Think Tank on a Pan-Canadian Strategy on Urban Forests:

Synopsys of Discussion

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External partners:

Dr. Danijela Puric-Mladenovic
(University of Toronto)

Keyleigh Kanoza
(Scouts Canada)

Nicci Theroux
(ETA Landscape Architecture)

Christene Stenhouse LeVatte,
(Co-president of Government Relations,
Canadian Nursery Landscape Association)

Anthony Daniel
(Planning advisor, City of Montreal)

Marie-Lyne Arbour
(Biologist, City of Montreal)

Danielle St-Aubin
(Director General, Tree Canada)

Dr. Adrina C. Bardekjian
(Director of Research and Engagement, Tree Canada)

Mark Pearson
(Executive Director, Canadian Institute of Forestry)

Kathy Abusow
(President and CEO, Sustainable Forestry Initiative)

Darren Sleep
(Senior director of conservation science
and strategy, Sustainable Forestry Initiative)

Pierre Gosselin, M.D., MPH
(Institut national de la santé publique du Québec)

Annie McKenzie
(Project and Verification Officer,
Federation of Canadian Municipalities)

Sara Jane O'Neill
(Policy Advisor, Federation of Canadian Municipalities)

Federal Government:

Gregory Richardson
(Senior policy analyst, Health Canada)

Carolyn Seburn
(Manager, priority sectors initiative,
Environment and Climate Change Canada)

Joscelyn Coolican
(Senior policy advisor, Environment and
Climate Change Canada)

Véronique Faille
(Project manager, Public Services and Procurement Canada)

Natural Resources Canada – Canadian Forest Service (CFS) experts:

Christian Couture
(policy analyst)

Ken Farr
(Manager, Science Policy Integration)

CFS conveners:

Bryson Perrin
(policy analyst)

Marie-Annick Amyot
(Manager, Policy Experimentation Team)

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The purpose of this report is to provide a written synthesis of the discussions and recommendations generated as part of the think tank on Urban Forests. It is not an endorsement of the ideas nor the official position of Natural Resources Canada, the Canadian Forest Service, or participating institutions. Information contained was accurate at time of writing. Some timelines or information may no longer be current, however, the insights still hold value for contemporary thinking.

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In October 2020, the Canadian Forest Service (CFS) launched a think tank intending to explore the need for a pan-Canadian strategy on urban forests, the benefits that would be derived from such a strategy, and how it might be developed. It also resulted in identifying synergies and collaborating in novel ways to advance urban forest actions across Canada. Bringing together about 20 experts from across Canada for seven meetings, the think tank delivered recommendations on how urban forests can improve health, increase quality of life, and address barriers to green infrastructure development. This document provides a synopsis of the discussions and a proposition for moving forward surrounding equitable access, research, landscape management approaches, green infrastructure cost-benefits, and integration and accessibility.

1. Climate change already disproportionally affects disadvantaged communities and individuals globally. An increasing number of communities are pledging to use urban forests as a way to mitigate inequities from adverse climate change impacts such as heat islands and pollution.

- Public health institutions are increasingly bringing the attention of governments to the disproportional vulnerabilities and disadvantages of individuals living in areas where heat islands are more frequent. The expansion of urban forest cover is considered a critical part of the solution moving forward. They also have the potential to improve people's quality of life, through not only the physical health benefits they bring, but also through the connection to nature they provide, and the spaces they create in communities for people to gather.

Recommendation: Building on ongoing efforts, think tank members are calling on the CFS to lead the development of a pan-Canadian strategy for urban forests to increase integration across organizations and professions. Such a strategy should be grounded in equitable development principles with early targeted actions aimed at reducing disparities in communities, small towns, and cities.

2. The sustainable provision of urban trees and forests benefits are essential for the betterment of every community. Improved sustainability can be achieved through better integration of trees and forests in urban planning and development.

- In the context of traditional infrastructure projects, trees are often seen as an afterthought. This leads to trees being planted without a good understanding of the fundamental needs of healthy trees, such as soil quality, watershed health, or genetic diversity and biodiversity. The lack of knowledge and awareness of the necessary conditions needed for trees to thrive often leads to heightened tree mortality rates.

Recommendation: Think tank members recommend that a pan-Canadian strategy for urban forests be developed with the objective of improving the equitable access to urban trees and forests as well as the sustainable provision of health benefits.

Recommendation: A pan-Canadian strategy should support municipal landscape development strategies that strive to complement green and grey infrastructures for sustainable service delivery that is ecologically grounded (i.e. optimizing biodiversity, watershed health, and conservation of wildlife and sensitive ecosystems).

3. Many communities lack the social licence to prioritize urban forests and green infrastructure development over other projects. This often leads to urban forest projects being inadequately resourced to support the long-term maintenance, growth and sustainable benefits from urban trees and forests.

- The establishment and maintenance of urban forests require significant, longstanding investments that are well beyond the current capacity of

many communities. For this reason, local population support is critical in allocating limited municipal resources to urban trees and forests to ensure their long-term survival. Increasing the public's awareness and education on the benefits of urban forests and green infrastructure can enable this and help create new opportunities for a number of municipalities.

