ENVIRONMENTAL FACTS ABOUT THE CANADIAN PAPER INDUSTRY

A Canadian consumer survey carried out by Toluna and Two Sides North America in 2019 showed that there are still significant gaps between consumer perceptions and actual fact when it comes to environmental topics such as forestry and recycling. However, many consumers recognized the sustainable attributes of paper and ranked it as the second most environmentally-friendly material (behind wood) among 8 commonly used products and materials. Plastic was considered to be the least environmentally friendly material, followed closely by electronic devices.[1]

SUMMARY

Although Canadians ranked pulp and paper as the third key cause of global deforestation (behind urban development and construction), it is not a cause of forest loss in Canada due to long-term sustainable forest management, government regulations and forest certification programs.[2]

Nearly half of Canada's forests are certified to an independent sustainable forest management standard such as the Forest Stewardship Council or the Sustainable Forestry Initiative. In fact, 37% of all certified forests worldwide are in Canada, the largest area of any country.[13]

The majority of Canada's forest land, about 94%, is publicly owned and managed by provincial, territorial and federal governments. This means that all three jurisdictions together have the ability to create and enforce the laws, regulations and policies required to meet Canada's commitment to sustainable forest management across the country. Only 6% of Canada's forest lands is privately owned and this land generates one-tenth of the timber harvested in Canada.[3]

Canada is a leader in paper recovery and recycling with a recovery rate of 70%, but only 21% of Canadians think the paper recovery rate exceeds 60%.[1,17]

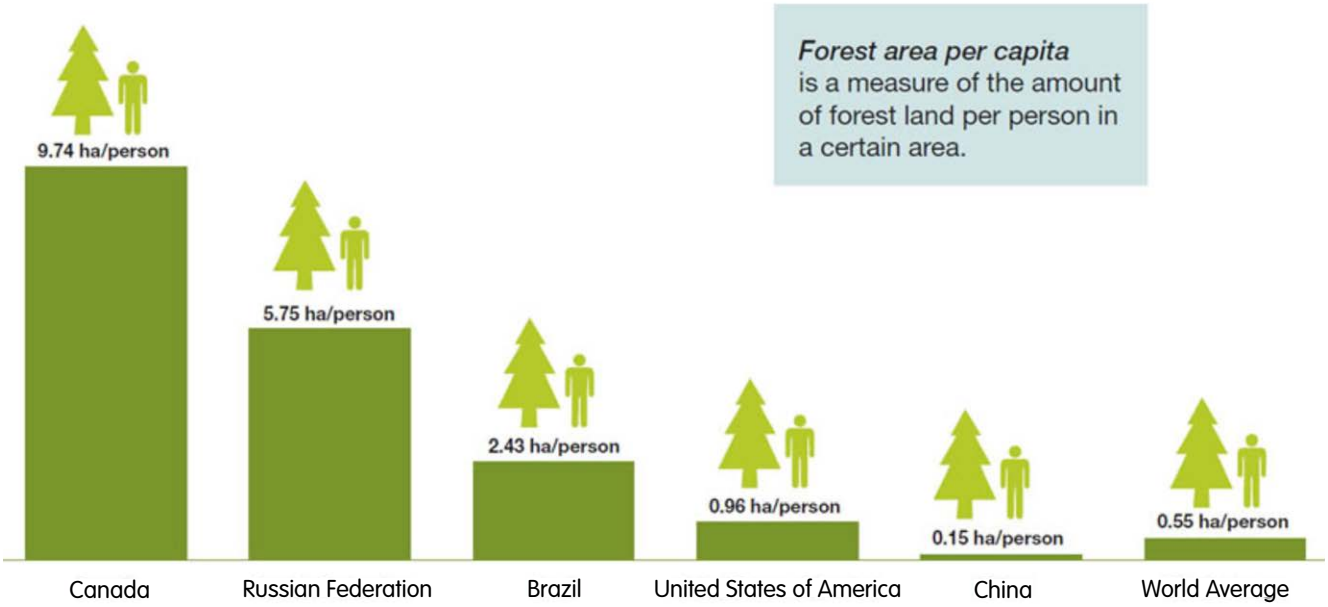
Innovations in the Canadian forest industry have made operations more efficient and significantly reduced energy consumption and greenhouse gas (GHG) production. In fact, while Canada's total GHG emissions were increasing, pulp and paper mills have cut emissions by an impressive 66% since 1990, the equivalent of 9MT of CO^2 a year.[4]

In 2017, production in the Canadian forest sector contributed $24.6 billion.[5] The industry directly employs about 209,940 people in 600 communities.[6] Half of those depend on forestry for at least 50 per cent of household income, and about 160 of those communities are solely reliant on forestry.[7]

State of the Forest

Canada is home to 9% of the world's forests, almost 4 billion hectares, behind only Russia (20%) and Brazil (12%) in forest area.[8] About 90% of Canada's forest land is publicly owned and provincial and territorial governments regulate forest harvesting to ensure sustainability over the long term.[9] Canadian law requires that all forests harvested on public land must be regenerated.[10]

