

Vicious Circles

African Demographic History as a Warning

The terms of debate on global population issues have changed significantly in the last several decades. Theories which tried to isolate simple causes and define simple solutions have been discarded; we have come to recognize that the causes of population growth can only be found in the complexities of the international political economy and the ways it affects the cities and villages of the Third World. The "Developing World" is not developing along Western lines, nor does its demographic history mirror Europe's. Intelligent population policies must be informed by a thor-

ses of global economic and demographic data—poverty appeared to cause excessive population growth. The strategic conclusion was that the population problem would solve itself if significant economic development occurred. With economists in the lead, population experts intoned in mantra-like fashion, "Development is the best contraceptive."

This thinking was guided by the model of "the demographic transition," a phenomenon observed in Europe as it underwent industrialization. One country after another moved from a pattern of high mortality and high birth rates to one of lower mortality and lower birth rates. This same demographic transition, it was thought, would occur throughout the world. The popularity of this model caused the goal of population stabilization to be subsumed by that of economic development. The problem with this approach, however, soon became clear: industrial development according to the European model was not inevitable or even probable in the Third World. Instead, many regions, particularly in Africa, experienced a decline in real GDP per capita. Unless unforeseeable rates of economic growth were to spring forth miraculously in these regions, this demographic transition could not occur.

Furthermore, researchers have begun to notice that the presumed correlation between economic growth and declining birth rates is not as absolute as originally believed. Recent studies indicate that, despite a lack of economic growth, selected regions of India and Kenya have witnessed a marked decline in fertility. These studies challenge the idea that economic development is the primary cause of population stabilization. Women's status and education now appear to be far more significant than overall economic growth as a correlate of declining fertility. Many population experts have now embraced this insight, and it is likely to join economic development as a guiding

BY TIMOTHY C. WEISKEL

Timothy C. Weiskel is Director of the Harvard Seminar on Environmental Values at Harvard Divinity School.

ough understanding of population dynamics and of the complex historical, cultural and economic circumstances within which they operate.

Human population growth was identified as a contemporary problem in the 1950s, with the advent of the post-World War II population surge. Initially, the use of birth control pills, condoms and other contraceptive techniques was thought to be the key to slowing population growth. Attention was thus focused on making these new technologies more widely available, especially in the Third World. Contraceptive technologies, however, proved less effective than originally promised. They were difficult to deliver and were resisted by local populations, who considered limits on their reproductive behavior to be limits on their potential livelihood. Rural populations in many parts of the Third World had come to depend upon large families to supply labor, create wealth and provide for the elderly. Thus, attempts to limit family size were regarded with mistrust and suspicion.

Attention eventually shifted to development and economic growth. The general correlation between higher levels of economic prosperity and lower birth rates seemed clear from analy-



Patterns of production based on cash crops impoverish developing nations.

principle in the formulation of population policy at the International Conference on Population and Development in Cairo this September.

Years of research and debate on population issues have failed to produce convincing mono-causal explanations or successful, unidimensional interventionist strategies; it is finally being accepted that there is no silver bullet. Neither birth control technologies nor development programs alone promise a solution to the population problem. Even programs aimed at improving women's education are not sufficient in themselves; they must be combined with sensitively designed family planning services and facilities.

The case of Bangladesh is instructive: in a poor, male-dominated society that deprives women of access to education, birth rates have been significantly slowed by family planning efforts. This led Jessica Tuckman Mathews of the Council on Foreign Relations to conclude in the *Washington Post* that, "the debate over which is more important, economic development or family planning, can finally be laid to rest. The slogan 'Development is the best contraceptive' stands exposed as the mindless rallying cry of people whose real agenda is opposition to family planning." It is now clear that more attention needs to be devoted to voluntary programs that address the reproductive needs of women.

Population growth is a bio-social problem embedded in the particular history and culture of a society. This realization leads to the awareness that simple mechanical models of causation ("A" causes "B") are inadequate tools

for devising population policy. Such models posit that in order to effect a change in "B" one must attempt to change "A." This logic dominated both the contraceptive technology phase and the economic development phase of population policy discussion, but it is fundamentally unsuited to the problem.

