations of African young adults will propel Africa's population growth in the future simply because there is a larger number of people giving birth , even assuming they all have below replacement fertility rates. This is population momentum in built from a higher fertility in the past.

Africa's population growth in the 21st century will be driven by population momentum rather than population growth rate. This situation is positive for Africa, because population momentum does not respond immediately to family planning and smaller family sizes but to time. Africa does not therefore need to spent too many of its resources on family planning. Africa is on the throes of a demographic transition. With time, "development will be become the best contraceptive" (source unknown).

Table 2 shows the contribution of momentum to population growth to future population size. As indicated, Africa will contribute largest because of the contribution of higher fertility in the past. Both international migration and mortality play a very negligent role in

population momentum and future population growth. Fertility is by far the main player in this dynamic.

Table 2 Contribution of population momentum in 2000 and 2100-

region	Pop (billions		increase	Multiplier effect				Product
	2000	2100		Migration	fertility	mortality	momentum	
World	6.07	9.96	3.89	1.00	1.09	1.15	1.31	1.64
Rich	1.18	1.11	-0.07	1.02	0.84	1.10	1.00	0.94
Poor	4.89	8.86	3.97	1.00	1.13	1.15	1.15	1.81
Middle east and North Africa	0.33	0.73	0.40	1.00	1.28	1.14	1.50	2.19
Africa	0.67	1.98	1.31	1.00	1.64	1.21	1.50	2.98
North Americ a	0.31	0.37	0.06	1.03	0.99	1.08	1.11	1.22
Europe	0.73	0.61	-0.12	1.01	0.78	1.12	0.96	0.85

Source: From John Bongaarts and R.A Bulatao, completing the Demographic transition, working paper number 125, Population council, New York. 1999.

Demographic Dividend

Higher fertility in the past and lower mortality in the present means that there is a point in the transition of such a population where the number of survivors from higher fertility in the past becomes larger than the current number children (because they are the products of lower fertility) as well as being larger than the current pool of older persons (because they are survivors of a higher mortality regime). This means that from its higher fertility in the 1960, 70 and 80s, Africa have a large pool of younger adults who are a potential labour force for economic development. This potential labour force represents **demographic dividend**. Though the demographic dividend is not a clear measure economic development, it indicates the potential reduction in both child dependency ratios and old age dependency ratios a very desirable situation for any population to be. Table 3 presents some indicators of demographic dividend in the 21st century for Africa.

Table 3: Population indicators of demographic dividend, world, more developed countries and Africa 21st century

Region	Percent under age 15 years 2010	Percent over age 65 2010	Elderly support ratio 2010	Elderly support ratio 2050
World	27	8	9	4
More developed countries	17	16	4	2
Africa	41	3	16	9

Source: Population Reference Bureau, 2010(World Population Data Sheet). www.prb.org. Downloaded on 12/9/2011.

Africa’s unique demographic advantage arises from its population structure. The current large percentage of population of population under age 15 means that the continent has a large potential labour force in the near future. Examination of the elderly support ratio (number people in the ages 15-60 who can support an elderly person over age 65years) shows that even currently in 2010, Africa has almost twice the world average of the number of working age people who can support an elderly person. By 2100, this ratio would have declined from 16 to 9, but will still be higher than the world average and four times higher than that of developed countries.

International migration and remittances

While international migration may not necessarily be a long term solution to alleviate Africa’s development problems, we argue here that international migration provides Africa with certain advantages that the continent can reap for its own development in the 21st century.

Research suggests that international migration from Africa to the developed world has been increasing since the early 19th century. Page and Plaza (2005) highlight three critical reasons why international migration from Africa has been on the increase in the 20th and 21st centuries. The first relates to the reduced costs of transportation and communication between Africa and the developed world which makes it easy for individual to forge links between continents. Increasing economic and political instability in Africa has led to increases in humanitarian immigration and international economic refugees all seeking a better life in the developed world. Lastly, strong economic conditions in developing countries have resulted

in widening income gaps between developed and developing countries. These three factors account for the increase in African international migration.

