

## Perspectives on fertility decline in Sub-Saharan Africa

Danny de Vries, Soc 212, December 5, 1999

### 1. Sub-Saharan Africa

Africa south of the Saharan Desert is normally considered a region separate from the six countries at the northern edge of Africa: Algeria, Egypt, Libya, Morocco, Tunisia, and Western Sahara (see Appendix 1). Historically, the Saharan Desert has divided the continent as completely as would an ocean. As a consequence, the people of the Sub-Saharan region have followed different cultural paths than those to the north. The region includes 42 countries on the mainland, plus the island of Madagascar in which 800 different ethnic groups and more than 1,000 languages or dialects are spoken<sup>1</sup>. The population of Sub-Saharan Africa totaled about 614 million people in mid-1997, or about ten percent of the total world population. Of these, Nigeria carries by far the largest population (118 million), followed by Ethiopia (58.7 million), Congo (47.7), South Africa (42.5), and Kenya, Sudan, Tanzania, and Uganda who all have populations of 20 million to 30 million. Taken as a whole, Sub-Saharan Africa is growing faster than any other major world area: 2.7% in the 1990 midyear, resulting in a doubling in just 25 years. It is also the most rapidly urbanizing part of the world. In 1950 eleven percent lived in urban areas, which increased to 32 in 1996, and is projected to be almost half of the population by 2025. Relatively little migration has occurred this century, but substantial internal migration caused by political strife, natural disasters, and economic booms and busts have generated some of the world's most dramatic migrations<sup>2</sup>. The most consistent flow of migrants is from the rural to urban areas. Sub-Saharan Africa carries one of the largest refugee populations in the world. Related to this, Sub-Saharan Africa is also the continent associated with television images of droughts, famines, "tribal" warfare, and poverty. Thirteen percent of the population is considered extremely poor, while malnutrition under five years of age is common. However, the existence of ample natural resources defy simple neo-Malthusian generalizations concerning the causes of this situation, and instead point to inefficient economic performance, irregular business and government practices, political instability, and a history of colonial intervention and exploitation.

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<sup>1</sup> Carl Haub and Diana Cornelius, Population Reference Bureau 1997 World Population Data Sheet (Washington, DC: Population Reference Bureau, 1997).

<sup>2</sup> See Philip Martin and Jonas Widgren, "International Migration: A Global Challenge," Population Bulletin 51, no. 1 (Washington, DC: Population Reference Bureau, 1996).

## 2. Fertility

The natural increase in Sub-Saharan Africa after 1960, when most countries gained independence, showed a rise from 2.3 % per year 1950s to 2.6 % per year, and was followed by a further rise to 2.8 %/yr 1970s<sup>3</sup>. Such sustained high population growth rates are historically unprecedented. During the 1990s, growth rate slowed to 2.7 % per year, but remained quite high comparable to Latin America & Caribbean with 1.8%, Asia 1.9% (minus China), and Europe -.01%. The onset of this 1990 decline in natural increase can be traced back to the 1980s<sup>4</sup>, but empirical support for the actual onset of the demographic transition was only found in the 1994 revision of the official United Nations world population estimates and projections<sup>5</sup>. Although survey and census data from Sub-Saharan countries have often been of poor quality, the large number of countries exhibiting fertility declines, simultaneous evidence of rises in contraceptive use (see table 1) and ages at which couples marry, lend credence to the results.

Table 1: Significant increase in contraceptive prevalence has played a major role.

	1977-1984	1988-1991
Kenya	7%	33%
Rwanda	10%	21%
Zimbabwe	38%	43%
South Africa	37%	50%

Examples of countries experiencing this decline can be seen in Table 2. In general, the fertility declines have been faster than previously envisioned in especially Zambia, Zimbabwe and Gambia. In the Eastern African countries Kenya and Botswana fertility declines have been previously documented. Thus, evidence is growing that a broad-based fertility decline may have begun in Sub-Saharan Africa.

