

Urban Forest Governance

Dealing with Calamities

CECIL KONIJNENDIJK, PROFESSOR (UBC)

UFORIA – URBAN FORESTRY RESEARCH IN ACTION, UBC



Governance *broad*

“The many ways in which public and private actors from the state,
market and/or civil society govern public issues
at multiple levels, autonomously or in mutual interaction.”

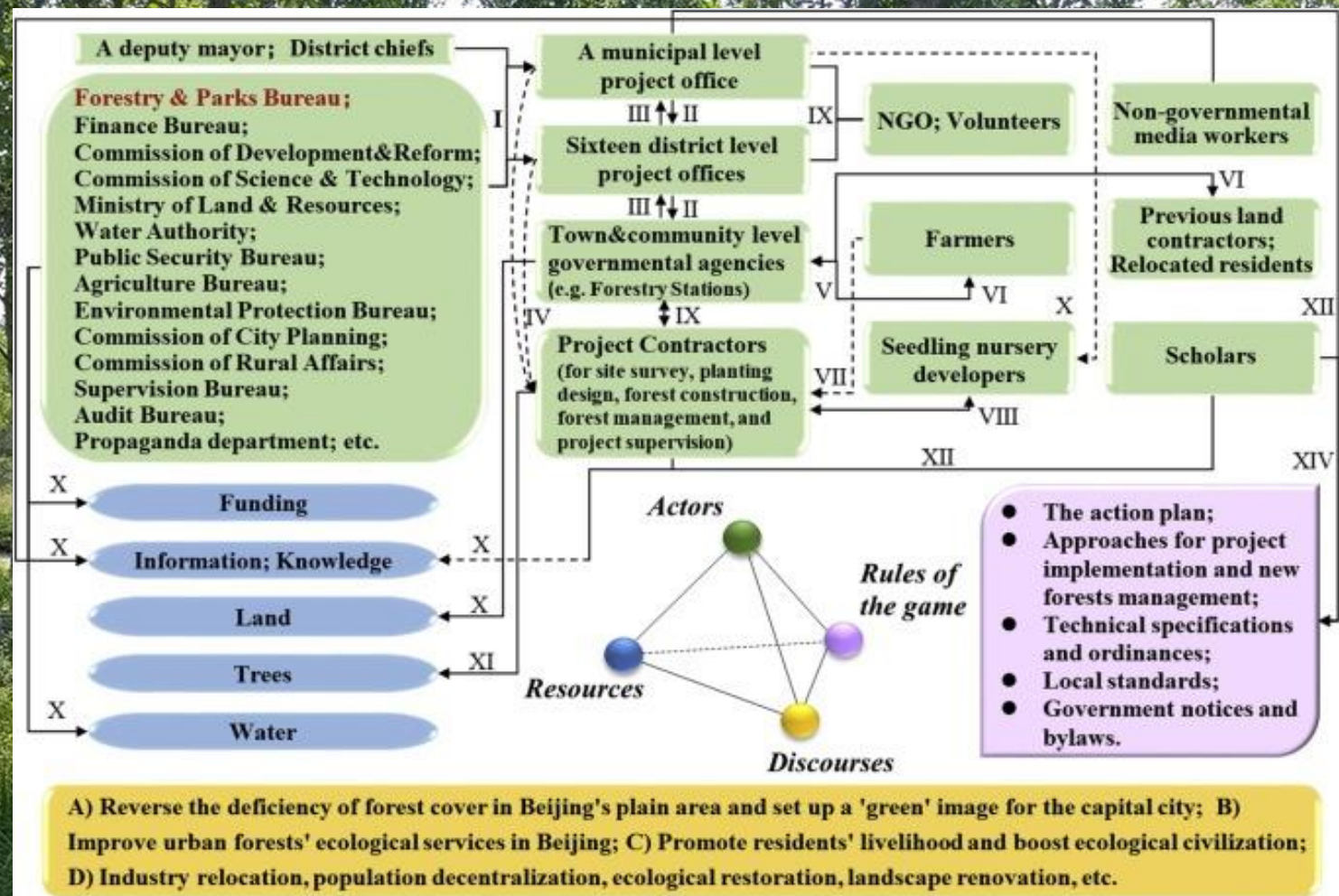
Highlights

- US studies dominate the empirical literature on the views of municipal managers.
- Most studies focus on the operational aspects (e.g., budgets) of urban [forestry](#).
- Management processes (e.g., coordination of actors) are mentioned, but not in depth.
- The studies provide a limited understanding of how municipal managers see governance.
- Future research could focus more on management processes.

