

A VOICE OF REASON

“In the panoply of **peace** and environmental organizations, Project Ploughshares occupies a unique position as a **nationally regarded voice of reason**. Its staff are quoted in national media because they have a particular **depth of knowledge** available only to those whose mandate is **research**.”

— Dale Dewar, representing
the Canadian Yearly Meeting
of the Religious Society of
Friends (Quakers) on the Project
Ploughshares Management
Committee



PROJECT PLOUGHSHARES ANNUAL REPORT 2023

PROJECT PLOUGHSHARES is the peace research institute of The Canadian Council of Churches. Since our founding in 1976, Ploughshares has focused on disarmament efforts and international security.

Our work generally falls under the following categories:

- The arms trade
- Canadian defence and foreign policy
- Emerging military and security technologies
- The abolition of nuclear weapons
- Outer space governance
- The protection of civilians from the effects of armed conflict.

In 2023, we introduced a new initiative that we hope will become a permanent focus: the intersection of climate, peace, and security.

Project Ploughshares operates out of the Kindred Credit Union Centre for Peace Advancement (CPA) at Conrad Grebel University College on the University of Waterloo campus in Waterloo, Ontario. The CPA is home to University of Waterloo faculty and graduate students, as well as peace-oriented entrepreneurs and local peacebuilding organizations.

INTRODUCING OUR NEW PROGRAM: CLIMATE, PEACE, AND SECURITY

Executive Director Cesar Jaramillo explains this new focus:

While armed conflicts and both new and old technologies threaten peace and demand our persistent attention, we are coming to a fuller understanding of the ways in which they intersect with – and interact with – the climate emergency to threaten the foundations of a peaceful existence on Earth. The interconnectedness of climate change and global security demands further research and analysis.

The program's first major event was held November 23 at the Balsillie School of International Affairs in Waterloo, Ontario. Project Ploughshares staff workshopped with friends and colleagues from academia, the military, and civil society to explore the many points at which climate, peace, and security intersect. The objective: to provide advice and guidance for Ploughshares, a peace research institute that has long focused on disarmament and international security, on how to define the parameters of this new field of endeavour. Participants presented a variety of options for the niche that we could most effectively and usefully inhabit.



“In addition to nuclear weapons, climate breakdown is the pressing security threat of our time.”

— Kenneth Epps
advisor to the Executive Director

The world is bristling with conventional weapons. Some states have nuclear weapons; more are acquiring weapon systems augmented with artificial intelligence and cyber capabilities. There are even plans to weaponize outer space.

Project Ploughshares urges a refocus on human security, which means that the world must

- trade and transfer fewer conventional weapons;
- regulate the development and use of emerging military tech;
- eliminate nuclear weapons;
- work for a global order based on international human rights law (IHRL) and international humanitarian law (IHL); and
- maintain outer space as a peaceful domain.

But this refocus faces obstacles. Here are five:

1. The transformation of the world order

The world order is transforming from unipolar (with the United States the only superpower) to multipolar (adding superpowers Russia, China, and possibly others). The result could be intensified confrontations, with the circulation of more weapons and more violence.

To avoid this result, relations between current and emerging superpowers must be framed by diplomacy and collaboration rather than competition.

2. A loss of faith in multilateral processes

Some stakeholders are losing faith in international treaties – the Nuclear Non-Proliferation Treaty (NPT), the Arms Trade Treaty (ATT) – that are failing to protect civilians or prevent development of potentially uncontrollable weapon systems.

The NPT entered into force in 1970 and yet the risk of nuclear-weapons use is as high as ever. Russia is making overt nuclear threats – even in response to a conventional attack. Nuclear-armed NATO members are upgrading their nuclear arsenals. The ATT, in effect since 2014, was expected to better regulate the international arms trade and prevent transfers that enable human rights violations, sustain autocratic regimes, and exacerbate armed conflict. But unscrupulous arms deals still occur and states

parties to the treaty, including Canada, have often failed to fulfill its terms.

Loopholes in these agreements must be closed and compliance enforced.

3. The global arms industry

This industry is driven by profit and the national security interests of home states. To remain profitable, it must sell to states year after year. The result: the excessive accumulation of weapons.

The arms industry must be watched and controlled. Citizens can assist in these tasks if given accurate information on the weapons that their country is exporting and accumulating. All national governments must be held to account for the resources spent on more – and deadlier – weapons.

4. Emerging military technologies

Emerging technologies are being integrated into military systems around the world.

