

Municipal Infrastructure

Briefing Deck

































Background

- This report reviews the infrastructure assets owned by Ontario's 444 municipalities and provides estimates of:
 - The current replacement value (CRV) of municipal assets
 - The state of repair of those assets
 - The costs to bring municipal assets into a state of good repair.
- The report completes the second phase of a three-part project that aims to estimate the financial implications of certain climate change hazards on Provincial and municipal infrastructure.



































Municipal infrastructure data is improving

- Despite the importance of municipal infrastructure, a comprehensive municipal asset dataset does not exist.
- O. Reg 588/17 mandated that all municipalities have until July 2022 to submit asset management plans of "core" assets and July 2024 for "non-core" assets.
- To conduct its analysis the FAO compiled a municipal asset inventory from multiple available sources.

































Municipalities own a wide range of assets

The report focuses on all 'core' infrastructure assets as well as some 'non-core' assets. The FAO grouped these assets into seven sectors.



Transit



Wastewater



Roads



Storm water



Bridges and culverts



Other buildings and facilities



Potable water

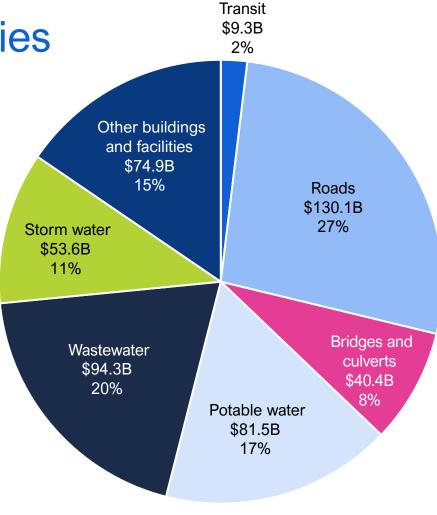






Ontario's municipalities own \$484 billion in public infrastructure

The FAO estimates that the current replacement value (CRV) of Ontario's municipal infrastructure was \$484 billion in 2020, almost double the amount of Provincial infrastructure.



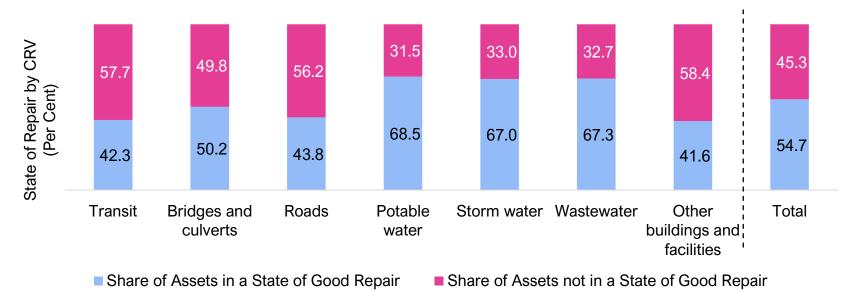
Source: FAO.





55 per cent of municipal infrastructure is in a state of good repair

- The FAO estimates that 55 per cent of municipal assets are in a state of good repair, while 45 per cent are not (+/- 5 percentage points).
- Water infrastructure assets have the highest share of assets in a state of good repair, while transportation assets including transit, roads and bridges all have a higher share of assets <u>not</u> in a state of good repair.



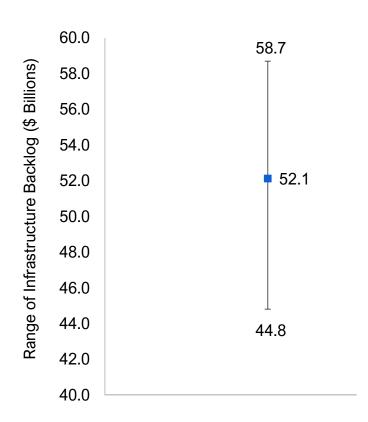
Note: The estimates presented in the above figure are the average values from the FAO's Monte Carlo analysis. Source: FAO.





The municipal infrastructure backlog estimated at \$52 billion in 2020

- The capital spending required to bring assets up to a state of good repair is defined in this report as the <u>infrastructure backlog</u>.
- The FAO estimates the backlog is about \$52 billion dollars. However, the backlog could range from \$45 to \$59 billion, depending on the actual condition of assets.
- These figures do not include any repair estimates for the \$47 billion of municipal assets whose condition is unknown.

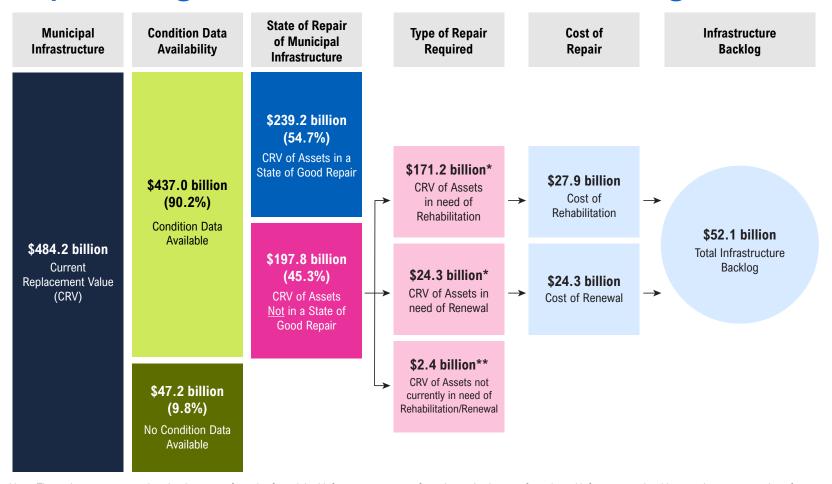


Source: FAO





Explaining the infrastructure backlog



Note: The estimates presented under the state of repair of municipal infrastructure, type of repair required, cost of repair and infrastructure backlog are the average values from the FAO's Monte Carlo analysis.