Wirtz et al., in revision
(Urban Forestry & Urban
Greening)

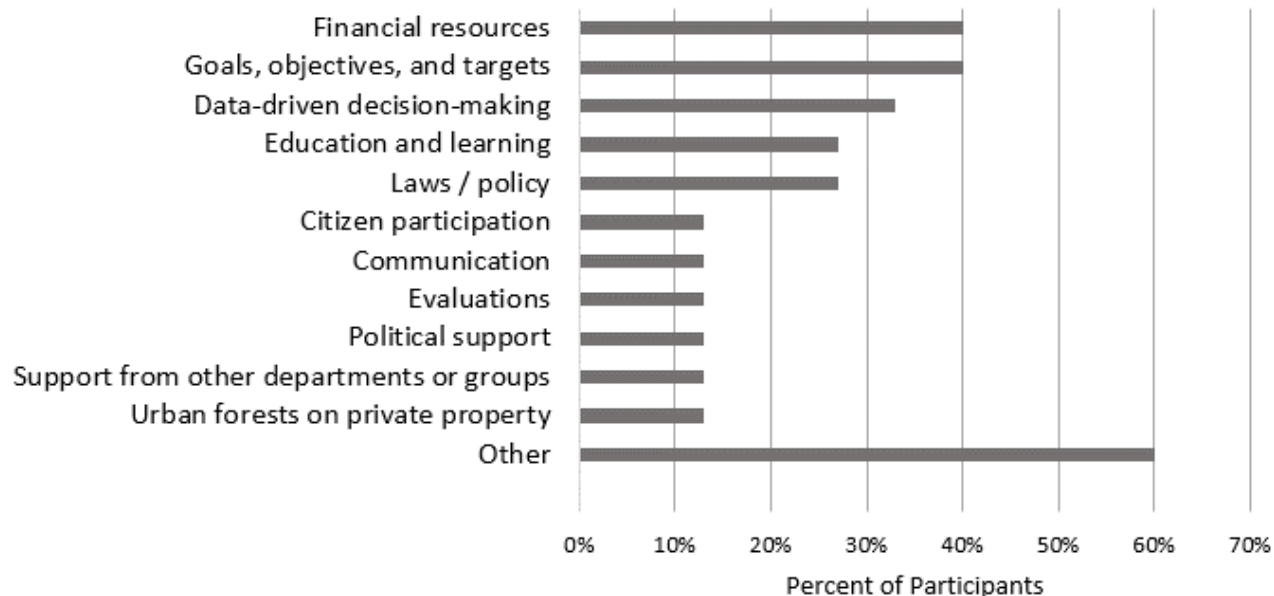
Country research occurred	USA	70%
	Multiple	13%
	USA & Canada	10%
	Canada	7%
Geographical scale of research	City	43%
	International	17%
	National	13%
	Local	13%
	State	7%
	Metropolitan Area	7%
Administrative scale	Municipal	90%
	Local	17%
	National	17%
	State	13%
	Regional	13%
	Global	3%
	Various	3%

Table 2. Percent of documents per country of origin, researched geographical scale, and administrative scale.



How do we assess 'success' in/of
urban forest governance?

