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The Cost of Climate Change

Every dollar invested in climate change action now avoids more than \$17 in future damages—GPI Atlantic

The costs of future climate change are so astronomical that even modest investments cutting greenhouse gas emissions now will produce huge savings in avoided damages in future.

Climate change economists estimate that each tonne of greenhouse gases we emit will cause at least \$38 in global climate change damages. When compared to costs of drastically reducing greenhouse gas emissions now, GPI Atlantic found that every dollar invested now will save at least \$17 in avoided future damage costs.

Nova Scotia has cut greenhouse gas emissions by 20% since 1990, mainly from electricity, through increased use of wind power, heat pumps, and efficiency measures. But Nova Scotians are also driving more, and emitting ever more greenhouse gases from cars and gas-guzzling SUVs. Every Nova Scotian still emits 18 tonnes of greenhouse gases a year – twice as much as West Europeans, 65% more than Quebecois, the fifth highest in Canada, and the fourth highest per dollar of GDP – 13% above the national average.

In Nova Scotia, climate change is predicted to increase extreme weather events, particularly hurricanes, floods, and droughts, and to flood low-lying regions round Halifax Harbour, Yarmouth and the Bay of Fundy due to sea-level rise, higher tides, and greater storm intensity, frequency and surges.

The Geological Survey of Canada projects a 75-centimetre sea level rise in Halifax Harbour this century. Nova Scotia's southern and eastern shores will see more erosion and coastal instability, and Environment Canada warns of potential saltwater infiltration into Nova Scotia groundwater, threats to communication links, and falling lake and groundwater levels.

GPI Atlantic has a new **Share the Earth** youth project. Students may also join the **GPI Climate Change Working Group** to help produce briefs like this one. Please contact <u>gwen@gpiatlantic.org</u> to sign up and check the GPI Atlantic Facebook Page for details of upcoming workshops.