

# Natural Climate Solutions for Canada

**Nature can deliver immediate impact in Canada's fight to tackle the climate crisis, reveals landmark science led by Nature United.**

By protecting, better managing and restoring nature, Canada can reduce its greenhouse gas emissions by up to **78 Mt CO<sub>2</sub>e** annually in 2030.

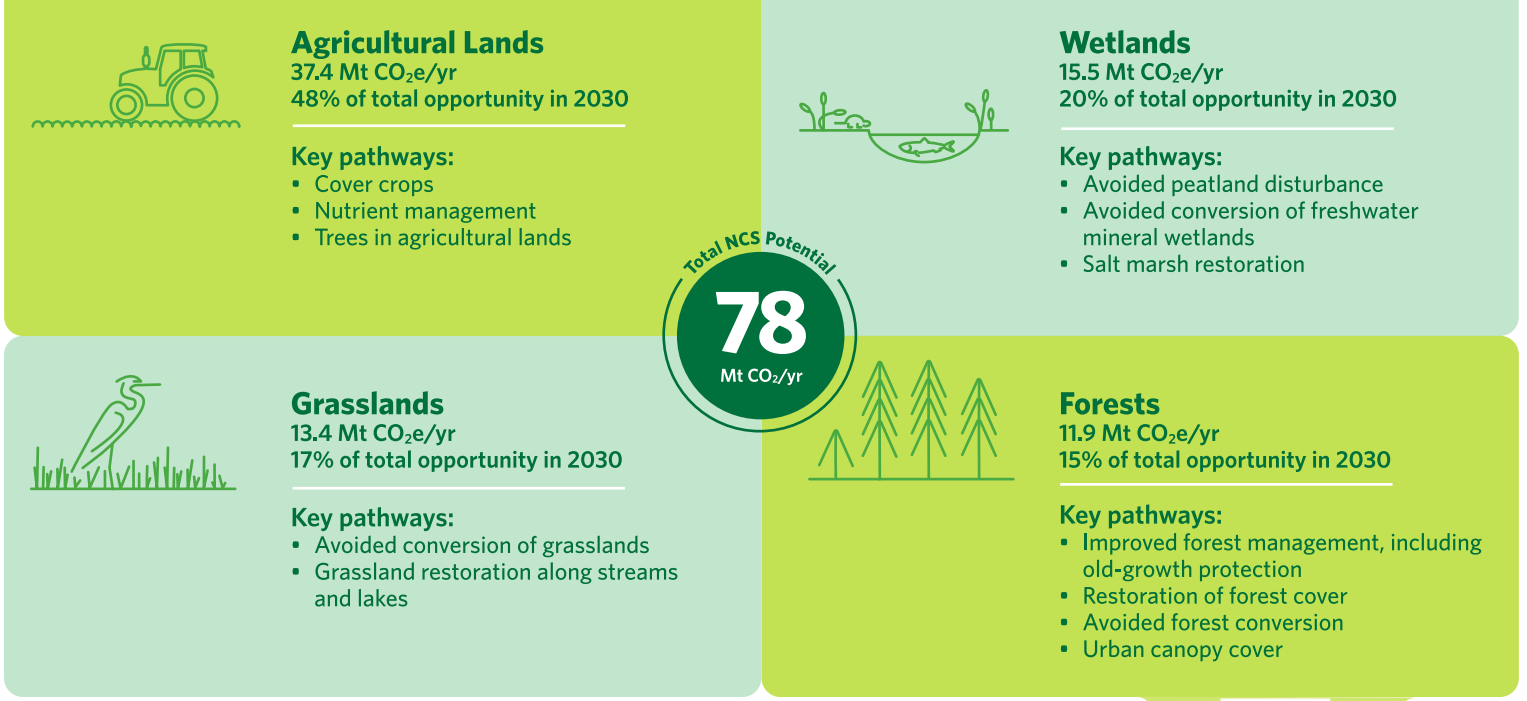
**78 Mt**  
=  
emissions from powering every home in Canada for about 3 years



