



Population and Climate Change: Relationships, Research and Responses

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Edited Transcript – Joseph Speidel

Thanks for that kind introduction. And it's really nice to see how much interest there is in this topic. It seems like the population issue has a little bit fallen off the radar screen and it looks like global warming may be bringing it back into a little bit of attention.

Well, I'd like to start by saying that clearly this is a sophisticated audience, and they will recognize that it's impossible to do justice to the topic of population policy and programs in about 20 minutes. So I will apologize in advance for what I'm sure are many omissions and oversimplifications.

I'd like to start out by just pointing out a few reasons why we should care about population. Human rights, health, socio-economic development, and the environment. And of course, we'll be talking more about that. And I'd also like to just show a few examples of human impact on the environment. It's beyond global warming, certainly. It includes forests, fisheries, crop land, water shortages, and finally, global warming. Now, this is the only slide that I'm going to show that shows the link between CO2 emissions and population, because Brian is going to give us a lot more detail on that topic. But if you look at these two graphs, it's very clear that per capita emissions have been fairly constant, both globally and in the United States. And the implication of that is more people means more global emissions.

Well, the impact of humans on the environment relates to at least these three issues: population size, per capita consumption, and the environmental impact of the technology that's used to produce what is consumed. And clearly, we have to address all three.

Now I'd like to turn to some numbers. We've seen, I think, some dramatic change in growth rates, but the growth of numbers of still remains high. And if one looks at the average growth per woman, they've certainly come down dramatically, but population growth is higher than it was in 1950, and in the U.S., population growth is also quite high. And



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throughout this talk, I'm going to use some U.S. data because the U.S. is the number one greenhouse gas emitter. That figure at the bottom, 95 percent, if we use the U.N.'s definition of less developed countries, that figure would be 99 percent in developed countries.

Now, this is the sort of classic U.N. projection with high, medium and low variance and the U.S. Census Bureau, which is about the same as the medium variant. And those of you who know a lot about demography recognize that the U.N. is assuming really substantial declines in fertility, to around the replacement level, by the time we hit 2050. Whether that happens or not, I don't know. I would really be happier if the U.N. said, "We're going to get there if we do this." And the "this" is substantially increased support for reproductive health and family planning programs.

Now this table, I've laid out what's going to happen in countries that contain 75 percent of the world's population in 2050. And you can see that Africa, of course, is the big gainer, with roughly a billion more people in Africa. India, very substantial; over half a billion. China has only a small amount of growth, but because of age structure, even China is still growing; more than 100 million people. And then, we come to a couple of other rapidly growing countries, Pakistan and the United States. And somehow we've lost track of the fact that the U.S. is a rapidly growing nation. It's the only developed country that's growing rapidly. And you can see our 39 percent growth rate is just about on the level of the world at the bottom, at 40 percent.

Now, I'd like to turn to a little bit on causes of growth and I would point out that use of family planning and lack of access to use of family planning is an important cause of population growth. And then if you look, again, at both the world and the U.S., you can see that there are a very high proportion of unintended pregnancies, of total pregnancies, very frequent abortion, and a very high number of unplanned births. And if you look at the unplanned births versus the population growth, you can see both in the world and in the United States, the unplanned births make up a very substantial share of population growth.

So what population policies have underlain our approach to population work? Many of them have been based on Demographic Transition Theory, which assumes that the economic value of children for child labor and then that death rates are very high among children. So that the idea would be that individuals make decisions to have large families and the result is rapid population growth. Now this is a chart showing the classic demographic transition period, where birth rates and death rates are both high. Death rates decline, but the perception of





those death rates lags behind and then finally, birth rates come down, so we've made the demographic transition to low birth rates and low death rates. Of course, there are some countries that seem hung up and haven't made the decline in birth rates yet.

Well, this Demographic Transition Theory is based somewhat on the idea of the economic cost and benefit of childbearing. And the implication is that lowered fertility requires increasing the demand for small families. And here's some policies proposed to affect demand for children. They include socio-economic development, education especially focused on girls, improving women's status in economic opportunities, improvements in health especially reproductive health and infant and child health. Now, of course, all of these are good things.

