

Improving Environmental Data and Science to Support Evidence-Based Decisions

1. Investments in National Geospatial Habitat Inventories and Landscape Change Monitoring

Canada's open Federal Geospatial Data Platform aggregates individual geospatial data layers from various publicly (federal, provincial, municipal) and privately generated data layers into a national geodatabase. However, many of the individual base layers are either incomplete, outdated, or are not accessible to the public. In instances when they are publicly available, they are often spread across multiple data platforms and governments.

Given the recently announced major investments in nature-based climate solutions (NBCS), and the federal government's efforts to effectively address Canada's biodiversity crisis using expanded publicly and privately protected areas, it is vital for the Government of Canada to take meaningful steps to resource completing and updating its baseline geospatial data layers, and to implement a coordinated ongoing habitat conversion monitoring effort across the Canadian landscape.

Building on new federal efforts to expand the use of restored habitats to mitigate the impacts of climate change, species and habitat loss, the Green Budget Coalition recommends that the federal government make targeted investments across three geospatial data enhancement streams:

- a) Conduct an audit and inventory of existing geospatial datasets (and gaps) across core federal departments, including from AAFC, NRCan, ECCC, PS, and DFO, and provincial and other relevant levels of government, to determine what geospatial data is available for aggregated use and publication.
- b) Update geographic and landscape feature data to complete Canada's national terrestrial habitat inventories for wetlands (ECCC) and grasslands (AAFC). This includes completing the Canadian Wetland Inventory, implementing a new native grasslands inventory, and national groundwater mapping. We also recommend that advanced measures already in place to monitor and map Canada's forests at NRCan be fully resourced so that they may also support nature-based climate mitigation. Additionally, marine, coastal, and freshwater monitoring and mapping at DFO could also be resourced in this effort. In addition to enabling Canada to make well informed land-use and management decisions, these investments can be leveraged to improve evidence-based decision-making in other areas, including better understanding the diverse values and benefits we gain from conserving our natural assets (and the values we lose when natural assets are lost), and informing the implementation of climate policies and our understanding of how policies are working.

- c) Implement a new and ongoing program to monitor and assess landscape level changes in key habitats – wetlands, grasslands, and forests. While the completion of baseline inventories for Canada’s core habitat types is a critical step in supporting meaningful and effective habitat management, the legislative and regulatory framework – across multiple levels of government – intended to protect these vital natural areas has proven to be insufficient for decades. The Government of Canada must provide national leadership by funding ongoing science and monitoring efforts to measure and understand the geographic locales and impacts of habitat conversion on an annual basis. This investment is designed, in part, to protect those much larger investments being made in NBCS and biodiversity/protected areas conservation.



Recommended Investment:

- **\$2 million over three years** for an inventory and audit [ECCC, NRCan, AAFC, PS];
- **\$150 million over four years** to update and complete national habitat inventories [AAFC, NRCan, ECCC]; and
- **\$45 million over nine years** to measure and monitor habitat loss and landscape level change. [ECCC, AAFC, NRCan]



Photo: Vivek Kumar

2. Investments in Climate and Biodiversity Science

Evidence-based decision-making is a critical pillar to any effective and meaningful efforts designed to address the twin crises of climate change and biodiversity loss. Yet, public investments in science and evaluation have lagged far behind investments in direct habitat programs. Similarly, coordinated efforts to harness and fund partnership-based research with external organizations have lagged. To ensure that limited public investments in habitat are directed to their highest and best use, we recommend that the Government of Canada implement a new application-based granting program designed to support research, innovation, and collaboration between external organizations and/or for work undertaken in support of federal government programs. This initiative would support peer-reviewed science and evaluation with respect to the use, deployment, and effectiveness of habitat-based tools in support of nature-based climate solutions and biodiversity programming.



Recommended Investment:

\$50 million over five years, for a new grant-based collaborative habitat and climate research fund. [ECCC, NRCan, AAFC]

3. External Advisory Panel on Integrating Environmental Data

The Green Budget Coalition recommends establishing an external advisory panel, co-led by StatCan and ECCC with the collaboration of AAFC and NRCan. It would be comprised of public and private data collectors, users, and processors, including representatives from all levels of governments, industry, Indigenous groups, environmental organizations, and the public. The panel would be similar to Statistics Canada's National Accounts Advisory Committee and would have a mandate to provide strategic advice to governments on data collection and management issues, including the development of Statistics Canada's new Census of the Environment. A key deliverable would be recommendations to the federal government on actions to help close Canada's growing environmental information gap and enable evidence-based decision-making.



Recommended Investment:

\$2.5 million over five years, renewable, in support of an external advisory panel. [StatCan, ECCC]

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See also National Wildlife Collision Reporting & Mitigation Infrastructure, later in this section.