

Recommendations for Municipalities
Focus: Transportation for Rural Communities

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1. VULNERABLE PEOPLE

LACK OF RURAL TRANSPORT HARMS MINORITIES. Low-income, racialized and Indigenous communities in rural areas have a lack of affordable and accessible transportation options. They have to travel large distances and private vehicles are expensive. As a result, they face limited social participation and barriers to accessing essential services such as health care, employment opportunities and education. In addition, senior individuals and people with disabilities may have reduced mobility and need alternative transportation options.¹ Migrant farmworkers also live on farms and are isolated from the rest of the community due to a lack of affordable transportation.²

RURAL TRANSPORT IS UNSAFE. People with low-income are more likely to be in accidents on the road because they tend to live in more dangerous and undeveloped areas, have an increased reliance on walking and cycling and there is a lack of investment in road safety.³ Furthermore, Indigenous peoples are more likely than non-Indigenous people to have a serious injury or fatality in motor vehicle collisions, with greater risks in remote areas.⁴

2. BACKGROUND

TRANSPORTATION IMPACTS HUMAN HEALTH. Canada's rural communities depend on climate sensitive ecosystems for transportation.⁵ Transportation is critical infrastructure that is at risk of disruption due to extreme weather events.⁶ Rural residents become dependent on limited, degraded transportation networks such as seasonal or non-existent roads⁷ that can lead to injury.⁸ Two-thirds of "deadly accidents" happen on rural roads, where there are higher speed limits and less lighting.⁹

¹ Eric Marr, "Assessing Transportation Disadvantage in Rural Ontario, Canada: A Case Study of Huron County" (2015) 10 Journal of Rural and Community Development. 100.

² Mervyn Horgan & Saara Liinamaa, "The social quarantining of migrant labour: everyday effects of temporary foreign worker regulation in Canada" (2017) 43:5, 713-730, DOI: [10.1080/1369183X.2016.1202752](https://doi.org/10.1080/1369183X.2016.1202752).

³ Global Road Safety Partnership, "Poverty & Road Safety: A GRSP Positioning Paper", online: Global Road Safety Partnership secretariat <<https://www.grsproadsafety.org/wp-content/uploads/New-Fact-Poverty-PDF.pdf>>

⁴ Naomi G. Williams, Kevin M. Gorey & Amy M. Alberton, "Motor vehicle collision-related injuries and deaths among Indigenous Peoples in Canada: Meta-analysis of geo-structural factors" (2022) 27:2 Canadian Journal of Rural Medicine at 51, online: <<https://scholar.uwindsor.ca/cgi/viewcontent.cgi?article=1132&context=socialworkpub>>

⁵ Vodden, K. & Cunsolo, A., "Rural and Remote Communities" (2021) Canada in a Changing Climate: National Issues Report at 114. online (pdf): Government of Canada

<https://www.nrcan.gc.ca/sites/nrcan/files/GNBC/Chapter%203_Rural%20and%20Remote%20Communities_Final_E_N.pdf>

⁶ / Vodden, K. & Cunsolo, A., "Rural and Remote Communities" (2021) Canada in a Changing Climate: National Issues Report at 135.

⁷ Vodden, K. & Cunsolo, A., "Rural and Remote Communities" (2021) Canada in a Changing Climate: National Issues Report at 136.

⁸ Vodden, K. & Cunsolo, A., "Rural and Remote Communities" (2021) Canada in a Changing Climate: National Issues Report at 171.

⁹ Government of Canada, "Rural Roads" (December, 2020), online: Government of Canada <<https://tc.canada.ca/en/road-transportation/motor-vehicle-safety/rural-roads>>

Rural communities have also become increasingly dependent on private vehicles¹⁰, a considerable source of air pollution.¹¹ Rural areas do not contribute as many emissions from private vehicles as urban areas due to the smaller population density. However, rural residents can benefit from alternative modes of transportation and reducing emissions.¹² Living near major roadways and related traffic is linked to an increase in premature mortality caused by heart conditions, stroke and lung cancer due to the air quality.¹³

