

Backgrounder - The Real Wealth of the Mackenzie Region

This study is the first watershed-based natural capital review in Canada. Spanning 1.7 million square kilometres (or 170 million hectares), the Mackenzie watershed rivals the size and flow rates of the world's greatest river basins, including the Nile, Yangtze, and Amazon. The Mackenzie watershed is rich in resources, including vast deposits of conventional oil, tar sands, natural gas, timber and minerals. However, the economic value of the services provided by Nature - including clean water, carbon storage, wildlife habitat does not appear on Canada's national balance sheet or contribute to our gross domestic product (GDP), the conventional measure of economic progress.

This study provides a natural capital accounting for the Mackenzie watershed, including a total economic valuation of the market and non-market benefits of the watershed's natural capital. Natural capital is the ecological services provided by nature including water filtration, carbon storage, climate regulation, pest control, cultural benefits, recreational benefits and opportunities for a wide range of land uses.

The study's key findings:

- The market value of the Mackenzie watershed, assessed as the region's GDP, is estimated at \$41.9 billion per year, an average of \$245 per hectare.
- The non-market value of the watershed, assessed as the potential value of 17 ecosystem services produced by the region, is estimated at \$448.3 billion per year, an average of \$2,631 per hectare
- The ecological goods and services provided by nature (e.g., carbon storage, water filtration, water supply) in the Mackenzie contribute over 10 times more societal economic value than the GDP generated by natural capital extraction industries. This evaluation is not intended to undervalue the resource potential, but rather to temper its value in a broader sustainability context.
- The industrial footprint in the region covers 25.6 million hectares and the estimated cost of natural capital degradation from development is likely to be in the billions of dollars. This does not suggest that natural capital extraction should cease, but rather that there be a more prudent approach to future natural capital stewardship, so that valuable ecosystem services can be maintained while meeting human needs and economic development objectives.
- The stored carbon and annual carbon absorbed by forests, peatlands, wetlands and tundra are valued at an estimated \$252 billion in 2005, or 56 percent of the total estimated non-market value of ecosystem services.

The Canadian Boreal Initiative (CBI) commissioned this study to help decision makers—federal, territorial, provincial and First Nations governments— make informed stewardship decisions that balance broader ecosystem and cultural values with sustainable economic growth.