

## **CLIMATE CHANGE AND SUSTAINABLE DEVELOPMENT CANADA – U.S.A. RESPONSES**

**James Bruce**

*Canadian Climate Program Borrad, Les Terrasses de la Chaudiere, Canadian Climate Center, Canada*

**Keywords:** UNFCCC, unsustainable trends, global sustainability, ICSU, C Sequestration, climate change

### **Contents**

1. Introduction
  2. A science-driven convention
  3. Post UNFCCC Actions in Canada and U.S.A.
  4. Implications for Sustainable Development
    - 4.1 Transportation: Unsustainable Trends
    - 4.2 Water Resources: The Climate Connection
    - 4.3 Agriculture and Forest Sectors – C Sequestration
    - 4.4 Climate-Related Disasters
  5. A global obligation
- Bibliography

### **1. Introduction**

Human-induced global climate change is an issue with profound implications for sustainable development in North America and elsewhere. On the one hand a rapidly changing climate could over-stress components of the natural and built systems. On the other hand, the measures related to energy use and production, transportation, agriculture and forestry needed to slow or arrest anthropogenic climate change could themselves have a large influence on economic and environmental sustainability.

The United States and Canada are central to the global emissions of greenhouse gases resulting in a change of climate. With only 5% of global population, they produce over 30% of the world's greenhouse gases of anthropogenic origin. Without their active participation, it would be difficult or impossible for the countries of the world to move effectively towards their goal of “stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system”, as agreed in the Framework Convention on Climate Change (UNFCCC, 1992), Article 2. U.S. and Canada's carbon dioxide emissions per capita, at 5-6 tonnes carbon are more than 10 times those of the Indo-Pakistan sub-continent and Africa, and double those in the European Union and Japan. (IPCC WG 111, 1996)

-  
-  
-

TO ACCESS ALL THE 10 PAGES OF THIS CHAPTER,  
Visit: <http://www.eolss.net/Eolss-sampleAllChapter.aspx>

### **Bibliography**

Apps, M.J., Price, D.T. and Wsniewski, J. (eds), 1995. Boreal forests and global change, Kluwer Academic Publishers, 548 pg.

Canadian Global Change Program, and U.S. National Research Council 1998. Atmospheric change and the North American transportation sector: summary of a trilateral workshop, Incidental report IR98-1, Royal Society of Canada, Ottawa, 24 pg.

International Institute for Sustainable Development (1998). A guide to Kyoto: Climate change and what it means to Canadians, IISD, Winnipeg.

International Joint Commission, 1999. Protection of the waters of the Great Lakes, interim report August 1999, Washington-Ottawa, 40 pg.

Intergovernmental Panel on Climate Change, 1996. Climate Change 1995, 3 Volumes, Cambridge University Press.

Karl, T.M. 1995. Trends in high-frequency climate variability in the twentieth century, *Nature* 377, 217-220.

Pacific Institutes, Gleick, P.H. et al., 1995. California water 2020, a sustainable vision, Oakland Calif. 113 pg.