Global Affairs Canada | Affaires mondiales Canada

Evaluation of the Weapons Threat Reduction Program (WTRP), 2018-19 to 2023-24

Evaluation report

Prepared by Goss Gilroy Inc. for
Global Affairs Canada's Evaluation Division

March 2025

Canada

Table of Contents

Acronyms and Abbreviations

ASEAN	Association of Southeast Asian Nations
ATT	Arms Trade Treaty
BTWC	Biological and Toxin Weapons Convention
CBRN	Chemical, biological, radiological and nuclear
CNAP	Canadian National Action Plan on Women, Peace and Security
DPRK	Democratic People's Republic of Korea (North Korea)
GAC	Global Affairs Canada
GE	Gender equality
GICHD	Geneva International Centre for Humanitarian Demining
GP	Global Partnership Against the Spread of Weapons and Materials of Mass Destruction
IAEA	International Atomic Energy Agency
NACD	Non-Proliferation, Arms Control and Disarmament
NRS	Nuclear and radiological security
ODA	Official Development Assistance
OPCW	Organisation for the Prohibition of Chemical Weapons
OGDs	Other government departments
RBM	Results-Based Management
UN	United Nations
UNSCR	United Nations Security Council Resolution
WINS	World Institute for Nuclear Security
WMD	Weapons of Mass Destruction
WTRP	Weapons Threat Reduction Program

Executive Summary

The evaluation of the Weapons Threat Reduction Program (WTRP) covered the timeframe from 2018-19 to 2023-24. The objectives of the evaluation were to assess the program's relevance and performance in delivering on its mandate and identify areas of improvement at the program and corporate levels.

The evaluation found that WTRP investments and activities are well-aligned with countering significant weapons of mass destruction and conventional weapons threats, as well as advancing non-proliferation, arms control and disarmament priorities. Emerging risks and opportunities are generally well known and incorporated into WTRP programming, where possible. Project identification, selection and development is generally effective and based on need. However, the breadth of formal consultations could be widened, and new WTRP projects and opportunities typically arise from existing relationships and partners who attend conferences or meetings. The visibility of the program within Global Affairs Canada (GAC) and among Canadian stakeholders is not high, impacting the program's access to senior management support.

The WTRP is achieving its immediate outcomes (that is, awareness, skills and capacity-building of intermediaries) and intermediate outcomes (pertaining to improved prevention, detection and response). The intermediate outcome of treaty universalization, compliance and enforcement is also being achieved to some extent, although causal links are more difficult to confirm. The factors that contribute to the achievement of outcomes are integrated into project designs; however, there are limited opportunities for implementing partners to learn from and collaborate with others. It is reasonable to expect the program to make positive contributions towards its ultimate outcome, although the highly volatile and uncertain environment within which the program operates challenges the program's contributions; indeed, the absence of harmful outcomes owing to the program's interventions is difficult to prove.

With respect to gender equality (GE) programming, the WTRP has met the Canadian National Action Plan target for the number of projects with GE outcomes. There remain opportunities to integrate GE into project designs (particularly in the chemical security portfolio) and leverage knowledge and expertise from others.

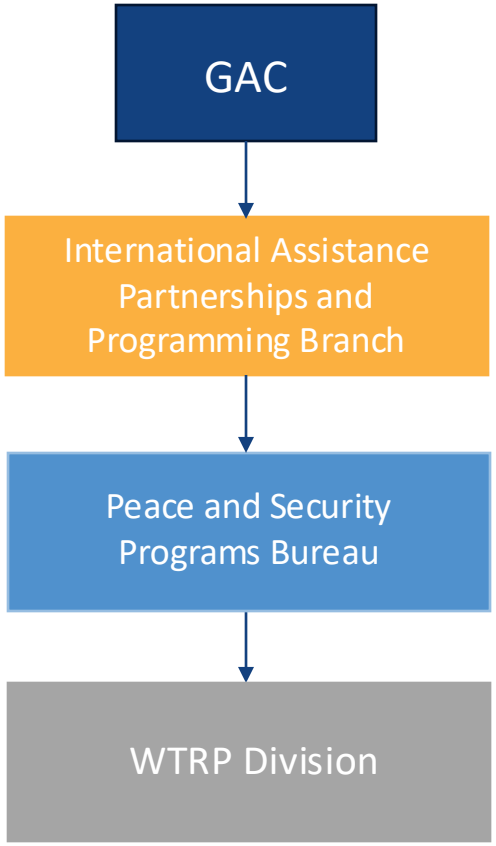
Project designs routinely incorporate sustainability to ensure outcomes are lasting. For example, many projects are multi-phase, include funding over many years, encourage local ownership/empowering intended beneficiaries, and respond directly to needs.

Summary of recommendations

1. The WTRP should increase its profile and engagement with Canadian civil society and academia. This should be done with the aim of both strengthening project identification and development, and increasing the program's visibility. The program should also take steps to increase its visibility within GAC and the Government of Canada.
2. The WTRP should increase the level of sharing of best practices and lessons learned among existing funding recipients and with potential funding recipients. This could include documented experiences and virtual meetings.
3. The WTRP should continue its advocacy with international partners for GE and its integration into projects. The WTRP should further explore opportunities for GE-rated projects in its programming, particularly in the chemical security portfolio. There are opportunities to build upon the existing work done by WTRP-funded partners and others regarding best practices in integrating GE into chemical, biological, radiological and nuclear (CBRN) work.

Program Background

Program Background



The figure above shows WTRP's positioning in GAC. This reporting structure, established in April 2024, is fairly new. For the timeframe covered by the evaluation, WTRP reported through the International Security Policy and Strategic Affairs Bureau in the International Security and Political Affairs Branch.

Promising economic growth, but widespread poverty remains a development challenge.

Through the Weapons Threat Reduction Program (WTRP), Canada contributes to achieving the mission of the G7-led Global Partnership Against the Spread of Weapons and Materials of Mass Destruction (GP). The GP was launched in 2002 at the then-G8 Summit in Kananaskis, Canada, in the wake of the September 11, 2001, terror attacks in the United States and associated security threats. Originally focused on threat reduction in Russia and other countries of the former Soviet Union, the GP has expanded its focus to address weapons of mass destruction (WMD) threats around the world. The GP now includes 31 members[1].

The context within which the program operates has evolved over the 22 years since its inception. Notably, the GP's and WTRP's geographical mandates have expanded globally, thematic priorities have been updated and, as of 2018, the WTRP's remit includes support to conventional arms control regimes (though this conventional activity falls outside the scope of the GP). Thus, through these expanded mandates, the WTRP now counters a broader and more dispersed range of threats originating with both state and non-state actors.

Through the WTRP, Canada undertakes projects in cooperation with its partners (such as other states and international organizations) that aim to reduce threats posed by the proliferation and use of WMDs and to advance universalization and national implementation of conventional arms control regimes. To achieve this aim, the program focuses on improving the prevention, detection and response to weapons threats as well as increasing compliance with non-proliferation, arms control and disarmament (NACD) legal and policy frameworks. Canada figures prominently as a contributor to the GP's work across its four main portfolios and in all regions, alongside the United States, the United Kingdom, Germany and Norway.

During the timeframe of the evaluation, the WTRP had an annual core funding level of $73.4 million, which has not been adjusted for annual inflation. The main funding mechanism for the WTRP is through transfer payments under Vote 10 (grants and contributions) to eligible recipients ($63.5M; $68.3M in 2023 to 2024 with the addition of funding associated with the Indo-Pacific Strategy). The program's operating funds under Vote 1 are used for management and operational expenses ($6M) and to support the participation of Canadian government departments and agencies (OGDs) in the provision of WTRP assistance ($3M). Funding for the WTRP comes from the International Assistance Envelope.

[1]Russia was expelled in 2014 following its invasion of Crimea.

Program Background

WTRP portfolios

The program delivers projects in four main portfolios plus the portfolio related to UNSCR 1540. See Annex I for additional details.

Nuclear and radiological security (NRS)

Supports international efforts to enhance the security of nuclear and other radioactive materials in order to reduce the threat of nuclear or radiological terrorism. Seeks to reinforce compliance with non-proliferation and disarmament obligations through monitoring and verification. Total funding over six years was $186M, supporting 101 projects.

Biological security

Supports a wide range of activities designed to strengthen biological security (biosecurity) and biological safety (biosafety) and to enhance the capacity of partner countries to prevent, detect and respond to deliberate or accidental biological threats. Total funding over six years was $237M, supporting 114 projects.

Chemical security

Supports initiatives to address global chemical threats. Guided by the GP's Chemical Security Sub-Working Group Strategic Vision to counter the spread and use of weapons-related chemicals and precursors, promote chemical security and maintain awareness of chemical safety-related efforts. Total funding over six years was $57M, supporting 29 projects.

Conventional weapons

Supports the universalization and implementation of international arms-control regimes related to conventional weapons. Aims to strengthen institutional capacity, develop tools and guidance, facilitate efforts for countries to accede and assist with broad efforts to help countries meet their treaty obligations. Total funding over six years was $25M, supporting 23 projects.

