

# Protected Lands, Population Growth, and Women's Lives: A Proposed Agenda for Action

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## Introduction

WITHIN THE SCIENTIFIC AND ENVIRONMENTAL COMMUNITIES, prominent biologists and wildlife conservationists have long been leaders among those arguing that the ongoing growth of human population poses daunting risks to the preservation of nature and the natural environment. One thinks of Paul Ehrlich, of course, but also of such effective thinkers and communicators as Edward O. Wilson, Peter Raven, Peter Vitousek, and Michael Soulé.

The connection of population growth to conservation remains, however, poorly or seldom articulated, for understandable reasons. First, the topic is extremely complex and historically vulnerable to oversimplification. Perhaps more importantly, few experts in wildlife and wildlands conservation are well versed in demography, let alone in population policy. Even more forbidding is the realm of possible prescriptions to slow the expansion of population pressures on protected lands and natural systems. Laden as it is with questions of sexuality, reproductive anatomy, abortion, and private decisions and behavior, the difficult and sensitive question of what (if anything) to *do* about population growth has generally puzzled even environmentalists and scientists who relate human population dynamics to the loss of nature.

More than four decades after the first national population program was established in India, the very idea of "population policy" remains a sensitive topic to the general public and to many in the scientific community. The common but unfortunate phrase "population control," with its intimation of attempted control by someone over someone else's behavior, casts a subtle shadow over the field.

Many who hear this phrase conclude that the wealthy, the powerful, the industrialized, and even the environmentally concerned seek to convince or force the poor, the powerless, the "underdeveloped" or the environmentally uninformed—and most especially the female—to have fewer children than they want. It is not a pretty image, and it is no surprise that there is little enthusiasm within the conservation community (or many other communities) for a fuller exploration of potential ways to influence demographic futures. It is easier, perhaps, to bemoan the impact of the expansion of human numbers on species and ecosystems—and then apply the non-demographic strategies one can understand and with which one is ethically and practically comfortable.

The population-control image is not entirely a misperception. The history of the field includes some programs and policies based on a controlling, "top-down" approach to women's fertility that quite often were more interested in ends than means. In some cases, those means included—in a few cases still include—pressure on or financial incentives for women and men to undergo sterilization or use specific forms of birth control without sufficient informa-

tion or alternative choices. It is not surprising that many developing-country organizations and activists concerned with health, environment, and women's rights resent the idea that greater efforts to control population growth will pay off in an improved environment. It doesn't help that many wealthier countries with relatively low rates of population growth—the United States, for example—are taking few effective steps to reduce consumption of fossil fuels and other resources that contribute to global environmental degradation.

Given these sensitivities and disagreements, can we say anything about a policy agenda conservationists and scientists could support, and even promote, that would ease demographic pressures threatening protected lands and ecosystems? The key to such an agenda, this article will argue, is to move from the idea of “controlling” population growth per se to that of supporting the cause of women worldwide who seek to escape the control of others over their bodies and their lives.

### **The Cairo Consensus: A Framework for Slowing Population Growth**

The emerging reality is that the most effective population policies are precisely those most consistent with human development generally. This is not a restatement of the old, and inaccurate, slogan that “development is the best contraceptive.” Economic development was the issue there, and paradoxically the available evidence is equivocal about the capacity of economic development, by itself, to reduce fertility or otherwise slow population growth. Other aspects of human development are far more important.

When couples, and especially women, have access to a menu of family planning options, primary health care, a decent education, and some prospects of a reasonable income, they have fewer children. Moreover, they tend to give birth

later in life and establish “birth spacing” patterns that independently slow the growth of population. This has been amply demonstrated on every continent.

It is not economic growth per se that brings down rates of average fertility and population growth. (The U.S. baby boom of the post-World War II era should be sufficient refutation of that idea, but there is also the example of wealthy Middle Eastern oil potentates to consider.) In fact the evidence is solid that more than any other single factor, it is ensuring widespread access to good-quality family planning services that is most effective in causing fertility rates to drop. One of the best examples of this is Bangladesh, where the educational and economic status of women has barely budged in recent years but where fertility rates have fallen by more than a fifth, from 7 children per woman on average in 1970 to 5.5 children in 1991. What caused this decline? It's impossible to isolate a single cause in such situations, but the most logical primary candidate is a major commitment by the Bangladesh government and an array of non-governmental organizations over the past two decades to make a variety of family planning options available to all couples in the country who want to use them.