Policy to control such tech lags. While many government policymakers can now identify at least some risks in using this tech, they most fear that an adversary will possess tech that they don't. This fear is a key driver of much new development.

A world that cannot control conventional or nuclear weapons must learn – now! – to control rapidly developing technologies with military applications. Civil society and academia can offer expertise.

5. The drive to human security lacks political leaders

Many national leaders are reluctant to support human security. But some small- and middle-power countries, especially from the Global South, do support a process that leads to disarmament, offering time, money, and staff. They should be encouraged.

Project Ploughshares is doing its part to overcome these obstacles.



DIRECTOR'S MESSAGE



EXPLORING A YEAR OF CONFLICT THROUGH DIFFERENT LENSES

It was another busy year for Project Ploughshares. Wars in Ukraine and Gaza were subjected to particular attention. Also under scrutiny were international attempts to regulate the use of outer space and so preserve space for peaceful uses by all Earth's citizens.

1. The conflict in Ukraine

Ploughshares condemned without reservation the invasion by Russia. But, as the war entered its second year, civilian casualties rose and more civilian infrastructure was damaged or destroyed. Ploughshares expressed the view that flooding the region with weapons would not bring a satisfactory resolution to the crisis and called for a ceasefire and peace talks.

To mark the first anniversary of Russia's full-scale invasion in February 2023, *The Globe and Mail* published a two-page spread entitled "How does the war in Ukraine end?" One piece was by Project Ploughshares's Executive Director: "A negotiated settlement is the only path to peace in Ukraine."

Cesar wrote, "The dogged pursuit of an ill-defined 'win' for either Russia or Ukraine will not only prolong the war and increase human suffering—it will heighten the risk that nuclear weapons will be used." This statement reflected one key concern: the possible use of **nuclear weapons**.

In 2023, Cesar used the conflict in Ukraine as a case study that illustrated the points at which nuclear, conventional, and emerging weapons intersected, with destructive effects on civilian populations and infrastructure. He spoke against the shipping of cluster munitions by the United States to Ukraine, contending that Ukraine's use of such weapons "will serve to prolong the fighting and to create the conditions for further humanitarian suffering." Moreover, "in the background there is the specter of nuclear escalation, another category of indiscriminate weapons."

Nuclear weapons add to the complexity and danger of current conflicts. The Director's column for the Spring 2023 issue of *The Ploughshares Monitor* reflected on the conflict in Ukraine by merging perspectives on nuclear weapons and **the protection of civilians**:

Project Ploughshares believes that the immediate goal of the international community should be to stop the carnage and minimize nuclear risks. After that, all stakeholders should work to create the conditions in which all areas of disagreement, including the complex issues at the heart of the current conflict, can be addressed – at the negotiating table.

His fear of nuclear escalation was clear:

The war in Ukraine underscores the fragility and grave perils of nuclear deterrence in practice. Although Ukraine has no nuclear weapons, Russia does, as do three NATO supporters of Ukraine. But this game of chicken, which raises the real possibility of global catastrophe, is the inevitable result of nuclear weapons possession.

The danger did not diminish. In mid-October, Cesar published "As the Oppenheimer buzz fades, the nuclear weapons threat remains." He wrote:

Well before the movie was released, the world was already observing the growing spectre of nuclear catastrophe as the conflict in Ukraine evolved. We live with that shadow of doom today because of the many scenarios – often unforeseen – that could lead to nuclear escalation. For instance, we still don't know the answer to a critical question: Supposing that Ukraine prevails on the battlefield, would Russian President Vladimir Putin accept military defeat while he has a nuclear arsenal at his disposal?

The theme of nuclear escalation was emphasized repeatedly by Cesar—and not only in relation to Ukraine—because nuclear weapons have posed an existential threat since their creation. Cesar made this point clear in autumn public addresses at the University of Waterloo and the University of Toronto.

Senior Researcher Branka Marijan focused on Ukraine's use of **emerging technology**, often enhanced with artificial intelligence (AI). In a lecture given in February at the Leiden University Centre for International Relations in The Hague, she noted that the war had speeded up development of new military technology. These advances were taking place without any "commonly agreed upon framework among states on which systems and uses are permissible."

This point was repeated in "AI-guided weapons must be curbed by global rules—and soon," which Branka wrote for the Centre for International Governance Innovation website. In a *Monitor* article, "Regulating military use of AI," Branka discussed the use of particular software by Ukraine and, once again, highlighted "high-risk uses of AI technologies, such as use by the military," Policymakers were

urged to “set limits and guide technologists.” Here we see Ploughshares’s abiding concern over the lack of relevant and binding regulation of new smart tech—not only in Ukraine.