By world standards, Africa's contribution to international migration in terms of number of migrants is low. Table 4 shows that by far the largest contributor of international migrants into developed regions is Asia and this pattern is increasing quite steeply.

Table 4: International migrants by destination, 1960-2000

MILLIONS					
Region	1960	1970	1980	1990	2000
Developed countries	32.1	38.3	47.7	89.7	110.3
Developed countries excluding USRR	29.1	35.2	44.5	59.3	80.8
Developing countries	43.8	43.2	52.1	64.3	64.6
Africa	9.0	9.9	14.1	16.2	16.3
Asia	29.3	28.1	32.3	41.8	43.8
Latin America and the Caribbean	6.0	5.8	6.1	7.0	5.9
Northern America	12.5	13.0	18.1	27.6	40.8
Oceania	2.1	3.0	3.8	4.8	5.8
Europe	14.0	18.7	22.2	2.3	32.8

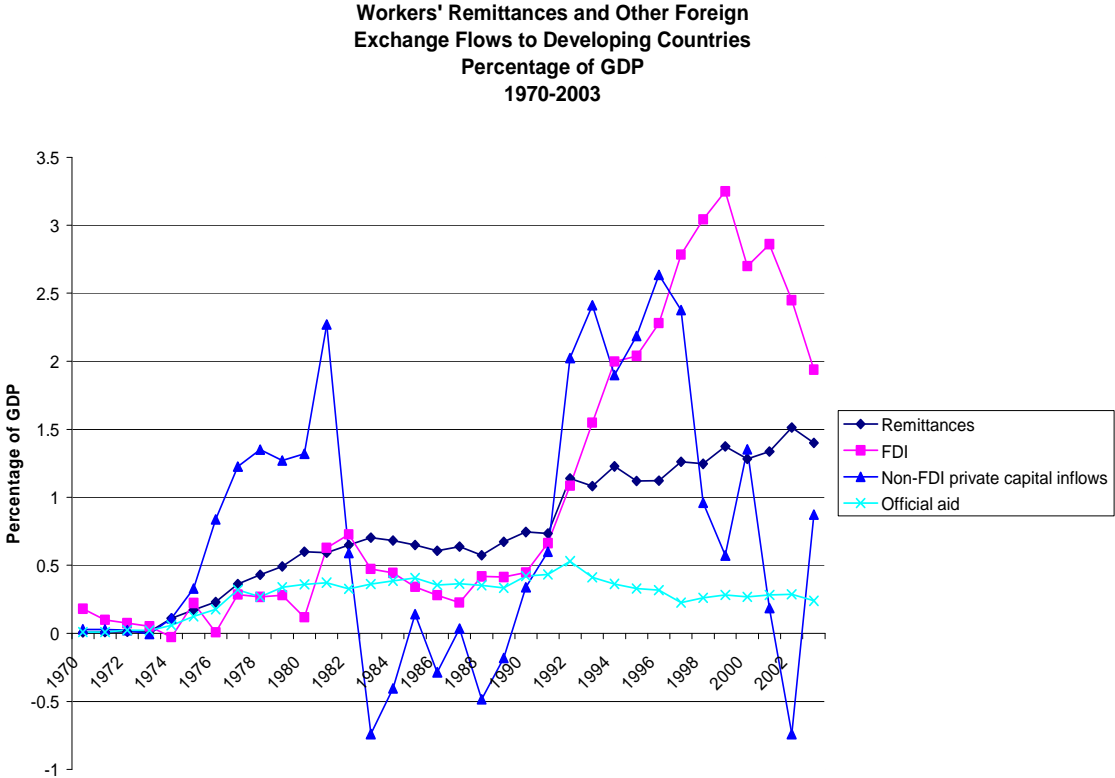
United Nations, Trends in Total Migrant Stock: The 2003 Revision (POP/DB/MG/Rev 2003 and ESA/P/WP.188).

