



NORTH AMERICAN PAPER: A SUSTAINABLE CHOICE

In a global marketplace where paper is produced, bought and sold across many countries, North American paper can be a responsible choice. Sustainable forest management is well established relative to many other pulp and paper-producing regions. As a result, forest area has been stable to expanding and, in areas where forest is being lost, the leading causes of deforestation are agriculture, roads, hydroelectric and urban developments, not paper production.

The North American pulp and paper sector is heavily regulated and checked. Industry environmental performance continues to improve in terms of many key environmental indicators such as greenhouse gas emissions, energy use, effluent and air quality, and solid waste generated.

In addition to meeting evolving environmental regulations, many companies also go beyond regulations with their sustainability programs which are often outlined in annual environmental or sustainability reports produced either at the facility level, corporate level, or both.

Both the U.S. and Canada have respectable scores on the Corruption Perceptions Index (CPI) and the Environmental Performance Index which rank 180 countries in terms of corruption and environmental performance. Illegal logging is not seen as a serious issue in North America relative to other regions.

Read the supporting facts below for more details.

Sustainable Forest Management

- Between 1990 and 2015, forest area expanded in the U. S. from 746 to 766 million acres (2.6%).¹ This is equivalent to an average growth rate of 1,660 NFL football fields per day.²

- At 0.02% of its forested area, deforestation in Canada is among the world's lowest.³ The key causes of deforestation are not forestry but rather urbanization, agriculture, hydro and other developments such as oil and gas. Forestry regulations require mandatory regeneration on all Crown (public) lands in Canada so that harvested areas continue to produce forests for the long term.⁴
- Deforestation is defined by the Food and Agriculture Organization (FAO) of the United Nations as the "conversion of forest to other land use or the long-term reduction of the tree canopy cover below the minimum 10 percent threshold.⁵ The term specifically excludes areas where the trees have been removed as a result of harvesting or logging, and where the forest is expected to regenerate naturally or with the aid of silvicultural measures."
According to the FAO, in tropical countries, 7 million hectares (ha)⁶ of forest area were lost annually between 2010 and 2015 and this was mostly due to expansion of agricultural lands.⁷
- Forests can be impacted by fires, insects, land use change and harvesting. An example from Canada (Figure below) shows that most of the disturbance in the past decade (2007 to 2017) was caused by insects (4.5% of total forested land) with lesser amounts by fire (<1%), harvesting (<0.5%) and deforestation (0.01%). Roughly 94% of the forested land was undisturbed.⁸
- Forest certification promotes forest management practices that must result in outcomes that are economically viable, ecologically sound and socially just. Globally, a total of 431.4 million ha are certified according to PEFC⁹ and FSC.¹⁰ Roughly half the global certified forest area is in North

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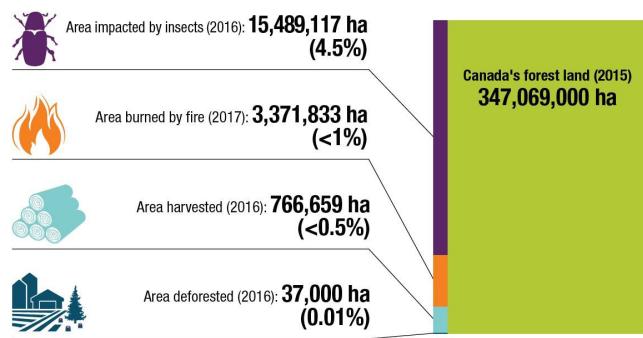


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America, one third is in Europe, about 5% is in Asia and a similar amount in South America.¹¹

- In 2008, the U.S. Government amended the Lacey Act to prohibit the import or trade of illegal timber and require companies to assess and manage the risk of introducing illegal wood products into their supply chains. This landmark legislation is the world's first ban on trade in illegally sourced wood products.¹²

What's the leading cause of disturbance in Canada's forests?



Clean production

Clean production by the pulp and paper industry is controlled and improved by ensuring compliance with environmental regulations, utilizing best-available technologies to reduce water and energy use, controlling and reducing emissions to air, treating wastewater, reducing solid waste to landfills, and replacing fossil fuels with renewable energy sources.

