



# Advancing Environmental Justice: Response from the Ontario Society of Professional Engineers (OSPE)

## Foundation 1: Environmental Justice

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The Ontario Society of Professional Engineers (OSPE) is a member-driven professional association that welcomes the entire engineering community to contribute knowledge, skills and leadership to help create a better future for our profession and society at large. Through our Equity, Diversity, Inclusion & Accessibility (EDIA) Task Force, OSPE is committed to working with industry, academia, and government to advance EDIA in the engineering profession and in engineering solutions.

### 1. Discussion Question: In the context of a national strategy to promote efforts across Canada to advance environmental justice, how would you define environmental justice?

- **What environmental justice means to you**
- **How you would describe this concept in your own words**
- **Any aspects of the concept that you find important or relevant**
- **How you would know if environmental justice was achieved**
- **Defining environmental justice**

From the perspective of the Ontario Society of Professional Engineers (OSPE), environmental justice is a shared responsibility for society to achieve, and the engineering profession has a duty to support it.

To contribute to achieving environmental justice, engineers apply their expertise to design and implement systems that reduce inequities, minimize environmental harm, and promote sustainable development. Engineers also have the responsibility of involving affected communities in decision-making and ensuring their perspectives inform solutions.

Environmental justice ensures socioeconomic factors like income, race, geographic location, age, ability, or social identity do not contribute to experiencing a disproportionate level of negative environmental impacts.

For environmental justice to be achieved in Canada, all communities and future generations must have equal access to environmental benefits such as clean air, safe water, and resilient infrastructure.

### **Aspects important or relevant to the OSPE:**

- *Equity in environmental outcomes:* No community should experience higher pollution or lower-quality infrastructure because of socioeconomic factors.
- *Inclusive engagement:* Engineers and policymakers must engage communities early and continuously in project planning and design.
- *Data-driven decision-making:* Environmental monitoring and reporting must use transparent, evidence-based methods to identify and address environmental burdens.
- *Sustainability and resilience:* Solutions should address long-term environmental risks, particularly those exacerbated by climate change.

### **How OSPE would know environmental justice was achieved:**

- Environmental quality indicators (air, water, soil) show consistent improvement across all communities.
- Historically marginalized communities experience measurable reductions in exposure to environmental hazards.
- Inclusive public engagement processes are embedded in environmental decision-making.
- Engineering and policy designs reflect equitable distribution of environmental benefits and risks.
- Indigenous, racialized, or otherwise marginalized communities are not experiencing disproportionate environmental harms.

## **2. Discussion Question: What values and priorities do you believe should guide the federal government's efforts to advance environmental justice?**

### **In answering this question, you may wish to think about:**

- **If the vision captures what you think we should be trying to achieve**
- **If there are any key aspects missing from the vision statement**
- **If you agree or disagree with these principles**
- **If we are missing any principles for action**

From OSPE's perspective, the Government of Canada's stated vision where every individual enjoys a healthy, clean, and sustainable environment is what Canada should aim to achieve. With expertise in design, data-driven decision-making, and inclusive collaboration engineers can be essential partners to turn the vision into measurable outcomes.

This vision can be strengthened by including the following principles for action, in addition to those that were identified:

- *Integration of technical and scientific expertise:* Achieving environmental justice requires robust environmental monitoring, engineering innovation, and sustainable infrastructure solutions.
- *Commitment to measurable outcomes:* Success should be tracked through transparent indicators, such as reductions in pollution exposure and improved environmental health across all communities.
- *Long-term systemic change:* Environmental justice must be embedded into all environmental and infrastructure policy frameworks, rather than treated as a single program or initiative.

### 3. Discussion Question: What should the Government of Canada do to support the advancement of environmental justice?

**In answering this question, you may wish to think about:**

- **What the Government of Canada can do to support individuals, businesses, and communities to advance environmental justice**
- **How the federal government can support further uptake of the application of an environmentally just approach**

From the perspective of the Ontario Society of Professional Engineers (OSPE), advancing environmental justice in Canada requires coordinated policy leadership, community collaboration, and technical implementation capacity. The federal government has a critical role to play in setting standards, providing resources, and ensuring accountability so that every community can benefit from a healthy, safe, and sustainable environment.

#### **Support Applied Research and Innovation:**

Fund research partnerships between universities, engineering organizations, engineering firms, Indigenous communities, and local governments to design and implement sustainable infrastructure and clean technology solutions tailored to community needs, with projects being prioritized in areas where equity can be improved.

#### **Embed Environmental Justice in Federal Infrastructure Programs:**

Require that all federally funded projects undergo an environmental equity assessment, ensuring that benefits (e.g., cleaner air, safer water, green jobs) are distributed fairly and that vulnerable communities are not disproportionately burdened. Environmental justice should not be limited to environmental departments. It must be integrated across housing, transportation, energy, health, and economic development policies.

**Include Engineers and Technical Experts in Decision-Making:**

Engineers play a vital role in assessing environmental risks, designing sustainable infrastructure, and evaluating the long-term resilience of communities. The federal government should formally engage professional engineers in environmental justice policy development and implementation processes.

**Invest in Environmental Education and Capacity Building:**

Promote STEM education programs that enable Canadians from all backgrounds to participate meaningfully in environmental activities, like monitoring and policy advocacy.

**Set Regulatory Clarity with Measurable Goals and Public Reporting:**

Establish clear indicators to track progress toward environmental justice, including reductions in pollution exposure, improved access to clean water, and equitable distribution of green infrastructure.

**Leverage Green Technology and Engineering Solutions:**

Support businesses and professionals developing technologies that reduce environmental harm and improve community resilience. Incentivize innovation through federal grants, clean-tech investment programs, and procurement policies that prioritize equitable environmental outcomes.

#### 4. Concluding Question: Is there anything else you would like to add to contribute to the development of a national strategy for Canada?

Engineers can contribute technical expertise, systems thinking, and sustainable design solutions to help realize this national vision for a cleaner, fairer, and more resilient Canada.

To advance environmental justice, the Government of Canada must combine inclusion, regulatory clarity, scientific evidence, and engineering innovation. Federal leadership should empower communities, enforce accountability, and invest in the tools and expertise needed to deliver measurable, lasting improvements in environmental health and equity across the country.