



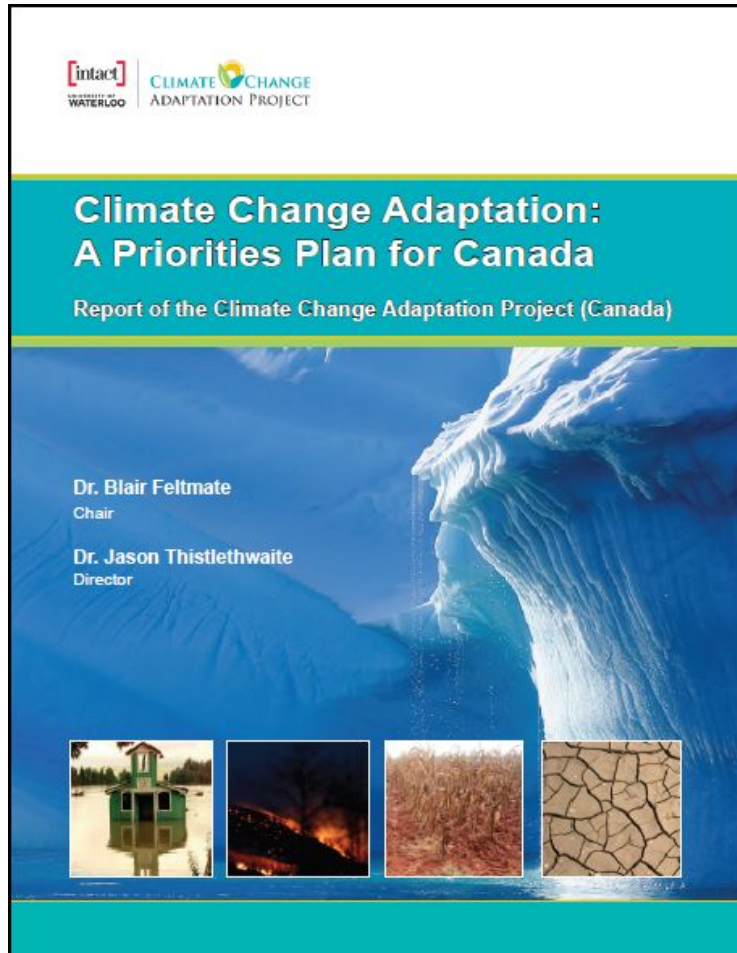
CLIMATE CHANGE
ADAPTATION PROJECT

**BUSINESS AND BIODIVERSITY
CONSERVATION**

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Agenda



1. Purpose of the “Climate Change Adaptation Project: Canada”
2. Project design (5 steps)
3. Priority areas of focus for climate change adaptation in Canada
4. Key climate change adaptation recommendations
5. Lessons Learned/Annual reporting

www.adaptnowcanada.ca

Purpose of the Climate Change Adaptation Project (Canada)

The purpose of this project is to:

