LETTER

Is failure to develop due to fundamentally different economic pathways or simply too much population growth?

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With development and stability teetering in many African and western Asian countries, new insights into barriers to development are always welcome. However, this field is full of false leads. One example is the recent claim of Cumming and von Cramon-Taubadel (1) that countries are attracted to one of two equilibrium points in human development characterized by high or low economic dependence on primary production. Their thesis has at least three flaws that I identify.

First, they use a cross-sectional analysis to assert longitudinal trends. The 2014 peaks in frequency of the Human Development Index (HDI) among countries are asserted to be "stable attractors," toward which countries trend over time. However, no time series are analyzed. Defying such attractors, the HDI has risen steadily across developed to least-developed categories (figure 3 of ref. 2).

Second, they wrongly define ecological footprint as "per capita use of agricultural and grazing land both domestic and abroad." However, the Global Footprint Network (GFN) figures also include hypothetical forest area sufficient to draw down carbon emissions from burning fossil fuels (3). Such hypothetical forests are stateless; indeed, there is insufficient biocapacity on this planet to account for them, hence the GFN's conclusion that we are using 1.7 Earths per year. For developed countries, fossil fuels represent more than half of their footprint. While emissions have global impacts, they do not make low-footprint countries "providers of ecosystem services" or deprive them of the use of their natural resources. Many developed countries do draw on agricultural and grazing land abroad, but so do many less-developed countries. The biggest providers of internationally traded agricultural commodities are developed and middle-income, not least-developed, countries.

Third, they appear to confuse population growth rate with fertility (the average number of children per woman). They state "Population growth rates at both equilibrium points . . . are well below a typical population replacement value of ∼2.3" and, hence, "[low HDI countries] cannot improve wellbeing simply by regulating population growth." Of course, the "replacement" rate of population growth is zero. Through this error, they dismiss the single most reliable means of improving wellbeing. All of the low-HDI countries have high population growth, halving natural resources per capita each generation.

If there are two clusters of countries with respect to the HDI, it might be better explained by the abandonment of interest in lowering population growth rates in recent decades. Those countries that achieved low fertility by the mid-1990s have advanced considerably since. Economic development did not drive fertility declines; rather, it followed after family planning programs, enabled by slower population growth (4). Elsewhere, fertility declines stalled (5), and development efforts floundered against the tide of population growth, generating unemployment, ecological damage, overwhelmed infrastructure, and political instability (6). Cumming and von Cramon-Taubadel (1) identify oil/mineral-rich countries as a third group, capable of strong development. However, if they fail to stem population growth before mining revenues drop, these countries risk unsupportable import-dependence and instability. Will Kazakhstan be the next to follow Egypt, Syria, and Yemen? Renewed family planning efforts in Ethiopia, Rwanda, and Egypt are promising trends. But uptake in other countries is undermined by ill-founded dismissals of their value.

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