



Canadian Water Facts

- With approximately 8 per cent of its territory covered by lakes, Canada has more lake area than any other country in the world.ⁱ
- Canada has a relative abundance of water, possessing 9 per cent of the world's renewable fresh water, yet only 0.5 per cent of the global population. Despite Canada's abundance of water, this valuable resource is now under pressure from growing and often conflicting human requirements, which is likely to be exacerbated by the effects of climate change.ⁱⁱ
- In the past several years, 25 per cent of Canadian municipalities have experienced water shortages.ⁱⁱⁱ
- One-third of Canadians depend on groundwater as their fresh water source - yet still little is known nation-wide about its quality and quantity.^{iv}
- Increased evaporation of surface water under warmer climates and altered precipitation patterns are expected to cause summer droughts in the interior of southern Canada to become more frequent, more intense, and of longer duration. In western Canada, these shortages are likely to be worsened by the gradual disappearance of alpine glaciers that currently provide much of the fresh water input in regional streams and rivers in summer.^v

Water and Climate Change

- Almost two billion people were affected by natural disasters in the last decade of the 20th century, 86 per cent of them by floods and droughts.^{vi}
- More than 95 per cent of all deaths caused by disaster occur in the developing countries.^{vii}
- According to the Inter-governmental Panel on Climate Change, there is a high degree of confidence that the magnitude and frequency of floods and droughts will increase during the 21st century due to changes in mean and/or variability of climate change.^{viii}
- Global climate change is expected to exacerbate the loss and degradation of many wetlands and the loss or decline of their species and to harm the human populations dependent on their services.^{ix}
- Human activities, notably the release of carbon dioxide (CO₂) into the atmosphere through burning of fossil fuels, are believed to have already led to an increase in annual mean global temperature of 0.8°C between 1900 and 2005.^x
- This relatively small amount of warming has already led to observable changes worldwide. Across the globe, species are changing their migratory patterns and geographical distribution. Heat waves are occurring with greater intensity and frequency, glaciers are melting throughout most of the world, and drought is intensifying in many regions (Warren, 2006).^{xi}

Conservation

- Water use increased six-fold during the 20th Century, more than twice the rate of population growth.^{xii}
- Canada ranks second highest in terms of per capita water consumption, at 353 litres per day, and is 65 per cent above the OECD (Organisation of Economic Co-operation and Development) average.^{xiii}
- Only one per cent of the total water resources on Earth are available for human use. While 70 per cent of the world's surface is covered by water, 97.5 per cent of that is salt water. Of the remaining 2.5 per cent that is fresh water almost 68.7 per cent is frozen in ice caps and glaciers.^{xiv}
- The world's population, 6.2 billion people in 2002, is expected to increase to approximately 7.2 billion people by 2015. Almost 95 per cent of the increase is expected to be in developing regions.^{xv}
- Water withdrawals for irrigation have increased by over 60 per cent since 1960. About 70 per cent of all available freshwater is used for irrigation in agriculture. Yet because of inefficient irrigation systems, particularly in developing countries, 60 per cent of this water is lost to evaporation or is returned to rivers and groundwater aquifers.^{xvi}

THE WORLD AND WATER

Water Degradation

- Every day, approximately 2 million tonnes of human waste is disposed of in water courses.^{xvii}
- Sixty per cent of the world's 227 largest rivers are severely fragmented by dams, diversions and canals, leading to the degradation of ecosystems.^{xviii}
- Land use change and habitat loss, along with the deterioration and degradation of both breeding and non-breeding wetland habitats, are widely recognized as being the major causes of the widespread pattern of declining waterbird populations and species.^{xix}
- Freshwater ecosystems have been severely degraded: it is estimated that about half the world's wetlands have been lost, and more than 20 per cent of the world's 10,000 known freshwater species have become extinct, threatened or endangered.^{xx}
- Between 34 and 80 fish species have become extinct since the late 19th century, 6 since 1970.^{xxi}

Access to Clean Water

- There are 1.1 billion people, or 18 per cent of the world's population, who lack access to safe drinking water. About 2.6 billion people, or 42 per cent of the total, lack access to basic sanitation.^{xxii}
- Two of the water-related diseases, diarrhea and malaria, ranked 3rd and 4th place in the cause of death among children under 5 years old, accounting for 17 per cent and 8 per cent respectively of all deaths.^{xxiii}
- At any given time, half of the world's hospital beds are occupied by patients suffering from a water-related disease.^{xxiv}
- More than 2.2 million people, mostly in developing countries, die each year from diseases associated with poor water and sanitary conditions.^{xxv}
- Every week an estimated 42,000 people die from diseases related to low quality drinking water and lack of sanitation. More than 90 per cent of those deaths are children under the age of 5.^{xxvi}
- Water scarcity: it was estimated that in 1995 about 1.76 billion people (out of approx. 5.7 billion world population) were living under severe water stress.^{xxvii} From a human point of view, severe water stress is the economic, social, or environmental problems caused by unmet water needs.^{xxviii}