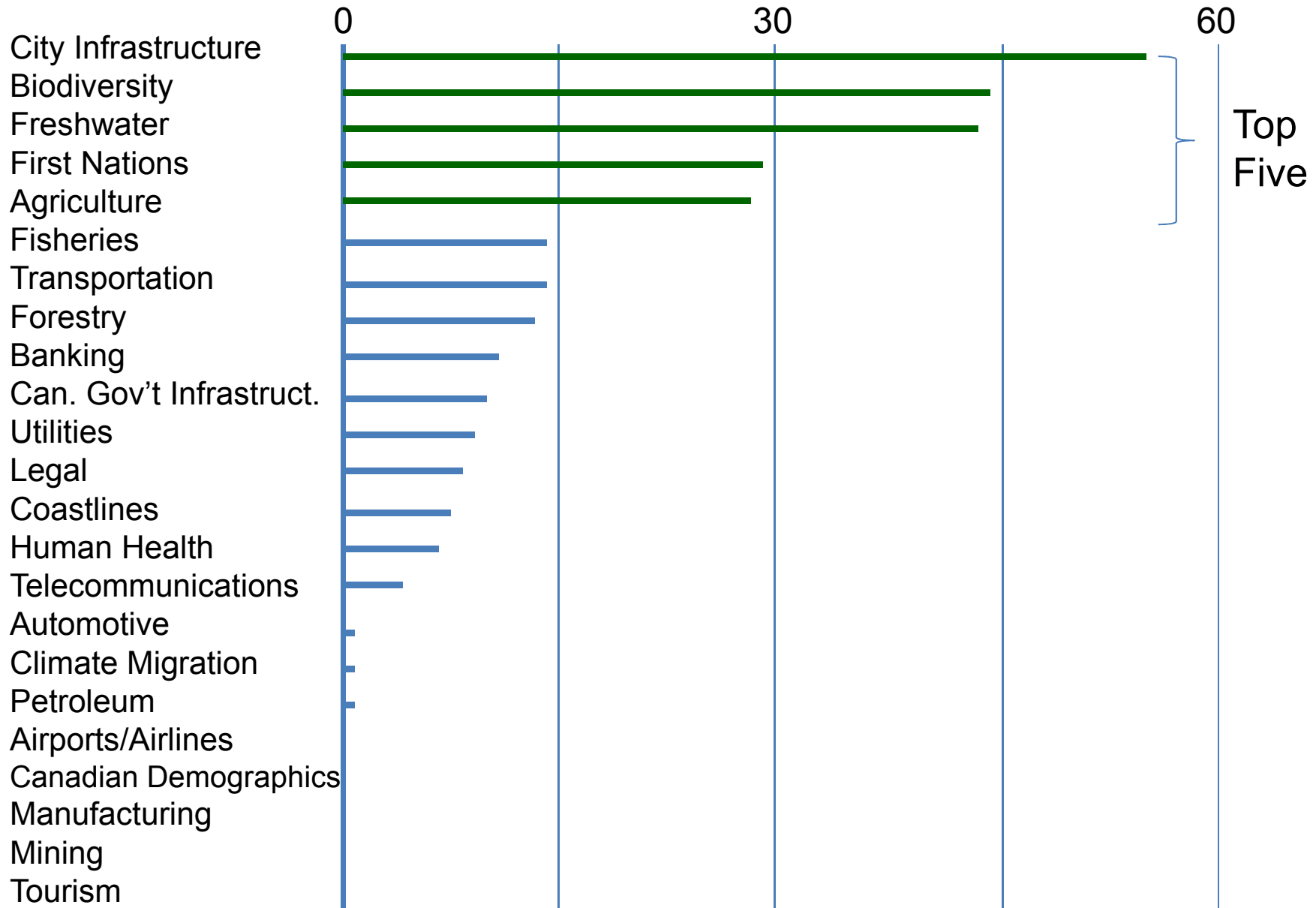
- Identify 5 key areas and courses of action that Canada must engage to limit current and future impacts to industry and public sectors that would otherwise result due to climate change
- Identify 3 key areas and courses of action to limit Property & Casualty insurance sector impacts that would otherwise result due to climate change
- Translate recommendations resulting from above into action

Five Steps of the Climate Change Adaptation Project (Canada)

- 1. Climate Change Projections for Canada**
 - In reference to Temperature/Precipitation, 2020/2050, Winter/Spring/Summer/Fall - thanks to the **Canadian Climate Change Scenarios Network**
- 2. Primary Subject Matter Experts** presented key climate change challenges, and adaptation actions to be taken to address those challenges.
- 3. Adaptation Advisory Committee** identified 5 key industry and public sectors, and 3 key Property & Casualty insurance sectors, to be addressed from the perspective of adaptation.
- 4. Secondary Subject Matter Experts** were engaged to provide detailed courses of action to be taken in reference to 8 sectors identified in Step 3.
- 5. Final Report** released June 2012. Implementation of recommendations throughout 2012 – 2014, and reporting back on implementation “success”.

Figure 1: Prioritization of Climate Change Adaptation Sectors for Canada (determined by the Adaptation Advisory Committee of the Climate Change Adaptation Project)

Allocation of Votes



Key Climate Change Adaptation Recommendations for Canada

City Infrastructure

- **Limit Flooding/Flash Floods within Cities** – enhance riparian buffer zones, build bio-swales and flood retention ponds within key Canadian cities (Halifax, Montreal, Toronto, Calgary, Vancouver).

Biodiversity

- **Increase Habitat Connectivity in Human-Dominated Settled Landscapes** – develop and support programs to increase habitat connectivity in A2A and Y2Y corridors.

Freshwater Resources

- **Preserve/Restore Critical Wetlands** – establish a national priority to identify, preserve and/or restore “key capacitor” wetlands across Canada.
- **Move Population and Water-Intensive Industry to Water (not vice-versa)** – e.g., develop policy that would encourage new development on the Peace River (where there is ample water supply), rather than the small South Saskatchewan River.