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<sup>3</sup> 4. United Nations, World Population Prospects: The 1996 Revision, Annex I: Demographic Indicators, Annex II & III, Demographic Indicators by Major Area, Region and Country (New York: United Nations, 1996).

<sup>4</sup> Brass, W., Juarez, F. and Scott, A. (1997) "An Analysis of Parity-Dependent Fertility Falls in Tropical Africa", in R. Douglas, J. Caldwell, R. D'Souza (eds.), The Continuing Demographic Transition, Clarendon Press, Oxford. (ISBN 0-19-829257-0)

<sup>5</sup> Population Division, Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat, World Population Prospects: The 1996 Revision (annex tables), United Nations, New York, 1996.

Table 2: Fertility decline in some Sub-Saharan African countries

	1980-1985	1994
Madagascar	6.6	6.1
Tanzania	6.7	5.9
Namibia	5.8	5.3
South Africa	4.8	4.1

Yet in other countries, contraceptive use remains low, but evidence exists that girls are waiting until they are older before marrying in these countries as well<sup>5</sup>. Where birth occurs mainly within marriage, this might be an important indicator. As such, although in Tanzania contraception use in 1991 remained low at 10%, age at marriage had risen from 19 in 1978 to 21 in 1988. As another example, Rwanda shows both high age at marriage and contraception use. It seems thus somewhat difficult to generalize over an area as large and diverse and Sub-Saharan Africa. Countries as Nigeria, Zaire, and Ethiopia are not yet showing any declines. Furthermore, the number of children remains high: for 17 countries there are still on average six births per woman, showing little or no sign of decrease. Nevertheless, Sub-Saharan Africa fertility is no longer monolithically high at unchanging fertility levels, as was the case only a few years ago.

The Australian demographers John and Pat Caldwell argue that fertility will decline in Sub-Saharan Africa, but at a much slower pace than in other parts of the developing world because of cultural and economic factors<sup>6</sup> (see Table3). According to them "Sub-Saharan Africa is the only major world region still not participating in what was otherwise a global fertility transition"<sup>7</sup>.

Table 3: A reproductive revolution bypassed Sub-Saharan Africa

	TFR 1960 → 1990	Contraception married women ages 15-49 (%) 1960 → 1990
Latin America	6.0 → 3.0	14 → 76
South Asia	6.0 → 3.8	7 → 40
East Asia	6.0 → 2.2	13 → 80
Sub-Saharan Africa	6.7 → 6.0	5 → 18

<sup>6</sup> John C. Caldwell and Pat Caldwell, "The Cultural Context of High Fertility in Sub-Saharan Africa," *Population and Development Review* 13, no. 3 (June 1993): 434.

### 3. Theoretical perspectives explaining Sub-Saharan fertility decline

The Caldwell's propose several mechanisms that attempt to explain this slow decline in this region<sup>7</sup>. Perhaps the most important of these is the suggestion that economic development remains low, and the area relies heavily on fertility inducing agricultural culture. According to the Caldwell's' wealth flow theory, younger generations assisted the older generations to such an extent that, for males at least, high fertility ultimately brings substantial economic returns. It has been suggested that this motivation for high fertility was broken in Europe because the traditional peasant family came to be replaced by a nuclear one, emphasizing individual career advancement in a developing urban and technological world<sup>8</sup>. This perspective coincides with that of Marxist demographers, who point to the demand for labor as a key variable in explaining fertility transitions: every special historic mode of production has its own special laws of population, "historically valid within its limits alone." In industrial capitalism, the labor supply is substituted by machinery when there is a shortage of labor. The traditional agriculture dominant in Sub-Saharan Africa emphasizes communal land tenure, and the method of shifting cultivation motivates large families, since these would increase the demand for a larger share in the land. According to the Caldwell's "investment in labor--in wives and children--meant greater production; in fact in most of Sub-Saharan Africa no other investment was possible" (215).

