

CONCEPTUAL FRAMEWORK

The context specific to each case determines the precise relationship between the scarcity of renewable resources — such as cropland, water, fuelwood, and fish — and outbreaks of violent conflict. The quantity and vulnerability of environmental resources influence the activities of a society's population and determine the environmental impacts of these activities. Contextual factors also include the balance of political power, patterns of interaction and the structure of economic relations among social groups.

There are three types of environmental scarcity: (1) supply-induced scarcity is caused by the degradation and depletion of an environmental resource, for example, the erosion of cropland; (2) demand-induced scarcity results from population growth within a region or increased per capita consumption of a resource, either of which increase the demand for the resource; (3) structural scarcity arises from an unequal social distribution of a resource that concentrates it in the hands of relatively few people while the remaining population suffers from serious shortages.

These three types of scarcity often occur simultaneously and interact. Two patterns of interaction are common: resource capture and ecological marginalization. Resource capture occurs when increased consumption of a resource combines with its degradation: powerful groups within society — anticipating future shortages — shift resource distribution in their favor, subjecting the remaining population to scarcity. Ecological marginalization occurs when increased consumption of the resource combines with structural inequalities in distribution: denied access to enough of the resource, weaker groups migrate to ecologically fragile regions that subsequently become degraded.²

The three types of scarcity and their interactions produce several common social effects, including lower agricultural production, economic decline, migrations from zones of environmental scarcity, and weakened institutions.³ The first two of these social effects can cause objective socio-economic deprivation and, in turn, raise the level of grievance in the affected population. High levels of grievance do not necessarily lead to widespread civil violence. At least two other factors must be present: groups with strong collective identities that can coherently challenge state authority, and clearly advantageous opportunities for violent collective action against authority. In other words, for grievances to produce civil strife such as riots, rebellion and insurgency, the aggrieved must see themselves as members of groups that can act together, and they must believe that the best opportunities to successfully address their grievances involve violence.

² Thomas Homer-Dixon, "Environmental Scarcities and Violent Conflict: Evidence from Cases," *International Security*, Vol. 19, No. 1 (Summer 1994), p. 10-11.

³ Thomas Homer-Dixon, "On the Threshold: Environmental Changes as Causes of Acute Conflict," *International Security*, Vol. 16, No. 2 (Fall 1991), p. 91.