Support for implementation of UNSCR 1540

UN Security Council Resolution (UNSCR) 1540 requires states to refrain from providing support to non-state actors that attempt to develop or acquire nuclear, chemical and biological weapons and their means of delivery, and to fully implement the multilateral treaties that aim to eliminate or prevent the proliferation of WMDs. The work of the UNSCR 1540 portfolio has been reconsidered in recent years, due to the increase in state-based actors active in the space (as opposed to non-state actors, the focus of the resolution) and the emergence of new issues demanding response across the CBRN spectrum (for example, disinformation). Total funding was $13M over six years, supporting 16 projects.

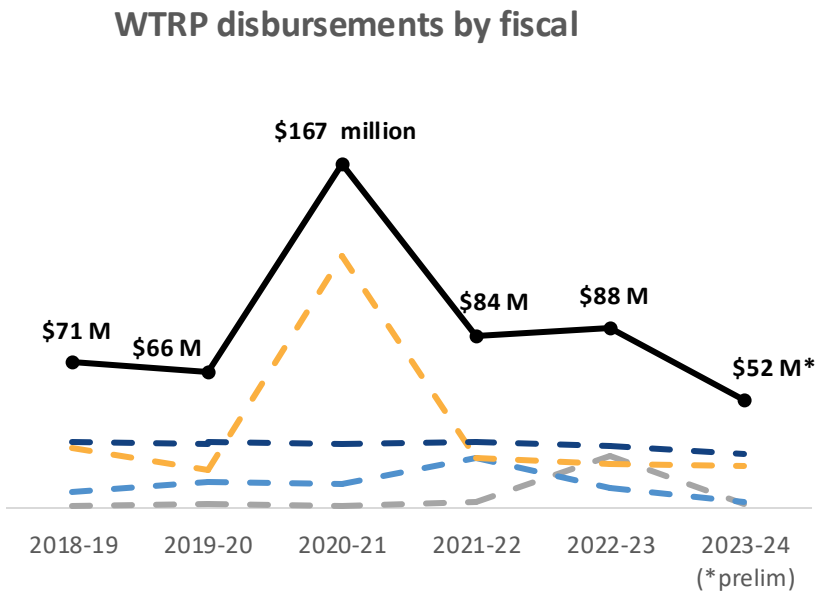
Program Background

Funding profile

Although the WTRP has an annual program budget of $73.4M, WTRP financial disbursements over the 6-year evaluation period exceeded this amount due to additional Vote 10 funding allocated for responding to crises that arose during that time. In fact, the program received supplemental Vote 10 money every year except 2019-20 and consistently disbursed virtually all of its funds each year (the variance was 1% or less each year). The largest lapses were in Vote 1 funds for other government departments in 2020-21 and 2021-22, which is largely attributable to the travel restrictions faced due to COVID. See Annex II for a detailed table of financial information for the WTRP.

Since 2018-19, the WTRP has expended over $528M. The largest total investments over the 6-year period were made by the biological and NRS portfolios, followed by chemical security, conventional weapons and UNSCR 1540.

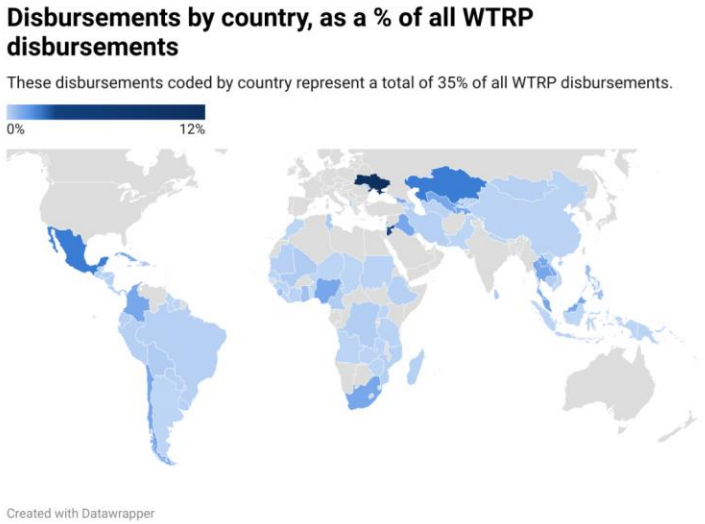
There was a large increase in funding disbursed by the WTRP in 2020-21, when extra financing for COVID-related programming was delivered through the biological security portfolio, and a large increase in the conventional weapons portfolio in 2022-23 related to support for Ukraine. It should be noted that funding for Ukraine was also delivered via other portfolios from the WTRP's core funding envelope.



Source: Extract from GAC's financial database. Figures for 2023-24 were preliminary at time of extraction.

Program Background

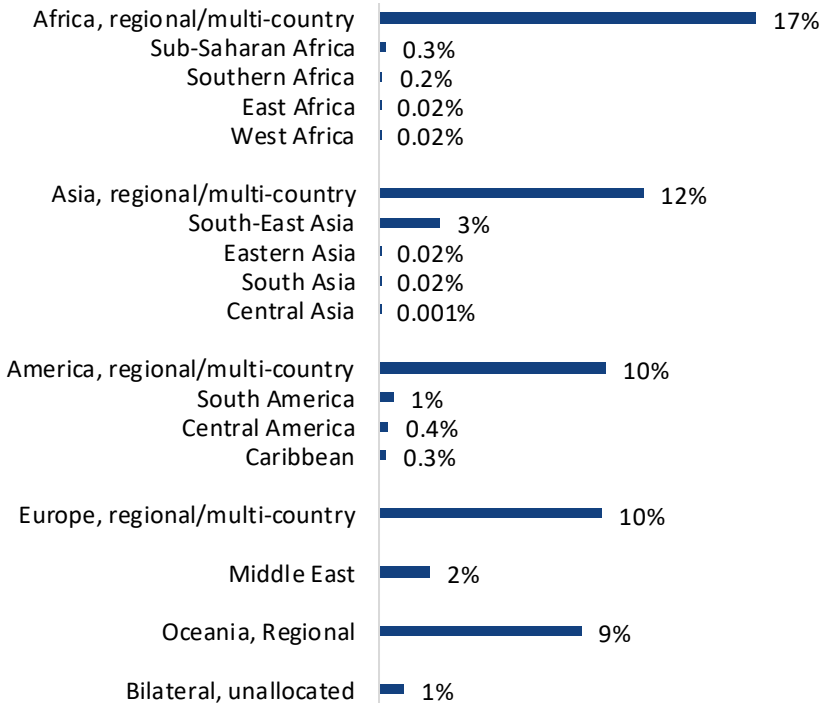
Geographic distribution of funding



Over the evaluation period, WTRP disbursements have benefited areas all over the world. A total of 35% of all WTRP disbursements were coded to individual countries, as are shown in the graph above. The largest individual country beneficiary was Ukraine, at 12% of all WTRP disbursements, followed by Jordan at 3% and Mexico at 2%.

Many WTRP projects benefit multiple countries, and so the remaining 65% of WTRP disbursements were coded to a variety of regions and sub-regions, as shown in the chart on the right. The largest amounts were attributed to "regional/multi-country" Africa, then Asia, America and Europe. A few projects were coded to specific sub-regions such as south-east Asia and South America.

The remaining 65% of WTRP disbursements are coded to these regions and sub-regions:



Note: The totals for each sub-region are independent of the totals of the wider regions.

Evaluation Scope and methodology

Evaluation Scope and Objectives

Evaluation scope

The evaluation covers the period from 2018-19 to 2023-24. Program reporting is based on available departmental data as of mid-March 2024 and financial data was provided in December 2024.

The evaluation originally included the program's five portfolios. However, due to the reprofiling of the UNSCR 1540 portfolio in 2024 to focus on CBRN crosscutting issues, the scope focused on the four main portfolios. Because a sizable portion of the program's budget provided through supplementary allocations was allocated to urgent requirements, including COVID-19 and the war in Ukraine, these two areas were included within the scope of the evaluation.

Evaluation objectives

The objectives of the evaluation were to:

1. assess the program's relevance and performance on delivering on its mandate
2. formulate lessons and identify areas of improvement at the program and corporate levels

Evaluation approach

The evaluation was overseen by the GAC Evaluation Division and conducted by Goss Gilroy Inc., a Canadian private sector consulting firm specializing in evaluation. In addition, the evaluation team engaged a Canadian expert in weapons non-proliferation and disarmament. The evaluation of the WTRP was conducted in accordance with the Treasury Board's Policy on Results and section 42.1 of the Financial Administration Act.

The evaluation design was based on numerous consultations with program stakeholders, adopting a utilization-focused approach.

The evaluation used a theory-based approach to the assessment of effectiveness. Contribution analysis is used in evaluation to assess causality and determine the contribution a program has made to particular outcomes. This was relevant for the WTRP given its preventive nature (that is, its longer-term outcomes are the reduction or elimination of threats). Contribution analysis was used to determine the likelihood that planned outcomes could be achieved based on the delivery of WTRP activities and outputs and, therefore, the extent to which WTRP's activities contributed to producing the outcomes.

