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Population, Development, and Human Natures: a Comment

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In their paper “Population, Development, and Human Natures”, Paul and Anne Ehrlich discuss the “critical challenge of the decades ahead to incorporate the lagging four-fifths of the world’s still expanding population into the global economy while preserving the life-support systems that make our planet habitable”. They emphasize the second part of the challenge, i.e. how to ensure that, whatever development results, it will not threaten the Earth’s life support systems. When thus formulated, hardly anyone will question this challenge, but the authors seem to have a more ambitious goal. The concepts of strong and weak sustainability, as described by Turner (1990) for example, allow for a choice between keeping all natural capital intact and preserving essential life-support systems, but with some substitution. The authors clearly advocate strong sustainability. Their paper alludes to five major developmental threats to the attainment of this goal: (i) population growth; (ii) excessive consumption in developed countries; (iii) technological development; (iv) lack of public consciousness about the need to curb the first two; and (v) weakness of political mechanisms to create a consensus around this need and to act accordingly.

Although less central to this paper than to some of the authors’ earlier work (Ehrlich, 1968), population nevertheless occupies a prominent place in the title and the paper itself.

¹ The opinions in this paper are those of the authors and do not necessarily reflect UNFPA policy.

Yet, this may be ultimately the most manageable of the threats. Of course, *ceteris paribus*, population growth aggravates various problems related to sustainability, whereas it seems to have few benefits, at least at the global level (Smil, 1993). But there is little consensus about the Earth's total carrying capacity. The "optimum" size of 1.5-2.0 billion mentioned in the paper is the lowest estimate around. In his survey of similar numerical exercises, Cohen (1995) found a wide range of carrying capacities, reaching upward to as much as 200 billion. More importantly, much progress has been made since the days of "The Population Bomb". True, world population growth is still substantial: 1.33% p.a., about two thirds of the 2.04% p.a. prevailing in the late 1960s. However, much of this growth is now *inertial*: it results no longer from the propensity to have many children, but from the transitory circumstance of having many women of reproductive age, due to high fertility in the past. The *intrinsic* growth rate of world population, i.e. the rate attributable to current reproductive patterns, has fallen much more: from 2.35 % p.a. in the late 1960s to 0.55 % p.a. at present (Martine, Hakkert & Guzmán, 2000). If the world fertility decline of the 1990s were repeated during this decade, intrinsic growth would reach zero by 2010 and all remaining population increase would be inertial. Of course, this is scant consolation to those who consider the planet already over-populated and who realize that at least another two million will be added before inertial growth subsides. The numbers show, however, that the population bomb, while not entirely stripped of its explosive charge, has now largely been defused.

The tendency to over-emphasize the negative aspects of change is a general feature of the paper. All development involves costs and benefits, and trade-offs have to be considered in a world with preferences that strongly differ. Although further growth of already high consumption levels is a threat to the environment, the answer is not necessarily to bring down consumption and restore the environment to its pristine state. As long as life on Earth is not threatened, most people are willing to give up some natural capital to sustain consumption. This is not necessarily a matter of ignorance, as the paper seems to suggest, but can be a deliberate choice.

The view that change (whatever it may be) is bad comes through most forcefully with respect to population issues. One may accept the general thesis that aggregate world population growth has few redeeming qualities, but what about population concentration? Population concentration has its own logic and is not a mechanical consequence of aggregate growth: some of the world's largest urban agglomerations are located in sparsely populated countries. The authors seem to argue against concentration, but the disease threats that they associate with population settlement patterns actually derive from quite disparate processes. While it is true that population concentration favors the propagation of some diseases, the hanta virus and lyme disease, which the authors mention, are actually associated with population deconcentration. The incidence of infectious hepatitis in the USA also varies inversely with population density. As for HIV/AIDS, incidence in Africa is roughly equal in urban and rural areas, whereas in India it is now increasing most rapidly in the countryside (FAO, 2000). Cities still have the best health indicators, to say nothing of the economic and environmental advantages of settling a large number of people in a limited space.

The paper's view on technological development is also surprisingly gloomy. True, the Industrial Revolution was bad news for the environment, but increased awareness of pollution and resource limitation has changed the view on technology. A leading idea in environmental policy nowadays is to *decouple* growth and the burdening of the environment (e.g. Weizsäcker, Lovins and Lovins, 1997). With a fixed emission-output ratio, growth will further burden the environment but if technology can change that ratio, growth may promote reduced environmental stress. This process is not automatic, as the environmental Kuznets curve literature seems to suggest, but judicious constraints and incentives may steer it into the desired direction. In the case of the phase-out of CFKs and the reduction of SO₂-emissions, new technologies reduced the environmental burden, without compromising consumption levels. These are only examples, but they do show that not all technological development hurts the environment. In the early 1970s, the Club of Rome predicted a fast exhaustion of resources if growth were to continue unabated. Growth continued, but due to technological development again, the availability of most resources has never been greater.

Another general feature of the paper is to blame everything on a lack of understanding and leadership. This ignores the possibility that people are informed but have different preferences than the authors. It also ignores the possibility that people share the same preferences, but current institutional arrangements do not invite them to act accordingly. Consider the example of climate change. Within the framework of the IPCC, at least at the government level, people are well informed and conscious about the possible effects of global warming. However, governments do not necessarily take strong measures to reduce the emissions of greenhouse gases. The reasons are threefold. First, a change in climate is not only negative: advantages may occur for agriculture at higher latitudes. It also proves to be very costly to reduce the emissions of greenhouse gases, and the trade-off between costs and benefits differs widely among countries. Second, when the possible effects will occur and to what extent is highly uncertain. As long as the potential damage is limited and risk aversion low, it can very well be explained that strong measures are omitted although one is well informed. Third, climate change is a global problem and requires international agreements. If benefits to other countries are ignored, any one country may opt to refrain from acting. Even if an agreement is reached, individual countries have an incentive to deviate and to have the job done by others. The challenge is to design stable international agreements, with sufficient signatories to be effective (e.g. Barrett, 1994).

We agree that the current political mechanisms are too weak to handle the environmental problems of this new century. Not only at the international level, but also within countries environmental issues are weakly integrated into the regular political process. What is needed is a balanced assessment of the costs and benefits, a visualization of explicit choices, and political mechanisms to build and implement policy with a broad support. Focusing, as it does, on the downside of change, the paper lacks such an assessment. It reflects a strong view on which development path “should” be followed and how to “guide” society to do so, but it lacks a balance in the assessment of the pros and cons of this scenario vis à vis other possible development paths. The issues are also changing. Neither the population issue nor the resource issue are the same as 30 years ago. This

requires constant adjustments of the analysis, which is another reason why this paper may not have the impact it aims for. This is unfortunate because the environmental problems are real and important and need a prominent place on the political agenda.

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