Another factor of special importance mentioned by the Caldwell's is the prevalence of polygyny in Sub-Saharan Africa, and more specifically the resulting separation of reproductive decision making and the cost of childbearing: "Even the biological bearing of children and the cost of childraising were separated by a high incidence of child fostering. The usual economic of the family and fertility did not apply." Another contributing factor pointed out by the Caldwell's is the general lack of contraception availability due to nonexistent family planning programs and the political disassociation with programs regarded as foreign. According to Caldwell<sup>9</sup>, at least twenty percent of the married women must be using contraception in developing countries to initiate a fertility transition. Only in South Africa, Zimbabwe, Botswana, Kenya, and Namibia is this currently the case. Some other Sub-Saharan countries follow with 10-19%, but the majority of the countries show less than 10% contraception. Finally, the generally low level of education level prevents women from incorporating modern contraception techniques and breaking with the

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<sup>7</sup> Caldwell, J.C. , Orubuloye I.O., Caldwell, P. (1992) Fertility decline in Africa: A New Type of Transition? *Population and Development Review* 18, No.2

<sup>8</sup> Watkins, 1986. Conclusion, In: Coale & Watkins, 1986 *The Decline of Fertility in Europe. The Revised Proceedings of a Conference on the Princeton European Fertility Project*. Eds. Ansley Coals and Susan Cotts Watkins. Princeton University Press.

<sup>9</sup> John C. Caldwell and Pat Caldwell, "The South African Fertility Decline," *Population and Development Review* 19, no. 2 (June 1993):244.

rural family traditions. Younger women who are often better educated want fewer children than older women. Only recently did young adults attempt to avoid pregnancy and marriage in the interest of education and careers.

The above sketched "pre-transitional" demographic situation is often associated with what Ansley Coale has referred to as the general lack of conscious individual fertility control<sup>10</sup>. Instead, he maintains, cultural norms dominate, repeating the traditional high fertility regime. Conscious control requires maternal motivation, information, and availability, but also a way of thinking: that it can and should be controlled directly. Mason<sup>11</sup> in her recent presidential address to the Population Association of America attacked this ideology, pointing out that accepting the idea that unconscious control has and is a reality of pre-transitional societies is based on an outdated view of culture. Lacking unconscious control, so the story goes, the poor are swept off their feet by forces of culture and social norms, lacking agency to fight against this. Since the 1980s anthropologists have sharply criticized this monolithic idea of culture and instead embraced the power of agency within an interpretative framework<sup>12</sup>. Evidence from ethnographic, historical and demographic studies show that individuals in pre-transitional societies indeed do think, plan, and strategize about the configuration of their offspring. People plan their families sequentially, after learning important facts about their reproductive history and their fecundity. Most of their actions however are taken post-natally rather than before birth. The response given that it is "Up to God" by many African women should thus not be misinterpreted as evidence for a natural fertility regime, but rather shows that women do not think like demographers.

In 1983, Bongaarts & Potter suggested a focus on a proximate determinant framework to understand fertility transitions<sup>13</sup>. From a structuralist framework, they argued that a shift in perspective from direct to indirect influence of biological, sociological, cultural and economic factors was needed. Examples of important biological proximate determinants of fertility included child spacing, coital frequency, length of breast-feeding, postpartum abstinence, etc. Social cultural factors determining specific marriage patterns included age at first marriage, rates of divorce or widowhood, rates of remarriage, time spent in union, proportions of never married women, etc. The interest in this more systems oriented approach to fertility is well taken, but also complicates the causal relationships determined by theorists so far. Taken the idea of indirect

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<sup>10</sup> Coale & Watkins, 1986 *The Decline of Fertility in Europe*. The Revised Proceedings of a Conference on the Princeton European Fertility Project. Eds. Ansley Coals and Susan Cotts Watkins. Princeton University Press.

<sup>11</sup> Mason, K. O. (1997) Explaining fertility Transitions. *Demography*, Vol. 34, no 4, Nov 1997: 443-454

<sup>12</sup> Bourdieu (1977). *Outline of a Theory of Practice*. Cambridge

<sup>13</sup> Lockwood, M. (1998) *Fertility and Household Labor in Tanzania: Demography, Economy, and Society in Rufiji District, c. 1870-1986*. Clarendon Press, Oxford.

relationships even further by infusing culture in the analysis, Bledsoe & Pison pointed out that the concept of marriage in Sub-Saharan countries must be seen above all as a social resource<sup>14</sup>.