Evaluation Questions

Evaluation Criteria	Questions
Relevance Alignment with priorities Emerging risks and opportunities Responsiveness to changes	**Q1.** To what extent has the WTRP aligned its investments and activities with countering significant WMD (weapons of mass destruction) and conventional weapons threats and non-proliferation, disarmament and counterterrorism priorities?
	Q1. a) How well has the WTRP responded to emerging risks and opportunities?
	Q1. b) How have changes in programming environment (including the GP and Canadian non-proliferation and disarmament policy frameworks and commitments, evolution of threats) facilitated or inhibited the responsiveness of WTRP's investments?
Effectiveness Achievement of outcomes Unintended outcomes Gender equality Environment	**Q2.** What progress has the WTRP made toward the achievement of its intermediate and ultimate outcomes?
	Q3. What unintended outcomes have occurred as a result of the WTRP and what has been their significance?
Sustainability	**Q4.** What lessons could be drawn from the WTRP in enabling long-term sustainability of outcomes?

Methodology

The evaluation used a mixed-methods approach, where data was collected from a range of sources to ensure multiple lines of evidence when analyzing data and formulating findings. Each finding was triangulated using evidence from a mix of quantitative and qualitative data. Six methods were applied to conduct this evaluation.

Document review

Providing evidence for all evaluation questions, a review of documents pertaining to specific portfolios as well as across portfolios was conducted. Examples of documents include:

- WTRP program documents
- strategic consultation reports
- programming summaries
- presentation decks and summaries

Database review

The database review provided evidence about relevance (that is, where investments have been made, and trends) and effectiveness (that is, number and type of funded projects). Data on program disbursements were provided by the GAC Chief Financial Officer's statistical team, extracted from the departmental Finance and Administration Systems in mid-March 2024, and covered the time frame from 2018-19 up to that date. All data were based on approved projects.

Literature review

The literature review covered evaluation questions in all three evaluation criteria areas. It included a review of over 70 sources of peer-reviewed literature and high-quality grey literature. All abstracts from articles published from 2017 to the present were considered, with a priority placed on more recent literature and reports from think tanks and research centres, and publications from partner governments and key international organizations.

International data review

To assess progress toward the program's ultimate outcome, a review of published databases managed by think tanks, educational institutions and multilateral organizations was conducted to gather data on country-level chemical, biological, radiological and nuclear (CBRN) capacity and on the nature and evolution of CBRN threats as well as conventional weapons flows. A total of 12 datasets, containing an array of information and statistics, were reviewed.

Key informant interviews

Semi-structured individual and group interviews were conducted with a variety of stakeholders (n=19). Internal stakeholders at GAC included senior departmental management, WTRP management and staff, and policy personnel. External stakeholders included representatives from Canadian OGDs as well as stakeholders from Canadian and international civil society (for example, academia, think tanks, not-for-profit/non-governmental organizations).

Portfolio case studies

Four portfolio case studies were conducted (1 for each portfolio, with the exception of UNSCR 1540). Each case study included a file review, for a sample of 10 projects, and interviews with project intermediaries, partners, stakeholders and beneficiaries (where possible). A total of 84 interviews were conducted for the case studies. Additionally, 2 site visits were carried out: 1 to Europe to visit program partners and project intermediaries, and 1 to Southeast Asia (Laos and Thailand) to attend a stakeholder meeting for a project funded in the biological security portfolio and to conduct interviews with various partners, intermediaries and beneficiaries in the biological security and NRS portfolios.

Evaluation Limitations and Mitigation Measures

Limitations	Mitigation Measures
Case studies as a line of evidence are not considered generalizable since they represent a sample of the total population of projects funded. While a case study was conducted for each main portfolio, only up to 10 funded projects were included in each file review and interviews were conducted with respondents from a sample of projects. Also, beneficiaries were only consulted for a few projects.	The evaluation featured multiple lines of evidence with a view to mitigating limitations. Portfolios were fully explored via portfolio case studies, data review and CBRN data review. The evaluation looked across portfolios via the document review, interviews and literature review. The case studies featured over 80 interviews, providing a large amount of qualitative evidence across many projects.
There were some gaps in the evidence from the literature, database and CBRN reviews. Areas with limited literature included gender equality and environmental considerations in CBRN. Also, the literature search did not yield many sources that explored threats or threat reduction regarding conventional weapons. The expenditure data reviewed was not split out between the chemical and UNSCR 1540 portfolios. Also, data disaggregated by country was not available for many projects that are global or regional in scope, resulting in an inability to report on reach and outcomes by country. CBRN datasets are prone to data lags and did not speak directly to WTRP-funded projects.	Triangulation with program data and interview/case study evidence allowed for a good picture of impacts in gender equality (GE) and conventional weapons. In terms of data, the evaluation team split the data by chemical and UNSCR 1540 to get a more accurate description of program funding. The file review undertaken as part of the case studies allowed for a better understanding of geographic areas of activity. Contribution analysis (via the literature review and interview/case study evidence) was used to assess the achievement of the ultimate outcome.
There is limited documented evidence of outcome achievement. While all projects funded in the last few years include performance measurement strategies, most projects have not run long enough to see the realization of outcomes, and projects that have been running over longer time frames did not have to submit reports on outcome achievement (the WTRP adopted a formal results-based management framework in response to a recommendation from the program's 2016 evaluation).	Where documented/quantitative evidence pertaining to outcomes was not available, the evaluation relied on evidence from interviews conducted as part of the case studies. As noted, there are limitations with case studies, but they did provide valuable insights into the types and examples of outcomes, as well as into the features of successful project designs.

Findings: Relevance

Relevance

Alignment

The Changing context

Some trends include:

- erosion of arms control frameworks
- nuclear weapon modernization
- regional proliferation risks
- impact of emerging technologies
- weakening global norms
- diminishing international cooperation
- a shifting strategic focus in Europe

Emerging technologies

Emerging tech, such as artificial intelligence, biotechnology, additive manufacturing and offensive cyber capabilities, can increase CBRN security threats because they:

- can lower barriers to developing and deploying CBRN weapons
- have dual-use purposes
- can be accessed more easily by both state and non-state actors

F1: The WTRP has evolved and adapted as threats and risks have evolved. Its investments and activities are well-aligned with countering significant WMD threats, non-proliferation, arms control and disarmament priorities. The four main portfolios remain relevant.

As the global context and the nature of risks have changed in the more than 20 years since the WTRP's inception, the program itself has also evolved. The WTRP has expanded to address threats of various types, including nuclear, biological and chemical, and, most recently, has expanded to include a conventional weapons portfolio. The WTRP now addresses threats posed by different actors (states, individuals, networks) in all areas of the world. The program's focus has continued to evolve and adapt over the evaluation period. For example, after the Russian invasion of Ukraine in 2022, programming that involved Russia had to be adapted. In one case, a project that involved removing uranium from Kazakhstan to Russia for disposal was changed: instead of sending the material to Russia, it was secured at the site.

The scope of potential interventions is large, given both the wide geographic scope and the variety of threats to be addressed. The WTRP has selected interventions where program management have identified it is possible to make improvements, influence outcomes and reduce threats. This has included activities related to capacity development (such as in the area of regulatory framework development), prevention (increased technical expertise and physical infrastructure), threat mitigation (development of safeguards and disaster planning), as well as intelligence development and dissemination.

The program has also made and continue to make efforts, particularly through the GP, to induce other donor countries to increase their interventions in the area of threat reduction. Overall, the evidence shows that all 4 main portfolios (nuclear and radiological security, biological security, chemical security, and conventional weapons)[2] remain very relevant to addressing weapons threats, non-proliferation, arms control and disarmament priorities. A few interviewees consulted for the evaluation suggested the creation of a portfolio that addresses emerging technologies across threat type[3].

[2] The UNSCR 1540 portfolio saw a decline in funding and project volume over the course of the evaluation period when the program made the decision to reprofile it to address cross-cutting issues, including WMD-relevant emerging technologies and disinformation.

[3] A new such portfolio was created after the end of the evaluation period.

Relevance

The portfolios

F2: While the WTRP's portfolios are engaged with emerging threats in their respective areas, the scope of the conventional weapons portfolio is limited by its terms and conditions.

The NRS, biological and chemical portfolios have awareness and understanding of emerging risks and trends, fostered through regular engagement with their international partners as well as the division responsible for NACD policy at GAC. As such, their activities address many emerging threats.

As the newest and smallest portfolio, the conventional weapons portfolio has a limited budget, and the scope of its activities is limited by its terms and conditions. The focus of the conventional weapons portfolio is to support the universalization of existing conventional arms-control regimes. New and emerging threats such as the threats posed by autonomous weapons and armed drones, for which there are not yet any international agreements, are not within scope of the program. Having said that, there are ongoing discussions with GAC's non-proliferation and disarmament policy division regarding these issues.

