



NATURAL RESOURCES CANADA - INVENTIVE BY NATURE

Urban Forestry at the Science - Policy Interface: Contributions and Concepts

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Historical CFS Presence in Urban Forests:

- Focus has been on science-based solutions that address forest invasive alien species (FIAS), the arrival point for which has always been urban forests.



- Taxonomic expertise
- Survey and detection
- Biological controls
- Species-specific molecular tools
- Risk analysis
- Research-based relationships with municipal foresters

- Arguably a “one forest” policy rather than a dedicated approach to urban forest science.

Urban Forest Issues have Broad Science Policy Significance:

- *From a science policy perspective, knowledge gained in FIAS research and risk analysis supports international market access for Canadian forest products and Canada's environmental reputation.*

Points of Engagement

- Canadian Council of Forest Ministers
 - National Forest Pest Strategy
 - North American Forestry Commission
 - North American Plant Protection Organization
- CFS engagement with the Canadian Food Inspection Agency supports regulatory actions required to address IAS challenges in Canada and internationally.

Canadian Council
of Forest
Ministers



Conseil canadien
des ministres
des forêts



FIAS in Urban Forests Demand Financial Investment:

- Fiscal 2014-15, CFS is investing \$6.9M to respond to invasive alien insect pests and diseases that threaten Canada's forest resources.
- Fiscal 2014-15, CFS is investing \$1.47 M to develop knowledge and tools aimed at detecting, controlling and mitigating emerald ash borer impact.
- CFS invasive alien species research is supported by the IAS Strategy for Canada program, which provides about \$2M of annual ongoing funding.

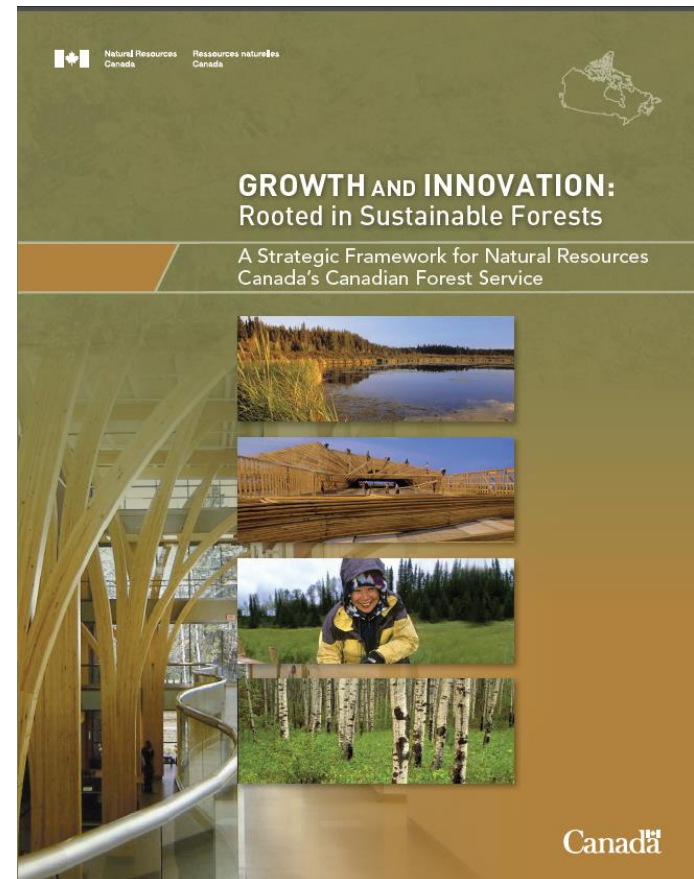


The CFS Strategic Framework:

NRCan-CFS will also work to better connect with Canadians who live in urban communities. The quality of life for those Canadians depends, in part, on a healthy environment that includes urban forests. NRCan-CFS is increasingly providing science and policy leadership on matters relevant to urban forests across the country.

Growth and Innovation: Rooted in Sustainable Forests

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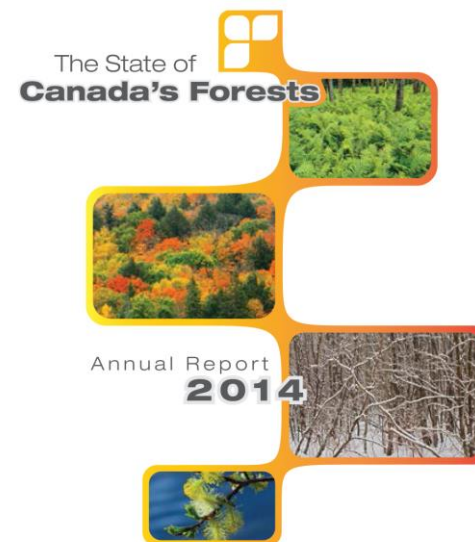


The State of Canada's Forests, 2014:

Urban forests are also recognized for their considerable benefits, including helping to reduce surface and air temperatures in cities and to improve air and water quality. Additionally, a recent study by TD Economics found that for every dollar spent on tree maintenance in Toronto, urban trees returned about \$8 in environmental benefits and cost savings each year.

State of Canada's Forests, Annual Report 2014 Page 31

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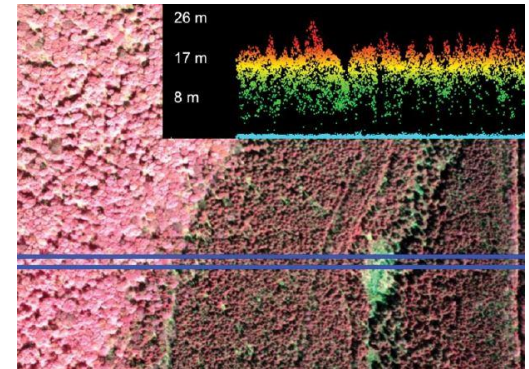
Analysis of CFS Engagement in Urban Forestry – Next Steps:

- Internal strategic policy statement and vision to guide CFS engagement in urban forestry issues.
- Sharing of scientific knowledge, technical expertise and technology with key stakeholders.
- 1-2 pilot-scale, urban forestry research projects with medium-sized cities.
- Synthesis of research opportunities, gaps, and potential new science for urban forests.



Visioning: Potential New CFS Urban Forest Research Areas

- Urban forest inventory and monitoring
- Remote Sensing
- Genome research, identification of tree species and provenances adapted to urban forests
- Gene identification for best trees in future climates
- Climate change risk and adaptation
- Carbon accounting
- Urban ecosystem dynamics



Policy Visioning: Models for Urban Forest Engagement

- New partnerships and relationships
- New tools and apps, social media
- Citizen science
- Socio-economic studies
- Detailed valuation of urban forest goods and services
- Quantification of IAS costs
- National-level information on the status of urban forests



Reality Check: Managing Expectations

- The increasing CFS focus on urban forests will be directed to areas where there is demand, where CFS has capacity, and where we can have an impact.
- CFS is looking to increase impact by seeking new engagement and funding opportunities including through collaboration with communities, organizations and dedicated urban forestry agencies.



Proposed CFS Urban Forest Vision:

- *"A healthy forest canopy in communities throughout Canada, contributing to quality of life of all Canadians, and to the sustainability of Canada's forest resources."*