RURAL TRANSPORT CHANGES ECOSYSTEMS. Rural roads connect to watersheds and airsheds, extending the impact of pollutants from the road.¹⁴ Rural roads and traffic also decrease habitable space, increase wildlife deaths caused by vehicle collisions, interrupt migration courses and further divide small and vulnerable populations of animals. Furthermore, invasive species thrive near roads because of the structural environment and lack of competition.¹⁵

CANADA LAUNCHED A RURAL TRANSIT SOLUTIONS FUND with \$250 million in federal funding that is available from 2021 to 2026. The fund's goal is to support local transit solutions in rural and remote communities to improve quality of life and close socioeconomic gaps.¹⁶ Meanwhile, the Ontario Gas Tax Funds for Public Transit Program provides two cents per litre of provincial Gas Tax revenue to municipalities that contribute to local public transit.¹⁷

3. LOCAL KNOWLEDGE

LOCAL KNOWLEDGE IS KEY. Climate change is an important consideration in

¹⁰ Government of Canada, "Sustainable transportation in small and rural communities" (2006) at 1, online (pdf): <https://publications.gc.ca/collections/collection_2012/tc/T41-1-61-eng.pdf>

¹¹ Government of Canada, "Air pollution from cars, trucks, vans and SUVs" (February, 2017), online: <<https://www.canada.ca/en/environment-climate-change/services/air-pollution/sources/transportation/cars-trucks-vans-suvs.html>>

¹² Laska, A. & Bellis, R., "Rural Communities Need Better Transportation Policies" (September, 2021) at 4, online (pdf): Third Way Climate and Energy <<http://thirdway.imgix.net/pdfs/rural-communities-need-better-transportation-policy.pdf>>

¹³ Government of Canada, "Exposure to Traffic-Related Air Pollution in Canada: An assessment of population proximity to roadways" (March, 2022) at 1, online (pdf): Government of Canada <https://publications.gc.ca/collections/collection_2022/sc-hc/H144-99-2022-eng.pdf>

¹⁴ Coffin, AW, Ouren, DS, Bettez, ND, Borda-de-Agua, L, Daniels, AE, Grilo, C et al. (2021). The Ecology of Rural Roads: Effects, Management & Research. Issues in Ecology, 23 at 10, online: The Ecological Society of America <[IIE_24-Rural-Roads.pdf \(esa.org\)](https://www.esa.org/~/media/Files/2022/04/IIE_24-Rural-Roads.pdf)>

¹⁵ Coffin, AW, Ouren, DS, Bettez, ND, Borda-de-Agua, L, Daniels, AE, Grilo, C et al. (2021). The Ecology of Rural Roads: Effects, Management & Research. Issues in Ecology, 23 at 12.

¹⁶ Government of Canada, "Rural Transit Solutions Fund: Overview" (March, 2022), online: Government of Canada <<https://www.infrastructure.gc.ca/rural-trans-rural/index-eng.html>>

¹⁷ Government of Ontario, "Ontario gives boost to Municipal Public Transit" (January, 2022), online: <<https://news.ontario.ca/en/release/1001444/ontario-gives-boost-to-municipal-public-transit>>

transportation planning¹⁸ and local knowledge is critical to adaptation.¹⁹ Each rural community has unique needs. They differ by population, demographics, region size, how their municipality is organized, distance to urban services, and existing infrastructure and transit.²⁰

- A. Adaptation strategies for alternative transportation options increase livable and sustainable communities and local economies.²¹
- B. The rapid rate of climate change may create some unknowns, but local and Indigenous knowledge are key to identifying and managing the local impacts of climate change in rural areas.²² Rural residents have lived experiences and a strong relationship with the environment they rely on for food, livelihood and well-being.²³
- C. Mobilization strategies have supported adaptive capacity in rural communities. However, more investigation is required to reduce social barriers to adaptation, including factors such as poverty, housing and inequality.²⁴

4. CELA RECOMMENDATIONS

GOAL: Every rural municipality in Ontario should have a transportation plan centred on climate change and equity by 2025 and which would include a five-year action agenda.

CELA recommends that all transportation projects consider the impact climate change will have on infrastructure and local communities, and ensure that vulnerable populations in rural communities have access to clean transportation to create sustainable long term solutions.

1. **Consult with community members.** Climate change adaptation starts with the knowledge of local residents in rural communities. Changing environmental conditions and extreme weather events have a crucial impact on rural infrastructure.²⁵

¹⁸ Vodden, K. & Cunsolo, A., "Rural and Remote Communities" (2021) Canada in a Changing Climate: National Issues Report at 135.