Marriage is the outcome of strategic attempts by individuals to shape their familial obligations and resources of support by social means. In times of drought or other hardship, these social networks are crucial to the survival of the family. Marriage is thus a social indicator under which families join and births occur. Therefore, they questioned if marriage is connected to childbearing in African societies at all: how do we define marriage, and how do we assess whether people got married or not? A range of Sub-Saharan African union types can be identified, based on legal ceremony, consensual arrangements, and religious or customary procedures; the demographic implications of these types remain unclear. Furthermore, they argue, many of the new marriage forms outwardly resemble monogamy, but actual follow patterns of polygyny: serial monogamy, outside marriage, sugar daddy relationships, etc. These remain removed from western conjugal unions.

Another factor pointed out by Bledsoe & Pison is that free choice may be less free: having class structures combined with monogamous ethic still restrict women. This perspective echoes more recent perspectives combining anthropology, political economy, and history, as exemplified by Lockwood<sup>13</sup>. In these perspectives the balance between structure and agency is emphasized, while the role of history is acknowledged. High fertility explained by this perspective emphasized childbearing and rearing traditions, women's education, status, and independence, the exchange of women across corporate kin groups, the issues of child labor and value of children, and the role of modernization theory. With respect to the latter, Kuumba has argued that population control measures as part of development assistance in Africa are, in fact, an attempt to maintain political and economic control of Africa and its abundant resources<sup>15</sup>. The essay asserts that high population growth rates are merely symptoms, and not causes, of the fundamental economic and social problems afflicting Africa.

Finally, the impact of the HIV/AIDS epidemic on Sub-Saharan Africa fertility is large. Sub-Saharan Africa carries two-thirds of the world total of cases, and seven percent of Sub-Saharan adults ages 15 to 49 were infected with HIV in 1997 (0.6% North America, 1.0% worldwide). It is suggested that HIV/AIDS will decline fertility with less than 1 child. HIV/AIDS

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<sup>14</sup> Bledsoe, C.B. & Pison, G. (1993) Nuptiality in Sub-Saharan Africa: Contemporary Anthropological and Demographic perspectives.

<sup>15</sup> Kuumba, Monica. Examining population control in Africa. *TransAfrica Forum*, Vol. 9, No. 1, Spring 1992. 69-77pp. New Brunswick, New Jersey. Correspondence: M. Kuumba, National Urban League, Research Department, 1111 14th Street NW, Washington, D.C. Location: World Bank, Joint Bank-Fund Library, Washington, D.C..

forces a decline of women fertility through increase of fetal mortality, loss of husband, fragile unions, less sexual acts, more condom use, and the loss in the active, working population<sup>16</sup>.

#### 4. Discussion

The multiplicity of perspectives and the contradictions and tensions imposed by them suggest that much work needs to be done by demographers to come to grips with the complexity of real world events. The suggestion made by Caldwell et al.<sup>7</sup> that the Sub-Saharan African fertility decline may be a "new type of transition" seems well taken, since it motivates new thinking and expands the default model of the European demographic transition with its base in industrialization. It seems however that Caldwell et al. and other demographers dealing with the Sub-Saharan African fertility issue perhaps miss constructive insight in important political consequences of their methods and theories by neglecting to pay attention to the historical ecology and anthropology underlying their perspectives. Although certainly not excluded to Sub-Saharan Africa, the history of colonial exploitation and ecological and political disruption of this world region by western powers certainly needs to be taken into account, especially when talking about large scale intervention based on demographic trends<sup>17</sup>. Neglecting this--however well meant and empirically grounded--might risk causing further disruption of indigenous ecological knowledge and cultural structures needed to deal with resilience and adaptation to local ecological variability<sup>18</sup>. Furthermore, "modernization theory" in its current global-capitalist version poses a moral dilemma in motivating the undermining of indigenous culture and contributing to the increasing gap between the rich and the poor. In their optimistic prose, Caldwell et al. convey that "*nearly all the supports for high fertility listed above have been slowly eroding as the old rural system collapses*" (215). This seems hostile to indigenous self-determination based on cultural continuity. Without wondering why these systems existed in the first place, Caldwell et al. fall in the same trap colonial officers made when advising miscalculated and misguided large-scale colonial agricultural reforms in the 1950s in many Sub-Saharan countries<sup>19</sup>. I have elaborated a little bit more on this point in Appendix 2. Have we not