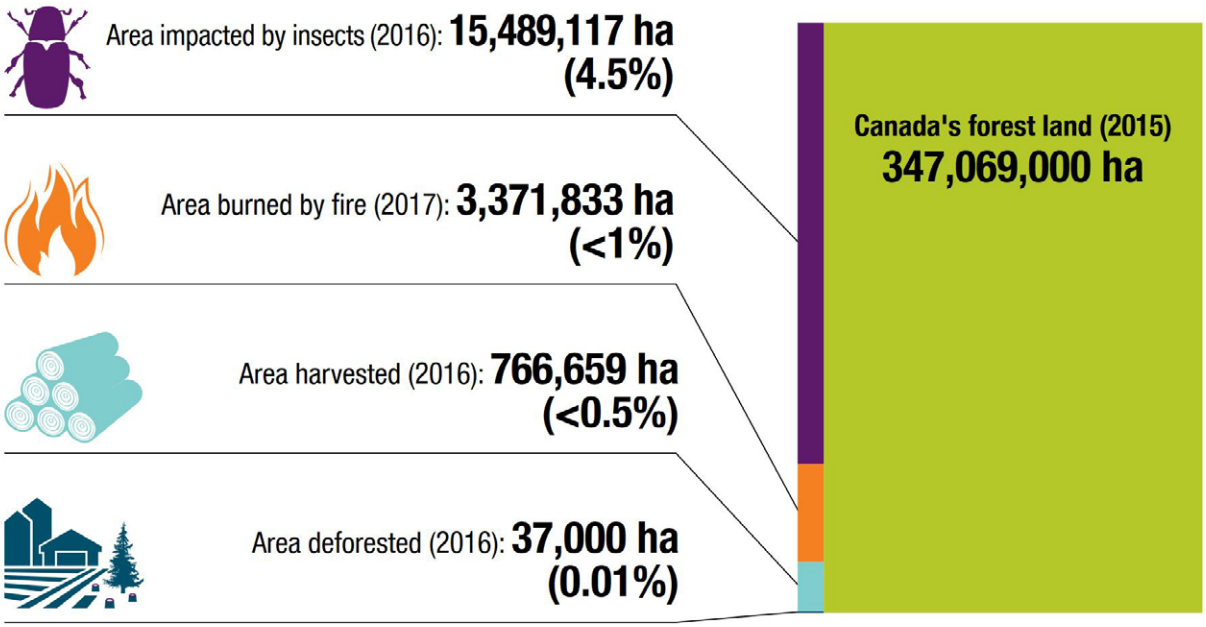
24% of the world's boreal forests are found within Canada's borders. Much of Canada's forest land is in remote, sparsely populated areas and is not under the same pressure to be cleared for agriculture or urban development as forests in many other countries. Canada has nearly 10 ha of forest land per person, more than 17 times the world average.[11]



Forest area per capita (hectares/person) of the five countries with the largest forest area.[11]

Canada's total forest area was quite stable between 1990 and 2016. It decreased from 348 to 347 million hectares (less than 0.5% of the total forested area) and this deforestation was due to agriculture, roads and hydroelectric and urban development.[9]

Forests can be impacted by fire, insects, land use change and harvesting. Figure 1 shows that most of the disturbance is 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 is undisturbed.[9]



Leading causes of disturbance in Canadian forests[9]

Deforestation is defined by the FAO 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". "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."[12]

The area deforested in Canada in 2016 was 37,000 ha (0.01% of forested land in Canada) and this rate is expected to be stable over the near term. Conversion of forests to agricultural land is the major cause of deforestation. Activity in the mining, oil and gas sectors as well as hydroelectric development and urban expansion also contribute to deforestation.[9]

Forest Management and Certification

At the end of 2018, Canada had over 164 million hectares (406 million acres) of independently certified forest land (to either CSA®, SFI® or FSC®). Nearly half of Canada's forests are certified and 37% of all certified forests worldwide are in Canada, the largest area of any country.[13]

Canadian certification in the global context – 2018 year-end [13]

In 2016, Canada harvested nearly 155 million cubic metres (m^3) of industrial roundwood, well below the estimated sustainable wood supply level of 233 million m^3. This is a decrease of about 1 million m^3 from 2015 levels when 156 million m^3 of industrial roundwood was harvested. This decline is largely due to a decrease in the volume of softwood timber harvested in British Columbia and Alberta as salvage logging of dead mountain pine beetle-killed timber was reduced.[14]

In 2015, 91% of the forest area in Canada was managed for soil and water conservation.[15]

Although Canada's forest cover has remained relatively stable since 1990, production of forest products has increased. With the help of new technologies, sawmills and pulp and paper mills have become more efficient. The volume of softwood roundwood needed to produce a given quantity of boards fell by nearly a quarter between 1990 and 2017 and recycled sawmill products used by pulp and paper mills increased from 60% to 80%.[16]

Recycling

Canada recycles almost 70% of its paper and cardboard, making Canada among the top paper recycling countries in the world.[17]

Of the total amount of waste diverted from the landfill through recycling or composting (9.3 million tons) in 2016 in Canada, the majority was paper (39%) and organic materials (28%) and less than 5% was plastic.[18]

Environmental Performance and Goals

Investment in new technologies is making forest industry operations more efficient. By generating "bioenergy from waste products and increasing energy efficiency, Canada's forest industry cut its total energy use by 31% and reduced its GHG emissions by 49% between 2005 and 2015."[19]

The Canadian forest industry is pledging to remove 30 MT of CO^2 from the atmosphere per year by 2030 – more than 13% of the Canadian government's emissions target.[20]

Human activities in Canada's managed forests accounted for removals of about 20 Mt CO^2e in 2016, while large-scale natural disturbances accounted for emissions of about 98 Mt CO^2e, resulting in net emissions of 78 Mt CO^2e. Forest lands managed for timber production, and the wood products harvested from these lands, continue to be an ongoing sink of carbon (20 Mt CO^2e in 2016) - a "carbon sink" removes carbon dioxide from the atmosphere.[21]

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 99.9% of effluent samples met regulatory requirements for toxicity tests on fish, biochemical oxygen demand, and total suspended solids, respectively."[22]

Sources

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