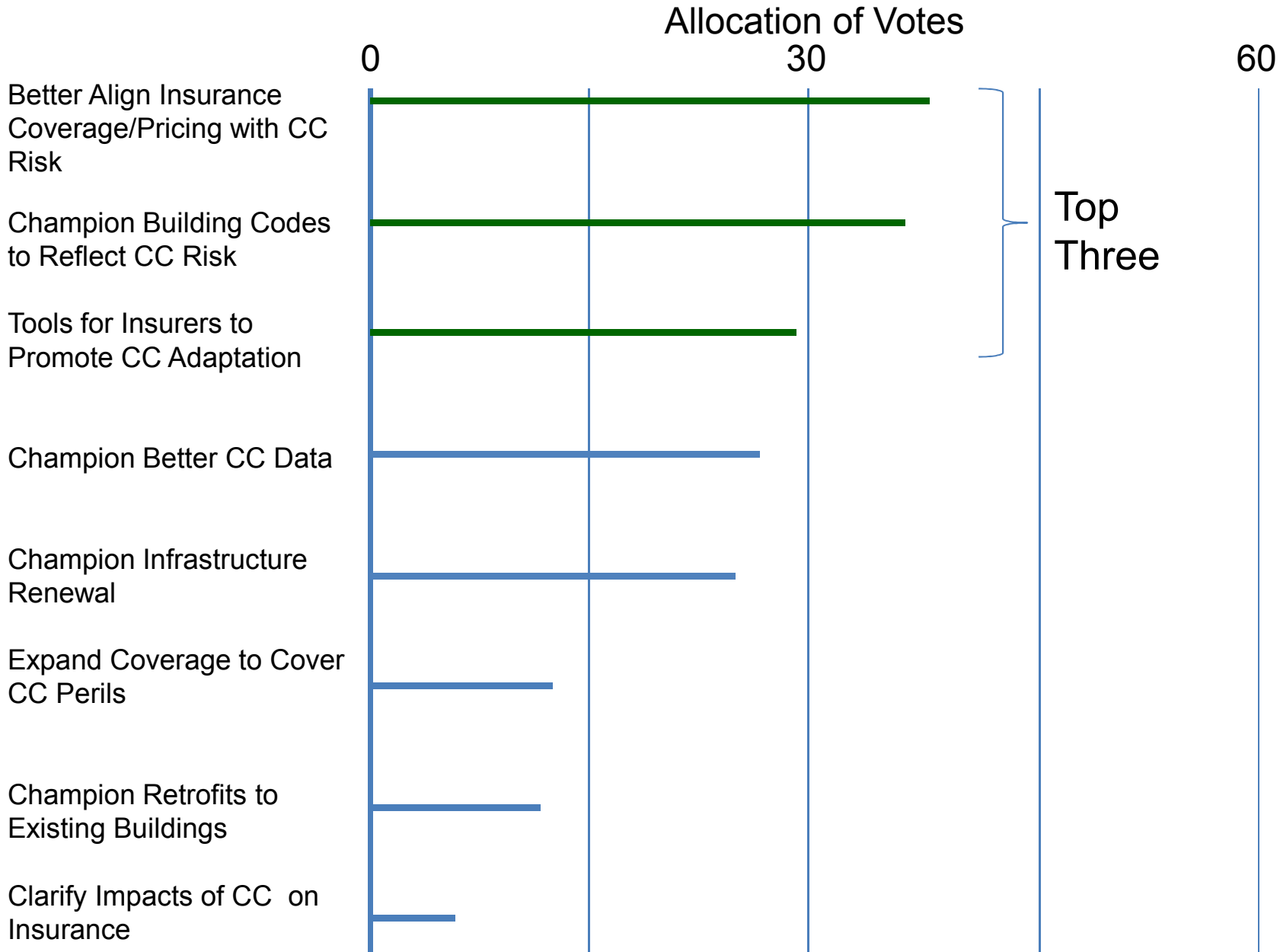
Aboriginal Communities

- **Engage Vegetable Growth in Communities Losing Ice-Road Access** – pilot vegetable growing project in Pikangikum (NE Ontario).

Agriculture

- **Develop CC Information/Dissemination Programs to Engage Agricultural Stakeholders** – engage agricultural producers/research community to develop a CC dialogue, with a focus on factoring CC into decision-making.

Figure 2: Prioritization of Climate Change Property & Casualty Sectors for Canada (as determined by the Adaptation Advisory Committee of the Climate Change Adaptation Project)



Key Climate Change Recommendations – P&C Insurance

New Homes and Adaptation

- **Integrate Adaptation into New Home Builds –** (1) promote adaptation as theme for 2015 National Building Code renewal, (2) pursue building code reforms that support adaptation (e.g., mandatory backwater valves).



Existing Homes and Adaptation

- **Educate and Incentivise Home Owners to Embrace Adaptation –** (1) address behavioural modification to limit damage due to basement flooding, and (2) develop programs to incentivise physical adaptation within homes (e.g., subsidize backwater valve installation).

Insurance Pricing and Adaptation

- **Perform Attribution Analysis to Identify Key Factors that Explain Weather-Related Losses/Flooding in Basements –** use univariate and multivariate analyses.

Lessons Learned

1. Don't look for perfection in climate models (look for “pretty good”)
 - avoid “relentless pursuit of irrelevant perfection”
2. Base adaptation on ensemble climate models (don't bet on a single CC model)
3. Set priorities and be specific regarding CC adaptation recommendations
4. Dispel the notion that adaptation is expensive – adaptation can be very cost effective – e.g., backwater valve (\$200), preservation of wetlands (\$0)
5. Make report(s) user-friendly/accessible to all

Overall – Get On With It!