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<sup>16</sup> Fertility decline and demographic impact of the HIV epidemic in Sub-Saharan Africa  
Brouard M.: brouard@ined.fr, <http://sauvy.ined.fr/brouard/sida/abidjan-dec97/brouardb392/brouard-abidjan3/index.htm>

<sup>17</sup> Leach, M. & Mearns, R. (1996) *The Lie of the Land: Challenging Received Wisdom on the African Environment*. International African Institute.

<sup>18</sup> Moran, (1993) *Ecosystem Ecology in Biology and Anthropology: A critical Assessment*. In: *The Ecosystem Approach in Anthropology. From concept to practice*. Ann Arbor, The University of Michigan Press.

<sup>19</sup> Beinart, W. (1984). Soil Erosion, Conservationism and Ideas about Development: a Southern African Exploration, 1900-1960. *Journal of Southern African Studies*, Vol. 11, Oct. 1984.

learned from our past mistakes? Without a sincere interest in historical and regional specific indigenous agricultural and fertility regulation we indeed seem not to. Worse still, the much delayed absence of the occurrence of the demographic transition itself in Sub-Saharan Africa has sustained a discourse justifying the cognitive distancing of those who are underdeveloped and those who are modern or developed in terms of Coale's "conscious control," further depreciating the need for indigenous understanding.

Concluding then, I would argue for the further inclusion of anthropological and historical ecological perspectives in demographic analysis. Recent population-environment perspectives have moved toward this, but remain restrictive to a geographical sense of "environment," ignoring the political ecology underlying historical dynamics<sup>20</sup>. Perhaps the biggest challenge to overcome in this respect is closer to home than Sub-Saharan Africa, relating to the bridging and translation of the different perspectives relevant to the study of human population processes. Training in and elaboration of multidisciplinary research practice and philosophy is urgent, especially when aiming for the redefinition of competing and overspecialized academic territories. Without serious inclusion of the human sciences in this development, efforts are doomed to fail from the start. Fertility transition in Sub-Saharan Africa might well be an appropriate place to explore this move, since its stubbornly independent cultural path and marginalized position in the global compels the demographic analyst to integrate multiple perspectives.

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<sup>20</sup> D. Liverman, E. Moran, R. Rindfuss, and P. Stern, eds (1998) *People and Pixels: Linking Remote Sensing and Social Science*. Committee on the Human Dimensions of Global Change. National Academy Press

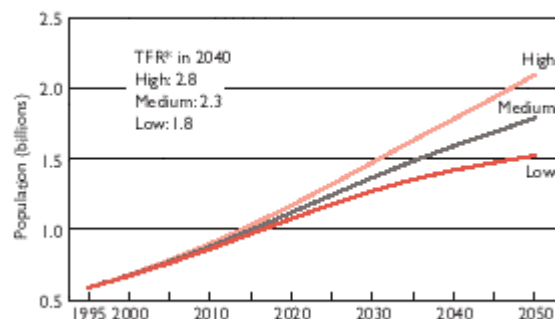
## Appendix 1: Regions and Countries of Sub-Saharan Africa and projected population 1995-2050

Figure 1  
Regions and Countries in Sub-Saharan Africa



Note: Congo is the former Zaïre. The government of President Laurent-Désiré Kabila, which assumed power in 1997, changed Zaïre's name to the Democratic Republic of the Congo. The country is referred to as the Congo in this Population Reference Bureau. The island of Cape Verde, off western Africa, is not shown.