In “The dilemma of dual-use AI,” Branka and research assistant Rebekah Pullen showed how technology developed to meet a civilian need could be adapted for military uses:

In Ukraine, computer vision technology that allows AI to interpret information from images or video is being used to scan surveillance drone and video footage. In this way Ukraine can track Russian troop movements and identify suspected war criminals.

How to ensure beneficial uses of technology while preventing malevolent uses? Therein lies the dilemma.

Ploughshares also monitored the many **conventional weapons** that friendly states, Canada in particular, were sending to try to force Russia out of Ukraine. Researcher Kelsey Gallagher noted in a *Monitor* article, “Canada at the 9th Conference of States Parties to the Arms Trade Treaty” (written pre-conference):

Since Russia invaded Ukraine in February 2022, many ATT States Parties have provided Ukraine with huge quantities of military aid. These states need to remember that, despite the exceptionally brutal actions of the invader, exporting parties are still subject to ATT obligations, which include standardized risk assessments and diversion-mitigation measures.

This quote expresses our abiding concern for adherence to international agreements, which are designed to protect innocent civilians from illegal and inappropriate weapons use.

Kelsey also wrote:

Current data indicates that Canada is among the top 10 contributors of military aid to Ukraine (by value). The Canadian Department of National Defence (DND) now maintains a dedicated, transparent, and detailed list of all military exports to Ukraine since February 2022. And yet, unlike some of its allies and fellow ATT States Parties, Canada has said little at ATT gatherings about how it is controlling these transfers to meet its obligations under the ATT.

Kelsey urged Canada to do more:

At CSP9, Canada should join other States Parties in providing details on military aid to Ukraine, such as information on Canada’s export authorization procedure, or achieving transparency in reporting these arms transfers. Canada should also describe any initiatives that

DND is taking that relate to post-shipment monitoring of these exports.

More core Ploughshares thinking: Canada should abide by the international treaties it has signed and by its own export regulations.

In June, Kelsey appeared before the Canadian House of Commons Standing Committee on Foreign Affairs and International Development in a session on Canada's sanctions regime.

Kelsey explained how Russia had integrated dual-use goods into numerous weapons systems deployed in its invasion of Ukraine. He noted that when the invasion began, "Canada revoked export and brokering permits to Russia for controlled goods, which include conventional weapons, dual-use goods, and all other categories of technology listed under Canada's Export Control List." Here we see the convergence of conventional and emerging weapons.

In an analysis of the Canadian government's annual report on Exports of Military Goods, Kelsey examined Canada's arms exports to Ukraine in 2022—mostly armoured vehicles and associated components. But the report didn't give the complete picture. Kelsey wrote:

The Government of Canada does not treat military aid as normal arms exports. Military aid is subjected to a parallel and opaque regulatory risk assessment outside conventional permitting processes.

The government misrepresented the actual value of arms transfers—something Ploughshares called out.

The war in Ukraine captured the interest of Ploughshares interns as well. Morgan Fox wrote a *Monitor* article, "Limiting the **environmental impact of explosive weapons**." She noted that the Russian invasion had harmed "both the natural and built environments" of Ukraine, using the destruction of the Nova Kakhovka dam as an example. She wanted peace talks to consider the environment:

Whenever they take place, peace talks to resolve the conflict in Ukraine should attend to the need to reconstruct the natural as well as the built environments. The end goal should be a green and sustainable peace.

Intern Dmytro Sochnyev wrote "How one-way attack drones challenge security norms in Ukraine—and beyond," which described the increasing role that drones were playing in the war—on both sides. He expressed concern:

If arms manufacturers can produce enough autonomous drones, a future battlefield could be saturated with intelligent munitions that methodically eliminate targets. Human soldiers and civilians could be at the mercy of the targeting algorithms.

2. Israel vs. Hamas in Gaza

On October 7, Hamas-led terrorists targeted several sites in Israel, killing approximately 1,200 people, injuring many others, and taking more than 240 hostages. These horrifying actions were almost universally condemned. In a statement posted on our website on October 30, Project Ploughshares said: “We are appalled by, and categorically condemn, the horrific attacks by Hamas against Israel.”

