Population pressure has been identified as the major force for environmental change in the twentieth century.\(^1\) Yet, while macrolevel analysis of the interaction between human populations and the environment demonstrates that population dynamics relate to environmental change, the correlation does not always originate from a direct causal relationship. Moreover, the relationship between population pressure and environmental change and the outcomes of change is not necessarily linear. Rather, the impact of population density on a forest environment is ambiguous and multifaceted. \emph{Where} and \emph{how} people impacted on local environmental resources was as important as \emph{how many} people affected the environment of north-central Namibia.

Malthus argued that population increased at a far greater rate than food production, and neo-Malthusian analysis identifies population growth as the principal cause of deforestation in Africa, Asia and Latin America. Boserup and others, on the other hand, stress that population growth can have the opposite effect because intensification and technological innovation can permit the same resource base to support a larger population without environmental degra-

Both approaches portray ‘population’ and ‘forest’ as undifferentiated and organic entities. Moreover, the relationship between the two variables is depicted as being a mechanical, linear, one-way and unequal interaction, i.e., human populations are dominant and act upon the forest. The population pressure model to some extent approximates cultural determinism, as opposed to environmental determinism. The underlying causes of population growth, however, sometimes are couched in terms of biological determinism; for example, in *The Population Bomb* Ehrlich writes: “our urge to reproduce is hopelessly entwined with our other urges”. In essence, while humans (or Culture) are advanced as the cause of environmental change, they are not really considered to be independent agents; rather, they are hostages to biological urges.

Malthusian and Boserupian explanations are particularly influential in the case of modern Africa because the continent has the highest rates of natural population increase. Two issues, however, complicate matters. First, a number of the African countries that are listed amongst those with the highest deforestation rates, including Gabon, Congo (Brazzaville) and the Democratic Republic of Congo, are underpopulated. Second, research suggests that Africa’s population began to grow only in the 1940s or 1950s, although environmental degradation related to population growth, notably deforestation and soil erosion, became major concerns in the late 1920s and the 1930s. Population movements, however, led to the relative redistribution of the existing population, with concentrations of

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