We are coming to realize that population dynamics are not based on such simple relationships; their causality is cumulative, reciprocal and nested. It is *cumulative* in the sense that cultures are strongly bound to tradition. Accepted habits and norms of behavior change slowly and are influenced by the past at least as strongly as by prevailing contemporary circumstances. The causation of population growth is also *reciprocal*: while "A" may cause "B," it is equally true that, over time, "B" causes "A." For example, while having many children may reduce a family's welfare, declining family income may lead to a decision to have more children in an attempt to gain labor and eventually expand household income. Finally, this causation is *nested* because patterns of micro-behavior are conditioned by, and in turn, affect shifts in macro-behavior; local conditions are shaped by global circumstances and vice versa.

Population Growth in Africa: A Case Study

African demographic history provides an illustration of this three-fold framework for examining population dynamics. The magnitude of Africa's population expansion in recent decades is staggering. In 1950, the entire continent had an estimated population of 199 million.

By 1992, this figure had reached 682 million. The United Nations projects that by the year 2000 the continent will be home to 856 million people, and by the year 2025, 1.583 billion. How we account for this remarkable population surge will clarify some of the complexities of the population dilemma confronting us today.

At least five historical components have fueled African population growth. First, Africa's population grew during the slave-trade period. Very little is known about African demographics before the era of the European slave trade, but there is no doubt that the slave trade itself was a significant impulse for population expansion. The warfare and disorder involved in slave acquisition led to a state of generalized conflict in which maximum reproductive performance was highly valued and rewarded. All else being equal, larger families, villages and kingdoms survived more successfully in this state of insecurity than smaller ones.

We have blithely ignored the global patterns of economic integration, urbanization and migration that have conditioned and shaped local reproductive norms for the last five hundred years.

A further consequence of Europe's trade with the Americas was the introduction of foodstuff crops from the New World, like maize, groundnuts and cassava to West Africa. This new food supply made possible the growth of families and villages that, for reasons of self-defense, had become a necessity. Thus, the slave trade launched a fertility boom in Africa. But the fertility boom did not manifest itself as a population boom at the time for two reasons: mortality rates increased during the warfare engendered by the slave trade, and much of the added population was exported as slaves in what became known to demographers as "the largest non-voluntary migration in human history."

The slave trade and the warfare that it fueled lasted from roughly 1500 to 1850, establishing a pattern of large families; however, the impulse to have many children did not end with the close of the slave trade. Rather, European and American interactions with Africa in the latter half of the 19th century placed new demands on the continent's economy. These burdens motivated the second phase of African population growth. The "legitimate commerce" in palm oil, groundnuts, wild rubber and other tropical products put a premium on families that could mobilize large numbers of dependents in order to increase their household production. Thus, the cash-cropping boom of the 19th century—prior to formal colonial rule—maintained and extended the cultural logic that rewarded maximum reproductive performance.

The period of colonial conquest, from approximately 1885 to 1910, generated a third major component in Africa's population history. Much of this conquest was accomplished through destructive warfare. Moreover, in the wake of military intervention, African populations experienced a measurable decline from famine and epidemic disease. As is generally the case with catastrophes caused by famine, disease and warfare, Africa experienced a quick demographic rebound from these early colonial traumas. Thus, in many regions during the 1910s and 1920s a "baby boom" occurred which restored local populations to their pre-colonial numbers. International trade catalyzed this recovery. Based on the labor-intensive export of agricultural commodities, colonial cash-crop regimes—which continue to dominate African economies today, decades after the demise of colonial rule—gave even more support to the well-ingrained cultural preference for large families.

A fourth factor in Africa's population surge involved the gradual expansion of access to elementary hygiene and rudimentary medicine. Infant mortality rates were brought down by the investment in wells and sanitary water supplies for emerging African cities and the instruction in the use of that clean water. Large families (which, over the previous 400 years, had become culturally valued and economically rewarded) were now easier to maintain, since fewer infants died from childhood diseases.