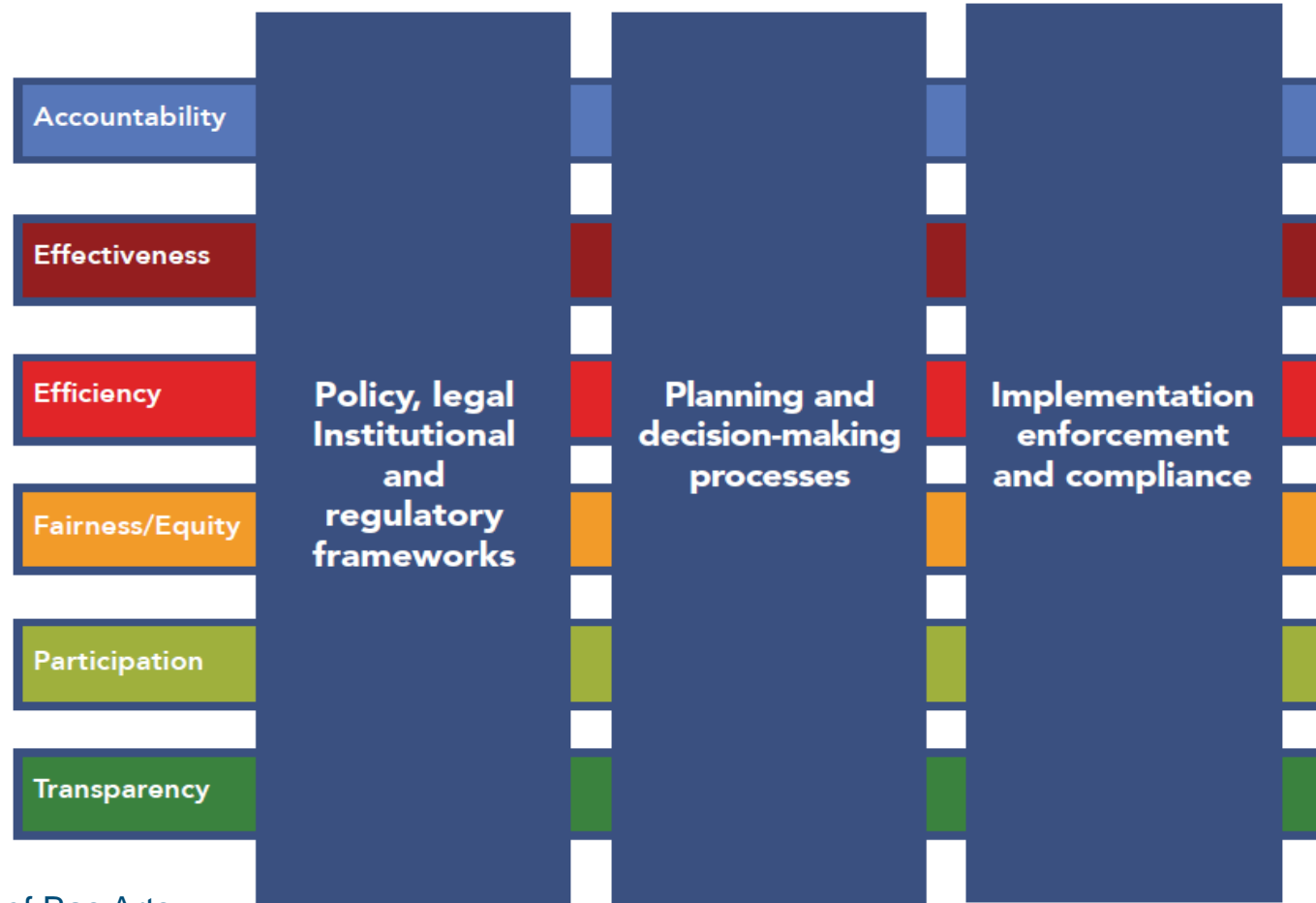
Factors Prioritized by Participants



Resources	Rules of the game	Discourses	Actors
Financial resources (9.6)	Data-driven decision-making (9.4)	Climate change adaptation and mitigation (8.5)	Citizen participation (8.1)
Community support (8.9)	Goals, objectives, and targets (9.07)	Mitigating negative developmental pressures (8.4)	Broad spectrum of actors (7.7)
Support from other departments or groups (8.7)	Vision (8.9)	Priority given to urban forests (7.9)	Stewardship / non- profit organizations (6.4)

