

Biodiversity Sub-Committee Advice to the TAC and Agency
Revised May 2, 2023
Prepared by the Biodiversity Sub-Committee

Background

In January 2022, the Biodiversity Sub-Committee (BDSC) reviewed the journal article, “The time is now to improve the treatment of biodiversity in Canadian environmental impact statements” (Gannon 2021)¹. Based on the discussion in January 2022 and the gaps identified by Gannon, the co-champions proposed that the BDSC focus on addressing the gaps listed below:

1. Define biodiversity in the TISG template.
2. Set clear requirements regarding minimum survey efforts for assessing biodiversity at all levels (i.e., genetic to landscape).
3. Develop guidance for assessing the cumulative effects on biodiversity.
4. Develop guidance for evaluating how the predicted impacts or enhancements on biodiversity contribute to sustainability.
5. Develop guidance on estimating the effectiveness of mitigation measures proposed for mitigating biodiversity impacts.

A research proposal was created by the BDSC to engage with a research team holding expertise in biodiversity and impact assessment through research grant funding to develop a foundational document for the treatment of biodiversity under the *Impact Assessment Act*. The foundational document would provide the following:

1. Principles on the treatment of biodiversity in impact assessment.
2. Advice on content for the TISG template.
3. Recommendations on the relevance of biodiversity to the public interest factors under section 63 of the IAA and the public interest determination, and advice on how biodiversity should be considered in each of the section 22 factors of relevance to biodiversity.
4. Guidance on predicting positive effects on biodiversity, including scale, quality and uncertainties (i.e., ecosystem services and economic benefits of biodiversity, IPBES 2019).
5. Guidance on predicting a project’s contributions to supporting Canada’s ability to fulfill its commitments to the UNDRIP (Article 29) and UN Convention on Biological Diversity, Article 8(j).
6. Other elements to be identified through collaboration between the research team and the Biodiversity Sub-Committee.

¹ Gannon, P. 2021. The time is now to improve the treatment of biodiversity in Canadian environmental impact statements. *Environmental Impact Assessment Review* 86 (2021) 106504.

The researchers submitted the final report on March 31, 2023. Based on a review of the draft document submitted on February 28, 2023 and feedback from the TAC at the March 2023 meeting, the following advice to the TAC and Agency is presented by the BDSC.

What did we learn?

The foundational document summarizes the regulatory context for assessing biodiversity impacts under the *Impact Assessment Act*; outlines Canada's international and domestic obligations related to biodiversity; provides case studies of biodiversity assessment under previous regulatory regimes and from other jurisdictions; proposes principles for assessing biodiversity under the *Impact Assessment Act*; and provides best practices for addressing biodiversity through the phases of the impact assessment process.

What is left to do?

The BDSC met with the researchers on March 13, 2023 to discuss the draft report and, amongst the committee members only, draft advice content. The co-champions met on March 15, 2023, and identified the following recommendations to continue to advance development of guidance for the treatment of biodiversity under the *Impact Assessment Act*:

1. The assessment of effects on biodiversity can be improved by identifying knowledge gaps (e.g., baseline knowledge of genetic diversity and how genetic diversity impacts can be practicably assessed in impact assessment, standardized systems to describe and map ecosystems²). Improving treatment of biodiversity in impact assessment also requires assessing the current level of functionality of jurisdictional support systems (i.e., is provincial/territorial species at risk information thorough and up to date, and, are there adequate support and resources for provincial/territorial conservation data centres?). These issues should be addressed at the project assessment and regional assessment levels.
2. There is a need for greater guidance on the role of regional assessment in understanding effects on biodiversity and in developing methods for assessing the impacts of cumulative effects on biodiversity.
3. The BDSC recommends developing best practices as outlined in Chapter V of Johnston and Ray (2023)³ as fact sheets for posting on the Agency's website. These best practices would consider the following factors in relation to effects on biodiversity:
 - scoping biodiversity in project-level assessments;
 - the role of regional assessments in evaluating cumulative effects on biodiversity;
 - how effects on biodiversity should be considered in relation to fostering sustainability;
 - relevant environmental obligations to protecting biodiversity loss;
 - analysis of a project's alternative means;
 - application of the biodiversity mitigation hierarchy; and

² Johnston, A. and J. Ray. 2023. Assessing Biodiversity under the *Impact Assessment Act* Principles and Guidance for Safeguarding Biodiversity through Project Assessment. P. 91.