¹⁹ Vodden, K. & Cunsolo, A., "Rural and Remote Communities" (2021) Canada in a Changing Climate: National Issues Report at 107.

²⁰ The Rural Ontario Institute, "Towards Coordinated Rural Transportation: A Resource Document" (2014) at 20, online: <<https://www.ruralontarioinstitute.ca/file.aspx?id=b5980041-d1ce-4618-b742-1d62c39208f1>>

²¹ Vodden, K. & Cunsolo, A., "Rural and Remote Communities" (2021) Canada in a Changing Climate: National Issues Report at 107.

²² Vodden, K. & Cunsolo, A., "Rural and Remote Communities" (2021) Canada in a Changing Climate: National Issues Report at 118

²³ Vodden, K. & Cunsolo, A., "Rural and Remote Communities" (2021) Canada in a Changing Climate: National Issues Report at 107

²⁴ Vodden, K. & Cunsolo, A., "Rural and Remote Communities" (2021) Canada in a Changing Climate: National Issues Report at 115.

²⁵ Vodden, K. & Cunsolo, A., "Rural and Remote Communities" (2021) Canada in a Changing Climate: National Issues Report at 135.

2. **Conduct Low-income Barrier Studies.** California’s Senate Bill 350 mandated the completion of Low-Income Barrier Studies to understand the barriers faced by low-income communities in accessing solar photovoltaic energy and other renewable sources, zero or near-zero emission transportation, and weatherization.²⁶ The California Air Resources Board outlined many such barriers that may be relevant to Canadians:²⁷
- Lack of ability to purchase clean vehicles due to high costs and unavailability of convenient home and public charging stations²⁸
 - Lack of credit cards and bank accounts for utilizing carsharing options or purchasing re-loadable public transit cards²⁹
 - Lack of access to sidewalks, benches, bike lanes, shade, streetlights, and other measures needed for walking, biking, and public transportation³⁰
 - Low-income, rural communities may lack access to broadband internet, leaving residents unable to obtain information on clean vehicles and consumer incentives, public transportation, maps of public charging stations, and more³¹

California allocated \$19.5 million to its Sustainable Transportation Equity Project: clean transportation initiatives for low-income communities to address their transportation needs, increase access to key destinations, and reduce greenhouse gas emissions.

3. **Complete Streets for Safety.** CELA recommends that each rural municipal transportation plan includes a Complete Streets approach in the design and maintenance of existing and future street networks. Complete Streets evaluate best practices to improve road safety for all users, including pedestrians, cyclists and those with varying abilities.
- Examples of successful rural Complete Streets initiatives include three case studies: Elmira, Ontario, Clearwater, British Columbia and rural cross-sections in Thunder Bay, Ontario.³²
 - The City of Thorold has also implemented a Complete Streets policy.³³

²⁶ California Energy Commission, online: *California Energy Commission* <<https://www.energy.ca.gov/rules-and-regulations/energy-suppliers-reporting/clean-energy-and-pollution-reduction-act-sb-350>>

²⁷ California Air Resources Board, “Low-Income Barriers Study, Part B: Overcoming Barriers to Clean Transportation Access for Low-Income Residents”, online (pdf): California Air Resources Board <https://ww2.arb.ca.gov/sites/default/files/2018-08/sb350_final_guidance_document_022118.pdf>

²⁸ California Air Resources Board, “Low-Income Barriers Study, Part B: Overcoming Barriers to Clean Transportation Access for Low-Income Residents” at 26, online (pdf): <https://ww2.arb.ca.gov/sites/default/files/2018-08/sb350_final_guidance_document_022118.pdf>

²⁹ California Air Resources Board, “Low-Income Barriers Study, Part B: Overcoming Barriers to Clean Transportation Access for Low-Income Residents” at 26.

³⁰ California Air Resources Board, “Low-Income Barriers Study, Part B: Overcoming Barriers to Clean Transportation Access for Low-Income Residents” at 25.

³¹ California Air Resources Board, “Low-Income Barriers Study, Part B: Overcoming Barriers to Clean Transportation Access for Low-Income Residents” at 31.

