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to the
All Party Parliamentary Group on Population and Reproductive Health.**

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**THE IMPACT OF POPULATION GROWTH ON THE ATTAINMENT OF
THE MILLENNIUM DEVELOPMENT GOALS**

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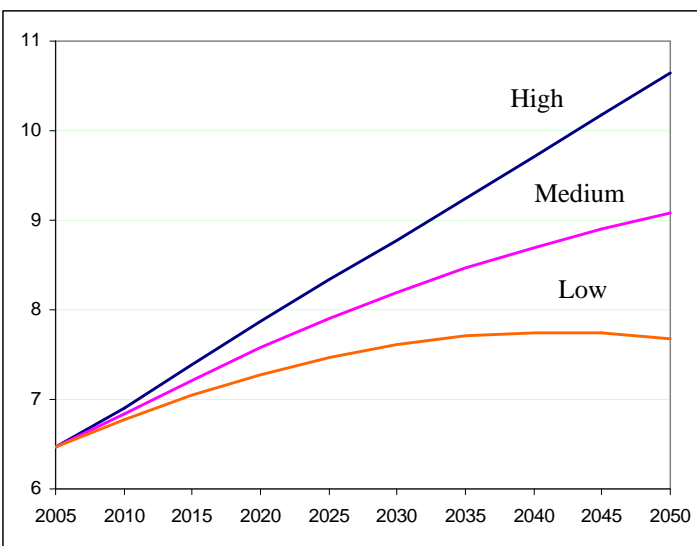
Structure of the Document

In this submission staff from the Department of Epidemiology and Population Health at the London School of Hygiene and Tropical Medicine seek to do four things:

1. Describe current trends in fertility, population growth and population structures.
2. Assess the impact of these trends on achievement of the millennium development goals.
3. Underscore the obligations of States to address population and its negative effects, as enshrined in international human rights law.
4. Provide recommendations on how to address population growth and mitigate its most negative consequences.

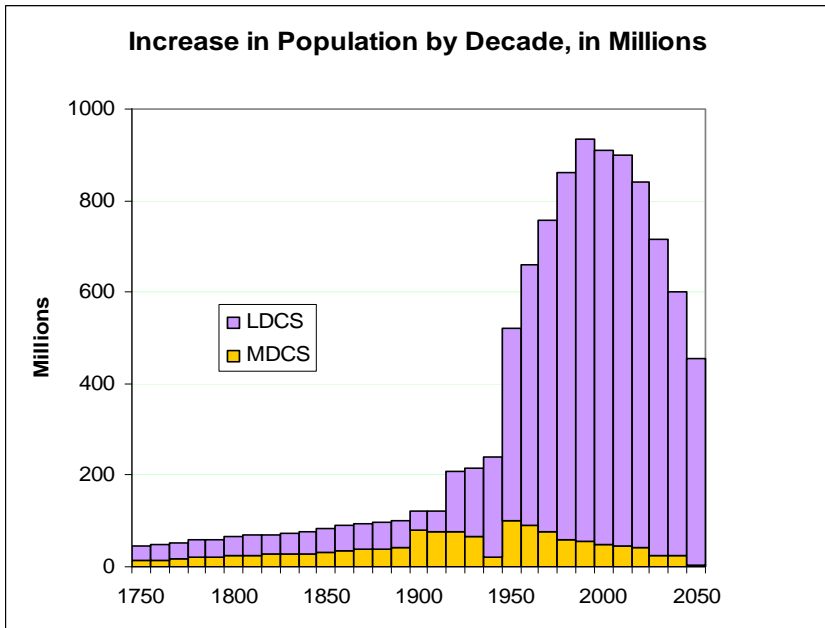
Trends in population growth: no room for complacency

The demographic circumstances of middle and low income countries have diversified over the past 50 years, and there is a growing confidence that the world's population will stabilise in the latter half of this century. This has given rise to a remarkable, and unjustified, complacency that the population crisis is over. While in general birth rates have declined in all but a residue of countries in sub-Saharan Africa, in terms of absolute increases the end of population growth is far from over. The world's population is expected to increase from its current level of about 6.5 billion to just over 9 billion by 2050 (based on the UN's medium projection – see 'Projections' graph below). This increase of 3 billion is almost as great as the 3.5 billion increase that took place between 1950 and 2000 (see 'Increase in Population' graph below).



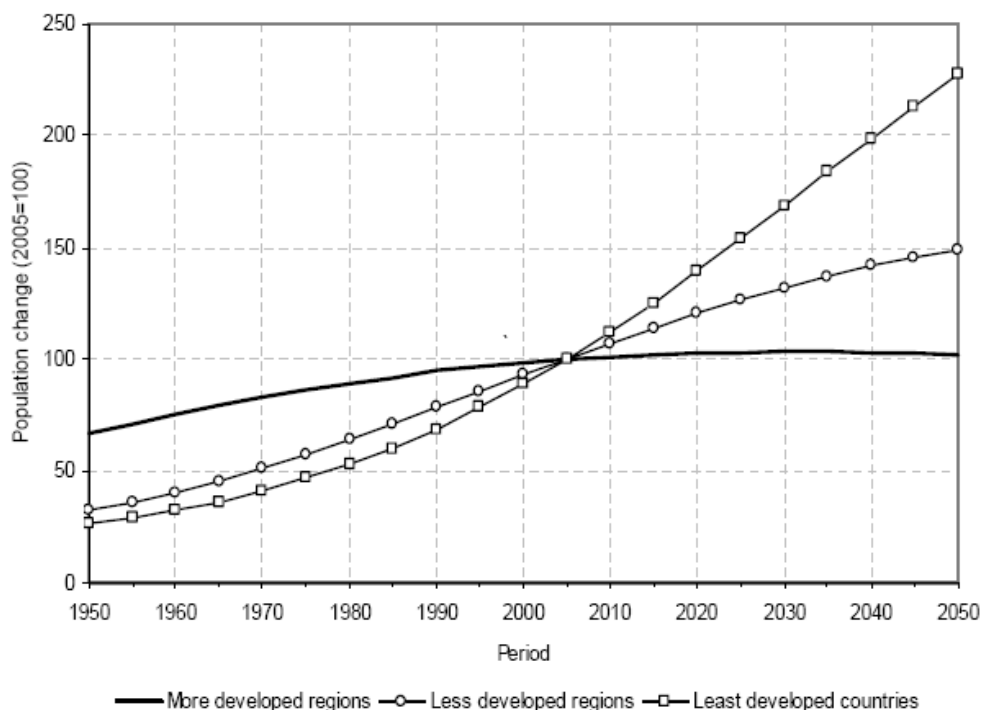
UN 2004 World Population Projections for 2005-2050

Global Population Growth 1750-2050 in less- and more- developed countries



Moreover, future increases in world population will be concentrated among the poorest countries with the weakest institutional capacities to respond to the challenges of rapid population growth, as indicated in the graph below.