The fifth historical factor contributing to Africa's contemporary population expansion was a remarkable period of urbanization. Whereas fewer than 12 percent of Africa's population lived in cities in 1950, nearly 25 percent did in 1980. This trend has continued; United Nations demographic indicators project that by the year 2010 more than 45 percent of Africa's population (440.9 million people) will be living in cities. In many parts of the world, urbanization is linked to declining fertility rates in the cities, but the impact upon the remaining rural populations is quite different. Many rural households view the loss of young adults to the cities as a "death," or at least as an export of labor. The net effect is to motivate rural households further to expand their dependent labor force by having more children.

Thus, a pattern of significant rural "out-migration" to the cities has actually served to motivate increased reproductive performance in rural areas. The growth of cities with their incessant demands for land, food, fuel and fodder has in turn accelerated the degradation of surrounding rural regions, driving more people off the land and into the cities, and further encouraging the rise of rural fertility rates. In Africa and elsewhere in the Third World, the growth of cities has had a very different impact on the demographics of society than it had in Europe. European urbanization, accompanied by industrialization, has led to marked declines in fertility on a society-wide basis. In the contemporary Third World, however, rapid urbanization may actually serve to stimulate society-wide increases in fertility, as rural areas seek to replace "lost" labor with more children.

Africa finds itself in what ecologists would call a massive "positive feedback loop." Having more children

creates a vicious circle. the only perceived solution for which is to have even more children. Mobilizing greater amounts of dependent labor appears to be the only means households have to work their way out of poverty. The apparent solution is thus the source of the problem in the first place, and the vicious circle manifests itself as a cycle of decline.

African Demographics and the Global Economy

From an analytical perspective, Africa's contemporary population dynamics are best understood within the larger context of the continent's relation to the global economy. Mono-causal explanations do not account for Africa's population dynamics, and neither can these issues be adequately regarded as simply Africa's problem. Responsibility for Africa's population growth may be traced back hundreds of years; it is shared and should be acknowledged by those nations in Europe and the Western hemisphere whose economies have benefited from Africa's demographic history.

Once rural populations were drawn into this pattern of primary production, the local calculus of reproduction became intimately linked to the dynamics of the global economy.

Europe's expansion into Asia and the New World triggered massive demographic dislocations. The New World's population collapse, caused by the disease, famine and warfare engendered by early European encounters, created resource-rich but labor-scarce economies. Slaves from Africa supplied these economies with the means to build prosperity, and Africa became the specialized source for the production of human labor over a period of several hundred years. People were its most valued export commodity.

As European economies stopped demanding unskilled plantation labor and started demanding natural resource inputs for a growing industrial structure, Africa's expanding labor force was put to work in a succession of cash-crop booms. While the objects of this commerce may have changed from palm oil to wild rubber to coffee and cocoa, the underlying logic of expanding the household to expand prosperity was constantly reinforced.

In a broader sense, this pattern came to characterize the entire Third World, even those areas that were not formally absorbed into European colonial empires. While no other region became as involved in the export of labor as Africa did during the slave trade, cash-crop export economies linked to European industrial demand spread throughout Latin America, Asia and the Pacific. Once rural populations were drawn into this pattern of primary production, the local calculus of reproduction became intimately linked to the dynamics of the global economy.

Ironically, the very success of household production units has pressured them to expand their size. The Third World has produced surpluses of coffee, cocoa, tea, so high that the international glut of these commodities has led to a decline in their unit value. The result is what economists call "the primary producer's squeeze." The "squeeze" is simply this: in the face of the declining unit value of its commodity, the surest means available for a peasant household to maintain its income is to expand its production of that same commodity. This requires more labor, hence larger families. Yet, by expanding production in this manner, the primary producer contributes to an even greater glut of their particular commodity on world markets, which, in turn, leads to a further decline in its unit value. Receiving still less for the same volume of production, the peasant household is "squeezed" into expanding its production still further, and the vicious circle of population growth and subsequent emmiseration starts once again.