Remittances and African international migration

The importance of international migration for the developing world comes from remittances send back to region in various ways. Using IMF data, Page and Plaza (2005) showed that international migration measured as direct remittances from migrants, contributed about 1.5% to the GDP of developing countries in 2003. Their data, shown in Figure 1 also show that there are various types of foreign exchange transfers to developing countries that are related to international migration. What is surprising however is that these various forms of foreign exchange all a lot higher than official aid, from developed countries to less developed countries.

Remittances at household level

Recent research examining the impact of remittances from international migration on household income indicates that African household gain from international migration especially during times of economic crisis. Quartey and Blanson (2004) used a random effects model on household survey data in Ghana to show that the flow of migrant remittances increases in times of economic shocks and that household economic shock is alleviated by remittances.



Source: Page and Plaza 2005

Adams (2004) using results from Guatemala, concluded, “When the poorest of the poor households receive remittances, their income status changes dramatically.” Though further studies are required on the impact of remittances on household survival, we can tentatively conclude that in the absence of the ability of many African countries to provide work for their young adults, international migration should be as an option that offers people an opportunity to survive. African countries should use international migration constructively, by making it easier for their people not only to emigrate but to return home and reinvest in their original countries. Marindo (2010), in a study among African immigrants in Australia showed that the majority of immigrants still maintain ties with their original countries and

most considered themselves Africans even though they were officially Australian citizenship.

Positive policies by African governments allowing return migration and free movement of African international migrants could also allow for the flow of money from these immigrants to their original countries.

Conclusion

Towards a 21st Demography of Africa

A 21st demography of Africa must begin with proper collection of population data. While it is clear that Africa's population dynamics in the 20th century were surrounded by a lot of myth and creative evil geniuses from the west, Africa's inability to challenge demographic figures quoted about the continent is also to blame. No African country can stand and challenge current demographic data because there isn't enough reliable data on fertility, mortality or migration at country level. It is clear that attempts to use the tools of the west, to collect African data have so far failed, so Africa needs to go back to the drawing board. There is need for African countries to collect data based on their understanding of their own cultures. Critical questions must be addressed by African governments in the 21st century regarding population statistics. Is it the census questionnaire the best instrument that we should use to collect data? For a continent that has such a rich oral history, what have we learnt from own past which we can incorporate into the 21st century? Is there anything in our cultures or traditions that we can use to collected good quality population data? These questions are critical as Africa progresses into the 21st century. To survive, Africa must find ways of engaging with a digital era in its own terms.

A 21st African demography must be guided by population needs of Africa rather than those superimposed from the west. While it is true that the whole idea of a population crisis in Africa was created by the west in the 20th century, it is also true that *the cat is out of the bag so to speak*. African governments need to redefine the African population question and to fund the new direction than population issues must take. It is their responsibility to do, in order to move away from being confused by other countries' domestic interests. Is the greenhouse effect the biggest danger Africa is facing? What are Africa's unique problems, how can address these problems? There are critical population health issues that Africa must face, the provisions of clean water and sanitation for all populations, education, training and

employment and providing health care. All these needs have nothing to do whether the African population is experiencing runaway growth or not. These are questions of equity and proper use of resources. These are questions of proper and responsible governance, accountability to our own and politics. The time has come and the time is now to address and find solutions to these survival issues.

Population is a resource. Massimo Livi-Bacci (2001) presents a compelling argument showing this truism from historical data on the growth of Roman Empire to the historical settlers in Canada and America and to modern populations in developed countries. However, population is a raw resource which needs its potential to be developed through input of resources from governments. Both population momentum and demographic dividend by themselves are simply potential which needs to be converted to real resources through education, skills training and investing in people. This is the responsibility that Africa must take, even without knowing its own exact demography.

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