With respect to the scope of other portfolios, file review and site visits demonstrated that the activities of the biological portfolio support biological security but do not exclude the promotion of biological safety when this has a link to threat reduction. In the NRS portfolio, some projects such as the IAEA's Regulatory Infrastructure Development Program and the IAEA's *Code of Conduct on the Safety and Security of Radioactive Sources* address both safety and security elements in capacity-building. However, NRS typically restricts the focus of its programming to security measures, with nuclear safety excluded. This strict delineation may be to the disadvantage of some projects. It was noted by many consulted for the evaluation that it may be beneficial for the NRS portfolio to consider both the safety and security perspectives more often. For example, WTRP support for IAEA fellowships for women in nuclear science programs is restricted to those studying specifically in security or safeguard areas, which is a small pool and may exclude potentially relevant recipients who are studying nuclear safety but who may one day contribute toward nuclear security.

Relevance

Leadership and results-based management

F3: Thanks to the WTRP, Canada is viewed as a global leader in funding and promoting weapons threat reduction activities, and in terms of promoting results-based management.

The evaluation found that Canada is viewed as a global leader in the area of weapons threat reduction activities by many of its partners—a theme that was echoed by many interviewees. This leadership is reflected in the funding amounts provided, the number of projects supported, the types of projects supported, and the collaborative relationships between the program and its partners.

In addition to providing funding through the WTRP, the program has acted as an informal secretariat for the GP, managing its matchmaking process, maintaining its website and writing communications. For a number of donor states, weapons threat reduction programming does not fit neatly into their international programming structures. Other donor countries fund such programs through their defense, foreign affairs, interior or other ministries. The existence of the WTRP as a dedicated program for supporting international efforts toward the full spectrum of CBRN threat reduction fills a need, according to interviewed recipients.

Interviewees also expressed that the WTRP is perceived as a leader by its partners in terms of promoting results-based management (RBM). In the 2017 evaluation of the WTRP, recommendations were made to improve reporting at the program level. Over the evaluation period, the WTRP further developed its approach to using RBM in project reporting, and newly approved projects have performance measurement frameworks. Multiple project partners who were interviewed for the evaluation discussed how useful the approach has been for project management and conveying their achieved outcomes in reporting. Not all donor states adopt this approach with respect to threat reduction programming. This may be because the government departments of other donor countries funding these activities are not those which normally use RBM approaches (such as departments delivering international development projects, where RBM is widely used).

Relevance

Coherence with government policies and approaches

F4: The WTRP's cooperation with other Canadian government departments fosters coherence with Canada's overall international policies and approaches.

Through interviews and case studies, there is strong evidence that there is coherence between the WTRP's programming and the work of OGDs. A number of OGDs participate in WTRP projects, and interviewees from those departments indicated that it helped fulfill their department's or agency's mandate. For example, representatives from the Public Health Agency of Canada work with or on WTRP projects, contributing to their mandate as well as a whole-of-government response to biological terrorism threats. Other departments participating in WTRP work include the Canadian Food Inspection Agency, the Canadian Nuclear Safety Commission, the Canadian Border Services Agency, Justice Canada, the Royal Canadian Mounted Police and others.

There were some stakeholders interviewed who expressed concern over the lack of coherence between the WTRP's work to advance adherence to the Arms Trade Treaty (ATT) and Canadian policies that allow exportation of weapons to global areas in perceived contravention of ATT commitments. However, the highlighted problems relate to those other policies rather than to the WTRP.

Coordination

F5: The WTRP cooperates internally at GAC, effectively coordinating with GAC staff in relevant policy positions at headquarters and at missions abroad.

Coordination and cooperation with other parts of GAC are important for ensuring the coherence of government programming and awareness of emerging issues and trends. The evaluation found that there has been a good level of coordination between the WTRP and the division responsible for NACD policy in GAC. There have been formal meetings and consultations between the two divisions, supplemented by regular informal interactions. However, a 2024 reorganization at GAC separated the WTRP and policy staff into different branches and different physical buildings. With this reorganization, it will be important to ensure continued collaboration between the policy and programming sections.

The WTRP also coordinates regularly with GAC staff in a number of Canadian embassies, permanent missions and high commissions, who sometimes represent the program at meetings in country, attend related events or convey information on local WTRP programming.

Relevance

Visibility

F6: The WTRP has a relatively low profile within GAC and in Canada. It is also somewhat self-contained, which can be both advantageous and disadvantageous.

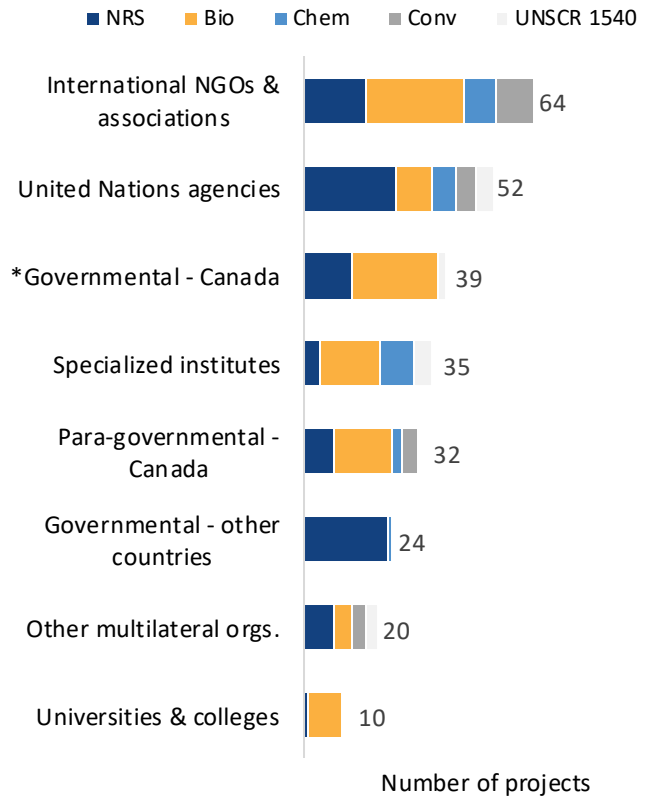
The perception of some WTRP staff is that despite their effective coordination with pertinent internal stakeholders, the program has a relatively low profile within the department.

The WTRP could be characterized as somewhat self-contained in character. It has a limited number of rotational positions, and there is not much staff turnover. While this is beneficial insofar as staff are able to develop expertise and mature relationships with partners, it does mean there are fewer relationships with other parts of the department unless the program makes concerted efforts to do so. For example, other divisions within GAC have development programming, trade relationships and partnerships in the same recipient countries. More relationships with other parts of the department could promote knowledge sharing, coordination and exchanges of information.

Finally, the WTRP has a low profile in Canada and does not have substantial engagement with Canadian non-governmental organizations or Canadian academia. This reduces the breadth of perspectives that could be useful to the program and results in a lack of external perspectives that could inform its approaches and projects.

Relevance

Project identification, selection and development



Note that there may be more than one partner per project.
*The "Governmental-Canada" projects are primarily contracts for involvement in projects led by others.

F7: Overall, project development and selection are guided by existing partnerships and consultations with stakeholders and are based on an assessment of need and an understanding of threats.

Given the high degree of specialization and technical expertise required in the WMD threat reduction field, project identification and selection are most often based on existing partnerships and building on past collaboration to address identified threats. The WTRP appears to be well-connected with most of the key players in the various relevant sectors, particularly outside of Canada. WTRP interviewees largely believe project development processes allow the program to address emerging needs and opportunities for new partnerships and projects. There have been long-standing partnerships and multi-phase projects with some key partners. This has allowed growth, expansion and sustainability of results and partnerships. One example of this is the Mitigation of Biological Threats program in the Association of Southeast Asian Nations (ASEAN) region, which has grown and evolved over the course of over 10 years to the point that it has been designated by ASEAN as the platform through which all donor states are expected to work in the health security domain.

The GP has a project matchmaking mechanism between funders and implementers that is administered by WTRP personnel (driven by the submission of proposals). The GP project matchmaking process is one of the WTRP's important methods of identifying new projects and partners.

In addition, the WTRP hosts annual stakeholder consultations with Canadian OGDs that support project identification and foster communication and coordination.

The program has expended its budget each year with minimal lapses and, according to program interviewees, sets aside some funds each year to address short-term emerging needs or crises. Overall, 15% of the WTRP's implementing partners over the evaluation period are Canadian, 80% foreign and 5% uncoded.

Relevance

Project identification, selection and development

F8: There are some opportunities for improvement with respect to project identification, selection and development.

The main opportunities for improvement are:

- **Selection of new opportunities and partners.** New WTRP projects and opportunities typically arise from existing relationships and partners who attend conferences or meetings. This may not always reflect a strategic approach for the coherence of the overall portfolio. The current approach may result in the WTRP missing out on some potentially effective partnerships (for example, with non-governmental organizations, low-engagement states) that are not among their usual partners.

- **Limitations of the GP project matchmaking process.** The WTRP does not issue requests for proposals, with the GP matchmaking process considered as a quicker, more efficient model for receiving proposals. However, interviewed partners indicated that the GP process has limitations. Feedback was that this process is a good idea in theory but is less than ideal in practice, as the funding comes from a limited number of partners (especially Canada, the United States and the United Kingdom). It was indicated that this dissuades stakeholders from submitting proposals because they do not believe they can reach new funders. Thus, the GP process is not used to its full potential. Canada and the WTRP continue to advocate for other GP member states to more actively provide funding, and have indicated that they will continue to do so when Canada assumes the presidency of the G7 in 2025, and with it, the presidency of the GP.

