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Courtney Brown*, polscb@emory.edu, Atlanta, GA. *Warming, Non-linearity & Civilization's Decline.*

While many models of the environment address the subject of global warming, they tend to account for physical factors, such as atmospheric carbon dioxide concentrations. Yet these models have largely ignored the consequences of feedback resulting from the collateral damage done by global warming to governmental capability. This essay directly addresses this void in the literature by showing how governmental and civilization capacities in the context of appreciable global warming can be nonlinearly affected by dynamic system limits that are themselves dependent on the level of environmental damage resulting from global warming. Under plausible conditions, nonlinear feedbacks can encourage a simultaneous degradation and possible collapse of both civilization economic capacity and governmental response capacity, resulting in potentially dire global consequences. Recognizing these potentials now enables policy makers to account for such nonlinear complexities in a more complete framing of the global warming scenario that is currently confronting world leaders. (Received September 22, 2009)