

degradation, with less serious attention given to domestic causes.

The timeframe over which a specific type of environmental degradation occurs, or more correctly has the potential to occur if appropriate policy responses are not taken, influences the relationship between the degradation and national security concerns. While the most potentially devastating environmental problems are global in nature (e.g., ozone depletion, potential climate change), it is not clear that this set of issues is the most important with respect to potential causes of violence over the next decade or two. The most likely candidates for causes of violence over this period are water and local land degradation. Problems related to fresh water, in particular, may contribute to interstate conflict.<sup>18</sup> While climate change may be the most serious threat over the longer term, the most immediate threat to national security may be conflict arising from the degradation of the fresh water supply. Many bodies of fresh water cross international borders. Increased demand for water may add or create tension over upstream pollution control. Moreover, having degraded ones own supply, a country may begin to look elsewhere for the resource.

The difficulty with placing a timeframe on types of environmental degradation is that environmental change is not linear. The environment does not change at some constant incremental rate. Nor does the scientific community have the knowledge to predict accurately how the environment will change. Perhaps ozone depletion can continue for considerable time before any serious effects occur; conversely, depletion levels may reach some critical threshold in the near future and result in radical environmental change. The nonlinear nature of environmental stress means that caution is required in assessing what types of environmental deficiencies are most likely to contribute to national security concerns, and require policy responses, over a given period of time.

#### 4.4 A Conceptual Framework

The following paragraphs will set out a conceptual framework for facilitating and simplifying the understanding of the nature of environmental stress-national security linkages.<sup>19</sup> The intellectual transformation of environmental stress, the

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<sup>18</sup>Conflict over the degradation of fresh water is likely to be intricately linked with more general water scarcity issues.

<sup>19</sup>The conceptual framework draws upon analytical work by Thomas F. Homer-Dixon, "On the Threshold: Environmental Changes as Causes of Acute Conflict", International Security, Fall 1991, Vol. 16, No.2., pp. 76-116.