Recommendation: Foster the development of regional and national networks to expand awareness of the benefits of urban trees and forests, including developing local urban forest expertise and facilitating long-term planning.

4. The Government of Canada has committed to supporting municipalities to expand, diversify, and build the resilience of their urban forests. In a changing climate, this will require the support for research and development to ensure appropriate access to domestic sources of trees that are genetically diverse.

- Currently, many communities use total canopy coverage targets to measure the success of urban forest investments. This can be achieved by both planting more trees and by reducing mortality rates of planted trees. The latter requires significant maintenance efforts and support for research to ensure the right trees are planted in the right place, which then promotes longer, healthier lives for urban trees. However, this metric alone can create the semblance that more of the community will have access to the benefits from urban trees and forest when, in reality, it is disproportionally benefiting the areas in a community that already have access to urban forest benefits.

Recommendation: Think tank members recommend that urban forest growth success measures include both the growth of urban forests by canopy coverage and by equitable canopy distribution across neighbourhoods.

Recommendation: A pan-Canadian strategy should facilitate scalability, including support for research and development to support communities across Canada.

5. Similar to large-scale forest management approaches, consideration of the entire ecosystem needs to be applied to build urban tree and forest resilience. This involves taking a landscape management approach to urban forests, including planting trees for biodiversity, ensuring the soil type and quality meet the species needs and adequate access to water and nutrients.

- Currently, trees in urban areas are often managed as individual trees within artificial boundaries such as municipal borders, rather than part of intricately connected forest ecosystems. Single-tree management approaches have resulted in an ongoing decline of canopy coverage over the past decade that is generally caused by an increase of vulnerability to threats. As threats such as climate change, invasive species, and other pathogens compound and threaten the health of the forest, the integration and planning across municipal borders will be necessary to mitigate those risks.

Recommendation: A pan-Canadian strategy should encourage the development of regional and national networks to facilitate the sharing of resources, knowledge, and strategies, foster access to experts (e.g., involving/engaging registered professional foresters associations), and offer ideas to support communities (e.g., climate change vulnerability assessments) by building on existing infrastructures.

6. **Beyond considering ecosystem health and benefits, municipal authorities must better consider the long-term social and economic benefits green infrastructure and urban forests generate.**

- Local governments understand and can easily quantify the benefits of industrial infrastructure projects (e.g., the number of jobs created, taxes, etc.), while the benefits of green infrastructure projects are more difficult to quantify. In addition, many communities see planting trees and developing urban forests as a cost and do not take into account the opportunity costs of not having a healthy urban forest. This can include a heightened need for air conditioning, as there is less shade to cool buildings and more respiratory issues with increased pollution. For this reason, think tank members advocate for the development of better methodologies to assess the tangible financial benefits green infrastructures generate. The development of standard guidelines for communities to assess the environmental, social, and economic value will help better inform land-use planning at the community, town and city level.

Recommendation: Encourage the development and adoption of fiscal frameworks that include standard methodologies for the valuation of social, economic, and ecological benefits of urban forests and green infrastructures to allow green infrastructure to be considered as a financial asset.

7. **Without a proper understanding of the required ongoing maintenance and management for urban forests, there is a significant risk of losing the initial investments made by municipalities and other organizations. To be effective, structures need to be in place to facilitate the integration of local and organizational knowledge, resources, and data across municipal boundaries.**

- Facilitating integration efforts is expected to alleviate the pressures individual communities face through the sharing of knowledge, research capacity, data, and monitoring. For example, communities could share and integrate data across regions to produce a broader perspective of the state of the urban forest and its needs. Developing common language and data collection procedures and leveraging standardized operating procedures will help facilitate this collaboration across Canada and improve the overall health of urban trees and forests.

Recommendation: A pan-Canadian strategy on urban forest should support the development of digital architecture to facilitate knowledge transfer, data storage, and information retention. This may include the development of a compendium/templates/resources at the federal level of resources related to the implementation of a pan-Canadian strategy on urban forests.

Recommendation: Facilitate the establishment of the first national view in real time of urban forestry in Canada by enabling access to standardized urban forestry data across Canada and inform targeted actions and responses.

Recommendation: Explore appointing a "national urban forester," "national advocate for green infrastructure," etc., independent from governments but responsible for providing advice to federal, provincial, territorial, and municipal governments.

The think tank concluded that the creation of a pan-Canadian strategy on urban forests would benefit almost all urban communities across Canada. Recommended key elements of such a strategy include supporting the integration of urban forests into existing land-use planning mechanisms; encouraging the standardization of practices and methods of urban forest planning; development of a Canadian compendium of agreed terminology on urban forests; and the exploration of appointing a national urban forester or national advocate for green infrastructure to provide advice to federal, provincial, territorial and municipal governments. The CFS urban forest team will examine these recommendations in the new year and recommend a path forward for consideration by the CFS senior management team.