Urbanization and Population Growth

It is now becoming apparent that global patterns of urbanization are echoing those already manifest in Africa. Urban populations are increasing at rates that exceed average population growth. On a global scale, populations are continuing to grow, but, at an even faster pace, they are agglomerating in massive urban concentrations.

The evidence from Asia is the most dramatic in this regard. A recent report of the United Nations Economic and Social Council for Asia and the Pacific claimed that "by the year 2000, the population of Dhaka is expected to double to 12.2 million; Bombay, Calcutta, Delhi, Jakarta, Karachi, Manila and Shanghai [will] each gain four million people; and Bangkok, Bangalore and Beijing [will each gain] three million." There will be 21 cities with populations in excess of 10 million by the turn of the century, with 13 of these in the Asia-Pacific region. By the year 2020, the report estimates that 1.5 billion more people will be living in Asian cities: the equivalent of creating a new city of 140,000 people every day for the next thirty years.

In a similar vein, recent studies conducted by the Peace and Conflict Studies Program at the University of Toronto in cooperation with the American Academy of Arts and Sciences have drawn attention to rural out-migration in China. Citing Dr. Thomas Homer-Dixon, the author of one of these studies, the *New York Times* reported, "tens of millions of people are already trying to migrate to coastal cities from the country's rural north and interior which...cannot possibly support the next few decades' booming population." The result is the growth of these cities in a locally unsustainable manner; China's growing urban population will have to be supported by 25 percent less arable land per capita by the year 2010.

Chinese cities may therefore become dependent upon an international trade in surplus grains produced in Europe and the United States, as many African cities are today. Any sudden interruption of supply to these cities or continued environmental decline in rural areas could well rekindle age-old regional tensions or trigger ethnic conflict in Asia, as it already has in Africa. Dr. Homer-Dixon's



Are growing cities one cause of rural population growth?

study suggests the emergence of a global pattern characterized by "falling grain prices and regional food surpluses in Western countries occurring simultaneously with scarcity-induced civil strife in parts of Africa and Asia." Recently reported rural strife in China is particularly troubling in this regard.

A newly published report of the International Food Policy Research Institute delivers another sobering message to population planners: "Over the next 20 to 30 years, farmers and policy-makers in developing countries will be challenged to provide food at affordable prices for almost 100 million [new] people every year—the largest annual population increase in history." Dr. Per Pinstrup-Anderson, the author of the Institute's study, *World Food Trends and Future Food Security*, quite bluntly claims, "Failure to significantly reduce population growth, particularly in sub-Saharan Africa, [within] the next 20 years will render all other development efforts insufficient to avoid greater human misery in the future." The report suggests that unless immediate commitments are made to undertake accelerated agricultural research, food production will not keep pace with population growth.

The problem we as population analysts face is our failure to develop a global understanding of population dynamics. Instead, we proceed with country-by-country demographic studies, expecting in each case that demographic change will mimic Europe's experience. We have blithely ignored the global patterns of economic integration, urbanization and migration that have conditioned and shaped local reproductive norms for the last five hundred

years. In other words, we divide the world into the "West" and the rest—all those other people who are just waiting to pursue economic and social development on the West's terms.

However, Europe's "demographic transition" may prove to be the exception, not the rule. Similarly, while cities in the Western world have generally stabilized, this is surely not the trend in Third World areas. In the next twenty years 97 percent of world population growth will occur in what we now call the Third World—but perhaps should more accurately name the "Nine-Tenths" World.

Effective population policy can only emerge from a new understanding of the cumulative, reciprocal and nested character of population dynamics on a planetary scale. This expanded understanding of causation necessarily entails an enlarged sense of responsibility and a renewed sense of commitment to this issue on the part of all peoples and all nations. In effect, we face a global population problem without a global understanding of it. We persist in thinking that Africa or Asia have population problems—someone else, somewhere else, not us, not here. In reality, the world now has a human population problem that is most dramatically apparent in its weakest economies and most vulnerable ecosystems.

If we wish to survive as a global species, we must begin to think of ourselves as global citizens. In this context, who is "we"? Who is "they"? What is in our "national self-interest"? These are all concepts that will need to be re-cast as we struggle to forge a morally responsible world community. •