Figure 3  
Projected Population of Sub-Saharan Africa, 1995-2050



\*TFR-The average total number of children a woman will have given current birth rates.  
Source: UN, World Population Prospects for the 1996 Revision.

## Appendix 2

The disruptive ecological and demographic consequences resulting from the forceful undermining of indigenous cultural systems by colonial oppressors has been well documented by environmental historians in the past decades<sup>21</sup>. The continuity of the thinking underlying this development can still be recognized in today's discourses. The implications of this are well beyond this appendix, and would require a lengthy paper. Here, this point is merely illustrated by a few examples of quotes made by Kenyan and Tanzanian colonial and post-colonial officers, and from Caldwell et al.<sup>7</sup>

The British Tanzanian Colonial Administration 1949 resettling peasants to centers for education, health, water and conversion argued its case by arguing that it "*will make easier the task of changing a disease ridden and backward horde of savages into as disciplined and prosperous community*"<sup>22</sup>. The lack of respect for indigenous science was rejected in a similar fashion by Mr. P.E. Mitchell, British Governor of Kenya, wrote the following to the Secretary of State for the Colonies Mr. Oliver Lyttelton in 1952: "*The failure of tribal agriculture to meet the needs of an expanding population is indeed the general experience. The cause of the failure lies in the inability of traditional African peasant agriculture to do more than maintain the population at an unsatisfactory subsistence level, and then only if shifting cultivation can be practiced, new clearings made when old are exhausted, and whole regions thereby laid waste by desiccation and erosion.*" (Mitchell, p. 5, par. 14). This rhetoric of indigenous incapability is still echoed in the recent policies of many African States. Former three-term President Nyerere of Tanzania argues that the long term objective of livestock policy was defined as bringing the traditional livestock keepers into the cash economy. The means to achieve this included "*educating our livestock keepers to abandon traditional beliefs associated with livestock*" because "*most cattle keepers associate wealth with sizes of herds owned by*

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<sup>21</sup> Kjekshus (1977) Ecology Control and Economic Development in East African History: The Case of Tanganyika. Heineman Education Books; Vail, L. (1977) Ecology and History: the example of eastern Zambia. Journal of African Studies; Beinart, W. (1984). Soil Erosion, Conservationism and Ideas about Development: a Southern African Exploration, 1900-1960. Journal of Southern African Studies, Vol. 11, Oct. 1984.; Leach, M. & Mearns, R. (1996) The Lie of the Land: Challenging Received Wisdom on the African Environment. International African Institute.

<sup>22</sup> Kjekshus (1977) Ecology Control and Economic Development in East African History: The Case of Tanganyika. Heineman Education Books

*individuals and families*" and have "little if any awareness that such wealth is deceptive since the larger the herds, the more the danger of overgrazing." With this, the colonial resettlement policy disrupting indigenous ecological systems was forcefully continued, and seen as "key to development: *"If traditional pastoralists settle down and adopt modern techniques of livestock keeping and learn to integrate livestock keeping with farming."* Although the idea of indigenous incapability has been forcefully attacked by many anthropologists and ecological scientists<sup>23</sup>, Caldwell et al. seem to still be fighting against the African traditional system instead of working with it. According to them, the goal remains the same as that of colonial officers, and despite African "resistance," there is hope: *"Nearly all the supports for high fertility listed above have been slowly eroding as the old rural system collapses."* (215). The Caldwell's even seem to suggest that indigenous religion is evil and needs to be replaced by more "organized" versions: *"Christianity, Islam, and Western education have undermined much of traditional society, even the reverence for ancestors. The importance of lineage and, with it, the practice of fosterage are weakening"* (215). The irony of supporting the Pope's morals--including his take on contraception--instead of the African cultural system is hopefully evident.

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<sup>23</sup> See for example McCabe, J.T., Perkin, S. Schofield, C. (1992) Can Conservation and Development be coupled among Pastoral People? An examination of the Maasai of the Ngorongoro Conservation Area, Tanzania.