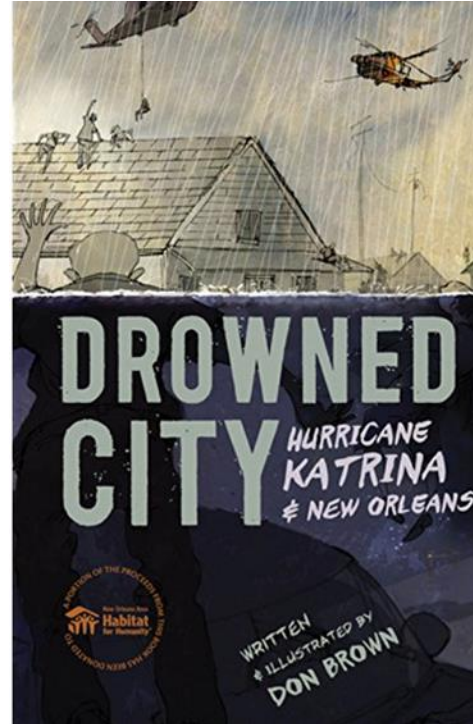
Fig. 1 Pillars and principles of governance

Source: FAO, 2011



A Few More Thoughts on Disturbance

- Scale and impact of ecological disturbances can differ widely
- Disturbances impact ecosystems, urban forests – but also humans and communities
- **Calamities:** an event causing great and often sudden **damage or distress**; a disaster (Oxford Online Dictionary)



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Vancouver

Vancouver council approves duplex zoning throughout the city

By **JEN ST. DENIS** StarMetro Vancouver
Thu., Sept. 20, 2018



VANCOUVER—Vancouver city council has voted to approve a zoning change to allow duplexes throughout the city after a two-day public hearing.

Dozens of residents spoke for or against the proposal, but the issue also showed how the city's political parties are positioning themselves either on the side of adding more density in single family neighbourhoods or strongly opposing the idea.



Urban Forest Governance in Canadian Cities



- Analysing urban forest governance in 4 Canadian cities
- Identifying factors impacting success
- Special focus on ‘urban forest calamities’
- Shifting governance models/arrangements, changing governance dimensions