In response to the attacks, Israel began a campaign of air and land strikes in Gaza that for the rest of 2023 and into 2024 devastated civilian infrastructure and killed thousands of innocent civilians. This, too, Ploughshares condemned from the beginning, in the strongest terms. The same October 30 statement declared: “We are appalled by, and categorically condemn, the devastation inflicted upon Gaza in response to the October 7 attacks.”

The rest of the statement outlined Ploughshares’s response to the war in Gaza:

- Recognizing the right to self-defence, we stated that exercising this right “does not absolve the obligation to comply fully with IHL” (international humanitarian law).
- The international community was called out for “tepid defence of IHL.”
- As a member of the International Network on Explosive Weapons, we called on all parties to the conflict “to stop the use of explosive weapons in populated areas.”
- We supported the right of both Israelis and Palestinians “to live in peace.”
- We stood with the Secretary-General of the United Nations “in his calls for a ceasefire.”
- Finally, Project Ploughshares defined “the goal moving forward”: “the pursuit of lasting peace and the enjoyment of human rights.”

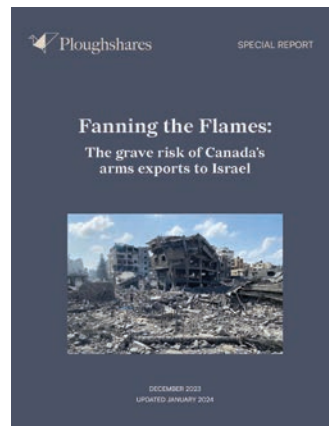
The Director's column in the Winter *Monitor* focused on the **protection of civilians**, particularly from the use of explosive weapons in populated areas (EWIPA). Of the airstrikes carried out by the Israel Defense Forces that "targeted civilian infrastructure and services, including hospitals and ambulances, residential neighborhoods, and even religious sites," he wrote: "Such attacks on civilian spaces exacerbate the humanitarian crisis, violate fundamental principles of international law, and further underscore the urgent need for concerted global action." He called upon the international community to "unite to strengthen existing frameworks, develop new strategies, and hold accountable those who commit violence against civilians by using explosive weapons in populated areas."

On November 9, *The Globe and Mail* published Cesar's "Canada must do more for Gazan innocents." In it, he wrote: "As the leader of one of the great democracies in the world, Prime Minister Justin Trudeau must speak out against what appear to be egregious human-rights violations and do everything he can to end the slaughter of innocent Palestinian children, women, and men."

After the Israeli campaign in Gaza began, Kelsey began assembling information on **Canadian arms exports** to Israel. In mid-December, Ploughshares published his report, *Fanning the Flames: The grave risk of Canada's arms exports to Israel*, which detailed such exports, including transfers of military components to the United States that were then integrated into Israeli F-35I Joint Strike Fighter aircraft. The F-35I has been heavily used in the bombardment of Gaza.

In the report Kelsey called on Canada to halt the transfer of arms to Israel because of the substantial risk that Canadian arms could be used to violate international humanitarian law and international human rights law. In the report he also urged Canada to revise its export regime to "close loopholes that allow the unregulated and unreported transfer of military goods to Israel through the U.S. Department of Defense."

Fanning the Flames received significant media attention, which continued into 2024. A major piece by *Globe and Mail* senior parliamentary reporter Steven Chase, "Canada should halt weapons shipments to Israel, arms control advocate says" (published December 14), provided a solid summary of the Ploughshares report.



3. Working on regulating peace in outer space

The United Nations Open-Ended Working Group (OEWG) on reducing space threats through norms, rules, and principles of responsible behaviours met twice in 2022 and twice in 2023. Ploughshares Senior Researcher Jessica West attended all sessions, live-tweeting key points as the sessions proceeded and then producing an extensive report on each session. In 2023, she attended two sessions in Geneva, from January 30 to February 3 and from August 28 to September 1. Jessica's report on the second 2022 session appeared in 2023, as did the report of the first 2023 session.

During the first 2023 session, at an informal meeting designed to collect input from civil society, Jessica delivered a statement by Project Ploughshares that addressed “the contribution of norms, rules, and principles, including to the negotiation of legally binding instruments,” and directed OEWG participants to her recent research on “arms control lessons learned from other domains of military activities.” The statement concluded:

We know from other fields of arms control that success requires persistent dialogue and layers of approaches rooted in shared values and principles, mutual obligations and restraints, and the means and mechanisms to implement them. And so, to echo the words of the UN Secretary-General, at this forum we should dare to be bold and ambitious, not only to advance norms of responsible behaviour, but also to have a positive contribution to the discussion of legally binding instruments.