But there's some problems with focusing population and policy on these demand letters. By demand, I mean demand for small families. For one thing, it sort of leaves out the biological mechanisms that regulate fertility, especially contraception and abortion. The second problem is that in many settings, the idea of small families has preceded declines in infant mortality and other economic value of children. And just the idea of reducing fertility has resulted in lowered fertility. And finally, high quality family planning services can overcome barriers such as low educational status of women and this next slide shows an example of that.

We've got two countries, both at about the same level of economic development. One which has a family planning program where they did everything right, that's Thailand. The Philippines, with a much weaker program, and there you can see the rural and urban residency differences are not important. And even this very strong factor of education of women is not very important in Thailand.

Here's some more problems with the demand-creation approach to population work. Certainly, these policies have intrinsic value, but the cost and difficulty of bringing about, say, economic development or education is quite great compared to meeting the existing demand for family planning. And I think it's also fair to say that you might argue that providing the means to satisfy this demand should precede, or at least go concomitant, with increasing the demand. And here's a table which many, or a chart that many have seen before. It just shows that there is demand for family planning in many different countries with different levels of development.





And I think the history of the family planning movement shows that that exists. Between 1960 and 2005, we went from a contraceptive prevalence rate of just 9 percent to 58 percent. And during that same period, the total fertility rate, that is the completed family size for women, declined from about half, from around six to three. And what happened during that period? Unfortunately, it wasn't that we got everybody educated, or that all of the developed world became wealthy or healthy, but in fact, the world community and many governments made a concerted effort to provide good family planning services. Now here's a couple of examples.

In Thailand, they started a program in the early '70s, when the average family size was seven children. By 20 years later, that had declined to about two and apparently, fertility is quite low in Thailand. Another, more recent example is Iran. They restored their national family planning program in 1989 with strong government support. One of the reasons they did this was they were looking at environmental degradation in Iran, and the total fertility rate declined from 5.5 in 1988 to 2.8 in 1996, one of the most rapid declines in fertility on record.

I've always liked Dr. Potts' statement that all societies with unconstrained access to fertility regulation, including abortion, rapidly get down to replacement levels of fertility and often lower. And one thing we should probably underline in this statement is abortion. Abortion is often necessary to allow women and men to get to the fertility they want. By the way, this statement came out of Dr. Potts' article in the *Population Development Review*. If anybody wants to look it up, he backs up that statement with good research.

I'd like to turn to what I think is the factor in population growth that is most amenable to program and policy intervention, and that's unintended pregnancy. You may recall from the previous chart, there were some 80 million pregnancies that are unintended and there are about 200 million women in developing countries who would like to delay or stop bearing children altogether. And about one-third of these women are relying on traditional, less effective means of fertility regulation, and about two-thirds have no access at all or face barriers they can't overcome to using contraception.

Now, I'd like to turn to a missing element in the family planning picture, and that's funding. The ICPD, the International Conference on Population and Development, or the Cairo Conference held in 1994, laid out these four categories of funding: family planning, reproductive health, HIV/AIDS, and basic research. And I have modified their original call for funds under the family planning rubric; I basically increased the amount from 11 to 15





billion, which is just an inflation factor. In reproductive health, they vastly underestimated the means there. And I have to admit, this is somewhat of an arbitrary figure, but at least 15 billion a year is needed.

For HIV/AIDS, this is the UNAIDS estimate, so it's kind of a tidy 15 billion for each of those three factors, which gives us a bottom line of 45 billion, instead of the Cairo's 18.5 billion.

So now let's take a look at how we're doing. How much, and I'm focusing on donors here. And the Cairo plan called for one-third of the funds to come from donors. That's been modified a bit to say that two-thirds of the funds for HIV/AIDS should come from donors because of the poverty of the countries that are hard hit by HIV/AIDS. So then on the far right, you can see the new targets for donors are about 5 billion, 5 billion, and 10 billion for each of those categories. Then if you look at the far left, you can see how we're doing. And this is 2003 data. Unfortunately, up-to-date data is not easy to get. But we're only at 10 percent of the target for family planning. We were doing a little bit better for reproductive health and HIV/AIDS at about a quarter of the target.