Source: Canadian Energy Regulator

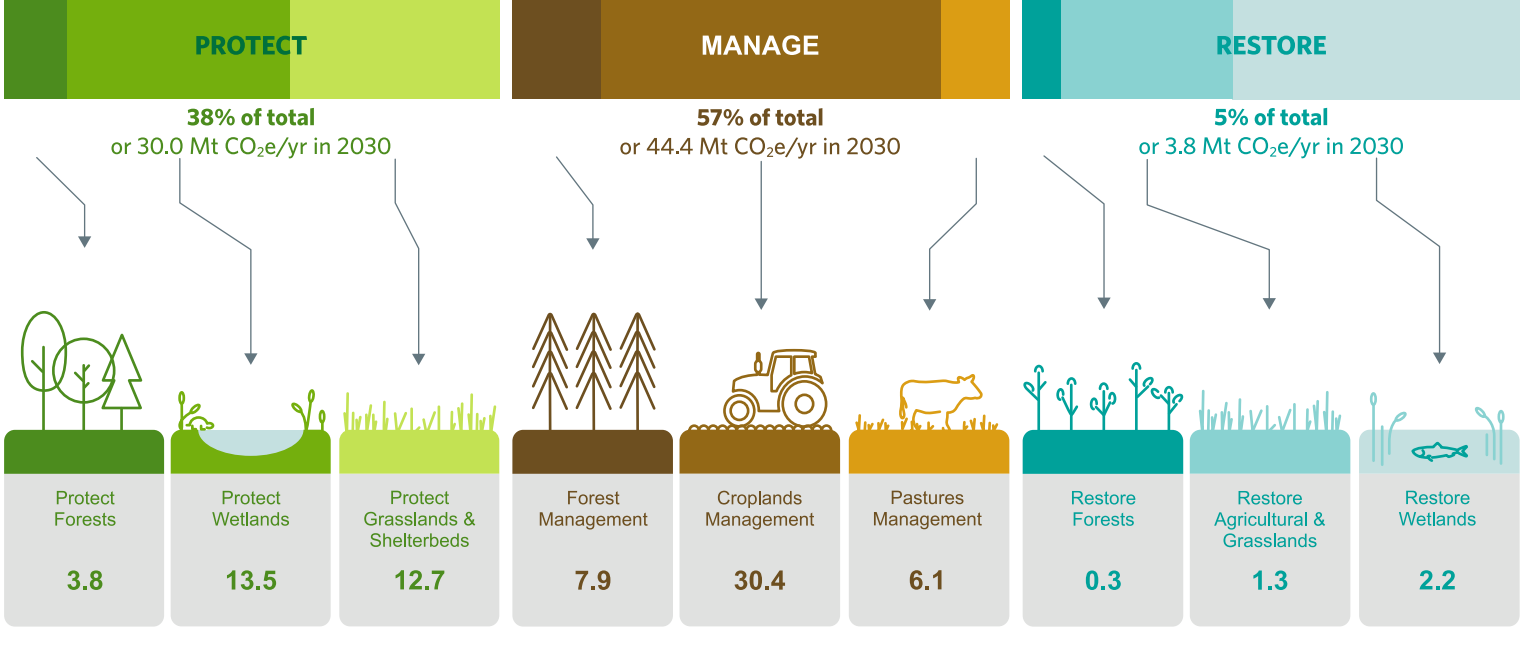
## Potential in Canada

The study examined four ecosystems (agricultural lands, forests, wetlands, grasslands) and 24 pathways that, undertaken in the next decade, have the potential to cut Canada's greenhouse gas emissions by an amount equal to 11% of our current annual emissions.