³ Ibid.

- impacts on Indigenous rights.

The BDSC recommends that the Agency consider a range of approaches for improving how biodiversity can be better addressed in the impact assessment process, including the suggestions set out below:

1. The Agency could host regional workshops with experts in biodiversity (including both western science and Indigenous Knowledge), federal and provincial/territorial regulatory analysts, Indigenous groups, proponents and practitioners to discuss the following:

- Jurisdictional regulatory obligations related to international and domestic biodiversity obligations;
- Collaboration on the development of methods for the treatment of biodiversity under the *Impact Assessment Act* for inclusion in the TISG template, and;
- Bridging of academic research methods to quantify and qualify effects on biodiversity in impact assessment (this is a gap not addressed by the foundational document).

2. The Agency could establish a standing Working Group for scoping in the Planning Phase to address the following issues related to treatment of biodiversity in impact assessment:

- to establish data collection methods for establishing baseline conditions;
- to assess impacts to biodiversity and subsequent impacts to indigenous rights;
- to consider alternative means in the context of preventing biodiversity loss in the Impact Statement;
- to assess impacts and estimate contribution of cumulative effects on biodiversity;
- to consider effects on biodiversity in the context of a project's contributions to sustainability; and
- to consider proposed mitigation measures in light of effects on biodiversity and how to apply the biodiversity mitigation hierarchy.

3. The TAC should consider the workplan proposed by the BDSC for the 2023-2024 fiscal year to advance the BDSC recommendations to ensure that the TAC can provide advice on this important and evolving subject.

Table 1 provides a summary of the research outcomes with respect to the common problems identified by Gannon (2021).

Table 1: Common problems in treatment of biodiversity in impact assessment identified by Gannon

Common problem	Outcome of BDSC research^a
A focus on formally protected species and habitats to the exclusion of common species	<p>Addressed in Chapter 2; section 22 factors to consider under the <i>Impact Assessment Act</i> provide a means to consider effects on biodiversity within a broader context related to environmental obligations, contributions to sustainability, impacts on Indigenous rights, cumulative effects, health and social conditions, and Gender-based Analysis Plus.</p> <p>Address through regional workshops, a Working Group, and the TAC.</p>
Limited consideration of multiple scales of biodiversity (genes, species, ecosystems)	<p>Chapter V, Section K (3) provides brief recommendations for best practices related to scale.</p> <p>BDSC recommendation to host regional workshops with academic experts in biodiversity, regulatory analysts, Indigenous groups, proponents and practitioners to consider how multiple scales of biodiversity can be better considered and reflected in the requirements outlined in the TISG.</p> <p>Further address through the Agency Working Group and TAC.</p>
EIS reports missing basic information, such as the size of the project footprint or indication of the length of surveys	<p>No detailed methods developed in the foundational document for this.</p> <p>BDSC recommendation to host regional workshops with experts in biodiversity (including both western science and Indigenous Knowledge), regulatory analysts, Indigenous groups, proponents and practitioners to develop content for TISG.</p> <p>Address through an Agency Working Group and TAC.</p>
Failure to address an ecologically relevant scale for the assessment	Chapter V, Section K (3) provides brief recommendations for best practices related to scale.