Figure 2. Population dynamics by development groups, 1950-2050



Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat (2005). *World Population Prospects: The 2004 Revision. Highlights*. New York: United Nations.

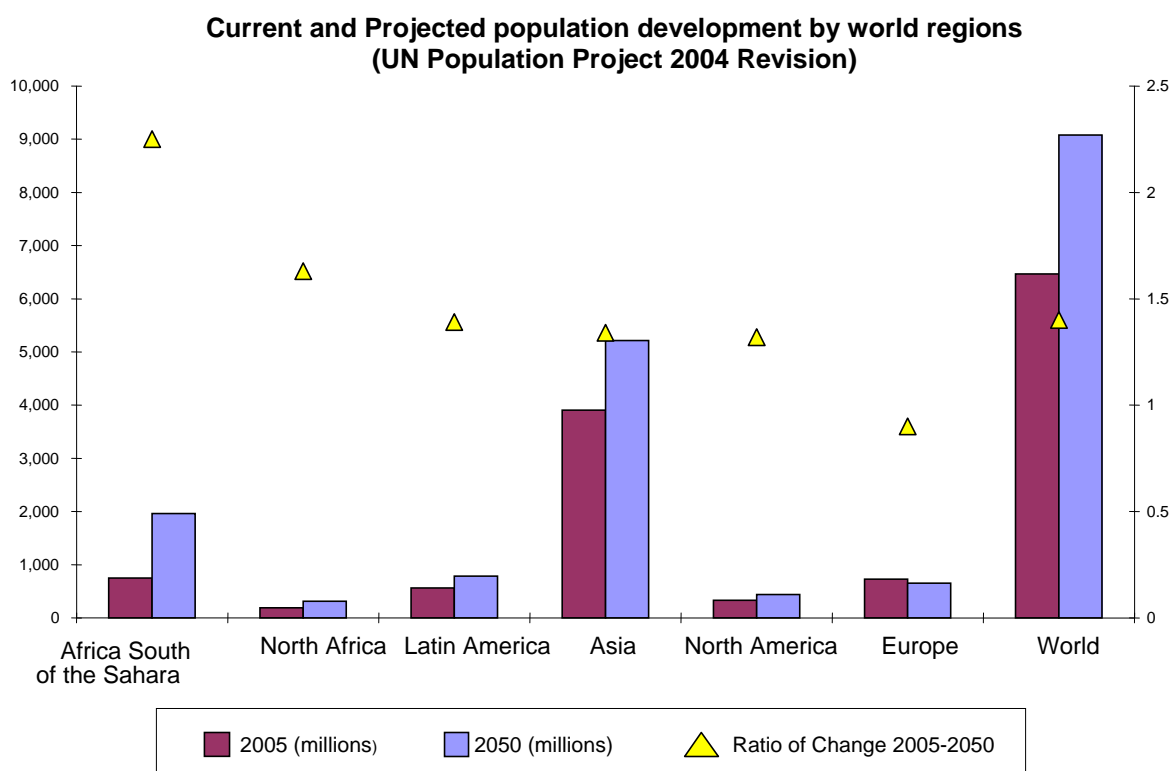
Of the countries that have experienced rapid population growth since the 1950s, several groups emerge with different patterns of development. One group of countries, concentrated in Latin America and East and South-East Asia (e.g. Thailand, Taiwan, Indonesia) experienced early fertility decline. They are now poised to enter an era of rapid *population ageing*. This has potentially negative implications for economic productivity and ability to fund health and social welfare interventions as the ratio of working age to dependent age groups changes.

An intermediate group of countries have experienced pronounced but more recent *fertility decline*. For them, the contribution of population change to economic growth is favourable. The ratio of the working age population to the dependent population (at both young and old ages) will rise, thereby making possible higher savings rates and/or investment in higher quality education. Recent economic analyses suggest that some 25-30% of the economic growth of East Asian countries over past decades can be attributed to a favourable population age composition. However the realisation of this 'demographic bonus' is contingent upon appropriate institutions and policies.

It is important that this intermediate group of countries does not squander their uniquely favourable phase of demographic transition.

For a third group of countries, concentrated mainly in sub-Saharan Africa, the Arab states of North Africa and the Middle-East, the dominant demographic characteristic will be continued *rapid population growth*, because fertility remains high or moderate. In proportionate terms future increases in population are expected to be largest in sub-Saharan Africa, even after allowance for likely AIDS-related mortality. The UN projects an increase for this region from about 0.7 billion today to almost 1.7 billion by 2050. The Arab States will double in size from about 0.3 to 0.6 billion while South and Central Asia's population is expected to rise from 1.4 billion to about 2.4 billion, an increase of about 75%.

The graph below indicates the current and projected population changes for key world regions between 2005 and 2050. Sub-Saharan Africa's population is set to more than double – far and away the biggest ratio of change in any world region.



Rapid population growth is taken by the UN to be population growth above two percent annually. Of the 228 countries or world areas the UN monitors, rapid population growth still occurs in 71 of which 33 countries are in Eastern, Central or Western Africa (Annex 1). Population growth is understood to have three major direct causes which in order of importance are: *population momentum*; *unwanted fertility* (in other words unmet contraceptive needs); and *high desired family*

sizes (less significant in its impact than the other two) (Bongaarts 1994). The serious impact of population momentum, coupled with a slowing decline in fertility is shown in the example of Kenya given in Box 1. Continued growth will inevitably give rise to growing pressure for international migration and a host of possible calamities, from climate change to warfare, all of which will jeopardise achievement of the millennium goals – these are discussed in more detail below.

Box 1: Impact of Population Growth in Kenya

The first census of Kenya was held in 1948 and revealed a population of 5.5 millions; the latest census of 1999 gave a total of 28.7 millions – more than a five-fold increase in half a century. The population is currently (2006) estimated to be over 35 millions and increasing by just under a million people a year.

