

Resource scarcity, of either renewable or nonrenewable resources, is a broader concept than environmental degradation. Scarcity often, but not necessarily, implies some type of environmental degradation. Moreover, identifying scarcity is quite difficult. This occurs as scarcity is partly a sociological response, as a given per capita level of a commodity may be considered low by one individual or group and adequate by another.<sup>4</sup> Moreover, the distribution of goods amongst different groups in society, perhaps on an ethnic basis, can contribute to scarcity in one or more of the groups. Consequently, to clarify our understanding of "environmental refugees" some typology is needed to distinguish between the types of environmental factors or conditions that are contributing directly or indirectly to migratory pressures.

### A Typology for Environment and Migration

It is readily apparent that each of the four categories below is often interrelated with the other categories. Nevertheless, certain central features or identifiable factors are discernible in each category. The interconnectedness of the four categories is also relevant for policy analysis. This typology illustrates that the environment is seldom the single identifiable cause of migration. More often a complex combination of political, economic, social and environmental factors are present. Unfortunately, there are little data on the causal relationships between this group of factors and population movements.

1. **Natural Disasters.** Natural disasters include such events as earthquakes, volcano eruptions, and droughts or other catastrophes generated by adverse weather. Such events can quickly cause pressures for populations to escape the adverse effects. Yet natural disasters are not without a human element. Increased population and the distribution of people may contribute to a higher occurrence of natural disasters, as well as to such disasters affecting an increasing number of people. For example, building on flood plains or in earthquake zones raises the likelihood and seriousness of

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<sup>4</sup>This is the concept of "relative deprivation". Relative deprivation occurs when people perceive a gap between the level of their well-being, often defined by economic indicators such as per capita calory consumption, and the level they believe they deserve. Deprivation is therefore relative to some individually determined subjective standard. The basis for relative deprivation need not be environmental as, for example, ethnic and racial factors may be seen by individuals as the primary cause of their deprivation. For a discussion of the security implications of inequity, see Samuel D. Porteous, "Equity and National Security," Commentary, No. 37, Canadian Security Intelligence Service, 1993.