- **Expanding annual stakeholder consultations.** While the annual consultation process is a valuable exercise, it typically involves the same domestic government stakeholders each year. Expanding the discussion beyond the domestic OGD audience could be beneficial and introduce new ideas. Specific areas of improvement to the program's consultation process include broadening the process beyond Canadian government stakeholders to include Canadian civil society and even international stakeholders/partners; allowing more time for stakeholders to discuss needs; and ensuring representation and attendance from all portfolios.

Relevance

Responsiveness

F9: The WTRP is recognized to be highly responsive to the needs of the project intermediaries it funds.

The WTRP is very responsive to the needs of project intermediaries, both in terms of the program itself and the ways staff approach project design. In general, the WTRP's terms and conditions (December 2022) have enough flexibility to allow the program to be responsive to emerging issues and priorities. The exception to this is the conventional arms control portfolio, whose terms and conditions are limited to support existing international conventions and not to address weaponry which is not yet subject to a legal instrument. According to interviewees, WTRP processes are also fast and responsive. For example, the program was able to fund initiatives with extra-budgetary funding for Ukraine and in response to the COVID-19 pandemic. With respect to how the staff approach project design, partners reported that rather than coming to the table with set ideas, program staff listen to representatives of organizations and projects are designed to meet their needs. The professionalism, flexibility and responsiveness of numerous individual staff members were cited by many partners.

Findings: Effectiveness

Effectiveness

Immediate outcomes

From the WTRP logic model (see Annex III), immediate outcomes focus on increased awareness, skills, knowledge and capacity of intermediaries in relation to preventing, detecting and responding to the proliferation and use of WMD and related materials, as well as conventional weapons.

1110 - Increased awareness, knowledge, skills and capacity of intermediaries to prevent, detect and respond to the proliferation and use of WMD and related material.
1120 - Increased capacity of intermediaries to use and maintain equipment, tools, resources and infrastructure for the prevention, detection and response to the proliferation and use of WMD and related materials.
1210 - Increased gender-responsive awareness, knowledge, skills and capacity by intermediaries in the prevention, detection and response to proliferation and use of WMD (including related materials) and conventional weapons.
1310 - Increased capacity by intermediaries to design, strengthen, implement and monitor legal and/or policy frameworks related to the non-proliferation and use of WMD (including related materials) and conventional weapons by state and non-state actors.

F10: There is strong evidence that the WTRP is achieving its expected immediate outcomes through projects in all portfolios.

Increased awareness, skills, knowledge and capacity of intermediaries is being achieved and is occurring through funding various capacity-building projects in many areas across portfolios. Training efforts have increased readiness across multiple regions and increased knowledge and skills among individuals working in various fields related to prevention, detection and response to weapons threats.

While most capacity-building projects do not have a targeted focus on women, a few of them do. Moreover, WTRP staff encourage all capacity-building projects to aim for equity between male and female participants and work to ensure barriers to women's participation are mitigated (for example, provision of gender-fitting equipment). However, it is often difficult to secure parity, despite the encouragement offered by organizers, given the low overall ratio of women to men in WTRP-related fields, which itself often stems from cultural impediments. WTRP projects also encourage consistent application of a gender lens in project design and mandate the collection of disaggregated data.

WTRP projects also funded the purchase of equipment, the development of tools, the securing of resources and the building of infrastructure. These have included purchasing demining and analytical equipment, the development of databases and analytical tools, paying for salaries of experts and specialized personnel, and contributing to the construction and/or renovation of laboratories and training facilities. These investments have resulted in increased organizational and state capacity and capability to prevent, detect and respond to weapons threats.

Projects also result in awareness-raising of GE considerations through statements and language adopted by countries at NACD forums.

WTRP projects have also contributed to strengthening capacity pertaining to legal and/or policy frameworks. This is accomplished through the funding of training sessions, the provision of experts visiting funding recipient organizations and the funding of salaries for new employees with this focus in their work. The WTRP has also provided funding to various organizations tasked with the implementation of treaties and similar agreements, which helps support states to establish, strengthen, implement and monitor their country's legal and/or policy frameworks.

Effectiveness

Examples of immediate outcome achievement

Nuclear and radiological security

- Increased knowledge and skills through training of people working in nuclear fields in relation to treaty adherence, nuclear security and prevention of trafficking in nuclear materials. (United Nations Office on Drugs and Crime [UNODC], IAEA, INTERPOL, U.S. Department of Energy [U.S. DoE])
- Monitoring and development of information regarding nuclear activities in Iran and the DPRK (IAEA); and information development to reduce sanctions evasion by the DPRK. (Royal United Services Institute [RUSI], CRDF Global)
- Increased security of nuclear facilities in Ukraine during Russian occupation. (IAEA)

Biological security

- Increased knowledge and skills through training efforts in terms of identifying, handling, storing and analyzing pathogens and biological risks, emergency management, risk management. (ASEAN; African Society for Laboratory Medicine [ASLM])
- Facilitated identification, surveillance and analysis of threats through the development of early warning systems. (INTERPOL, ASEAN)
- Increased partnerships between diverse organizations built into project designs, resulting in collaborative facilitated actions. (World Organization for Animal Health [WOAH], INTERPOL, ASLM; ASEAN)

Chemical security

- Increased knowledge sharing, skills, surveillance and analytical ability through newly developed digital tools and approaches (for example, cheminformatics databases, blockchain-based tracking systems). (INTERPOL, Stimson Center, RUSI)
- Increased readiness through training efforts across multiple regions, leading to tangible improvements in incident response and compliance with chemical security protocols. (INTERPOL, OPCW)
- Increased capacity and capabilities for analysis and investigations through funding for infrastructure and equipment. (OPCW)

Conventional weapons

- Increased current knowledge about arms trade monitoring and compliance in the Indo-Pacific region through the Small Arms Survey. (SAS)
- Capacity building in advocacy within civil society organizations (with women and youth). (International Campaign to Ban Landmines - Cluster Munition Coalition [ICBL-CMC])
- The raising of awareness of GE considerations in disarmament through statements and language adopted by countries at disarmament forums. (ATT Secretariat)
- Capacity building and equipment for demining in Ukraine and Laos (Canadian Commercial Corporation, UNDP)

Effectiveness

Intermediate outcomes

Intermediate outcomes focus on changes in behaviour, such as improved prevention, detection and response as well as increased universalization, compliance and enforcement of legal and policy frameworks (see logic model in Annex III).

1100 - Improved prevention, detection and response to proliferation and use of WMD and related materials by intermediaries.
1200 - Improved gender- responsive prevention, detection and response to proliferation and use of WMD (including related materials) and conventional weapons by intermediaries.
1300 - Increased universalization, compliance and enforcement by intermediaries of legal or policy frameworks related to the non-proliferation and use of WMD (including related materials) and conventional weapons by state and non-state parties.

F11: Intermediate outcomes related to improved prevention, detection and response are being achieved across portfolios. That is, actions are being taken and/or behaviours are changing based on the new knowledge/skills attained and frameworks that are in place.

As illustrated above, the program is achieving immediate outcomes of increased awareness, knowledge and skills. There is further evidence that this awareness and increased knowledge and skills are being applied and are resulting in improved prevention, detection and response to threats.

In particular, prevention is improved through the application of skills gained and capabilities secured (through the purchase of equipment, for example). Increased awareness is also leading to improved prevention insofar as intermediaries, states and their employees know the steps to take to prevent the proliferation of weapons.

Detection has been improved through the application of skills attained and the use of technologies, databases and tools funded by the program. These skills and tools allow individuals working in the field to identify potential threats. For detection in the conventional weapons portfolio, WTRP funding has improved detection (and removal) of landmines through increased skills and capabilities (that is, equipment).

In terms of improved response to weapons threats, WTRP-funded staff capacity has enabled readiness to conduct investigations into the use of biological weapons. As well, increased skills and knowledge, as well as partnerships and collaborations, have resulted, for example, in increased communications and coordination in the event of a dangerous infectious disease outbreak.

Intermediate outcomes also include system-level changes that help a state or organization prevent, detect and respond to threats. This has been achieved through several projects that supported the establishment of organizational policies and frameworks, as well as new institutions and/or positions that incorporate these abilities and areas of focus.

Effectiveness

Intermediate outcomes

F12: There is some evidence that the intermediate outcome of treaty universalization, compliance and enforcement is also being achieved across portfolios, although causal links are more difficult to confirm.

WTRP funding has helped recipient organizations achieve greater adherence to international standards, rules and treaties/conventions, such as infrastructure standards, the International Health Regulations, the Biological and Toxin Weapons Convention (BTWC), the Arms Trade Treaty, etc. WTRP funds have also supported compliance by funding the organizations that provide support to states. For example, WTRP funding to the BTWC Implementation Support Unit at the UN provides supports to state parties to implement the BTWC as well as organizing multilateral events and providing training.

