

Abstract Submission for 5th Canadian River Heritage Conference

Title of Presentation:

A NATURAL CAPITAL ANALYSIS OF THE RED RIVER BASIN:
A SUSTAINABLE APPROACH FOR RIVER MANAGEMENT

Category: River Management

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Abstract

The management of healthy rivers requires a holistic approach to the management of natural resources within a watershed. The Natural Capital Approach is a means for identifying and quantifying natural resources and associated ecosystem goods and services leading to better decision making for managing, preserving and enhancing our natural environments. Identifying and quantifying natural capital and its ecosystem goods and services provides additional rationale for effective natural resources management. Consequently, the Natural Capital Approach is a bridging concept between natural resources management and sustainable development. “Maintaining natural capital stocks is a prudent and achievable policy for insuring sustainable development (Costanza & Daly, 1992, p. 37).”

The Red River basin is home to approximately 1 million people. Its surface area is 11.33 million ha (~10 million ha in the US, ~1 million ha in Canada) and consists of twenty-five major sub-watersheds. Land uses include agriculture, residential and manufacturing industries. The rivers in the basin are subject to significant nutrient loading which has been identified as a major cause of the eutrophication of Lake Winnipeg. Additionally, poor land use planning and developments have resulted in river overflows and flooding of residential areas. An analysis of the Natural Capital within the Red River basin is imperative to determine how best to manage the land base in order to reduce river nutrient loading and flooding. The restoration and enhancement of the Natural Capital within the basin provides an excellent opportunity for effectively and economically addressing the environmental threats that the rivers and people are experiencing in the Red River basin.

Biographical sketch:

Vivek is a Project Officer for the Sustainable Natural Resources Management team with the International Institute for Sustainable Development. He is currently working on developing a Natural Capital Approach for the sustainable management of watersheds. He holds a bachelor's degree in Chemical Engineering & Society from McMaster University, a Masters of Science from Royal Roads University and an International Master of Advanced Studies from the Graduate Institute of Development Studies. His graduate research initiatives include the development of a computer model to assess a watershed's water resource sustainability and a potable water project with a rural community in Madagascar.