ⁱ "Water Facts." Environment Canada. 2006. <www.ec.gc.ca/water/en/info/pubs/NSKit/e_intro.htm>

ⁱⁱ "Implications of a 2°C global temperature rise on Canada's water resources." ©WWF-Canada - World Wildlife Fund For Nature. 30 November 2005. <assets.panda.org/downloads/2_degrees.pdf>

ⁱⁱⁱ "Facts About Canada's Water." Friends of the Earth Canada. <www.foecanada.org/index.php?option=content&task=view&id=329&Itemid=135>

^{iv} "Facts About Canada's Water." Friends of the Earth Canada. <www.foecanada.org/index.php?option=content&task=view&id=329&Itemid=135>

^v "Implications of a 2°C global temperature rise on Canada's water resources." ©WWF-Canada - World Wildlife Fund For Nature. 30 November 2005. <assets.panda.org/downloads/2_degrees.pdf>

^{vi} "Water Facts." Environment Canada. 20 Oct 2006. <www.ec.gc.ca/water/en/info/pubs/NSKit/e_intro.htm>

^{vii} "UN Water Series Volume 1: Water Hazard Risks." UN Water. <www.unwater.org/downloads/unwaterseries.pdf>

^{viii} "UN Water Series Volume 1: Water Hazard Risks." UN Water. <www.unwater.org/downloads/unwaterseries.pdf>

^{ix} "Ecosystems And Human Well-Being: Wetlands And Water." 2005 Millennium Ecosystem Assessment.

<www.millenniumassessment.org/documents/document.358.aspx.pdf>

^x "Implications of a 2°C global temperature rise on Canada's water resources." ©WWF-Canada - World Wildlife Fund For Nature. 30 November 2005. <assets.panda.org/downloads/2_degrees.pdf>

^{xi} "Implications of a 2°C global temperature rise on Canada's water resources." ©WWF-Canada - World Wildlife Fund For Nature. 30 November 2005. <assets.panda.org/downloads/2_degrees.pdf>

^{xii} "Water For Life, 2005-2015." United Nations. <www.un.org/waterforlifedecade/factsheet.html>

^{xiii} "Facts About Canada's Water." Friends of the Earth Canada. <www.foecanada.org/index.php?option=content&task=view&id=329&Itemid=135>

^{xiv} "Water A Shared Responsibility." 2006 World Water Assessment Programme, United Nations. <www.unesco.org/water/wwap/wwdr2/table_contents.shtml>

^{xv} "Water for Life." 2005 World Health Organization and UNICEF. <www.who.int/water_sanitation_health/waterforlife.pdf>

^{xvi} "Water A Shared Responsibility." 2006 World Water Assessment Programme, United Nations. <www.unesco.org/water/wwap/wwdr2/table_contents.shtml>

^{xvii} "Water A Shared Responsibility." 2006 World Water Assessment Programme, United Nations. <www.unesco.org/water/wwap/wwdr2/table_contents.shtml>

^{xviii} "Water A Shared Responsibility." 2006 World Water Assessment Programme, United Nations. <www.unesco.org/water/wwap/wwdr2/table_contents.shtml>

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^{xxi} "Water A Shared Responsibility." 2006 World Water Assessment Programme, United Nations. <www.unesco.org/water/wwap/wwdr2/table_contents.shtml>

^{xxii} "Water for Life." 2005 World Health Organization and UNICEF. <www.who.int/water_sanitation_health/waterforlife.pdf>

^{xxiii} "Make Every Mother and Child Count." 2005 World Health Organization. <www.who.int/whr/2005/whr2005_en.pdf>

^{xxiv} "Water Facts." 2006 Water Partners International. <www.water.org/waterpartners.aspx?pgID=916#Ref_1>

^{xxv} "Water: A Matter of Life and Death" 2002 United Nations. <www.un.org/events/water/factsheet.pdf>

^{xxvi} "Water for Life." 2005 World Health Organization and UNICEF. <www.who.int/water_sanitation_health/waterforlife.pdf>

^{xxvii} "Water For Life, 2005-2015." United Nations. <www.un.org/waterforlifedecade/factsheet.html>

^{xxviii} "Water A Shared Responsibility." 2006 World Water Assessment Programme, United Nations. <www.unesco.org/water/wwap/wwdr2/table_contents.shtml>