

We Must Act  
for an  
Environmentally  
Sustainable  
Future

**We Are Depleting the Soil**

The National Union of Public and General Employees (NUPGE) is a family of 11 Component and 3 affiliate unions. Taken together we are one of the largest unions in Canada. Most of our 390,000 members work to deliver public services of every kind to the citizens of their home provinces. We also have a large and growing number of members who work for private businesses.

Larry Brown, President

Bert Blundon, Secretary-Treasurer

# We Are Depleting the Soil

According to a 2015 report from the United Nations Food and Agriculture Organization (FAO),

the world's soils are rapidly deteriorating due to soil erosion, nutrient depletion, loss of soil organic carbon, soil sealing and other threats, but this trend can be reversed provided countries take the lead in promoting sustainable management practices and the use of appropriate technologies.<sup>1</sup>

This issue is increasingly receiving global attention. The UN declared 2015 International Year of Soils. The Status of the World's Soil Resources, produced by FAO's Intergovernmental Technical Panel on Soils, brings together the work of some 200 soil scientists from 60 countries. The report was published on World Soil Day, December 4, 2015.

We know that soils are essential for our crops and for filtering and cleaning tens of thousands of cubic kilometres of water each year. Soil is also a major storehouse for carbon and helps to regulate GHG emissions. Healthy soil, therefore, is fundamental for regulating the climate.

Unfortunately, the majority of the world's soil resources are in fair, poor, or very poor condition, and in far more cases, conditions are getting worse rather than improving. With population growth and industrialization of agriculture, over 35% of the Earth's ice-free land area has been converted to agriculture. As a result, "soils that have been cleared of natural vegetation to grow crops or graze livestock suffer from sharp increases in erosion and steep losses in soil carbon, nutrients and soil biodiversity."<sup>2</sup> These processes have left 33% of land moderately to highly degraded.

The rapid growth of cities and industries has also contributed to soil degradation. Their expansion has contaminated soils with excess salt, acidity, and heavy metals. This expansion has also compacted soils under heavy machinery and sealed them permanently under asphalt and concrete.

Climate change, with its higher temperatures and extreme weather events, has also wreaked havoc on soil quantity and fertility. Climate change has, among other things, reduced moisture and depleted the layers of nutrient-rich topsoil. This all has serious implications for human life as well as the planet. According to FAO Director-General José Graziano da Silva, "further loss of productive soils would severely damage food production and food security, amplify food-price volatility, and potentially plunge millions of people into hunger and poverty."<sup>3</sup>

George Monbiot, a British writer, wrote that landowners are engaged in “soil destruction so intense that, according to the UN’s Food and Agriculture Organization, the world on average has just 60 more years of growing crops.”<sup>4</sup>

At the 2017 Summit on Canadian Soil Health, researchers reported that while the rate of soil degradation in Canada has slowed, it is still happening at a worrisome pace. Dr. David Lobb of the University of Manitoba has completed a study, finding that, in Canada, \$3.1 billion worth of crop production capacity is lost due to soil erosion. He also expressed concern that the long-term focus on soil health is being lost: “There’s a steady decline in interest in soil conservation. I see recently a strong and pervasive belief that we know everything we need to know about soil degradation,” including a “sense of fatigue” about the topic when talking to government and policy experts.<sup>5</sup>

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<sup>1</sup> <http://www.fao.org/news/story/en/item/357059/icode/>

<sup>2</sup> Ibid.

<sup>3</sup> Ibid.

<sup>4</sup> <https://www.theguardian.com/commentisfree/2015/mar/25/treating-soil-like-dirt-fatal-mistake-human-life>

<sup>5</sup> <https://www.agcanada.com/daily/canadas-soils-still-degrading-albeit-more-slowly>



## NATIONAL UNION OF PUBLIC AND GENERAL EMPLOYEES

- B. C. Government and Service Employees' Union (BCGEU)
- Health Sciences Association of British Columbia (HSABC)
- Health Sciences Association of Alberta (HSAA)
- Saskatchewan Government and General Employees' Union (SGEU)
- Manitoba Government and General Employees' Union (MGEU)
- Ontario Public Service Employees Union (OPSEU)
- Canadian Union of Brewery and General Workers (CUBGW)
- New Brunswick Union of Public and Private Employees (NBU)
- Nova Scotia Government and General Employees Union (NSGEU)
- PEI Union of Public Sector Employees (PEI UPSE)
- Newfoundland & Labrador Association of Public and Private Employees (NAPE)

The National Union of Public and General Employees is an affiliate of the Canadian Labour Congress and a member of Public Services International.

15 AURIGA DRIVE  
NEPEAN, ONTARIO  
CANADA / K2E 1B7

[613] 228-9800  
FAX [613] 228-9801

[www.nupge.ca](http://www.nupge.ca)

[national@nupge.ca](mailto:national@nupge.ca)