This high rate of growth has been the result of a combination of high fertility and, by developing country standards, relatively modest mortality. In the 1970s Kenyan women who lived to the age of 50 were having an average of 8 live-born children, of which some 6 or 7 would survive to adulthood. The population was therefore trebling every generation. But in the 1980s fertility started to decline dramatically and by the late 1990s was down to less than 5 births per woman. There was reason to hope that Kenya was well set on its fertility transition. Unfortunately a survey conducted in 2003 showed that the fall had ground to a halt and levelled out at 5 births per woman, with small increases in the poorer and less educated sections of the population.

The importance of this stalling of the fertility decline on future population growth in Kenya is reflected in the revision of the United Nations' population projections. The medium variant projections made in 2002 assumed that the fertility decline would continue so as to reach 3 births per woman by 2015 and 2 births per woman by 2050, giving Kenya a total population of 44 millions by the middle of the century. But in 2004 these assumptions had to be revised. Although the fertility decline was envisaged as resuming, slowly, after 2005 so as to reach 4 births per woman by 2020 and 2.4 by 2045-50, the revised population total for 2050 was not 44 millions but 83 millions. These figures illustrate the principle of "*population momentum*": the mothers of the next generation are already born and they are twice as many as their mothers were, so that even if they only have half the number of children, the numbers of births will continue to increase. Any delay in the fertility decline will therefore have a huge effect on the size of future generations.

These United Nations projections make optimistic assumptions about the future course of mortality: they see life expectancy at birth increasing from some 50 years at present to nearly 70 years by 2050. In fact there is abundant evidence to show that mortality in Kenya, of both children and adults, has been *increasing* in the last fifteen years, largely, but not entirely, due to the AIDS epidemic. Some alternative projections have been made in the Centre for Population Studies at the London School of Hygiene and Tropical Medicine which assume that mortality will continue to rise so that life expectancy is reduced to 46.7 years by the 2050, while fertility falls to replacement level (2.64 births per woman). These projections give Kenya a population of 72 millions by the middle of the century. Thus unless a *rapid* fertility decline can be resumed in the immediate future, a further doubling of the population will, in the absence of some catastrophic epidemic, be virtually inevitable.

Sources: Kenya DHS 2003; Blacker et al. 2005

Maternal Mortality (MDG 5)

Determinants of maternal mortality: the importance of contraception

Adverse outcomes in pregnancy are conditional on pregnancy itself, so preventing risk factors can be separated into those preventing pregnancy and those preventing risk factors for complications and disease. It seems inane to say that without pregnancy, there would be no maternal death, but since pregnancy is an absolute risk factor for maternal mortality, preventing unwanted pregnancy is an extremely effective form of primary prevention. We have an excellent understanding of both the proximate and more distal determinants of fertility in general (Bongaarts 1978; National Academy of Sciences ongoing work) and a good understanding of the determinants of unwanted pregnancies. At a population level, early age at entry into union (marriage), low use of contraception and short breastfeeding durations are the main proximate determinants of high fertility, while distal determinants such as low women's education generally act by decreasing age at union and contraception, but increasing breastfeeding. Intervening with these determinants to avert pregnancies would reduce the numbers of maternal deaths, the maternal mortality rate and the life-time risk (but not the maternal mortality ratio), in proportion to the proportion of pregnancies averted. Globally, coverage of contraception is 61% while unmet need for contraception ranges from 6% in Europe to 23% in sub-Saharan Africa. Forty one percent of pregnancies globally are unwanted, with 22% resulting in induced abortion. This suggests that ***between a third to two fifths of maternal deaths could be eliminated if unplanned and unwanted pregnancies among sexually-active women were prevented through increased contraceptive use.***

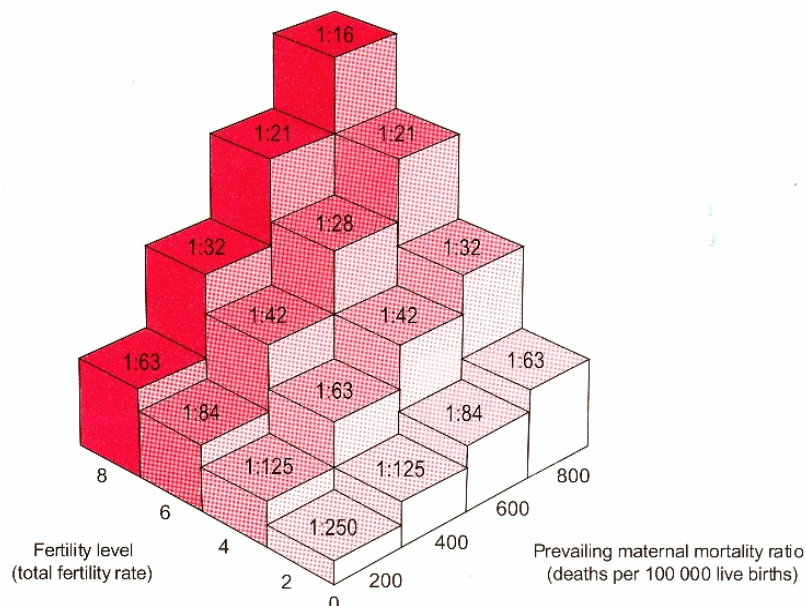
Family planning to reduce risk of maternal death

Family planning programmes bring effective contraceptive technologies, and a range of delivery approaches, from traditional clinic-based strategies, to mobile clinics, community-based distribution and social marketing, that have been implemented with considerable operations research, all over the world. Although there is a small mortality risk associated with contraception, all contraceptives are safer than pregnancy and delivery. This aspect of primary prevention is under-emphasized.

Given the relative ease with which family planning services can be expanded in countries compared to improving socio-economic status, the extent to which maternal mortality is affected by changes in use of contraception is particularly important (Marston and Cleland 2004). The relationship between lifetime risk of dying from pregnancy-related causes, fertility and prevailing maternal mortality is shown in the Figure below (from Marston and Cleland 2004:9). It indicates that the risk of dying declines as fertility declines. When the risk of dying in pregnancy or childbirth is 800 per 100,000 live births and the fertility level is 8 births per woman, the lifetime risk of

maternal death is: 1:16. A fall in fertility level from 8 to 2 births, in the absence of any change in the risk per pregnancy, improves the lifetime risk from 1:16 to 1:63 (Marston and Cleland 2004:8).