Such programs, while often facing indifference or hostility at first, rapidly generate their own demand among the women and men they serve. In Bangladesh, the prevalence of contraception soared from 3% to 40% in the period mentioned above. The evidence is also strong that population programs are most effective when they provide good information and counseling, a wide variety of contraceptive options and associated services that can help women keep themselves and their children healthy. In short, such programs work best when they meet the expressed needs of their clients, rather than focusing on specific demographic targets of reduced rates of

population growth or specific proportions of people using contraception.

Ironically, then—and this is a key point for conservationists and others brought to population issues largely by an interest in preserving ecosystems—the history of family planning demonstrates that the programs most effective in reducing fertility are precisely those that respond at the service-delivery level to people's needs. These programs enable the delivery of wanted babies in good health, rather than directly attacking high fertility per se. Such programs, along with the foreign assistance from industrialized countries that helps pay for many of them, deserve the active support of conservationists.

A total fertility rate of 5.5, of course, will not stabilize Bangladesh's population. Nor would similar rates—the average in developing nations is about 4 children per woman—erase the pressure of expanding populations on protected ecosystems and lands around the world. Simply meeting the unmet demand for contraception from the 120 million or more couples and women who would like to postpone or stop childbearing would reduce fertility rates in the developing world from 4 to 3 children per woman, about halfway to the needed "replacement fertility" level of 2 children.

This question of what to do in addition to family planning to promote fertility reductions is at the core of a new consensus forming in advance of the upcoming International Conference on Population and Development, to take place September 1994 in Cairo. Much of the news media attention has focused on a public disagreement related to Pope John Paul II's "deep anxiety" that the official document of the conference promotes abortion and undermines the family. In reality the document does neither. What it does do is much more remarkable: It sets out for the first time a broad international consensus that human development pro-

grams aimed at empowering and elevating the status of women should sit alongside family planning at the center of population policy.

Specifically, the document notes that women who have gone to school, ideally through secondary school, are far less likely to have many children than those women who have received little or no schooling. In Peru, a woman who has completed 10 years of education typically has two or three children. A woman who has never seen a classroom has seven or eight. In 23 developing nations, a woman with a secondary school education has her first child three and a half years later in life than a woman with no schooling. Like smaller families, such delays in first births exert a powerful brake on population growth. (It's important to stress while making this point, however, that this influence of education on fertility is strong only where women have access to family planning services. Education *alone* is not an effective contraceptive—especially if, as often happens, women who have been in classrooms forego breastfeeding, post-partum abstinence, and other traditional practices that discouraged high fertility and closely spaced childbirths.)

The same sorts of relationships almost certainly apply to other aspects of human development, although they are less studied and hence less well documented. Simple logic and considerable evidence at least suggest that when women can gain access to credit to start small businesses, their thinking about childbearing shifts along with the relative merits of having few or many children. When women have access to primary health care for themselves and their children, it is logical this will make it seem possible to assure good health to a few children, rather than have as many as possible in the hopes some will survive childhood.

Intriguingly, population growth can be slowed considerably, even in the absence of fertility decline, simply by changes in the timing of child-

births. As Population Council demographer John Bongaarts has demonstrated, much of the population growth the world is projected to experience over the next two decades—amounting to nearly 2 billion additional human beings—stems from “population momentum,” a kind of demographic inertia that carries forward population growth at high rates even after women reduce childbearing. The source of population momentum is the age structure of a population; specifically, the fact that at any given time the world’s population has a certain proportion of children and adolescents heading for or already in their childbearing years. When this proportion is high relative to other age groups, as it is today, growth in population size is virtually guaranteed even if average family size were to approach or reach “replacement fertility” of two children per woman.

As Bongaarts has shown, however, population momentum can be weakened significantly, regardless of a population’s age structure, by delaying the average age of a woman’s first childbirth, and by increasing birth spacing, the time intervals between that and subsequent childbirths. Simply by stretching out a woman’s childbearing, in other words, population growth rates are reduced even if women continue having the same number of children. Bongaarts calculated that if the average age of first childbirth could be raised 5 years in developing countries, world population in 2100 would be lower by 1.2 billion people than would otherwise be the case, with fertility rates averaging two children per women in both cases. Increasing the spacing between childbirths could similarly weaken population momentum. Discouraging early and frequent childbirths is not merely a good demographic policy but a good public health policy as well, since early and frequent childbirths are well demonstrated to threaten the health and lives of both mothers and their children.