This statement reveals the interconnectedness of **conventional arms agreements** with attempts to regulate outer space.

Regulating peace in outer space is critical for everyone on Earth. As Jessica said in the *Spring Monitor*, in an article about the Chinese balloon that invaded North American air space and was eventually shot down by the United States, “satellites provide critical military and civilian services that range from command and control over **nuclear weapons** systems and the **early warning of missile launches** to the timing and navigation capabilities that underpin **civilian** air traffic, banking systems, and electricity grids.” She reinforced the interconnectedness of activities related to outer space with life on Earth: “The OEWG discussions can seem far removed from daily life. However, viewed after our experience of a mysterious balloon, they take on a greater sense of both practicality and urgency—for much of the world, anyway.”

Jessica was quoted in a *Globe and Mail* article by Irene Galea: “Canadian companies cover new ground with Earth-observation technology.” The article examines technology that allows the gathering and archiving of “data about the Earth’s physical, chemical and biological systems using satellites.” With so much of this data becoming commercially available, the risk of “foreign surveillance of individuals and military actions” has grown.

Jessica expressed “deep concerns about the implications of Canadian businesses providing space data to militaries.” She is quoted as saying, “We know that operators are a target of conflict, certainly through digital and cyber attacks. Russia could see these companies as legitimate targets. Is the government responsible for protecting these commercial satellites? We’re just starting to have these conversations.” What Jessica is describing is the expansion of **conventional war** into outer space. Readers also see how the use of space data is altering conventional warfare and playing a prime role in the development and application of **emerging military tech**.

On October 11, Jessica delivered a statement on outer space to the UN General Assembly First Committee, which deals with disarmament and international security. Jessica also prepared and coordinated this statement, which she delivered on behalf of several civil society organizations.

Jessica’s work makes it clear that human security on Earth depends on a peaceful outer space.



Jessica West delivers a statement at the United Nations First Committee in New York on Oct. 11.

WORKING TOGETHER MAKES SENSE

Project Ploughshares is a small organization in a middle-power nation. To amplify our impact, we belong to the following national and international coalitions:

- Campaign to Stop Killer Robots
- Canadian Council for International Co-operation (CCIC)
- Canadian Defence and Security Network (CDSN-RCDS)
- Canadian Network to Abolish Nuclear Weapons (CNANW)
- Cluster Munition Coalition (CMC)
- Control Arms
- International Action Network on Small Arms (IANSA)
- International Campaign to Abolish Nuclear Weapons (ICAN)
- International Network on Explosive Weapons (INEW)
- North American and Arctic Defence and Security Network
- Peacebuild
- Space Security Network
- Women, Peace and Security Network.

In 2023, Project Ploughshares worked with various United Nations bodies, including UNESCO, UNIDIR, and the Open-Ended Working Group on Space Threats. We collaborated with local educational institutions: the Balsillie School of International Affairs, the Peace and Conflict Studies department at the University of Waterloo, and the Global Studies department at Wilfrid Laurier University. Other long-time partners included Canadian Pugwash Group, the Outer Space Institute, the Peace and Conflict Studies Association of Canada (PACS-Can), Secure World Foundation, and The Simons Foundation.

MENTORING FOR PEACE

In the Winter 2023 *Monitor*, we began a two-part series on five former Ploughshares interns: Yelena Gyulkhandanyan (intern in 2015), Kirsten Mosey (intern 2021), Benny Skinner (intern 2017, multimedia assistant until 2021), Grace Wright (intern 2021), and Erin Yantzi (intern 2020). The series shed light on how these interns assessed their time with Project Ploughshares. According to Kirsten, interning with Ploughshares was “like being a part of a special club.” Erin valued working with Ploughshares researcher-analysts, who “are able to understand different perspectives and speak to a wide range of people.”

In 2023, Project Ploughshares had an outstanding group of interns and research assistants, most of whom were working on graduate degrees.

The following three interns wrote articles that appeared in the Autumn 2023 issue of *The Ploughshares Monitor*. All were Peace Research interns in the summer.

- **Morgan Fox** wrote “Limiting the environmental impact of explosive weapons.”
- **Abishane Suthakaran** co-authored with Jessica “Hidden harms: A feminist spotlight on space security.”
- **Dmytro Sochnyev** wrote “How one-way attack drones challenge security norms in Ukraine – and beyond.”

Rebekah Pullen was a Ploughshares Research Assistant, supported by a Mobilizing Insights in Defence and Security (MINDS) grant from the Canadian Department of National Defence. With Branka, she co-authored “The dilemma of dual-use AI,” which appeared in the Autumn *Monitor*.