Enforcement via investigations has been supported. In the biological security portfolio, the WTRP funds the United Nations Office of Disarmament Affairs to strengthen the UN's capacity to investigate allegations of biological weapons use. In the chemical security portfolio, WTRP funding provided additional scientific support to OPCW missions, including investigations of alleged use of chemical weapons, and other non-routine missions.

In terms of treaty universalization, the WTRP funds several projects aimed at increasing the capacity of various civil society organizations and affected communities to advocate and campaign with states. There is evidence that these supported advocacy skills and training are being used at NACD forums and conferences. Of note, a large component of projects dedicated to developing advocacy skills target youth and women, and there is evidence that these participants are active in advocacy efforts. However, the WTRP's degree of contribution to whether a state signs a treaty or agreement cannot be determined with certainty in most cases.

Effectiveness

Examples of intermediate outcome achievement

Nuclear and radiological security

- Improved prevention and detection through increased performance by experts in mitigating the risk of a nuclear or radiological security incident, including those related to transport security. (World Institute for Nuclear Security [WINS])
- Improved prevention through increased capability to manage nuclear and radiological materials by Ukrainian regulators and operators. (IAEA, US DoE)
- Increased universalization via new states becoming party to international legal frameworks related to nuclear security. (UNODC)

Biological security

- Increased prevention and detection of outbreaks through increased biosafety and biosecurity knowledge and skills. (ASEAN, INTERPOL)
- Establishment and institutionalization of policies, practices and legal frameworks. (CEPI, ASLM)
- Greater recognition of biological threats among decision makers and political levels. (ASEAN, WHO)
- Increased compliance with International Health Regulations. (ASLM, ASEAN)

Chemical security

- Increased detection of and response to chemical threats and incidents through the application of new skills, information sharing and tools. (OPCW, Stimson Center, INTERPOL, RUSI)
- Customs officials and border security personnel using databases to identify and regulate hazardous chemicals, supporting compliance and improving security measures at entry points. (Stimson Center)
- Enhanced monitoring capacities for dual-use chemicals, providing national authorities with improved tools for data transparency and transfer tracking. (Stimson)

Conventional weapons

- Greater recognition of threats and commitment to international frameworks through the deployment of advocacy skills and training at disarmament forums, conferences and with policy-makers. (GICHD, SAS, ICBL-CMC, NPA)
- Having knowledge about illegal arms trafficking in the Indo-Pacific region has informed tailored threat reduction strategies and tactics. (SAS)
- Increase detection and response to threats through funding for demining equipment and increased skills. (CCC, UNDP)

Effectiveness

Factors that facilitate and hinder the achievement of outcomes

Factors that facilitate or hinder the achievement of outcomes are well understood by the program, and efforts are made to address these in project designs.

Projects are designed to reflect many of the factors that influence the achievement of outcomes (while avoiding hindering factors), which include:

Facilitating factors	Hindering factors
Partners/intermediaries that are fully committed to the initiative and have access to resources and infrastructure to carry it out.	Partners/intermediaries who participate when they are not fully ready/lack the capacity to fully implement the learnings/tools.
Organizational or state leadership that has bought into the need for the project and will provide institutional support.	Leadership that only pays lip service to the need for and goals of the project but do not intend to provide the necessary supports.
Having the right training participants (likely to stay in their jobs, able to apply the training).	Inappropriate attendees at training (too senior, not the right match, likely to leave).
Projects that are designed based on need and building on lessons learned/best practices. Projects should reflect local cultural norms.	Projects that are copies of what was done in other jurisdictions/organizations and not tailored to organizational contexts/needs.
Long-term engagement after a country signs on to a treaty.	Funding only short-term advocacy efforts or capacity building without sustained support.
Multi-year and sustained funding, building on previous phases	Short-term, one-off activities without a plan to follow-up or conduct subsequent activities
Continuous engagement with WTRP personnel.	The WTRP is only involved in design and close-out.

Effectiveness

Factors that facilitate and hinder the achievement of outcomes

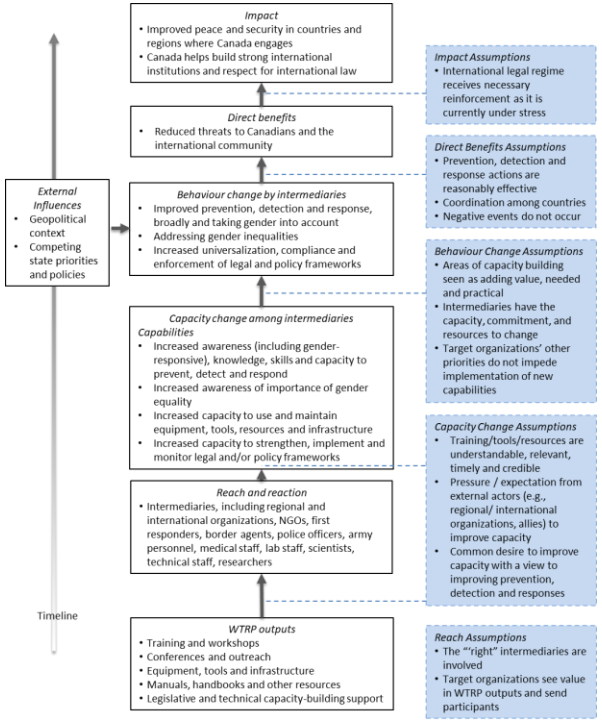
F13: The program's terms and conditions allow for knowledge sharing and collaboration activities. Occasionally, the program offers these opportunities for intermediaries to learn from projects in terms of effective project designs, potential pitfalls, etc. However, more can be done.

The program encourages and attends meetings with project intermediaries to discuss the funded projects, what worked well and opportunities for improvement. However, there was a lack of evidence that the program routinely provides opportunities for project intermediaries to meet with each other to share best practices and lessons learned. Moreover, the program does not develop written lessons learned/best practices documents that can be shared with existing and potential recipients. These kinds of learning opportunities can greatly benefit all participants, and not only can they result in better-designed projects, they encourage collaboration and coordination outside the context of the WTRP.

Effectiveness

Ultimate outcome

The ultimate outcome depicted in the logic model (see Annex III) focused on achieving reduced threats. Contribution analysis was used to validate the program's theory of change and help determine the contribution the WTRP has made or is likely to make to its intermediate and ultimate outcomes. The literature review and interviews/case studies were used to confirm the veracity of the assumptions in the program's theory of change (below and in Annex IV).



F14: The WTRP's theory of change is sound, and assumptions are appropriate. It is reasonable to expect that the program makes positive contributions toward its expected ultimate outcome. These contributions are, however, negatively affected by the highly volatile and uncertain environment in which the program operates. Moreover, progress toward the ultimate outcome is difficult to assess and attribute to the WTRP.

The assumptions outlined in the theory of change were borne out in the evidence. The first set of assumptions pertain to reach and state that the "right" intermediaries are reached and that target organizations see value in WTRP-funded outputs. These assumptions were validated and confirmed as factors that influence the achievement of outcomes and lead to sustainability. The program is working with the major actors within the respective portfolios and obtaining buy-in is an important part of most project designs. There remain challenges to reach states that, due to lack of capacity or political prioritization, do not adhere to international agreements.

The next set of assumptions pertain to whether capacity change will occur and include the quality of the training/tools/resources, that there is a desire to improve capacity, and that external actors experience pressure (whether from within or outside their organization) to change. These assumptions were also confirmed to be appropriate. Desire/pressure to increase capacity is particularly important insofar as it encourages participating organizations to send participants in the best -placed roles. As noted, the program works with its project intermediaries to encourage having the right individuals participate in project activities (such as training).

Moving from building capacity to changing behaviour (that is, improved prevention, detection and response) suggests assumptions of seeing value in capacity building, having the commitment and resources for change, and ensuring competing priorities do not impede implementation. The evidence bears out that behavioural change can only occur when it is supported with both resources and organizational commitment. As noted, there are many examples of behavioural change in the projects explored for the evaluation.

In the end, direct benefits (reduced threats) will occur when the prevention, detection and response actions are effective, there is coordination among countries and the hostile environment does not interfere (for example, negative events do not occur, volatility of certain states). Again, the evidence confirmed that as long as the preceding outcomes are realized and the assumptions hold, it is reasonable to expect reduced threats.

Effectiveness

The external factors impact the program insofar as it must target its interventions with states/organizations that have the will to participate fully and achieve desired outcomes. In particular, there have been critical developments such as Russia's aggression against Ukraine (including its use of its veto privilege, preventing the UNSC from taking action against it), some countries backing out of key arms control agreements, and military application of powerful new technologies that pose risks to international law, to name a few.

Some projects focus on advocacy efforts and supporting networking/outreach and collaboration, which can help change the position of some states over time. However, the causal relationship between advocacy (supported by the WTRP) and state actions (for example, signing on to a treaty and/or meeting its treaty requirements) is less direct.

Progress toward the ultimate outcome indicators outlined in the program's performance information profile is presented in Annex III. It is not possible to assess the WTRP's contribution toward these measures.