Social Sciences and
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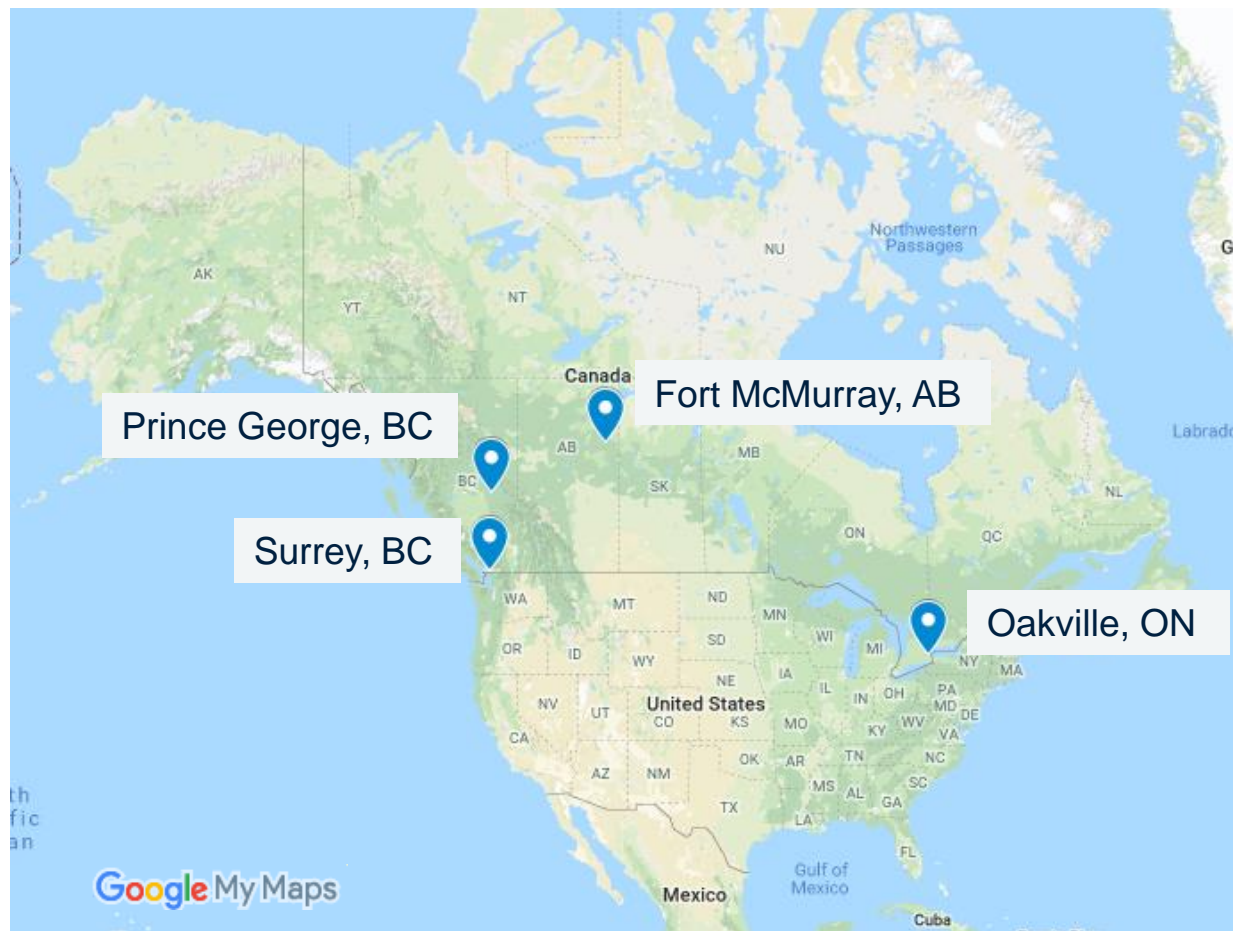
Canada

Conseil de recherches
en sciences humaines
du Canada

Method

- 4 Canadian cities (2 suburban, 2 interior)
- Interviews, policy analysis, focus groups
- 32 semi-structured interviews with local governance actors (7+ per city)
- Questions on:
 - The role of urban forestry in the city
 - Urban forest governance at different levels
 - Urban forest calamities: e.g. preparedness, response/changes
- Transcribing and coding, e.g. using Policy Arrangement Approach





How do we build urban forest governance that helps us manage calamities?

Governance Arrangements

Arnouts et al. 2012



- Policy arrangement: temporary stabilisation of the content and organisation of a particular policy domain
- Governance mode: the organisational component of a policy arrangement

Table 15.1 Ideal-typical governance arrangements according to Arnouts et al. (2012).

	<i>Hierarchical</i>	<i>Closed co-governance</i>	<i>Open co-governance</i>	<i>Self governance</i>
<i>Actors</i>	Mainly governmental actors	Select mixed group of actors	Large mixed group of actors	Mainly non-governmental actors
<i>Power</i>	With government	Pooled	Diffused	With non-government
<i>Rules</i>	Governmental coercion	Restricted cooperation	Flexible collaboration	Non-governmental forerunning