	<p>BDSC recommendation to host regional workshops with academic experts in biodiversity, regulatory analysts, Indigenous groups, proponents and practitioners to develop content for TISG.</p> <p>Address through an Agency Working Group and TAC.</p> <p>No detailed methods developed in the foundational document for this.</p> <p>BDSC recommends hosting regional workshops with experts in biodiversity (including both western science and Indigenous Knowledge), regulatory analysts, indigenous groups, proponents and practitioners to develop content for TISG.</p> <p>Further Address through an Agency Working Group and TAC.</p>
<p>Poor treatment of fragmentation and other landscape-scale effects</p>	<p>Chapter V, Section E (3) provides brief considerations related to evaluation of project alternatives in the context of applying the biodiversity mitigation hierarchy.</p> <p>BDSC recommends establishing a Working Group for scoping biodiversity issues in the Planning Phase of an impact assessment to support the consideration of a project's alternative means in the context of preventing biodiversity loss.</p> <p>The TAC could offer further advice on this.</p>
<p>Weak assessment of alternatives</p>	<p>No detailed methods developed in the foundational document for this.</p> <p>BDSC recommends establishing a Working Group for scoping biodiversity issues in the Planning Phase of an impact assessment to support data collection methods for establishing baseline conditions, assessing impacts and estimating project-contributions to cumulative effects on biodiversity.</p>
<p>Very little quantitative biodiversity information in baseline studies or in impact analysis and assessment, often with vague predictions of limited value</p>	<p>BDSC recommends establishing a Working Group for scoping biodiversity issues in the Planning Phase of an impact assessment to support data collection methods for establishing baseline conditions, assessing impacts and estimating project-contributions to cumulative effects on biodiversity.</p>

<p>Inadequate survey efforts and poor study design</p>	<p>The TAC could offer further advice on this.</p> <p>No detailed methods developed in the foundational document for this.</p> <p>BDSC recommends establishing a Working Group for scoping biodiversity issues in the Planning Phase of an impact assessment to support data collection methods for establishing baseline conditions, assessing impacts and estimating project-contributions to cumulative effects on biodiversity.</p> <p>The TAC could offer further advice on this.</p>
<p>Limited consideration of indirect, secondary, and cumulative effects</p>	<p>No detailed methods developed in the foundational document for this.</p> <p>Establish a Working Group for scoping biodiversity issues in the Planning Phase of project applications to contribute to framing components of the impact statement such as impacts on rights, data collection methods for assessing impacts and estimating project-contributions to cumulative effects on biodiversity.</p> <p>BDSC recommends further developing guidance on the role of regional assessments in understanding effects on biodiversity in a regional context, and in developing methods for assessing impacts of cumulative effects on biodiversity.</p> <p>BDSC recommends developing fact sheets for scoping biodiversity to address the role of regional assessments, to support the consideration of alternative means and appropriate mitigation measures, such as the biodiversity mitigation hierarchy; and to address impacts of biodiversity resulting in impacts to Indigenous rights.</p> <p>The TAC could offer further advice on the recommended guidance.</p>

<p>Lack of detailed information on mitigation, proposing measures not linked to any specific impact, or failure to mention the likely success of mitigation</p>	<p>Chapter V, Section E provides recommendations for applying the biodiversity mitigation hierarchy and Appendix B includes comments submitted by Ray and Johnston on the CWS Draft Offsetting Policy for Biodiversity.</p> <p>BDSC recommends that detailed methods be developed through regional workshops, a Working Group and the TAC. ECCC's Draft Offsetting Policy for Biodiversity is under development. The TAC should provide advice to the Agency once the proposal is finalized.</p> <p>BDSC recommends establishing a Working Group for scoping biodiversity issues in the Planning Phase of an impact assessment to support the consideration of appropriate mitigation measures, such as the biodiversity mitigation hierarchy.</p> <p>The TAC could offer further advice on this.</p>
<p>A limited commitment to adequately monitoring biodiversity impacts</p>	<p>Chapter V, Section M recommends to conduct follow up, monitoring and auditing in accordance with the Convention on Biological Diversity Voluntary Guidelines.</p> <p>BDSC did not discuss monitoring but this could be considered in the forward agenda of the TAC.</p>
<p>Note: a – Chapter references in this column refer to the foundational document authored by Johnston and Ray (2023)⁴</p>	

⁴ Johnston, A. and J. Ray. 2023. Assessing Biodiversity under the *Impact Assessment Act* Principles and Guidance for Safeguarding Biodiversity through Project Assessment.