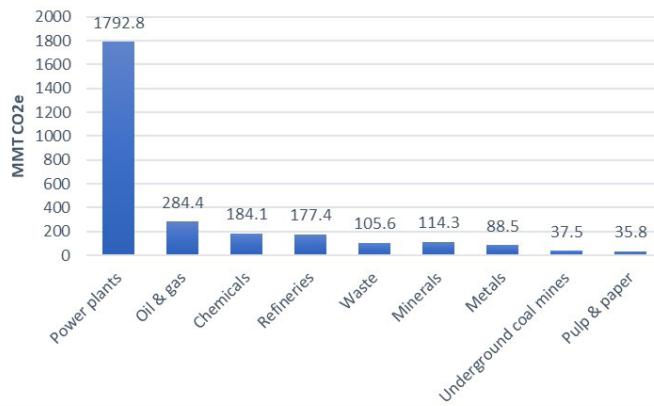
- Reducing greenhouse gas (GHG) emissions from manufacturing processes is an important part of environmental stewardship. GHG emissions reductions are driven by decreased fossil fuel use, increased energy efficiency during production, and the use of carbon-neutral biomass fuels. In 2016, AF&PA member GHG emissions - measured in carbon dioxide equivalents (CO₂ eq) per ton of production - were 19.9% lower than in 2005.¹³
- AF&PA's member companies make more than 75% of U.S. pulp, paper, paper-based packaging and wood building materials.¹⁵ Energy efficiency of member companies increased by 11.6% between 2005 and 2016 (12.94 million BTUs per ton of product in 2005 and 11.43 million in 2016). On average, about 66.6% of AF&PA members' energy demand is met through renewable biomass energy (2018).¹³

- In Canada, bioenergy is increasingly used to generate electricity and accounted for 57% of the forest industry's energy use in 2015 (compared to 43% in 1990). Between 2005 and 2010, the Canadian forest industry reduced its energy use by 31% and total GHG emissions by 49%.¹⁶

- Water is an essential part of the pulp and papermaking process and improvements to technology enable water to be reused and recycled at least ten times throughout the pulp and paper mill process before discharge. Eighty-eight percent of the water used for production of paper and wood products is returned to the environment after treatment in a wastewater system. AF&PA member pulp and paper mill water use per ton of product decreased by 6.6% between 2005 and 2015.¹³

- The U.S. pulp and paper sector is one of the lowest emitters of GHG emissions among major U.S. industrial sectors (see Figure below).¹⁴

GHG Emission Trends by Sector (2017)



- The Pulp and Paper Effluent Regulations in Canada oversee the discharge of harmful substances from pulp and paper mills into water frequented by fish. "Since 1985, the quality of pulp and paper effluent released directly to the environment, as set out in the Regulations, has improved considerably. In 2014, 97.5%, 99.9% and 99.8% of effluent samples met regulatory requirements for toxicity tests on fish, biochemical oxygen demand, and total suspended solids, respectively".¹⁷

High rates of paper recovery

- Paper recovery for recycling allows paper and paper-based packaging to be reused for the manufacture of new products. In 2017, the recovery rate for paper consumed in the U.S. was 65.8%, nearly double that in 1990.¹³

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- In Canada, about 70% of paper and cardboard are recycled, one of the highest recycling rates in the world.¹⁸ The amount of paper fiber going to landfills in Canada declined by 320 thousand metric tonnes (or 9.9%) between 2010 and 2016.¹⁹

Respectable score on corruption and environmental indices

- Transparency International, a non-profit, non-partisan and non-governmental organization dedicated to fighting corruption has developed the Corruption Perceptions Index (CPI) to measure levels of perceived corruption around the world. The index ranks 180 countries and territories by their perceived levels of public sector corruption according to experts and businesspeople. It uses a scale of 0 to 100, where 0 is the worst score and 100 is the best. Canada and the U. S. have scores of 81 and 71, respectively, well ahead of many countries globally. The scores range from 88 (top score – Denmark) to 10 (lowest score – Somalia).²⁰

- The Environmental Performance Index (EPI) is a joint project of the Yale Center for Environmental Law & Policy and The Center for International Earth Science Information Network at Columbia University's Earth Institute. The 2018 EPI ranks 180 countries on 24 performance indicators across ten categories covering environmental health and ecosystem vitality (including forestry). These indicators provide a gauge at a national scale of how close countries are to established environmental policy goals.²¹ On a scale where 0 is very poor and 100 is a very high environmental performance, Canada and the U.S. score 72.2 and 71.2, respectively, and have strong environmental performances across all indicators. The range of scores varies from 87.42 (top score – Switzerland) to 27.43 (lowest score – Burundi).

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