## Protect, Manage, Restore

Natural Climate Solutions are actions taken to protect, manage or restore nature to help reduce greenhouse gas emissions. For example, we can protect or keep existing forests intact so that stored greenhouse gases aren't emitted into the atmosphere. We can manage forests—that is, conserving carbon-rich old forests, enhancing the rate of trees growing after logging and producing long-lived wood products like building materials. And we can restore previously lost forests by planting new trees. Each of these actions help mitigate climate change by allowing nature to store and sequester more carbon.



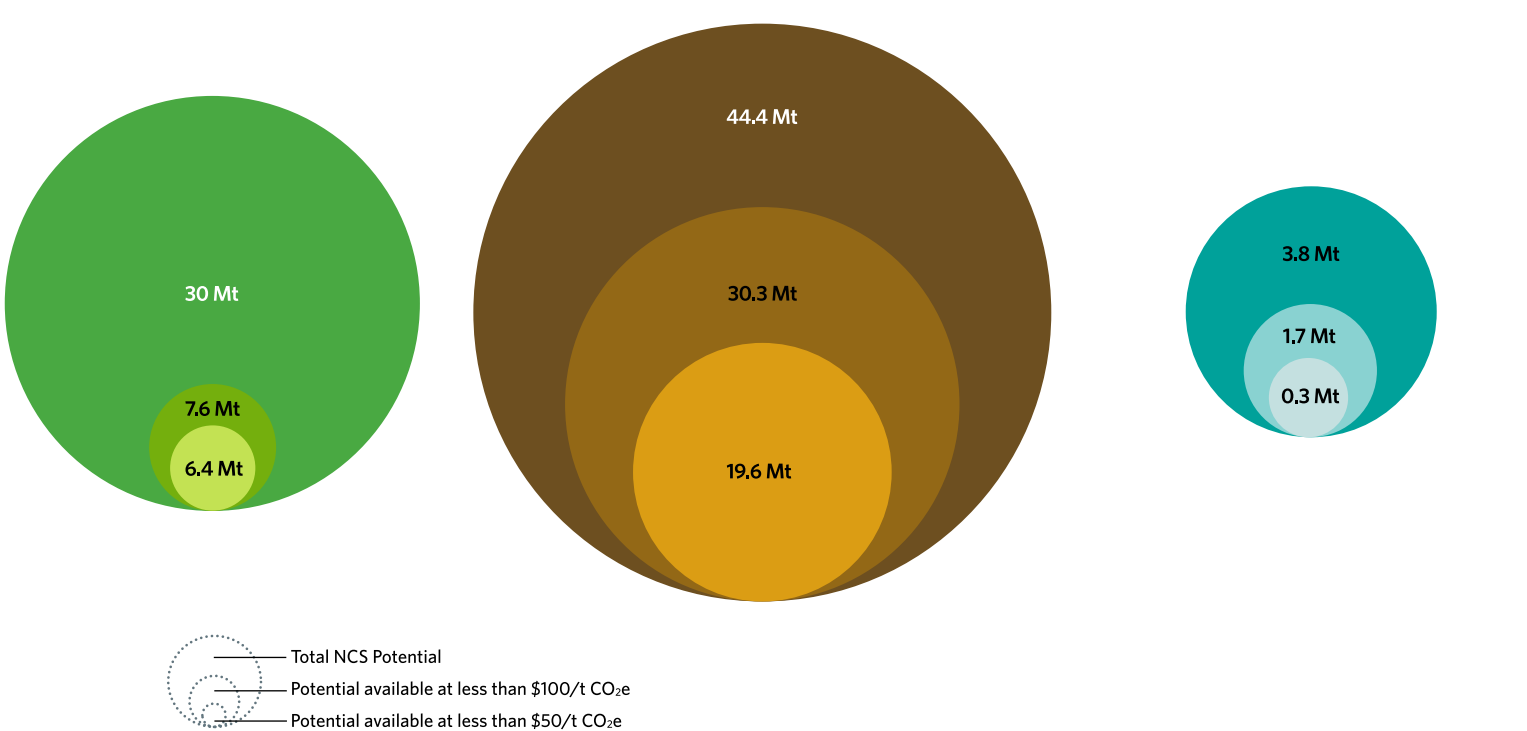
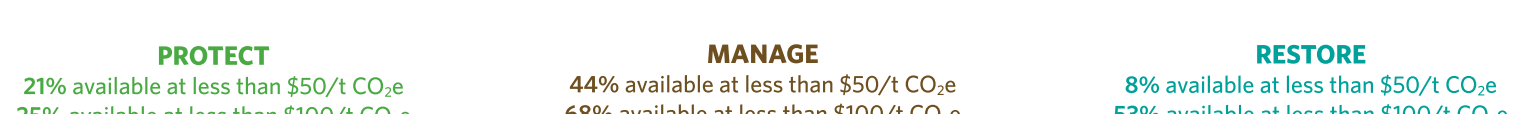
Protecting ecosystems such as grasslands, peatlands and forests—preserving them in a healthy state instead of converting them to other intensive uses and avoiding the release of greenhouse gasses—promises cost-effective mitigation potential and delivers important benefits like improved habitats for animals.

