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## It Is People Who Use Energy

Seldom are public policies constrained only by scientific and engineering limitations; they are also limited, consciously and unconsciously, by social norms. Solutions to the energy problem, for example, usually take one of two forms: to conserve energy, or to increase or at least maintain the total supply. Both approaches fit prevalent, if conflicting, moral attitudes, and so find ready justification. Finding and harnessing more energy fits the modern ethic of "development," and conserving energy fits the asceticism of major religions. A third approach—stopping or reversing population growth—is seldom treated as a part of energy policy, mainly because the effective means required would offend deep sentiments.

The cost of neglecting the third approach is illustrated by the United States. Between 1955, the last time we produced as much energy as we consumed, and 1978, our energy consumption rose 99 percent. More than a third (38.3 percent) of that increase was due to population growth—52.6 million in the 23-year period—the rest being due to rising per capita consumption. Since very little manpower is required to produce energy (less than half of 1 percent of the labor force), the growth of population contributed nothing to the production of energy but did contribute greatly to its consumption. According to the Census Bureau's medium projection, our population in 2000 will be 38 million greater than it is now. In that case, our energy supply will have to rise by 17 percent in two decades just to maintain per capita consumption, or per capita use will have to be cut by one-sixth to hold total consumption to the present amount.

The entire world's population is growing more rapidly than ours—currently about 75 million annually. By the year 2000, the projected human population will be 2.3 billion greater than it is today. This relentless expansion is the main cause of the rising worldwide consumption of energy—recently 3.5 percent per year.

It follows that stopping or reversing population growth could play a major role in solving the energy problem. When we take into account the environmental problems that heroic efforts to increase the total energy supply will entail, or the human problems that reducing average per capita consumption throughout the world will bring, we conclude that population control is not only a desirable but also a necessary part of any effective energy policy. To "solve" the energy problem otherwise is like fixing a leaky roof by putting more containers on the floor.

The U.S. government is inconsistent when it gives priority to energy independence, and at the same time admits each year hundreds of thousands of immigrants. With 232,000 refugees being admitted by special dispensation in 1980 and 217,000 in 1981, in addition to regular entrants and illegal immigrants, approximately one-third of our population growth—probably some 700,000—is now due directly to immigration.

Clearly, our attitude toward population is still normative rather than instrumental. We confuse favoring fewer people with being inhumane, whereas the greatest inhumanity is to bring into the world children whose probable fate is extreme deprivation. Historically, and for good reason, social norms favored having many children. These norms are now inappropriate, but we still construe energy policy as producing or saving energy for however many people there are, not as producing fewer people so as to give each one as much energy as he or she needs.

Yet it is people who use energy. With fewer people, less energy is needed. This may seem obvious, but so far we have tragically postponed acting on it. Only when things have reached an extreme impasse, as in contemporary China, does population control become part of the solution to the energy problem.—KINGSLEY DAVIS, *Fellow, Center for Advanced Study in the Behavioral Sciences, Stanford, California 94305*