

# Environmental degradation essay sample

[Literature](#), [Russian Literature](#)



Fast population growth and global environmental transformation is two subjects that have received considerable public thought over the past several decades. Population boost become a global public policy issue during the mind twentieth century as mortality declines in many developing nations were not matched with reductions in fertility resulting in unprecedented growth rates.

Since Population size is naturally linked to the environment as a result of individual resource needs as well as individual contributions to pollution. As a result, population increase yields heightened demands on air, water, and land environments, because they offer essential assets and act as sinks for environmental pollutants.

Concern with environmental change has come to forefront primarily since 1970, with discernible levels of environmental degradation fuelling public concern with the scope of contemporary environmental transformations and the advent of satellite imagery aiding environmental research (Colombo B. et all 1996).

At the present date are estimated roughly 6. 5 billion people in the world and the figure continues to multiply. In contrast there are a restricted number of natural resources. On the worldwide root the human population has revealed a J shaped pattern (fig 1 and 2) of escalation over the past years, while the availability of natural funds are mandatory for human survival is in slow decline (Cohen J. E. 1995).

Fig 1 Human population growth till 2000 (2)

Population policies which gears to reduce future growth represent logical responses to the environmental implications of population size (Stern et al 1995) although fertility diminution cannot be seen as sufficient response to contemporary human induced environmental change. A decrease in human numbers does not necessarily suggest a decrease in environmentally significant behaviours.

In addition, supposition that each further individual has an equal impact on resources is too simplistic. Factors related to both the individual and to the social and environmental contexts will determine the ultimate nature of the relationship. For instance, the cultural context into which an individual is born will influence that individual's relationship with the environment empirical evidence suggests that a child born in the United States will produce 10 times the pollution of a child born in Bangladesh (Stern et al 1995). Much of this is the product of consumption patterns where income focused life routine changes increase the amount of energy and materials consumed. One study suggests that, on average the Environmental Implications of Population Dynamics age, each American devour more than 50 kilograms (approximately 110 pounds) of material per day, excluding water. The vast majority of this includes the materials required for the production and distribution of consumer goods (1).

Fig 2 Estimated world population growth according to main fertility scenario (UNFPA 1997)

The trends in fertility and mortality combine to yield the population projections presented in Figure 2. According to medium-fertility projections

by the United Nations Population Division, world population could reach 8.9 billion in 2050 and may ultimately stabilize at nearly 11 billion around 2100. This represents a near doubling of the current world population (UNFPA1997).

The alarming ecological effects of population size are certainly not new. British economist Thomas Malthus (2) presaged of the “ sustainability” of unrestricted population growth more than 200 years ago, arguing that human population has a tendency to exceed the ability of the environment to provide subsistence. In particular, Malthus suggested that unrestrained population growth would exceed the ability of the Earth to provide sufficient provisions (2). Although this viewpoint has been criticized for its simplistic focus on population size as the sole driving force in resource change. Malthus initiated a debate on carrying capacity and his influence maintains today (2). Many contemporary population oriented interest groups focus on population size as the determining factor in environmental degradation (Campbell, M. M. 1998).

Fig 3 Land requirement estimation for food production (Meadows et al., 1992)

Global population size is inherently connected, through development, to land, air, and water environments as I said previously. While the scale of resource use and the level of wastes produced vary across individuals and across cultural contexts, the fact remains that land, water, and air are necessary for human survival.

As for resource consumption, two commonsense points can highlight the implications of population size and growth. First, each person evidently requires food, the production of which typically requires land for agriculture or other forms of nourishment production. Globally, about 1.5 billion hectares are cultivated for agriculture, representing the most suitable of an estimated 2 billion to 4 billion hectares characterized as cultivable (Southwick, 1996). To consider future land requirements in the face of increasing human population, Figure 3 above presents the hectares required to meet the food demands of projected global population, assuming constant per capita production. Although there has been an excess of potentially cultivable land throughout human history, the exponential growth of human population has accelerated the pace of land use change. Hectares required for global food production now fall near the lower limit of estimated cultivable hectares (Meadows et al., 1992), which implicates in deforestation.

