

Curriculum Units by Fellows of the Yale-New Haven Teachers Institute 1998 Volume VII: The Population Explosion

Introduction

The world's most critical problem is now its population explosion. The earth's population is growing faster than ever before, increasing by a billion people every dozen years. We know that, in the next generation, the world population will nearly double. Our environmental, economic, political and social systems are severely stressed by our population levels. 97% of the population growth is occurring in still developing countries which already suffer from high degrees of poverty, disease, illiteracy, discrimination against women and political instability.

Simultaneous with the population explosion is an unprecedented decline in fertility rates. Surveys all over the world indicate overwhelmingly that women do not want the large numbers of children that they are having. In many countries, especially in East Asia and Latin America, family planning is being adopted with amazing speed. In other countries, the situation is not so fortuitous. For instance, in Kenya, half the women say that they want NO more children. Yet these same women often don't use birth control, even when it is available.

The world is thus in a great race between an exploding population and human attempts to bring down fertility. Given enough time, humans can eventually tame the population explosion, but no one knows how long the race can go on. As the population increases, we don't know how much the earth can take - at what point do its ecological systems, its social systems, its political systems just crack under the stress and give way to chaos?

Our seminar dealt with both the heartening and heartbreaking aspects of population growth. We studied how progress in combating disease and infant mortality ushered in the era of population growth. Yet we also dealt with the human and environmental misery that is caused by overpopulation. For the future we looked at the technological and economic advances that may allow us to keep up with, and even improve, the lot of an increasing population.

In the seminar, teachers in various areas viewed the material from their perspective. For history we discussed what has happened to human population in the past - why did it grow at some times and shrink at others - how the black death cut the population of Europe in half and the introduction of the potato from America doubled it. For mathematics teachers there were many wonderful graphical presentations of demographic trends that can really be used to teach students how to understand visual presentations of quantitative material. In addition we looked at how population growth follows the same rules as compound interest or exponential growth. For geography we had all the countries of the world to consider, each one of which has unique population problems. For biology we discussed reproductive physiology as well as population pressures on the environment. For social studies we approached all the political, religious and ethical issues surrounding fertility.

The literature of this field includes some of the most appealing here is for teenagers. Seminar participants

read a story about a child servant in Malaya who is accused of murder, a biography of an Egyptian adolescent going through her awakening as a person, descriptions from Brazil, India and China about mothers who are forced by poverty to sacrifice their children. Other stories describe people living on mud islands in Bangladesh that are periodically washed away by the monsoons, or subsistence farmers in Madagascar who are chipping away at some of the last tropical forests.

In the seminar we got to argue all the 'hot button' issues of the current American war over 'values': families, sexuality, teenage pregnancy, contraception, abortion and the status of women. This topic allowed us to discuss some of the most serious and complex problems facing humanity today.

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