Actions like improving the way forests are managed or expanding cover crops to keep soil healthy can significantly increase the amount of carbon sequestered by forests and fields. They can also sometimes reduce operating costs or provide new revenue streams to foresters, farmers and ranchers.

Planting trees in cities, replanting formerly forested land or bringing back natural flows to wetlands and coasts will also increase carbon capture. These actions can support construction, engineering and conservation jobs in the short term and deliver strong mitigation and habitat benefits in the long term.

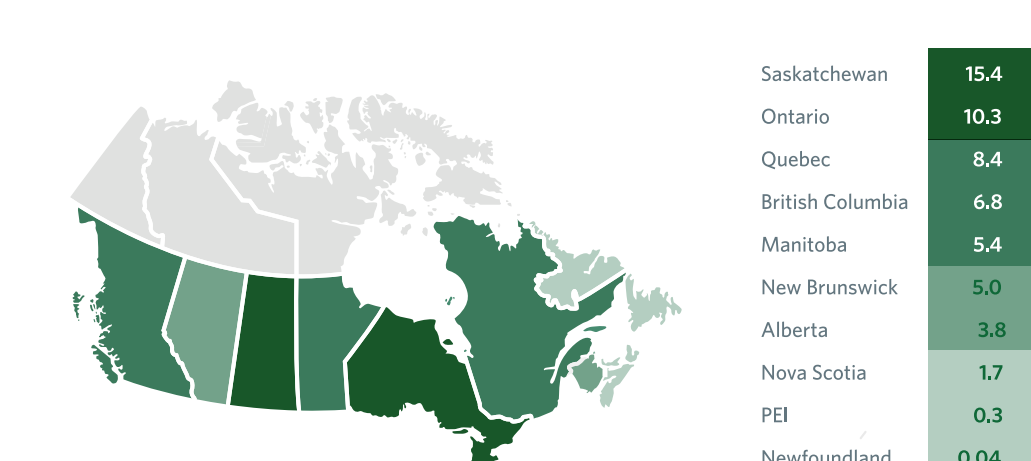
## Powerful and Cost Effective

The study highlights actions that are cost effective with several of the pathways available at less than \$50 per tonne of CO<sub>2</sub>e. Many of these opportunities are also available now. Protection, restoration and management pathways would create new jobs and provide alternative revenue streams to farmers, ranchers, foresters, and Indigenous communities to help stimulate our economy.