^{**} This box represents older assets that will be left to deteriorate for several years before being completely replaced. Source: FAO.































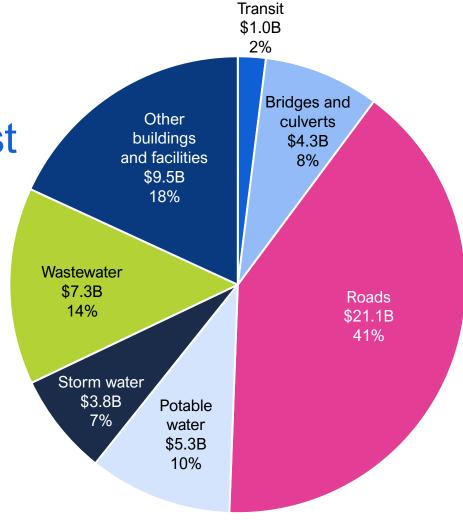


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^{*} Rehabilitation is the repair of all or part of an asset, extending its life beyond that of the original asset, without adding to its capacity, functionality or performance. Renewal is the replacement of an existing asset, resulting in a new or as-new asset with an equivalent capacity, functionality and performance as the original asset. Renewal is different from rehabilitation, as renewal rebuilds the entire asset.

Municipal roads represent the largest share of backlog

Roads and bridges make up almost half of the total backlog, while water infrastructure makes up almost a third.



Note: The estimates presented are the average values from the FAO's Monte Carlo analysis.

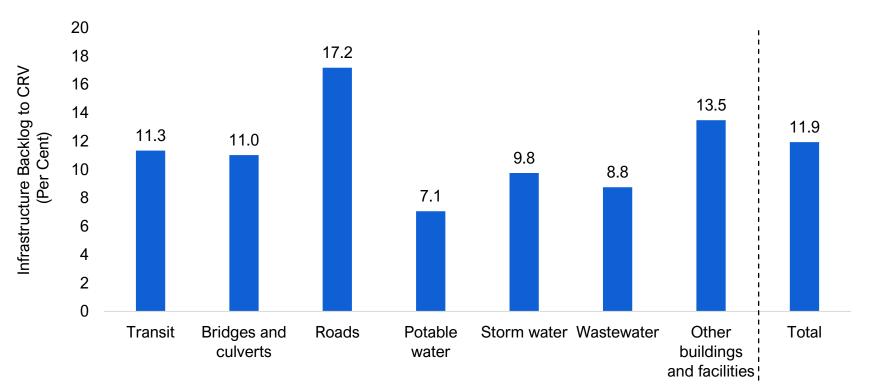
Source: FAO.





Municipal roads have the highest backlog as a share of CRV

The backlog to CRV ratio indicates the relative state of disrepair of assets. The higher the share, the worse condition assets are in.

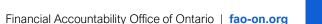


Note: The backlog to CRV presented in this chart only represents the CRV of assets with known conditions. The estimates presented are the average values from the FAO's Monte Carlo analysis.

Source: FAO































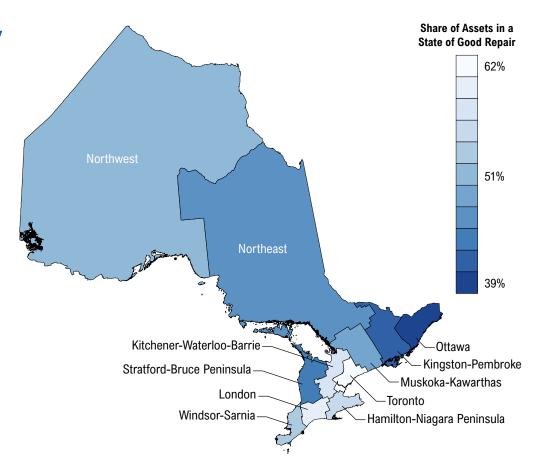






State of repair by economic region

The Toronto economic region has the highest share of assets in a state of good repair, while the Ottawa economic region has the lowest.



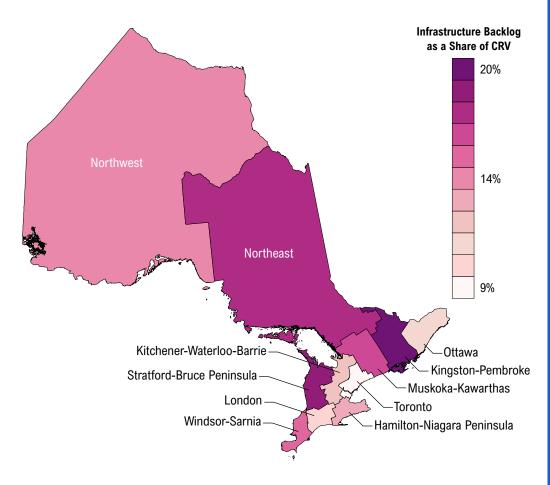
Note: Geographic location and condition data are available for 90 per cent of municipal assets. The remaining asset data did not have geographic and condition information. The estimates presented are the average values from the FAO's Monte Carlo analysis. Source: FAO.





Infrastructure backlog by economic region

The Toronto economic region has the lowest backlog to CRV ratio while Kingston-Pembroke has the largest.



Note: Geographic location and condition data are available for 90 per cent of municipal assets. The remaining asset data did not have geographic and condition information. The estimates presented are the average values from the FAO's Monte Carlo analysis. Source: FAO.







































Thank you!





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