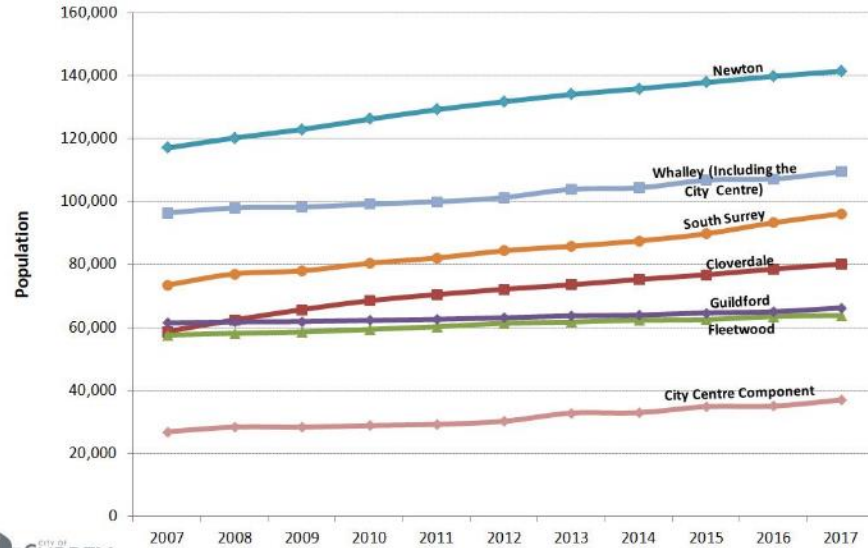
Results - Discourses

- Surrey: *rapid urban development*, environmental quality & conservation
- Oakville: rapid urban development, 'our solution to pollution', *Emerald Ash Borer (and other pests)*
- Fort McMurray: economic development and community building, *forest fires*
- Prince George: *mountain pine beetle* (previously), commercial forestry focus – awareness of other pests and wildfires



Italics mark an urban forest calamity as identified by the interviewees.

Population Estimates (2007 to 2017)





Regional Municipality of Wood Buffalo / Wikimedia Commons



NASA Earth Observatory image by Joshua Stevens, using Landsat data from the U.S. Geological Survey

By CPG1100 - Own work, CC BY-SA 4.0,
<https://commons.wikimedia.org/w/index.php?curid=57702057>



Results – Actors and Alliances

- Surrey: expanding urban forestry team, advisory boards, role of local citizen groups
- Oakville: expanding urban forestry team, Oakville Green, mayor (and local consultants)
- Fort McMurray: expanding urban forestry team, fire department (and province)
- Prince George: (small) urban forestry team (and contractors & others during pest infestation)



*Important role of **champions** for urban forestry in both Surrey and Oakville*



John McNeil, Oakville



Rob Burton, Oakville

<https://oakvillenews.org/town-launches-2015-canopy-conservation-program-during-emerald-ash-borer-awareness-week-june-1-7/>



Results – Resources

- Surrey: funding through e.g. development compensation fund, link to research
- Oakville: i-Tree assessment, information management, new emergency portal, funding for backyard planting
- Fort McMurray: FireSmart program, highly trained staff
- Prince George: integrated pest management strategy (but hardly mentioned), specific measures during pest outbreak



Results – Rules of the Game

- Surrey: new rules for developers (and compensation), role of advisory boards, urban forestry staff in other departments
- Oakville: changes in urban forestry organisation, collaboration with not-for-profits, collaboration with province
- Fort McMurray: collaboration with province
- Prince George: pest management strategy