## Regional Impact

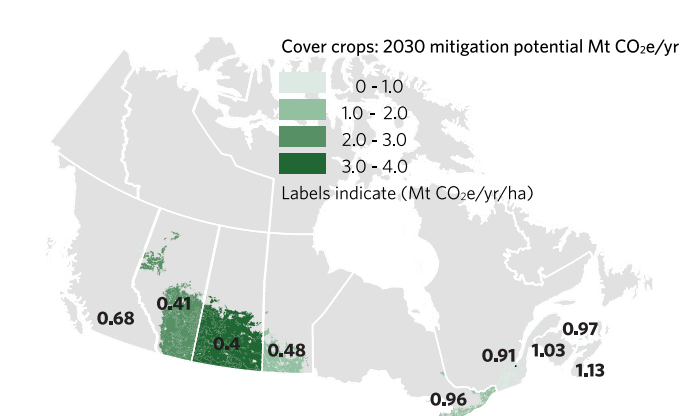
The study estimates the annual mitigation potential in 2030 of Natural Climate Solutions for each province with greatest potential in Saskatchewan, Ontario, Quebec, British Columbia and Manitoba.



Numbers reflect Mt CO<sub>2</sub>e/yr potential in 2030. Data not available for all jurisdictions or pathways.

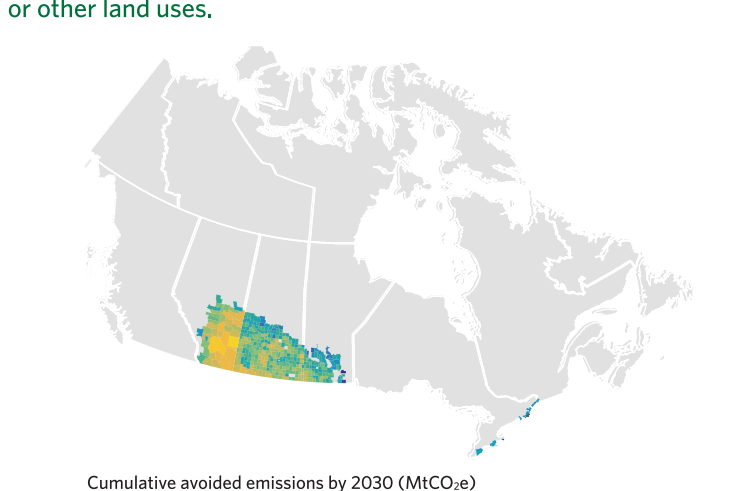
## Regional Examples

**Cover Crops** help manage soil erosion, soil fertility, soil quality, water, weeds, pests, diseases, biodiversity and wildlife.



- Mitigation involves expansion of mostly pre-season cover crops over 20.5M ha.
- This expansion can yield 9.8 Mt CO<sub>2</sub>e/yr in 2030 (13% of total NCS), with 45% available at ≤ \$50/t CO<sub>2</sub>e.
- The largest opportunities in terms of total mitigation are in the Prairies while Ontario, Quebec and the Atlantic provinces offer the most annual mitigation per ha from expansion of cover crops.

**Avoided Grassland Conversion** is when natural grasslands and tamed pastures are protected from being converted to crops or other land uses.



- Mitigation from avoided conversion of grassland involves the protection of 2.5M ha over 10 years of native prairie and tamed grasslands. While the biggest opportunity is in Saskatchewan, all provinces east of, mitigation is possible in grasslands across Alberta and British Columbia.
- Avoided grassland conversion can yield 12.7 Mt CO<sub>2</sub>e/yr in 2030 (16% of overall opportunity) with 12% available at ≤ \$50/t CO<sub>2</sub>e.
- This pathway protects the soil carbon bank and is a previously unappreciated opportunity in terms of its magnitude.

## The Way Ahead

Prioritizing Natural Climate Solutions as part of an integrated climate change strategy that includes innovations in clean energy and other efforts to decarbonize the world's economies is vital for meeting Canada's 2030 targets and reaching net-zero emissions by 2050. Canada must invest now in protection, management and restoration strategies across all ecosystems to achieve the biggest impact towards reducing emissions.

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