In recent years, there has been a focus on the relationship between population and land use change. For example, Allen and Barnes (1985) surveyed population and deforestation data for 76 tropical countries using statistical correlation. They also examined multiple regressions of deforestation against other variables such as arable soil, round wood production, and gross domestic product. Their analysis suggested a low, but significant, correlation between population growth rates in the period 1970 to 1978 and deforestation reported for the period 1975 to 1980 from the FAO Forest Assessment (Lanly 1982). They concluded that population growth was the cause of deforestation globally.

Water represents a second commonsense link between population size and resource use. It is central to the ecological cycles on which we depend and is used by humans for consumption as well as agricultural and energy production. Global water use has tripled since 1950, now standing at between 3, 500 and 4, 500 cubic kilometers per year (Goudie et all 1997;). Global water consumption raised six fold between 1900 and 1995, more than double the rate of population growth. In the United States, daily per capita water consumption is currently about 185 gallons for domestic tasks (drinking, cooking and washing) (Sherbinin A. d. et all 1998).

Population size relates not only to the consumption of environmental resources, but also to the environmental pollutants associated with contemporary production and consumption processes (example of this is use of gas in U. K.). Air, water, and land environments all act as sinks, or repositories, for the pollution generated by production and consumption. To toll this, migration could be part of Population size as well as large movement of people from rural to urban areas or international migration in most developing countries has led to a growing number of mega cities that have in many cases overwhelmed the environmental resources.

The many dimensions of industrial processes make it impossible to generalize about the exact relationship between global population size and pollution. However, researchers have estimated the effect of population size for particular types of pollution in particular locales. Consider air pollution in London. Automobiles, factories, landfills, and airports contribute to local air pollution levels. In a simple sense, population can be related to each of these

factors: more people, for instance, means more demand for the consumer goods produced by emission-generating factories. Yet the underlying relationships are not so simple—climate, pollution control legislation, and the technology used to produce goods all combine to determine air quality. To monitor some of these interactions, Cramer (1998) determined level associations among emissions, population size, and regulatory efforts in California, and other associated factors.

Results suggest that a 10 percent raise in population produces an increase in emissions of 7.5 to 8 percent, although population growth has different effects on different types of pollutants (Cramer, 1998). Local population growth is important mainly as a determinant of the volume of consumption. More people, for instance, typically mean more vehicles in the road, which raised concentration of pollutants, such carbon dioxide in the atmosphere giving evidences of global warming. Average global temperature rose by 0.6 per cent in the 20th century and the 1990s was the hottest decade since records began and 2002 the second hottest year on record.

We know that the population growth will not stop globally the trick is to channel growth in such a way that it becomes a vehicle to protect the environment, build better communities, address air quality and congestion issues as we see in London on rising road toll taxes. Not just rising toll taxes but also empowering technologies to advance to improve environment in the edge of falling. And also there is a need of international community to come together to solve this big issue.

To conclude the human population size implication in environmental are obviously complicated and can sometimes be controversial. While some view population growth in developing regions as the primary culprit in environmental decline, others focus on the expensive environmental effects of consumption among the developed nations. Such differing emphases can lead to a disagreement about the most effective and equitable policy solution slow population increase in less-developed nations or lessen destructive production and consumption patterns of the more-developed nations. Such a debate, however, presumes that a one-step solution to the complex realities of the relationship between population and the environment exists. As demonstrated by the foregoing discussion, both population growth and consumption play a role in environmental change and are among the many factors that should be considered and incorporated in realistic policy debate and prescriptions.

In the end, many causes underlie contemporary environmental degradation, and only some are demographic in nature. Yet population does matter, and increased attention to the environmental implications of demographic dynamics can improve policy capacity to respond to contemporary environmental change.

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