Outputs and Outcomes

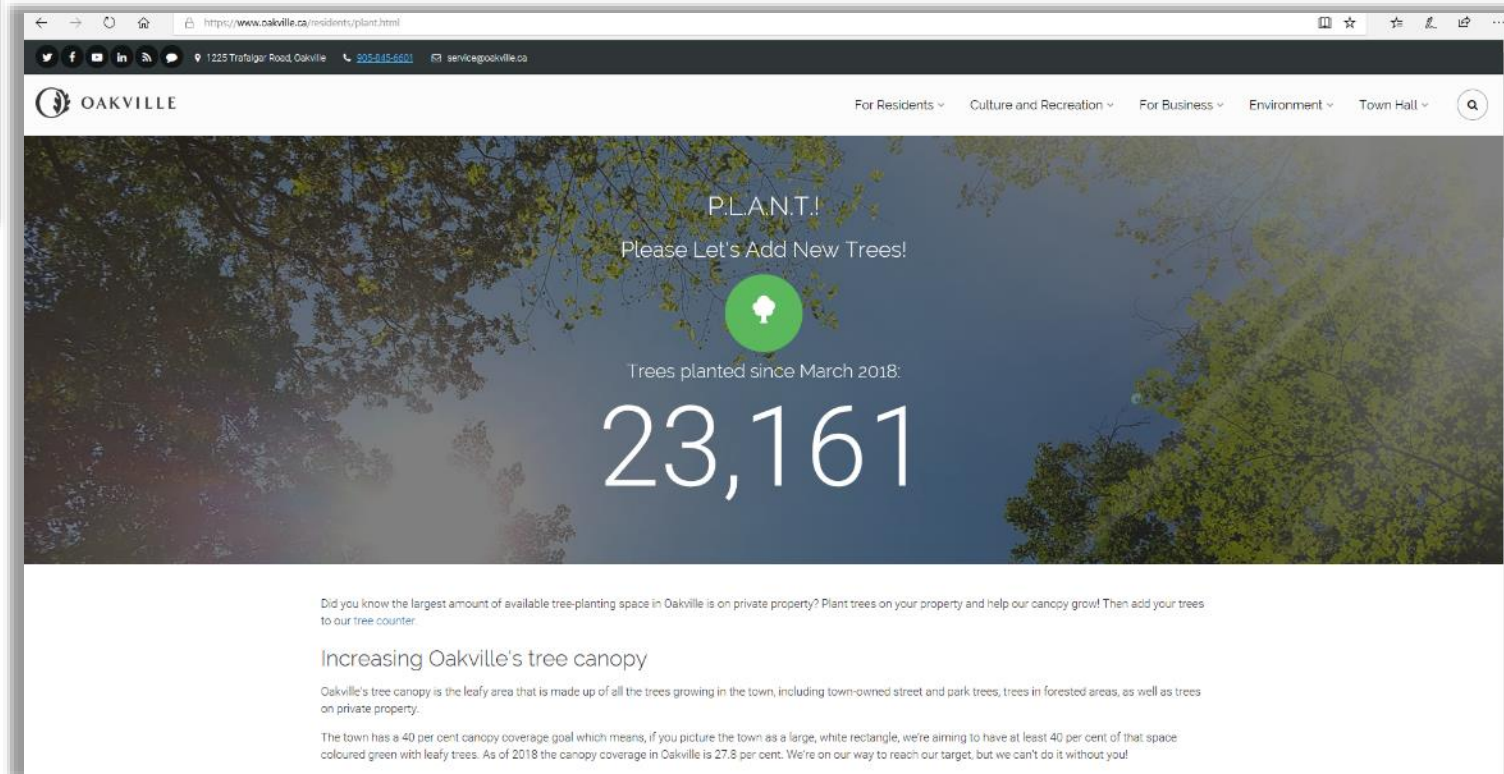
- Surrey: suite of plans, but no comprehensive urban forest strategy yet; hard to maintain canopy, general appreciation of urban forests
- Oakville: second iteration of urban forest strategy being developed; tree planting campaign to maintain and enhance canopy
- Fort McMurray: urban forest strategy close to approval
- Prince George: integrated pest management strategy




