In her paper, Valerie Percival uses the conceptual approach of the Project on the case of South Africa. In particular, she addresses the complexity of the causal linkages between environmental scarcity and violent conflict, and the various contextual factors which must be part of the equation are highlighted. In this framework of analysis, environmental scarcity includes environmental degradation. It can be demand-pulled (population growth), supply-pushed (desertification, deforestation) or structurally-induced (unequal resource distribution). Percival argues that environmental scarcity is not the most important cause of conflicts today, but we cannot afford to neglect its effects anymore. She holds that environmental scarcity interacts with political, economic and social factors. It may cause anxiety and frustration in a particular group in society, and these feelings could be translated into instability when channelled through a social structure which allows for mobilisation and segregation amongst groups of similar political, economic or social interests. In reference to the case of South Africa, the author draws attention to the high expectations which were derived from the reform process of the 1980s, and the enhanced legitimacy of the state after the election of Nelson Mandela, as other factors which exacerbated or reduced violence in the country.

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## **DISCUSSANT:**

## John Stone

John Stone is director of the Climate Research Division, at Environment Canada.

John Stone suggested that there are three elements to environmental security: distant early warning, national will, and the tools to do the job. Stone argued that science plays a large role in providing distant early warning. Scientists do this by monitoring the health of the planet (e.g. by measuring levels of carbon dioxide) and making hypotheses and models to make sense of the observations (He stated the examples of the global warming hypothesis, first propounded in 1896; or the model environment created by Environment Canada which is considered to be one of the best in the world and is capable of simulating the impact of an increase of carbon dioxide on climate). Stone claimed that scientists bring disturbing trends (such as the increasing levels of carbon dioxide) to the public's attention, estimating the size of the threat, when it will arrive, and how much it may cost to mitigate its effects.