Obviously, the most effective population policies would be those that take advantage of all of these opportunities, informed by the realization that they are mutually reinforcing. Guaranteeing universal access to good-quality, multiple-choice family planning options is the essential first step to a range of human development policies that will especially benefit women—and make it much more likely they will use the contraceptive services available to them. The explicit goal of these policies is that women the world over will gain knowledge about and power over the major decisions of their own lives, including when to give birth. The evidence is strong that if this goal can be realized population growth will slow dramatically, pointing to a stabilized population early in the next century, at considerably less than the doubling of current population that is often projected.

### **The Realities of Field Experience**

The idea that sound human development policies will slow population growth while improving individual and family well-being sounds convenient, even uplifting. But will it work in the real world? In particular, will it work in the small slices of the real world that happen to lie just outside of protected ecosystems?

Before answering this question, it’s worth asking ourselves whether it is appropriate on ethical grounds. Is our motivation acceptable if our support for improving women’s lives has another “real” objective, namely slowed population growth and eventual stabilization of population size around areas of land we seek to protect for the value of their non-human life?

Ultimately, this question must be answered based on individual human values. So long as the neither the means nor the ends are immoral, harmful to people or to non-human species, nor antithetical to human development, it seems that a rigid argument that those who seek im-

provements in other people's lives must have no other interests beyond pure altruism. It is even possible that a better understanding between the two seemingly unrelated issues—quality of human life and the survival of non-human life—will open up new awareness of the value of human well-being among many who have spent little time pondering that side of the equation.

A more practical question is whether women in rural areas actually want to limit their childbearing. The evidence on this is equivocal, and it is undoubtedly impossible to generalize across continents, nations, and cultures. Certainly protected lands are often far from urban areas, and thus far from good health facilities and, often, family planning distribution networks. Personally regulating fertility can be a concept that has not yet caught on in inhabited but remote communities near parks and other protected lands. Moreover, demographic literature is replete with examples of rural communities where large families are prized in part because children provide labor in farm work and child care, and more children increase the odds that at least one will grow up to draw an income sufficient to take care of elderly parents.

J. Mayonne Stycos of Cornell University and Isis Duarte of the Population and Development Studies Institute of Santo Domingo recently surveyed four communities bordering Los Haitises National Park in the Dominican Republic, all of them subject to a presidential decree ordering the park cleared of people and cattle. Even the women surveyed in this area, Stycos and Duarte found, favored rapid population growth and large families, despite a general awareness of the need to conserve the forest. Significantly, however, 65% of women under 30 years old had used a contraceptive method, compared to 41% of women aged 31-44 and just 10% of women over 44.

G. T. Agyepong, a geographer with the University of Ghana, found a high awareness of the impact of population growth on natural resources in eight communities on the outskirts of protected "sacred groves" in northern Ghana. Indeed population growth was cited far more often than any other single factor (such as modernization or construction) as a "factor of change" in resource deterioration. Nonetheless, most men in these communities expressed a desire to have as many children as possible, a rather stark reflection of Garrett Hardin's "tragedy of the commons." Men in these communities invest little in childraising and benefit directly from their own children's labor, while suffering only collectively from any environmental degradation to which their families might contribute. Agyepong did not ask women how many children they hoped to have, but the answer might not have been much different. In communities where family planning is unavailable and women have little education, demographic literature suggests, women often are not accustomed even to contemplating what their own interests might be in separation from those of their husbands, not to mention the possibility of regulating their own fertility against the husbands' wishes.

These social patterns, however, are changing as more information about the outside world reaches rural communities, as knowledge of modern contraception spreads, as opportunities beyond motherhood open up for women and—tragically—as environmental degradation proceeds in many countries. Use of contraception is increasing and fertility rates decreasing even in such mostly rural sub-Saharan African nations as Kenya, Nigeria, Zimbabwe, and Botswana. Moreover, some private organizations have had surprising success in recent years in introducing reproductive health care along with resource conservation in rural areas

of South Asia, Central America, and several sub-Saharan African nations.

Such integrated projects are a critical innovation in resource conservation, and they offer models that could be more widely applied to areas on the borders of protected lands and ecosystems. The key to relating family planning to resource conservation seems to be seeing the health of a community as a continuum that stretches from the health of the individual—especially the health of a woman and her child—through the health of the family to the environmental health of the neighborhood, province, nation, and planet. There really is no sharp dividing line between human and environmental health, and people in every culture are brought more easily to the latter when it is related closely to the former. In this continuum, family planning and reproductive health care become services that women (and, increasingly, men) often request themselves when given an opportunity to express their own needs and desires. The more services are provided—and the higher their quality and the degree of choice offered—the more they will be used.

