

The Science of Economics

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1. Environmental effects of population

Populations merits a separate chapter because one of the major social phenomena today is the rapid increase in the human population on earth, and secondly, because the effects of the increase are controversial due to its complexity. The figures for population growth are indeed startling. From 1990 to 2025, the world's population will have increased by 3.2 billion, with projections that the peak will be from 11 to 14 billion people. However, figures on their own do not tell us the full story.

We can begin by separating the environmental from the purely economic effects.

The environmental effects, keeping other things equal are largely negative.

- First, human populations crowd out wildlife, destroying its habitat and competing for sites and food.
- Secondly, with more people there is greater competition for areas of natural beauty, which are mostly fixed in supply. There is only one Yosemite National Park, and only so many miles of good beaches. More people implies either greater crowding or else a higher entrance fee.

The effects on wildlife can be dealt with by, first, establishing wilderness reserves where there is little or no human activity other than camping. This can be done both by government and by private initiative, by buying and preserving land, as the Nature Conservancy and other conservation organizations are doing. If there is CCR, the community collection of land rent, then such reserves would also pay the rent charge, but the government in turn would spend that rent on the reserve, to preserve it, so the payments can cancel out.

In addition, as noted in Chapter 13, any destruction or using up of wildlife and the world's genetic endowment would be subject to a charge, which would reduce the damage. Another approach would be to also permit the private ownership of wildlife, such as whales, and then the owners would be legally entitled to compensation for any destruction of the wildlife and would receive the revenue from its sale. Humanity as a whole or some community would also have a residual ownership, so the owners themselves would be subject to charges for the destruction of wildlife and habitat.

2. The economics of population

The general belief persists that wage levels, especially in the less developed countries, are the result of a population that is growing too fast.

Thomas Malthus fathered the doom-laden demography thesis: that unrestrained population growth leads to poverty and hunger. His conjecture was that population tends to grow geometrically, since with a certain percentage annual population growth, it keeps doubling in the same time period. But, according to his projection, the growth of agriculture is arithmetic, growing by the same absolute amount during each time period. For example, population may grow like 10, 20, 40, 80, while agriculture grows like 10, 20, 30, 40. Without birth control, population runs into the limits of natural resources and gets controlled by deaths.

David Ricardo contributed to the explanation: an increase in population will lead to migration to lands with lower productivity, lowering wages, as discussed in Chapter 2. Henry George pointed out that the land tenure system also affects the margin of production, since if land is used suboptimally, the margin will be less productive than needed for that population. But George went beyond this to show that the Malthusian scenario does not necessarily hold. An increase in population can also have increasing returns, boosting per-capita output with better organization and a finer division of labor. More knowledge and technology can be used, as greater populations result in economies of scale with mass production.

If the earth were running out of natural resources, the price of commodities such as metals and grains would be increasing. Instead, their prices relative to manufactured goods has decreased. Population has negative effects on the natural environment, but it is by itself not necessarily an economic problem. Also, the evidence shows that as people become wealthier, they tend to want fewer children, so the best antidote to excessive population growth is economic growth that increases family incomes.

3. Economic growth and development

Economic growth is an increase in the total output in an economy. Economic development is an increase in the material standard of living in an economy or an increase in the capital goods of an area. Development is usually measured as per-capita gross domestic or national product, but if the development is highly unequal, per-capita income can increase without affecting much of the population. A more refined measurement of economic development is per-capita income divided by an inequality index, such as those discussed in Chapter 9.

Three key problems in less-developed countries (LDCs) are poverty, unemployment, and environmental destruction. Out of the gross global product of US \$20 trillion (thousand thousand million) in 1990, less than \$3.4 trillion was generated in less-developed countries (Todaro, 1994, p. 39). Agriculture has been measured as 35 times more productive in North America as in Asia and Africa (p. 51). The elimination of these gaps is the principle aim of economic development. There are also internal gaps in many LDCs, which often have a more modern sector in the cities and a more traditional, lower-wage agricultural sector.

The conventional theory of economic development centers around the Harrod-Domar growth model, which emphasizes the additions to the stock of capital goods. There is some capital-output ratio, $k = K/Y$, so that a certain increase in capital goods K will induce an increase in output Y . There is also some proportion s of national output that is saved and therefore invested rather than consumed. Therefore, the growth rate (annual change in Y divided by Y) is equal to s

s/k , the proportion of income or output saved (s) divided by k . The implication is that development depends on how much capital is added each year.