Okay, how are we doing up to date? Now, these are projections; they're kind of fuzzy estimations, but on the far right, you can see we've got a total of 9.2 billion for all the Cairo categories of funding. This top figure, general contributions, is because we couldn't categorize the UN FPA/NIDI project. We couldn't categorize them into family planning, reproductive health, or basic research. But then, when you take a look at where we are, remember, our goal was 5 billion for family planning, 5 billion for reproductive health. And you can see we're way under that. We're in the millions on the far right.

And for HIV/AIDS, the 10 billion goal -- well, at 7.4 billion, we're getting a lot closer to where we need to be for HIV/AIDS. But clearly, the funding of the Cairo program is lopsided with a huge effort in HIV/AIDS -- not that that isn't a good thing, but we're neglecting the other aspects of that program.

I'd also like to spend a minute or two talking about public support for family planning in the United States. Whereas you can recall, we are not doing very well in terms of unintended pregnancy. It's much higher in the United States than it is in Europe. About half of women of reproductive age who need contraceptive services are low income and would benefit from publicly supported programs. Current funding for these programs totals about \$1.85 billion. This comes from a number of places, Title 10, the biggest part is Medicaid. But this is about half of the \$3.5 billion needed. And a bit over a billion dollars come from Medicaid. If you





think this is a large share of Medicaid, you would be wrong, because the total Medicaid funding is \$300 billion dollars a year. So family planning and other related reproductive health makes up a very small share of the total Medicaid budget in the U.S.

I've spoken a lot about the supply approach to family planning: making the services available. But that, too, has some limitations, because we know in some places and some individuals want large families. We know that there's cultural, religious, and familial opposition to use of contraception and abortion. We know that socio-economic and governmental institutions may be too weak or lack the courage to work in that area. I've listed a number of reasons why population work has lost salience. I think we have been focused on the decline in rates and not paid much attention to the annual increment of population growth. We've taken the UN projection seriously and I would be happier if the UN would say we're going to get there if we do this, and talk about what kind of services and supplies are needed.

The developed countries are wrestling with low fertility and especially in Europe and Japan, they're very worried about fertility decline. And the International Conference on Population and Development, while a wonderful vision, it did criticize past population and advanced a less focused paradigm of reproductive health. I think that especially the leadership for the United States has been weakened by vocal anti-abortion activists, conservative religious leaders, conservative thinktanks, and for the last eight years, a conservative administration.

And finally, we have spoken a bit about how the AIDS crisis, to some extent, has co-opted the personnel, work, attention and funds of many NGOs and health ministries. And this final little comment about donor fatigue. I think organizations that are supporting development work get a bit weary at times of doing the same old thing. They want to move on to something new and exciting, even though the same old thing still deserves attention and still may have an effective program. And I've spent eight years in the foundation world, and I can tell you, this really applies to the foundation world.

I'd like to ask also to spend a minute or two on why population is relatively neglected as an aspect of environmental preservation strategies. Many environmental organizations and environmental experts don't have the scientific expertise or knowledge in this area. They feel uncomfortable delving into it. There's a perception, and I guess the reality, often, of controversy, especially relating to things like abortion and immigration. There's fear that engagement on population issues will alienate important audiences.





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And finally, there's some moral dilemmas here on the dynamics and stemming from America's high rate of consumption relative to the rest of the world. In other words, how are you going to lecture the rest of the world when we're doing so badly here? However, the cost of inaction will be high. If today's birth rates remain unchanged, world population would grow from 6.7 billion to 11.9 billion by 2050, threatening the social and economic progress and undermining efforts to preserve the natural environment.

And here's my conclusion, that we need to greatly strengthen family planning programs that will slow population growth, especially by helping women avoid unintended pregnancies. And I think when I call for decreased consumption in the developed world, I always like to think of improved efficiency, rather than people giving up things. And I think there's a lot that we could do as a powerful effort in the wealthy nations. Well, thanks for your attention to this, and I'll be interested in questions later on. Thank you.



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