Fig. 1.2 Lifetime risk of dying from pregnancy-related causes, according to fertility and prevailing maternal mortality ratio



Source: Recalculated figures based on an idea by Royston & Armstrong, 1989

The need for safe abortion services

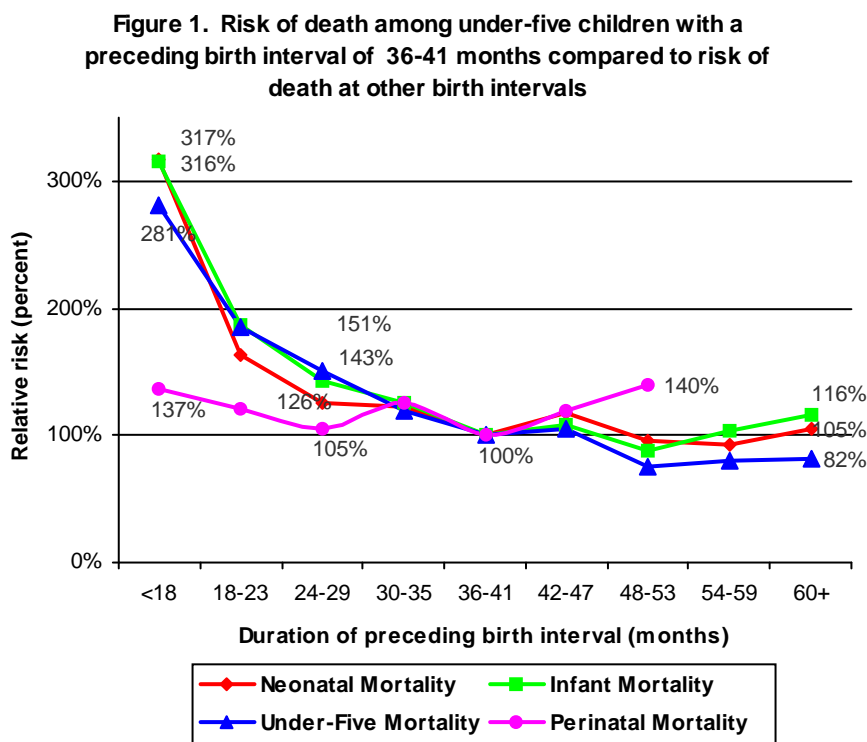
Failing to prevent unwanted pregnancy leads some women to induce abortion. Mortality associated with medical termination of pregnancy conducted in a safe environment is lower than mortality associated with delivery at term. By contrast, mortality with unsafe abortion can be considerable, and is estimated globally to be 350 per 100,000 induced abortions, leading to about 13% of maternal deaths though in high-fertility countries it is substantially more than this and in many African countries it is the most common cause of maternal morbidity and mortality, particularly among adolescents (WHO 1998; WHO 2004).

Safe technologies for inducing abortion, including medical abortions (misoprostol or RU486), vacuum aspiration and curettage, exist. Were it not for legal and political constraints some could even be delivered at the household level and attain high coverage thereby averting a substantial portion of maternal deaths. Some developing countries have recently changed their abortion law to ensure wider access to abortion services, for instance South Africa, but most programmes focus on ensuring safe abortion is available where it is legal (for instance following rape or with foetal malformation) or on improving post-abortion care (treating abortion complications with safer and more cost effective vacuum aspiration technology, and promoting post-abortion contraception). Most women in the world live in countries which permit induced

abortion on broad grounds, but there remains high unmet need within some of these countries, and where women’s rights to safe abortion are severely restricted (Alan Guttmacher Institute 1999).

Infant and Child Mortality (MDG 4)

The contributions of family planning to birth spacing, reduction in high-risk pregnancies and therefore to reduction in infant and child mortality are compelling and well-known. Infants and children under five show lower levels of death, stunting, low-birth weight, infectious diseases and a range of other health problems, when spacing between births is at least 24 months (Omran and Stanley/WHO1981; Rutstein 2000; USAID 2002). The figure below, showing global data, indicates the dramatic relationship of birth interval to declining death rates for newborns, infants and children under five.



Source: USAID, 2002. Birth Spacing: Research Update: p.1

Again, Kenya provides a pertinent and sobering example of the impact of high fertility on infant and child death. Between 1950 and 1990 infant and child mortality in Kenya dropped steadily and significantly. The proportion of children dying in the first five years of life fell from over 250 per thousand live births around 1950 to less than 100 per thousand in the late 1980s. But in the 1990s the trend was reversed. The Demographic and Health Surveys of 1989, 1993, 1998 and 2003 showed the rate rising from about 90 per thousand in 1984-89 to 115 per thousand in 1998-2003.

Much of this upturn in mortality can be attributed to the AIDS epidemic – the vertical transmission of the virus from HIV-positive mothers to their new-born infants. The epidemic itself has been fuelled by the population growth, but it is clear also that other factors, likewise related to population numbers, have been operative. Most notable is the deterioration in primary health care and particularly in the immunization coverage. The report on the 2003 Demographic and Health Survey (DHS) gives comparative figures with the previous survey of 1998. They write: “The result of this comparison indicates a worsening picture in the fight against vaccine-preventable diseases in Kenya. Full coverage has fallen from 65 percent to 60 percent. BCG coverage has declined from 96 percent to 89 percent, while measles coverage has declined from 79 percent to 74 percent. Failure to complete the DPT-HepB-Hib and polio series as described above has resulted in a decline in coverage from 79 to 74 percent for DPT-HepB-Hib and from 81 to 76 percent for polio.” (Kenya DHS, 2003).

Yet this deterioration in percentage coverage does not imply that the numbers of vaccinations were falling, but rather that the service could not keep pace with the increasing numbers of births and children eligible for vaccination. The UN 2004 projections show that the number of births in Kenya increased by at least 15 percent in the five years before the 2003 survey. If the numbers are multiplied by the proportions vaccinated they imply an appreciable increase in the numbers vaccinated.

The 2003 DHS likewise showed a decline in the proportion of pregnant women receiving antenatal care, but the same argument applies: the numbers of women receiving such care in fact increased, but the services could not keep pace with increasing numbers of eligible pregnant women.

AIDS (MDG 6)

Because HIV infection is sexually transmitted and primarily affects young adults, the impact of the HIV/AIDS pandemic is quite unlike that of the 20th century’s demographic catastrophes, such as the influenza pandemic after the First World War, the massive famines in the Soviet Union and China, and the ongoing pandemic of tobacco-related disease. In severely affected populations, AIDS raises mortality among young adults by an order of magnitude to levels that are otherwise seen only among infants and the elderly. The numbers of orphans that result, the disruption to family life, and the impact on farming and employers are unprecedented. The threat that this poses to the entire list of MDGs is manifest.