Much developmental aid followed this theory, pumping massive amounts of capital into the Third World to build dams, roads, steel mills, factories, as well as machinery, resulting in colossal national debts to foreign banks and international lending agencies such as the International Monetary Fund and the World Bank. The problem, of course, is that capital goods are heterogeneous, and there is no uniform capital/output ratio. A gigantic dam will also disrupt the lives of hundreds of villages, destroy forests, and flood a great deal of farm land, and its expected life is often far less than originally projected, due to its filling up with silt. Many of these projects, being government to government, are subject to political influences at both ends, not to speak of funds being siphoned to corruption. Also, capital goods require complementary human capital, skills in using them. But a key problem in this model is also that it omits the role played by land in development.

The causes of these problems in LDCs are the same as in the more-developed countries (MDCs), but more evident due to the prominence of primary industries: agriculture, fishing, and mining. The typical land tenure in LDCs is the ownership of much of the land as large estates by a few land owning families, who are closely connected with the military and government. The farmers typically rent or own small plots of land, and often must supplement their subsistence crops with income earned in commercial plantations, where coffee, bananas, and other crops are grown for export. Women are usually dominated by men, who control much of the property. Wars, and civil strife, and oppression have made sheer survival the main priority of many of the people in these countries, as malfunctioning economies feed political instability, which then prevents development.

LDCs have less capital and less technology, but this can be remedied by investment. But the governments of most LDCs have placed barriers against investment. High taxes, legal restrictions, complicated permit requirements, and massive bureaucratic procedures have stifled domestic and foreign enterprise. Often, corrupt government officials require a bribe to obtain a permit. Some governments impose costly and time-consuming visa requirements for foreign visitors, or make travel impossible. Unemployment in LDCs as in MDCs is caused by such barriers between labor and resources. In many cases, people are not officially listed as employed, but work anyway in the informal or underground economy, without paying taxes and bribes or getting permits.

In Eastern Europe and in some LDCs, organized crime plagues enterprise, making businesses pay protection money. The government, including members of the police and border guards, are often allied with the racketeers and share in the loot. A truly free economy cannot be established unless such crime and looting is rooted out.

As explained in Chapters 2 and 9, poverty is caused by low wages at the margin of production - low productivity on the worst land being used. The remedy is to both increase productivity at this margin and to move the margin towards more productive land. The community collection of the land rent will induce the most productive use of land, so that the margin will be at the best available unused land. The removal of taxation on labor and enterprise will then enable workers

to keep the full product of their labor and will encourage investment in more productive enterprise. The removal of restrictions will also enable farmers and small business persons to obtain credit and create enterprises.

Those countries which have developed have had relatively free-market oriented policies grounded initially in land reform. Japan in the 19th century and Taiwan after 1950 removed the old aristocracy and turned land over to the farmers, combined with a substantial tax on the land rent. As Fred Harrison (1983, p. 154) states, "within two decades Japan had completed the transition to modern economic growth and was ready to take on all comers!" Land rent was used to develop the infrastructure, which further increased productivity and rent. Funds from agriculture were used to develop export-oriented industry. This is essentially the economic model and theory of the French physiocrats of the 1700s (see Chapter 19), who originated the first model of economic development, a model that in its essential elements has had the best actual success.

The engine of development is the desire of individuals to improve their lives. The prerequisite to development is therefore the establishment of a pure market economy, where labor has equal access to natural resources and is able to keep its product, thus having the incentive to invest much of it for future gains. With freedom also will come a sea of foreign investment seeking the most productive fields.

And of course, those peoples who do not wish to change their way of life, particularly the primal and tribal peoples in the rain forests and the nomads of the deserts and dwellers of the Arctic - they have the right to continue their cultures unmolested by the onslaught of commercial nature-wrecking development. Human beings did not start out poor, hungry, needing development. Primal man had natural wealth from the bounty of nature. Only after humanity turned to agriculture and conquerors took the land did the brave hunter become a lowly peasant working for a wage pittance from dawn to dusk while the lord dined on wine and game hens under chandeliers. Only after the descent to serfdom does development beckon with the promise of increasing productivity. And then, unless workers are liberated from bureaucracy and taxation, and unless the yields of land are shared by the community, the road of development will be a long, hot, stony journey.