Examples of positive contributions toward the ultimate outcome

Concrete examples of how WTRP-funded projects have contributed to progress toward the ultimate outcome are listed below, by portfolio.

Nuclear and radiological security

Restoration of radiation detection capabilities at the Port of Beirut, enabling Lebanese customs officials to effectively monitor the illicit trafficking of nuclear and radiological material, and remove and secure such materials from legitimate trade flows. (US DoE)

Biological security

Training in biosafety cabinet use/maintenance and the funding of safe storage facilities lead to improved detection, containment and prevention of outbreaks. These, in turn, result in fewer active samples of pathogens that can be weaponized, which contributes to reduced threats. (ASEAN, INTERPOL)

Chemical security

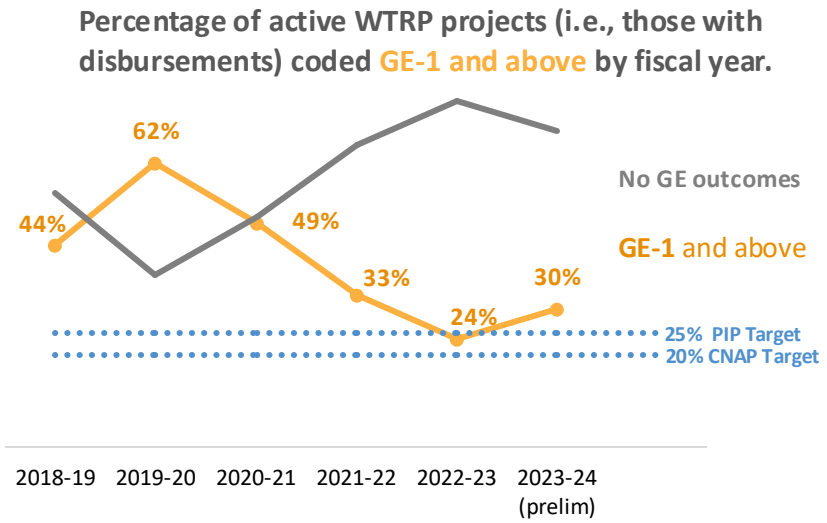
Databases that identify and track dual-use chemicals contribute to improved detection and prevention of potential threats, which contribute to reduced threats. Also, modernizing OPCW laboratories for chemical testing leads to improved detection, which contributes to reduced threats. (Stimson, OPCW)

Conventional weapons

Support for the ATT Sponsorship Programme supports state delegates to attend meetings, contributing to the successful implementation and universalization of the treaty, and thus a reduction in threats. (ATT)

Effectiveness

Gender equality



As can be seen in the figure above, the percentage of WTRP projects coded GE-1 or above went from 62% in 2020-21 to 49% in 2021-22. This is not due to changes in the gender impact of projects but rather to a more refined approach to coding as project guidelines became more defined. The last 3 years are a more reliable indication of the percentage of projects that are coded GE-1 or higher, although some projects coded prior to 2021-22 are still disbursing. Additional data pertaining to GE-coded projects by portfolio is presented in Annex VI.

F15: The WTRP has been meeting the Canadian National Action Plan on Women, Peace and Security target of having 20% of projects coded as having gender equality outcomes. However, there are currently no GE-coded projects in the chemical security portfolio.

The Canadian National Action Plan on Women, Peace and Security (CNAP) has set a target for GAC programs of 20% of projects coded GE-1 or above, meaning that GE outcomes are, at minimum, partially integrated. The WTRP Performance Information Profile sets a target of 25%. In the past 3 years (since project coding was refined), 33%, 24% and 30% (preliminary) of WTRP projects were coded as such. Therefore, the WTRP has been meeting or surpassing the CNAP targets. However, projects coded prior to the revision of coding approaches are still disbursing and slightly inflating these numbers. (See inset.)

The nuclear and radiological security and conventional weapons portfolios have been meeting GE targets in terms of number of projects, and the size of these projects has been consistent with the rest of their programming. That is, there has been a mix of large and small-budget projects with GE-1 or GE-2 ratings. For the biological security portfolio, the number of new projects with GE outcomes has been slightly lower than targeted. While GE-1 projects have ranged in size from small to large, GE-2 projects in the biological security portfolio have had small budgets.

For the chemical security portfolio, which accounts for approximately 16% of all projects over the evaluation period, there has not been a GE-coded project since 2019-20 and there is currently no programming with GE outcomes. The major partner in that portfolio, the OPCW, does not have an articulated commitment to promoting GE. While Canada's mission to the OPCW has tried to champion it as an issue, its efforts have been met with limited success. There is a role for the WTRP to support continued advocacy for this. It may be also beneficial for the WTRP to consider development of activities with other actors/organizations working on chemical security issues who could also implement GE aspects in their work.

Effectiveness

Gender equality

Benefits of GE and other inclusive practices

According to the literature, efforts to include GE and other diversity factors lead to more inclusive, adaptable and durable security policies that can better address the complex, multifaceted nature of global CBRN threats. Specifically, GE and other inclusive practices:

- **enhance decision-making with diverse viewpoints**: diverse teams are more creative, innovative and better at problem-solving, and result in more resilient and adaptable security policies and outcomes
- **improve threat assessments**, insofar as a more inclusive security culture enables practitioners to operate with a more expansive and accurate understanding of potential threats, thereby enhancing the effectiveness of security measures
- **foster long-term systemic change**, requiring efforts to combat structural biases, promote inclusivity and create pipelines for diverse talent within the security sector

F16: Some WTRP projects that are not coded as having GE outcomes actually do have some, and the WTRP's championing of GE has had outcomes in and of itself.

Even when not fully integrated into a project design, some project intermediaries have added GE dimensions or initiatives to parts of their projects, which lead to GE outcomes that have not been captured in project coding. This is often due to encouragement from WTRP staff and/or the championing by individuals leading these projects (often women).

In addition, partners said that Canada's championing of GE in general has had results within their own organizations in terms of raising the profile of the importance of GE. Canada, and the WTRP more specifically, are viewed as leaders in GE and bringing women into the programming they fund. In some cases, project intermediary organizations have developed GE policies, spurred by the example set by Canada and the WTRP.

F17: While many WTRP projects integrate GE, some do so more extensively than others. There is still a need for increased internal and external programming capacity and buy-in regarding how and why GE can be applicable to threat reduction programming.

While some projects have integrated GE in a substantive manner (such as creating a regional network of female nuclear scientists), in other projects GE is limited to efforts to encourage gender parity at events. For the latter, broader efforts to integrate GE more effectively could be adopted.

In addition, evidence was heard through some interviews that there is still a range of stakeholders and even some GAC staff who do not perceive the relevance and applicability of GE to WTRP programming.

Increased learning about the ways GE can be applicable to threat reduction programming and help improve results could increase internal and external programming capacity and buy-in in this respect. There are a number of relevant resources developed by WTRP partners. For example, with WTRP funding, partner WINS has developed handbooks on advancing gender equality, diversity and inclusion in nuclear security. The International Federation of Biosafety Associations has developed similar resources on biosafety and security.

Effectiveness

Unintended outcomes

F18: Some unintended positive and negative environmental impacts exist.

WTRP projects generally do not target environmental outcomes, and most of the interviewees who were asked about environmental outcomes of projects had little to say. Some stakeholders noted positive environmental outcomes, such as, for example, addressing threats of chemical leaching through clearing of ordnance and decreasing environmental impacts of spills. through proper handling of nuclear and chemical materials. Negative environmental impacts were also noted, including the tearing up of land during the clearing of ordnance and the use of explosives to destroy ordnance (although the affected land was unusable before it was cleared).

The conduct of WTRP projects also has some environmental impact. For example, infrastructure projects funded by the program are conducted according to Canadian standards, including a requirement for environmental impact assessments and environmentally conscious building approaches and materials.

F19: The COVID-19 pandemic offered a large-scale opportunity to illustrate how funding in biosafety and biosecurity has increased response capacity and capabilities.

Building pandemic detection and response capacity and capabilities was one of the expected outcomes of many WTRP projects in the biological security portfolio. The COVID-19 pandemic illustrated how and the extent to which WTRP funding developed important skills and capabilities in the biosafety realm. For example, the WTRP supported training and supplies for three labs in Ghana, originally intended for testing infectious animal diseases. When the pandemic started, the country's one lab that did COVID-19 testing was overwhelmed. Since the WTRP-supported labs were equipped to be able to do COVID testing, they were able to offer support and timely testing.

With the Mitigation of Biological Threats project, ASEAN member states established an Emergency Operations Centre network and were building capacity in emergency management. The network was already established and using Zoom for communication when the COVID-19 pandemic happened. With existing regular communications and trust, this greatly facilitated information sharing among the 10 member states regarding the pandemic.

Findings: Sustainability

Lessons for long-term sustainability

Features of sustainable project design

- local ownership and empowering/ supporting the intended beneficiaries
- comprehensive needs assessment
- securing decision-maker/political buy-in and commitment
- having an established and trusted network of local actors, strategic partnerships and multi-stakeholder engagement
- effective approaches to learning and training (mix of delivery channels, scenario-based training, hands-on training, follow-up coaching, train the trainer models)
- consistent support for advocacy and campaigning to get governments to speak up for project partners
- long-term follow-up, monitoring and evaluation
- planning for ongoing maintenance for high-tech solutions and equipment
- funding efforts that focus on new systems and supporting institutionalization of new approaches, guidelines, standard operating procedures, etc.