The demographic impact of the HIV/AIDS pandemic over the rest of this decade can be predicted with a fair degree of certainty. Many of those who will die of AIDS have already been infected with HIV, vaccines are still at an early stage of development, and, even if sufficient

resources and the political will became available immediately, it would take years to develop programmes that could make effective antiretroviral therapy available to the mass of the rural poor in Africa.

Despite early predictions to the contrary, while *the HIV pandemic* has a significant impact on population growth rates, it *will not lead to population decline in high-fertility African populations*. In populations where the epidemic is severe and where total fertility has declined to moderate levels, the picture is different. Population growth in South Africa has more-or-less ceased already and, in the medium term, population decline may occur in much of Southern Africa.

The likely demographic impact of the HIV pandemic in the longer run remains almost impossible to predict. A decade ago, few experts envisaged the development of an epidemic of the severity of that now found throughout Southern Africa. Equally, examples exist in every continent of countries that have successfully arrested or reversed the spread of HIV.

Looking forward, the prevalence of HIV infection continues to creep upward across much of Africa and limited evidence exists that new cohorts of young people reaching sexual maturity are adopting safer patterns of sexual activity. Moreover, it is now clear that localised but severe HIV epidemics have developed in China and India. If these became generalised, the demographic consequences would dwarf those in Africa. So far, injecting drug use and blood transfusions appear to have played a large role in sparking off and sustaining these Asian epidemics. In the medium term, however, emerging social trends suggest that risky sexual activity could become far more common among unmarried young people in both countries. The impact that future medical advances will have on the course of the epidemic is also unclear. Ten years ago most experts would have predicted greater progress towards a vaccine by now, but slower progress in the development of effective treatments.

Urbanisation is a somewhat neglected factor in the AIDS epidemic. Many countries show higher prevalence rates in urban areas. Kenya is indicative of many African countries. In 2003 it had an urban HIV prevalence of 12.3% in women and 7.5% in men compared to 7.5% rural women and 3.6% rural men. African countries like Kenya, have seen massive rural-urban migration over the past 50 years. In 1948 Kenya's aggregate urban population was only 285,000, of whom over 40% were non-Africans. By 1999 it had increased to 5.36 millions – almost a twenty-fold increase. This huge growth in the urban population has of course been largely the result of massive rural-urban migration, stimulated by mounting population pressure in densely populated rural areas. This migration remains highly fluid, with constant movement to and fro between town and country. The full implications of these movements for the spread of HIV/AIDS have yet to be worked out, but their importance clearly cannot be ignored.

Understanding of the impact of the epidemic and how it might be mitigated remains a critical, but neglected, knowledge gap. Of particular importance is to improve understanding of how families, employers, and service providers such as schools are affected by the epidemic; how they attempt to cope with it; and what policies and programmes might mitigate the impact on them. The impact of the HIV epidemic on the MDGs will vary between countries and change as the epidemic unfolds. For example, its impact on women depends in part on existing gender roles and inequalities. The impact of the early stages of the epidemic in Africa fell disproportionately on more advantaged individuals and families who were relatively well able to cope. In the future, as educated individuals change their behaviour, the epidemic will become more concentrated among the already poor. Similarly, while research has shown that the extended family in Africa often cares for orphans remarkably well, it remains unclear whether a point comes where such mechanisms collapse. In the medium term, the grandparental generation that has played such an important role in caring for orphaned and other children will have been ravaged by AIDS mortality itself.

Education and Gender (MDGs 2 and 3)

Population growth determines both the numbers of boys and girls of school age and the dependency rates (the ratio of dependent children to adults). In high population growth countries the number of school age children can double every 20 years. The number of working age adults may be comparable to the number of dependent children. Taken together this results in challenges to achieving the millennium goals which are much greater in low income, high population growth countries than where demographic transition to low population growth has already taken place. Specifically (i) the numbers of teachers and schools may have to double in a short period to account for population growth and the inclusion of those currently excluded and (ii) the domestic revenue needed to support salaries and other costs must be raised from the economically active population of adults which is much smaller than in OECD countries as well as being much poorer. In addition, in some countries HIV/AIDS has further increased dependency ratios; and in some countries parental preference for boys has unbalanced sex ratios amongst school age children.

Fewer and better spaced children, promoted by widespread access to family planning, enhances educational opportunities for children, especially for girls, and this in turn has a number of developmental benefits. These benefits include: lower incidence of HIV/AIDS, changed patterns of early marriage and fertility associated with demographic transition, greater subsequent productivity, gendered empowerment of girls, and enhanced opportunities for women to participate in economic and political life.

Box 2: Stagnating fertility decline wipes out gains in education enrolment

The figures of school attendance compiled in the Kenya censuses show a remarkable increase in the primary school enrolment ratios in the 1970s and '80s. The proportions of children aged 10-14 who had never attended school fell from 50.4 percent in 1969 to 13.8 percent in 1979 and 8.3 percent in 1989. The goal of universal primary schooling appeared to be almost within reach, but the 1999 census again showed an upturn: the proportion of 10-14 year-olds with no schooling rose to 10.2 percent. Once again, however, this increase must be set against the increasing numbers of school-age children. In 1989 there were just under 3 million children shown as aged 10-14; by 1999 they had increased to over 4 million. Thus the numbers in the age group who had actually received some schooling increased by nearly 900,000 – more than three times the number needed to wipe out the 1989 residual had the base numbers remained constant. It would be understandable if the planners and staff of Kenya's education department had a fellow-feeling for Sisyphus.

Source: Kenya Census 1999

Poverty, Hunger and Instability (MDGs 1 and 8)

Demographic-economic research of the 1970s and 1980s failed to find evidence of a negative impact of population growth on per caput living standards. However, research in the 1990s based on a longer time series and using more appropriate methods (in particular separate examination of mortality and fertility trends) gives very different results, namely that fertility and mortality decline made a contribution of about 20% to average annual growth in per caput output in developing countries between 1960 and 1995 (Birdsall et al., eds. 2001).