³² Clean Air Partnership, “Backgrounder: Rural Complete Streets” (2016), online (pdf): Complete Streets for Canada <<https://www.completestreetsforcanada.ca/wp-content/uploads/2019/01/Rural-Complete-Streets-final.pdf>>

³³ IBI Group, “Background Report D: Complete Streets Strategy” (June, 2022) at 4, online: Thorold <https://www.thorold.ca/en/city-hall/resources/D-CompleteStreetsStrategy_FINAL_06-2020.pdf>

- Urban transportation planning has unique needs distinct from rural transportation, but stakeholders can learn from developments in other jurisdictions and apply what works for them.
 - The City of Toronto is developing Complete Streets guidelines in its official plan.³⁴
 - In 2013, Chicago Department of Transportation (CDOT) released a Complete Streets design guideline with a **two-year action agenda** using best practices from around the world as an extension of the City’s 2006 Complete Streets Policy.³⁵

4. **Consider Vision Zero.** The Vision Zero hierarchy reverses the previous prioritization of single occupancy vehicles and instead prioritizes the safety of vulnerable people on the road, as shown in figure 1. A Complete Streets approach is key to executing Vision Zero.³⁶

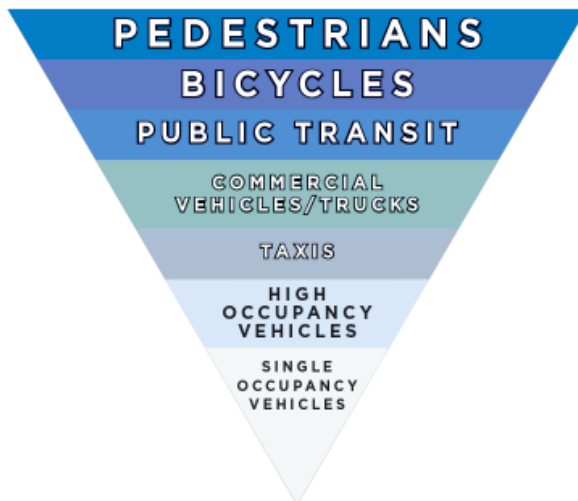


Figure 1. The Vision Zero hierarchy prioritizes vulnerable road users. Source: Transportation Alternatives, Vision Zero Streets: https://www.thorold.ca/en/city-hall/resources/D-CompleteStreetsStrategy_FINAL_06-2020.pdf.

5. **Increase “on-demand” public transit.** Allocating funding to coordination of services can increase efficiency and make transit accessible for all community members.³⁷ For example, Stouffville has a “mobility-on-request” program with

³⁴ City of Toronto, “Complete Streets Overview”, online: <<https://www.toronto.ca/services-payments/streets-parking-transportation/enhancing-our-streets-and-public-realm/complete-streets/overview/>>

³⁵ City of Chicago, “Complete Streets Design Guidelines” (2013), online: <https://www.chicago.gov/city/en/depts/cdot/provdrs/future_projects_andconcepts/news/2013/mar/complete_streetsdesignguidelines.html>

³⁶ IBI Group, “Background Report D: Complete Streets Strategy” (June, 2022) at 5.

³⁷ Transport Canada, “Improving Travel Options in Small & Rural Communities” (April, 2009) at 22, online (pdf): Public Health Grey Bruce <[https://www.publichealthgreybruce.on.ca/Portals/0/Topics/HealthyCommunities/Conference/Active_Trans/Resource/Improving_Travel_Options_for_Small_and_Rural_\(Industry_Canada\).pdf](https://www.publichealthgreybruce.on.ca/Portals/0/Topics/HealthyCommunities/Conference/Active_Trans/Resource/Improving_Travel_Options_for_Small_and_Rural_(Industry_Canada).pdf)>

transit services to five locations in Stouffville.³⁸ Brant Transit also provides a new public transportation service that transports riders anywhere in Brant county, and to and from the City Brantford.³⁹

³⁸ York Region Transit, online: <<https://www.yrt.ca/en/schedules-and-maps/stouffville.aspx>>

³⁹ County of Brant (October, 2022), online: <<https://www.brant.ca/en/roads-parking-and-transit/transit.aspx#Are-there-car-seats-for-small-children-or-babies>>