 OAKVILLE

Oakvillegreen Conservation Association

289-813-1568, president@oakvillegreen.org, 2089 Nipigon Dr. Oakville ON

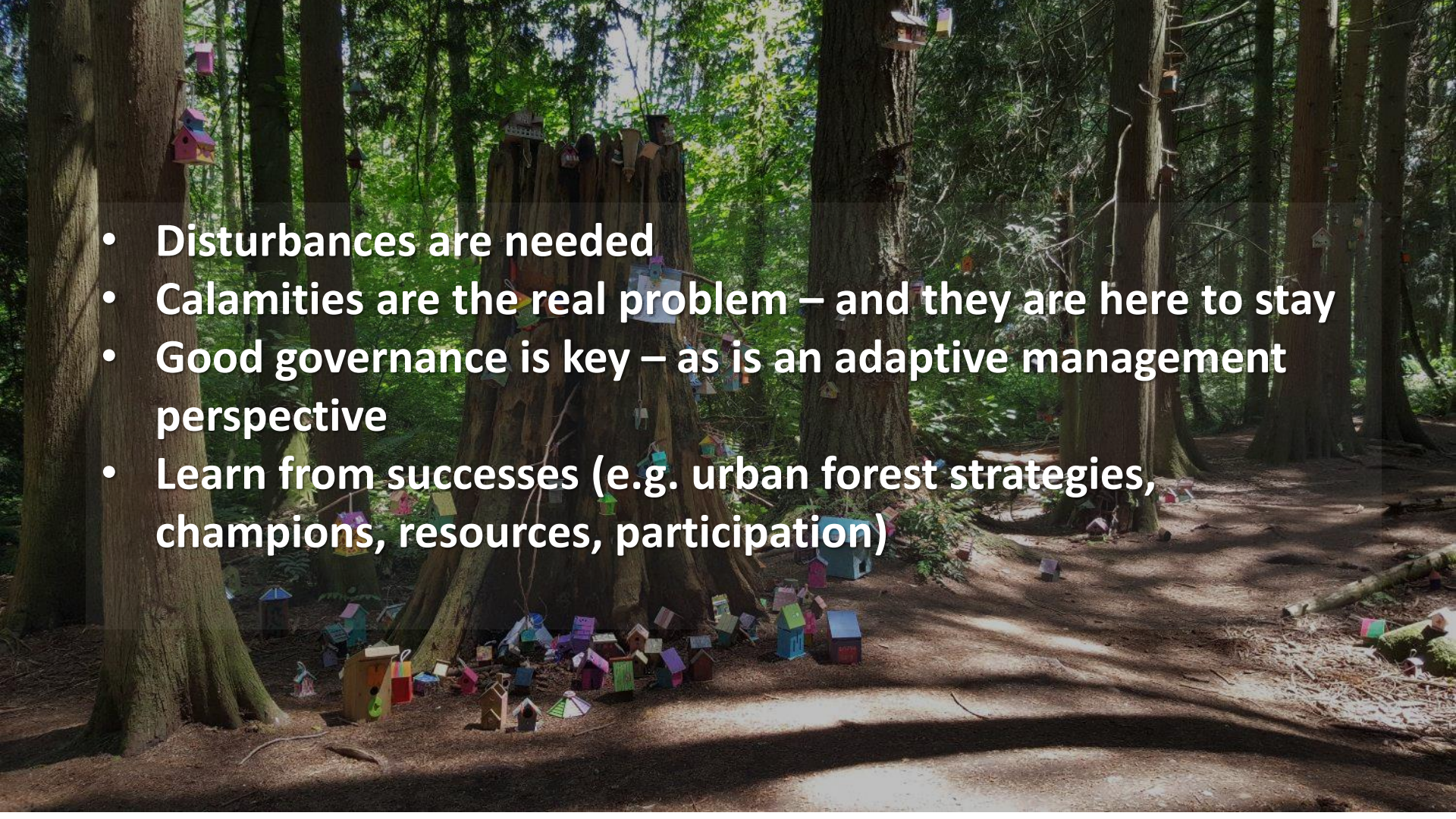




Governance Arrangements

- Both 'closed' and 'open' co-governance arrangements in place
- Some shifts in e.g. the actors and partnerships involved – moving towards more open co-governance in especially Oakville and Surrey
- Some of the shifts seem to have been more temporary (e.g. Prince George)
- Oakville and Surrey had already changed their governance arrangement before calamities hit



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- A photograph of a forest floor with many colorful birdhouses. Some are hanging from tree trunks and branches, while others are on the ground. The trees are tall and thin, with sunlight filtering through the leaves. The ground is covered in brown leaves and twigs.
- Disturbances are needed
 - Calamities are the real problem – and they are here to stay
 - Good governance is key – as is an adaptive management perspective
 - Learn from successes (e.g. urban forest strategies, champions, resources, participation)