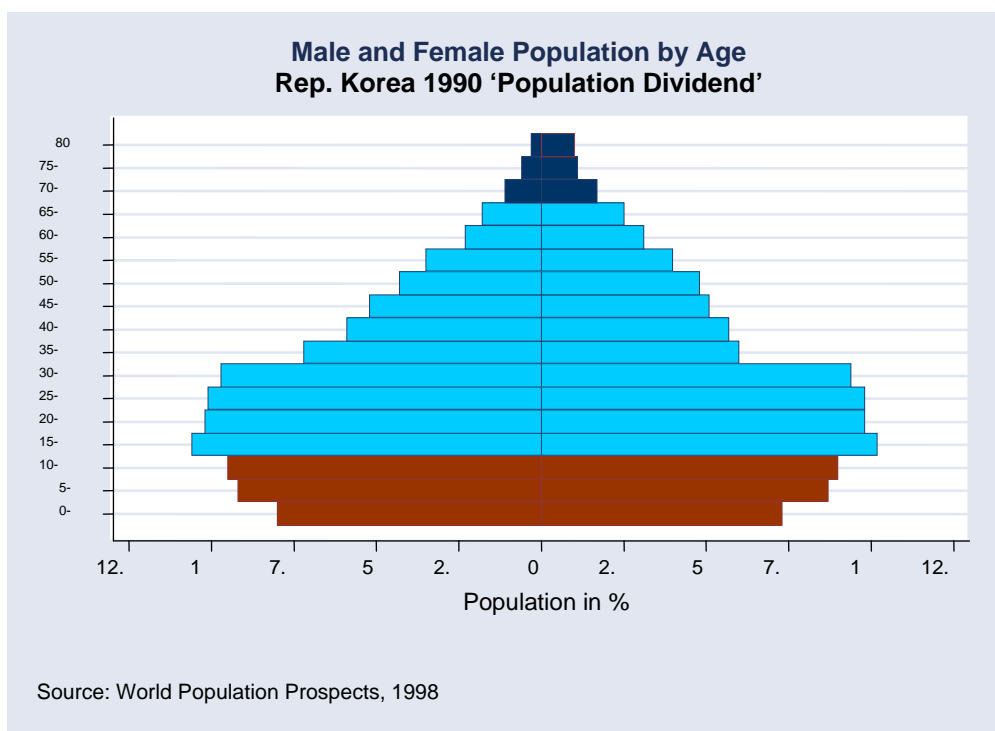
In our view, continued rapid population growth in today's poorest countries represents one of the clearest challenges to meeting the millennium goal of reducing poverty. Specifically, we highlight three problems that are likely to be severely exacerbated by continued growth: unemployment and underemployment; increasing water scarcity; increased pressure on land for increased food production; and political unrest and instability.

Under/un-employment

Underemployment is already a huge problem in the poorest countries. Its causes and policy remedies are numerous and it would certainly be incorrect to claim that past population growth is the key underlying cause or that future growth will prevent effective remedies. The essential point is a more simple and more modest one: large future increases in population will make the creation of employment opportunities on the required scale much more difficult to achieve and thus the alleviation of mass poverty less likely.

The argument here is well illustrated in a recent book on India's prospects by Dyson, Cassen and Visaria and their collaborators (Dyson et al. eds. 2004). In the 1990s India recorded an annual economic growth rate of 6%, though the authors are doubtful whether this rate of growth can be maintained, given stalled economic reforms, and lack of human capital and infrastructural investment. Between 2001 and 2026, an average annual addition of 8 million to the labour force is expected. Even if economic growth rises above the past 6% to 8%, the authors project increases in unemployment. The authors are careful to distinguish between projection of past trends and firm forecasts of the future: more employment-friendly policies could mitigate the situation. The projection is also sensitive to changes in the female labour force participation rate, which is expected to start to rise as fertility declines further and more women are freed from household tasks. But their projection should act as a clear warning of the challenges ahead. It also appears reasonable to assume that these problems of job-creation will be more severe and prolonged for countries with higher fertility than India (e.g. Pakistan, Nigeria).

Countries with a previous high but now declining fertility rate are now in a period of 'population dividend' with a large number of economically active young adults, still small numbers of old people and declining numbers of young people below economically productive ages. The challenge facing such countries, for example Korea (see graph of the 'population dividend' below), is whether they can effectively absorb the huge productive labour force and so capitalise on this dividend and prevent the dependency burden of an aging population facing countries like China, and the instability and declining quality of life standards associated with high unemployment.



Pressure on Water and Food Production

Of the impacts of continued population growth on water shortages, it must suffice to say that many commentators have singled out this factor as a growing problem and critical future constraint. Demand for water is directly related to population size, largely through the pathway of the need to grow more food.

Alexandratos (2005) illustrates the serious constraints that high fertility and rapid population growth represent, particularly in Africa, to food security and development. He analyses the situation in 19 rapid population growth countries and concludes that agriculture in these countries cannot be assumed to play the 'green revolution' role that it has elsewhere (notably parts of Asia). Resource scarcities, lack of fertile land or water and finances to make it fertile, limited potential for cash-crops and staple-food crops in many parts of the tropics and increasing urbanization, are all exacerbated by populations set to treble by 2050 in countries like Niger, Mali, Burkina Faso and Somalia, making it impossible that such countries can attain sustainability in food. In such settings achieving sharp fertility declines is critical to help reduce the risk of future population pressure.