Ploughshares Research Assistant Carlos Cantafio Apitz co-authored on two reports with Branka (see p. 18). The research assistantship was supported by a MINDS grant.

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Clockwise from top left: Cesar Jaramillo and Kelsey Gallagher attend the Ninth Conference of States Parties (CSP9) to the Arms Trade Treaty in Geneva in August; Jessica West speaks at a panel at the Security Challenges of Emerging Technologies event in Ottawa in October; Kelsey appears before the Canadian House of Commons Standing Committee on Foreign Affairs and International Development in June; Branka Marijan attends the first global Summit on Responsible Artificial Intelligence in the Military Domain (REAIM 2023) in The Hague in February; Jessica attends the UN Open-Ended Working Group on Reducing Space Threats in Geneva in January; Branka, Cesar, Kelsey, and Jessica attend the Civil Society Consultations on Disarmament, Arms Control, and Non-proliferation 2023 in Ottawa in June; Cesar speaks at the Kindred Credit Union Centre for Peace Advancement in Waterloo in September.



WHAT GRANT DOLLARS MAKE POSSIBLE

In recent years, Project Ploughshares has been successful in winning competitive grants to support projects that require extra human and monetary resources.

In 2023, a grant from the Canadian Department of National Defence, through its MINDS (Mobilizing Insights in Defence and Security) program, allowed Branka to attend the first global Summit on Responsible Artificial Intelligence in the Military Domain (REAIM 2023) in The Hague. There she moderated the panel “Known Unknowns and Military AI,” created for the event. This summit helped Branka to advance a research project by highlighting key issues to explore. She learned more about military AI and she became more aware of the difficulties in developing a multilayered governance framework to respond to the challenges that AI will bring to warfare.

A MINDS grant also funded two research reports co-authored by former Ploughshares research assistant Carlos Cantafio Apitz and Branka:

- ***On geopolitics and innovation: How the military technology race between the United States and China will shape global security;*** and
- ***The future of global conflict: A synthesis of contextual and technological perspectives.***

The first briefly explored great power competition as a cause and consequence of the development of emerging military technologies, highlighting the need for greater bilateral and international cooperation, regulation, and oversight to manage a growing arms race.

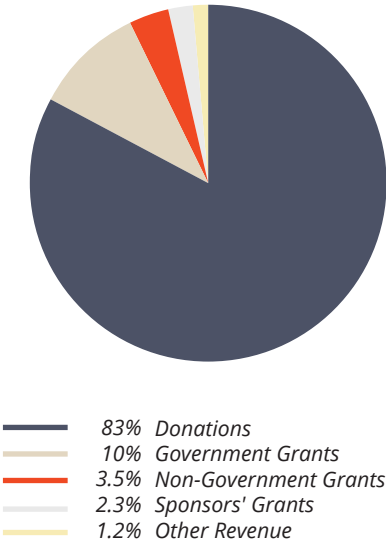
The second reviewed perspectives from governments, think tanks, and businesses on the readiness of emerging technologies and how they could change future battlespaces. It highlighted relevant economic, environmental, political, social/demographic, and technological trends and factors. Then, it introduced six emerging technology clusters. Finally, it explored current technological readiness and the expected maturity of select military applications.

OPERATING FUND

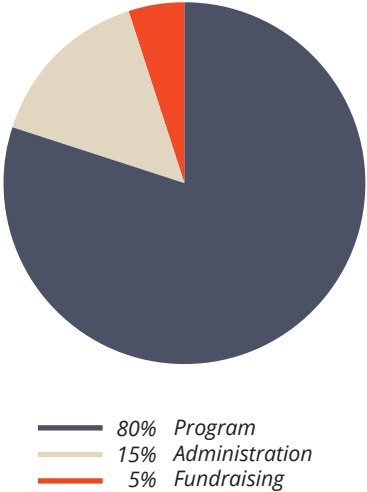
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Project Ploughshares is audited each year by an independent accounting firm and accounts are maintained in accordance with generally accepted accounting principles. The audited financial statements are available on request.

SOURCE OF FUNDS



USE OF FUNDS



FINANCIAL REPORT



In 2023, thousands of individuals, organizations, and churches, including those listed in the following pages, generously provided more than **80 per cent of our funding.**

We are also grateful to our sponsoring churches and to The Simons Foundation Canada in Vancouver for its generous financial support.

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