

*Socio-ecological models of violent conflict*

The preceding discussion was concerned with the different types of scarcity. Now, the question remains to be answered how these different types of scarcity are related to violent conflict. As a starting point for the construction of testable hypotheses will serve the distinction between partial and total scarcity.

First, partial scarcity is the result of unequal access to resources. A society exhibiting this trait can be seen as consisting of two or more subgroups, which make up different positions in a hierarchical system. It is these subgroups within which values and expectations regarding the access to resources are shared (Boone 1983; Schmink 1982; Little 1987). They can be regarded as the main institutional setting determining group formation and subsequent violent collective action, especially if scarcity occurs. The reason is that a subgroup ranking low in the hierarchy can be expected to adopt other, different strategies than its privileged counterpart. To leave the sphere of influence of the dominant group may be one solution for the commoners, and in fact fission seems to have been the most common reaction to such situations (Hammel and Howell 1987; Jochim 1981: 192; Maude 1973: 178). If no empty lands are available, violent conflict with the goal to secure more resources may be the alternative. Here, three different types of violent conflict can be distinguished, regarding to who will initiate aggressive acts. First, the dominant elite may try to forcefully expel the weaker part of society (Jochim 1981: 192; Little 1987; Schmink 1982). Second, the poorer strata may try to coercively drive out the elite (Schryer 1987; Friedrich 1970). These two forms refer to violent conflict within the society. The third option is external violent conflict (Mittra 1971: 101). This may be a probable solution if either the dominant elite or the commoners consider themselves too weak to accomplish the expulsion of the other group, that is, the costs of such an action would be much higher than its benefits. As the weaker subgroup's need to solve the resource deficiency remains, it may regard aggression against neighbouring groups as the less costly alternative. On the other hand, as such an action will lower the threat of losing their own positions, the dominant group will strongly support, if not even instigate such attempts (Boone 1983: 81):

"(...) territorial expansion does not necessarily arise as an adaptive response to solve productive deficiencies facing the population at large: expansionist warfare often results from attempts by individuals or coalitions to maintain control by directing the competition of their immediate subordinates away from themselves and against neighbouring territories".

Second, total scarcity has been attributed to groups with distributional flexibility. Here, every member of the society has to suffer deprivation to the same extent. But the diminished supply may be sufficient to make a living for a longer time than the deprived part of a society with partial scarcity could afford. Hence, the resort to collective violent action will become necessary only if the total supply of the resources in question is too low to guarantee every member at least the minimum share necessary for