Risk of civil and political unrest

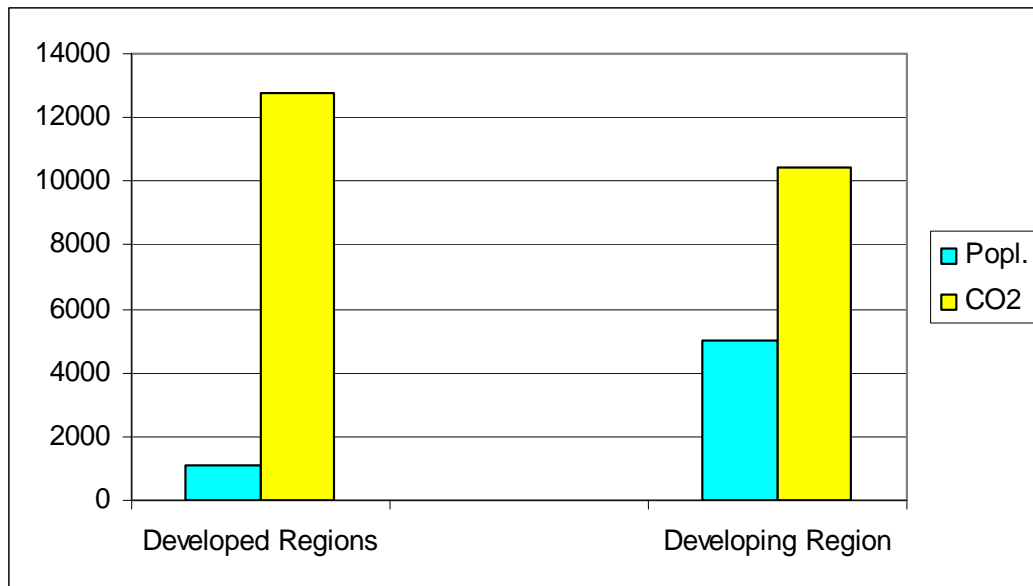
As for political unrest that may involve violent confrontations within and across national boundaries, the negative scenario is a lethal combination of growing and youthful populations, stagnating or deteriorating living standards in a shrinking world where the affluent life styles of the rich minority increasingly result in discontent and frustration among the poor over their perceived exclusion. Recent research found a 'striking and consistent' correlation between countries with high fertility and an increased likelihood of civil conflict. This was exacerbated where the countries had very high numbers of young adults (below 29 years) – predominantly in sub-Saharan Africa and the Middle East (Cincotta et al. 2002). In Africa's recent wars many armed groups, including state armed forces, have predominantly been made up of young disaffected men in countries like Somalia, Sierra Leone, Liberia and the Democratic Republic of Congo. The situation has been fuelled by the forced recruitment by all armed groups of a ready supply of children to become the next generation of child soldiers, girls as well as boys, as seen in Northern Uganda also.

Environment (MDG 7)

Loss of natural habitats and bio-diversity, increasing pressure on fertile land and increased atmospheric pollution are all probable impacts of the projected 3 billion extra people expected by 2050. In terms of pollution, the countries with highest fertility are also the poorest countries and at present are not major contributors to pollution. Affluent lifestyles associated with industrialised

nations with extravagant consumption patterns are the biggest contributors to pollution as the graph below on carbon dioxide emissions indicates.

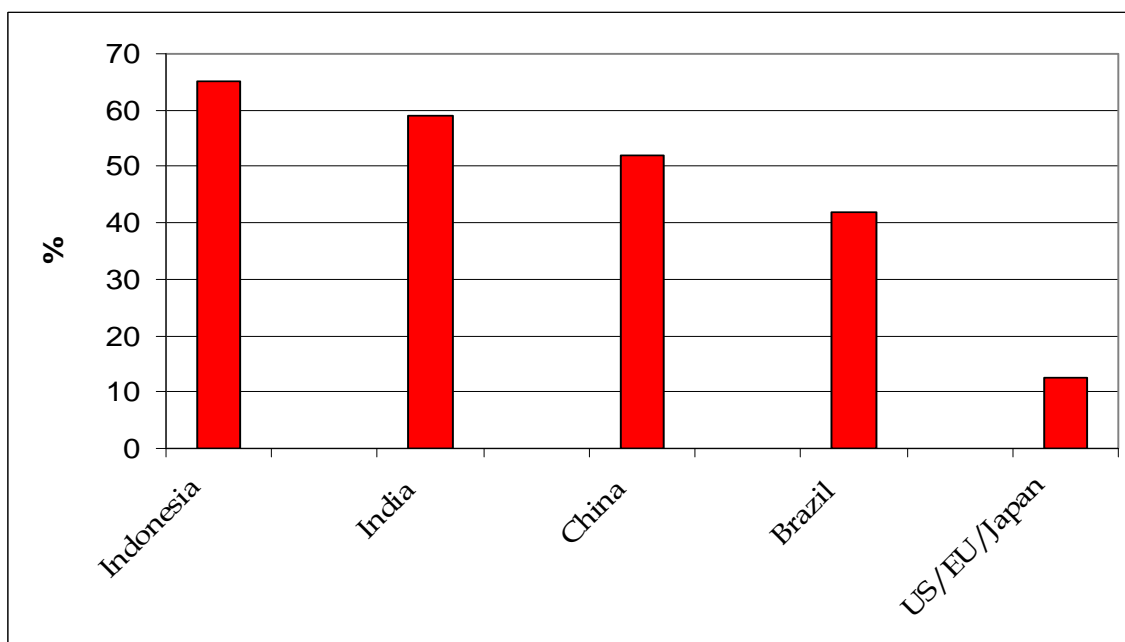
Carbon Dioxide Emissions (Million metric tons) and Population (million), 2000



Source: Dyson T. IUSSP Conference, Tours 2005

As poor countries become richer they will pollute more as living standards increase and consumption, fossil fuel etc. demands rise – as the fossil fuel consumption graph below shows for countries like India and China.

Percent Rise in Fossil Fuel Consumption, 1993-2003



Source: Dyson T. IUSSP Conference, Tours 2005

At the local level effects will include pressure on agricultural land leading to encroachment onto marginalised land in the Sahel which increases environmental degradation that potentially increases the risk of conflict (Cincotta et al. 2002). This presents the potential for large-scale humanitarian crises in countries like Niger which already faces famine due to insufficient food or fertile land and a very high total fertility rate of 8 births per woman. Niger's population is set to increase from 14 million to 80 million in 2050 – an unimaginable scenario in a country already unable to feed itself, facing widespread destruction of local ecosystems through over-grazing etc., continuing mass poverty, underemployment and massive dependence on international aid. Even if Niger's fertility rate was to more than halve, to 3.6 it faces a 50 million population by 2050 – currently only 4% women use modern contraceptives, so without massive investment in family planning programmes the outlook is bleak. Mass out-migration, remittances from migrants to Europe, investment in uranium mining and attraction of global capital and skills for manufacturing with low cost labour represent other possible, if problematic, means of mitigation.

Obligations under Human Rights law to support Family Planning, Sexual and Reproductive Health Services

Many recent commentaries, including the UN's own Millennium Project, have reiterated international commitments to sexual and reproductive health services expressed in the 1994 UN Cairo Declaration and underlined the centrality of sexual and reproductive health targets to the achievement of the MDGs (UN Millennium Project 2005:p.38 and p.82; Berstein 2005). Such commitments have always been underpinned by human rights obligations, but this has now been made explicit in relation to population and reproductive health. In his latest report to the UN Commission on Human Rights, the UN's Special Rapporteur on the Right to Health, Paul Hunt, states explicitly that "Sexual and reproductive health are integral elements of the right to health" (UN-CHR March 2006: E/CN.4/2006/48 page 10). He goes on to outline a series of indicators that States have an obligation to implement, including legal and financial support to information and services for family planning, safe abortion/post-abortion care and other services.