Those people who live on the margins—whether geographically in the case of protected areas, or economically in society at large—are not ignorant of the links between their family size and the resources they need for survival. In his book *The Third Revolution*, British author Paul Harrison relates the childhood memories of a farmer in Burkina Faso of a “forest too thick to penetrate or cultivate” and “wild animals too many to count” in his childhood, now destroyed by modern-day deforestation and desertification. Wanga Mumba, director of the Environment and Population Centre in Lusaka, Zambia, tells of tribal chiefs who have literally reached the end of the line of land succession: The land inheritances that satisfied the sons of chiefs for generations back to pre-colonial times have simply been subdivided

too many times to support even a single family. “If I could do it over again today I would have fewer sons,” one chief told her.

For women there is a tension, Ms. Mumba believes, between attention to their children and attention to their environment and natural resource base. Women do most of the subsistence farming in Africa and are responsible for water throughout the developing world. Those who regulate their own fertility and opt to have fewer children, in Ms. Mumba’s experience, are able to devote more time to tending their soil and the trees that hold the soil. “The environment,” she says, “is the environment of the woman.”

In the land surrounding the Tai National Park, a World Heritage and Biosphere Reserve in southwestern Côte d’Ivoire, the population has increased from 3,200 in 1971 to 57,000 in 1991, reflecting migration from the nearby Sahel as well as rapid natural increase. Reforestation plans have had slim success, reflected in a local saying, “I have a weight (baby) on my back; I have no strength left for planting many trees.”

Is it possible that population growth, by increasing the competition for the means of mere survival, is also one of the factors most responsible for severing human ties to nature? In Zambia, Ms. Mumba relates, “Human beings have become so self-centered that they have no more concern for animals, they have become enemies instead. Now every man who has a gun will shoot anything. Human beings will stand against nature. We think no other living being should be seen in this world.” Sacred trees that are reputed to house the souls of ancestors, she adds, are now cut down in desperation for fuelwood. Is this new lack of concern driven by the increasing competition for survival brought on, at least in part, by continuing population growth beyond critical thresholds a healthy environment can sustain?

Clearly, the size and consumption practices of local populations are not the only determinants of the survival of protected areas. The population dynamics and consumption patterns of the broader public enters into the relationship as well, determining demand for tropical woods or cattle, for example, or the trade needs and debt constraints of a nation. But at least to the extent that local communities press upon the resources of protected lands, the provision of reproductive health services and other policies related to population growth can contribute to the preservation of ecosystems.

An especially intriguing example of a positive population-resource awareness is offered by a case study of the CAMPFIRE (Communal Areas Management Programme for Indigenous Resources) program associated with the national parks of Zimbabwe. Through the program, communities share some of the revenue generated by the presence of large-mammal wildlife, especially elephants, in protected areas. Prior to inauguration of the program, some of these communities actively sought new settlers to increase their political clout in obtaining government services from the national government in Harare. Once "household dividends" from wildlife revenue began to be distributed, however, "the community began to ask whether it wanted new settlers," one observer reports. "It is clear to local villagers that if human numbers rise, wildlife benefits will erode on two fronts: through less available habitat and more shareholders."

This anecdote relates less to fertility as a demographic determinant than to migration, a critical topic for protected areas that deserves more exploration than can be offered here. But the story does suggest an added population strategy for protected ar-

eas: Where possible, give people a stake in the preservation of the area. Eco-tourism is one obvious approach, but where that is not feasible or desirable, methods of sustainable resource development or extraction associated with protected lands may be possible.

"The whole thrust of conservation in the past 10 years has been to make economic improvement—especially in the poorest parts of the world—consistent with conservation," Edward O. Wilson has noted. "A great many studies and pilot experiments around the world have shown that it is possible to greatly improve the social and economic welfare of very poor people at quite low cost while improving the conservation of local ecosystems. And in fact, the two can sometimes be joined into a single enterprise by learning to make fuller use of wildlands on a sustainable basis."

Ultimately, people come to an understanding of the connection between protected land and their own long-term well-being. Often the roots of the problem lie not only in population growth but, as Wilson notes, in poverty, which leads to desperate exploitation of natural resources. What is needed are policies aiming both at the alleviation of poverty and a slowing of population growth based on the spontaneous childbearing decisions of couples and individuals. Improving access to family planning, related health services, and education—especially for women—lie at the heart of such policies. With the 1994 International Conference on Population and Development about to begin, we have the knowledge we need to spur both sustainable development and population stabilization in the communities that surround protected lands.

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