The Right to Health is explicitly defined under the Convention of Economic, Social and Cultural Rights (ESCR) which the UK has signed and ratified. The 'right to the highest attainable standard of health' is also an obligation binding on all 192 countries who are signatories to the World Health Organisation's Constitution. All countries in the world have signed at least one Human Rights Treaty or Convention. Under the principle of indivisibility commanded by international human rights law, this means that all countries have signed up to the principles enshrined in the Universal Declaration of Human Rights which enshrines the right to health and underpins all subsequent human rights conventions. Thus even those countries who have not signed

or ratified the ESCR, or who are not members of WHO, still have an obligation to address interconnected rights such as the ‘right to the highest attainable standard of health’ the ‘right to receive and impart information’ and the ‘right to benefit from scientific progress’.

In practice, this means that both donor governments and aid-recipient governments have obligations to ‘progressively realise’ the right of citizens to the highest attainable standard of health, including family planning services as a key component. Paul Hunt’s report outlines the types of indicators governments need to put in place and monitor if they are to achieve this.

As this paper has shown, rapid population growth caused by high fertility can seriously undermine the enjoyment of a whole range of rights including: to education, employment, food, water, shelter. The progressive realisation of access to informed, quality, family planning services is therefore of the utmost importance in the realisation of a multitude of related rights that States have an obligation to meet.

Dwindling political commitment to family planning

Many countries in Africa and elsewhere continue to have very high levels of fertility; others, such as Kenya, which achieved initial declines in fertility have now stalled. The pertinent question is “why?”. While at present this remains largely speculative, the fact remains that since the late 1990s funding for family planning programmes has declined. The resources of the United Nations Fund for Population Activities (UNFPA), which had been a major source of funding and technical support to many countries, started to dwindle, and what money was available has tended to be diverted from family planning to other aspects of sexual and reproductive health, notably HIV/AIDS and other STDs (Ethelston et al. 2004). Projects aimed at promoting contraceptive use among less educated couples have collapsed across Africa with far-reaching consequences, including interruptions in the supply of the most common contraceptives, increases in unmet needs and high contraceptive discontinuation rates.

The shift in UNFPA’s priorities reflect changing attitudes among donor communities generally and the mistaken belief that the population problem has been solved. In the various programmes formulated to “make poverty history”, population is barely mentioned. This position is not only contrary to available evidence that shows a large and increasing need for family planning, but is also contrary to rights-based obligations to provide adequate information and services.

Recommendations

The policy issues raised by this brief consideration of the impact of population growth are of two types: policies to influence future growth and policies to mitigate possible adverse consequences of future growth.

Reducing future population growth

Much of future growth is the unavoidable consequence of youthful age structures, or population momentum. Nevertheless, future fertility trends will exert a considerable influence. If fertility falls more sharply than expected under the UN's 2004 medium projection, total population size by 2050 will be nearer 8 than 9 billion: conversely, more gradual declines than expected will result in a total population well over 10.5 billion. The stakes are high and a strong case exists for **increased investment in contraceptive and associated sexual and reproductive supplies and services in medium and high fertility countries**. In these countries, more than 20% of births are reported to have been unwanted by mothers and an equal proportion mistimed, so there is no lack of potential demand.

Mitigating adverse consequences of population growth

Policies to mitigate possible adverse consequences of future population growth is a badly neglected area. Multi-disciplinary modelling of demography, economy and environment over a 20-30 year horizon could do much to identify the magnitude and nature of the problems faced by rapidly growing populations and lead to clearer specification of the policies required to mitigate them.

Actions might include: attracting investment and global capital into medium and high fertility countries; localised efforts to prevent/slow desertification; massive increases in aid for food, health and education. Support for reconstruction and development is also critical for peripheral areas of high-fertility countries or regions including rural areas and, especially, countries affected by war and conflict; in these areas there needs to be a special focus on youth.

Clearly, mitigation is not an effective long-term solution and the reduction of future population growth must be the primary policy focus, nevertheless population momentum means that mitigation actions must also be employed.

Annex 1: 'Rapid Population Growth' Countries as defined by UN, 2004

Country/area	Average Annual % increase in Population	Country/area	Average Annual % increase in Population
Eastern Africa		South-Central Asia cont.	
Burundi	3.0	Maldives	2.5
Comoros	2.6	Nepal	2.1
Djibuti	2.1	Pakistan	2.0
Eritrea	4.3	South-Eastern Asia	
Ethiopia	2.4	Brunei Darussalam	2.3
Kenya	2.2	Cambodia	2.0
Madagascar	2.8	Lao – PDR	2.3
Malawi	2.3	Tinor-Leste	5.4
Mozambique	2.0	Western Asia	
Rwanda	2.4	Iraq	2.8
Somalia	3.2	Israel	2.0
Uganda	3.4	Jordan	2.7
Tanzania	2.0	Kuwait	3.7
Central Africa		Occupied Palestinian Territory	3.2
Angola	2.8	Qatar	5.9
Chad	3.4	Saudi Arabia	2.7
Congo	3.0	Syrian Arab Republic	2.5
Democratic Rep. of Congo	2.8	United Arab Emirates	6.5
Equatorial Guinea	2.3	Yemen	3.1
Sao Tome and Principe	2.3	Caribbean	
Northern Africa		Cayman Islands	2.5
Libya	2.0	Montserrat	2.8
Western Sahara	2.6	Turks & Caicos Is.	6.1
Western Africa		Central America	
Benin	3.2	Belize	2.1
Burkina Faso	3.2	Guatemala	2.4
Cape Verde	2.4	Honduras	2.3
Gambia	2.8	Nicaragua	2.0
Ghana	2.1	South America	
Guinea	2.2	Bolivia	2.0
Guinea-Bissau	3.0	Paraguay	2.4
Mali	3.0	Oceania	
Mauritania	3.0	Papua New Guinea	2.1
Niger	3.4	Solomon Islands	2.6
Nigeria	2.2	Kiribati	2.0
Senegal	2.4	Vanuatu	2.1
Sierra Leone	4.1	Marshall Islands	3.5
Togo	2.7	Nauru	2.2
South-Central Asia		N. Mariana Islands	2.9
Afghanistan	4.6	American Samoa	2.3
Bhutan	2.2		

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