F20: The WTRP has placed a large focus on sustainability and has built lessons learned into project designs and approval processes.

Sustainability is critically important, given the size of Canada's investments and the long-term nature of how program outcomes are realized (that is, the lengthy time frame associated with behaviour and culture change, and threat reduction). This is due to the complexity of the issues, the limited initial capacity of some key actors and the changing complex geopolitical context, among other reasons. Moreover, building sustainability in the security context is different than in other contexts (such as development programming). In particular, responsiveness to emerging threats, rapid relationship building, capacity building where the initial capacity is limited, and collaboration within a complex and occasionally hostile environment are drivers of long-term success.

Sustainability was highlighted as an important area for attention in the last evaluation (2017), identifying 4 risks to sustainability: monitoring capacity among WTRP staff (with limited information available through reports); alignment of priorities (that is, interest in non-proliferation/disarmament in recipient counties); leadership (that is, buy-in within recipient organizations); and project duration. All of these areas have been addressed by the program in the last 6 years, as described below.

The files reviewed for the case studies confirmed that sustainability is an important consideration in all project designs. Each project approval document includes a robust discussion of how the outcomes of the project will be sustainable. This focus on sustainability was confirmed by those consulted for the evaluation, who had ready answers when asked about sustainability of project activities and outcomes.

The features of sustainable project design (consistently identified through evidence from most lines of evidence) are outlined in the box at left. Most WTRP projects are multi-year and occasionally multi-phase (that is, funded as separate but connected projects). Early activities/phases often ensure alignment with priorities and include securing decision-maker buy-in and establishing networks of actors and stakeholders. Many projects support organizational and/or institutional systems and frameworks. Capacity-building projects are also sustainable when they build local/organization ownership; ensure that needs assessment and training are aligned with needs; use scenarios and other practical training tools; empower intended beneficiaries; and encourage regional cooperation.

Sustainability

All WTRP projects feature a performance measurement strategy that not only supports accountability to the Government of Canada but equips project managers and decision makers with information, allowing for mid-course corrections to increase project success.

F21: A very small set of activities funded by the program do not have sustainability in mind, but rather aim to pilot an idea or partner, or support knowledge exchange, for example.

A few projects involve one-off trainings as part of the overall design, but do not include follow-up engagement, network development or other activities. For example, a project might involve short trainings for individuals from a large number of countries across many regions where there is little control over the attendees and limited follow-up.

Some projects are also small and/or short-term (for example, training, conference support). These projects often serve the purpose of being a testing ground for a new partner or new idea/concept. They might also be illustrative of providing a small amount of funding to maintain a strategic partnership for the program or to deliver on a NACD policy priority that has limited concrete threat-reduction benefits.

F22: Internal turnover at the WTRP is an upcoming issue.

One of the WTRP's success factors is its staff, which has contributed to the program's visibility internationally, ensured that project designs meet the needs of recipients, and worked closely with project intermediaries during project implementation to maximize outcomes and sustainability.

The WTRP has enjoyed a high degree of staff retention, including at the management level. Program partners expressed how staff continuity has helped strengthen relationships and contribute to the successes of the program.

However, a common comment received from both internal and external stakeholders, partners and funding recipients is a concern about the sustainability of the high-quality relationship between partners and the WTRP, given the retirement of key long-serving program personnel in the next few years.

Sustainability

Examples

Nuclear and radiological security

Funding to WINS over a series of projects supports the development of sustainable nuclear security training in Thailand. The projects are being done in collaboration with Thailand's Office of Atoms for Peace, the country's regulatory body for nuclear and radiation safety and security. In the first project (2020-21 to 2022-23), a national nuclear security training and support centre was developed. The next project (2022-23 to 2024-25) expands training and trainer development throughout the Southeast Asia region. Starting with a systematic identification of gaps in competency and training, it includes the active involvement and decision sharing of Thai stakeholders.

Biological security

Funding implemented through 2 partnering organizations, the Africa Centres for Disease Control and Prevention and the African Society for Laboratory Medicine, aimed to increase biosafety and biosecurity capacity in Africa. To ensure sustainability, the project was designed in phases to ensure that a solid base was present before moving on to the next set of activities. As well, the project included a focused needs assessment phase to ensure that project activities addressed local requirements. Being fully aligned to African Union member states' identified needs ensured political buy-in. Finally, a train-the-trainer approach was used.

Chemical security

Multi-phase funding to the Stimson Center for a "cheminformatics tool" has resulted in several sustainable outcomes. The design was implemented in three phases. Activities included the development of a tool to help non-specialist users identify chemicals of proliferation concern by creating a searchable database of controlled chemicals and molecular identifiers. Activities in later phases focus on field-testing the prototype, refining user experience and building a web-based version to improve accessibility for front-line officers. Outcomes are sustainable since the tool is in place, accessible and tailored to user needs.

Conventional weapons

Funding to the Geneva International Centre for Humanitarian Demining (GICHD) reflects sustainability lessons since it leverages an established and trusted network of local actors to facilitate project design and delivery. This project also reflects best practices in training design to have a better likelihood of sustainable outcomes. For example, GICHD aims to not have in-person courses that are too long and focuses instead on self-paced courses where possible. When in-person courses are necessary, they are longer (one or two weeks or more), so learners can focus on scenario-based training, followed by coaching to impact the person's role directly.

Conclusions, recommendations and considerations

Conclusions

Relevance

WTRP investments and activities are well-aligned with countering significant WMD and conventional weapons threats and advancing NACD priorities. Through the WTRP, Canada is viewed by many stakeholders as a global leader in funding and promoting weapons-threat-reduction activities. The program addresses needs that are well-documented pertaining to capacity limitations in the areas of regulatory frameworks, technical expertise and implementation. All four of the WTRP's active portfolios are relevant to addressing weapons threats and NACD priorities. Emerging risks and opportunities are generally well known and incorporated into WTRP programming, where possible. The program is responsive to emerging issues and priorities. Over its 20+ years, the WTRP has effectively evolved to address the changes in the global context. The decrease in focus on the UNSCR 1540 portfolio and the program's access to supplementary funding (in response to Russia's invasion of Ukraine and the COVID-19 pandemic) are illustrations of how the program has been responsive to the changing global context.

Moreover, program staff have good awareness and understanding of emerging risks and trends, fostered through regular engagement with their international partners. Project identification, selection and development is generally effective and based on need. However, the breadth of formal consultations could be widened, and new WTRP projects and opportunities typically arise from existing relationships and partners who attend conferences or meetings. This approach to needs identification may result in a gap in terms of funding responses to emerging threats and collaborating with new partners. While the GP matchmaking process broadens project development, it has limitations in terms of the breadth of applicants.

While the program is well-known and regarded internationally, visibility of the program within GAC and among Canadian stakeholders is not high, impacting the program's profile and access to senior management support.

Effectiveness

The evaluation found that there is strong evidence that the WTRP is achieving its immediate outcomes through projects in all portfolios. This includes outcomes pertaining to increased awareness, skills, knowledge and capacity of intermediaries, increased capacity of intermediaries to use/maintain equipment, tools, resources and infrastructure, and strengthening capacity regarding legal and/or policy frameworks. Intermediate outcomes pertaining to improved prevention, detection and response are also being achieved. The intermediate outcome of treaty universalization, compliance and enforcement is also being achieved to some extent, although causal links are more difficult to confirm (in part driven by the lack of disaggregated data).

Many factors contribute to the achievement of outcomes and WTRP projects largely integrate those factors into their designs. However, there are limited opportunities for implementing partners to learn from other projects and collaborate with other organizations.

The theory of change is sound, and assumptions are appropriate. It is reasonable to expect the program to contribute positively to its ultimate outcome, provided that activities are successfully implemented and immediate and intermediate outcomes are achieved. The highly volatile and uncertain environment within which the program operates challenges the program's contributions. The achievement of the ultimate outcome is difficult to assess and attribute to the WTRP, despite the validation of the theory of change.

With respect to GE programming, the WTRP has met the CNAP target for the number of projects with GE outcomes, and many projects that are not coded as GE do in fact have some GE-related outcomes. There are outstanding opportunities to integrate GE into project designs (particularly in the chemical security portfolio, where there are currently no GE-coded projects) and leverage knowledge and expertise in other parts of the department.

Conclusions

Sustainability

Sustainability is recognized by the program and funding recipients alike as being important. Project designs and approval documents reflect this importance.

In terms of how designs reflect sustainability, many projects are multi-phase and include funding over many years. This longer-term engagement and funding enable projects to address complex issues, foster relationships and expand in scope.

Some other practices leading to sustainability that are reflected in WTRP projects include local ownership/empowering intended beneficiaries; conducting a comprehensive needs assessment; securing buy-in; having an established and trusted network of local actors, strategic partnerships and multi-stakeholder engagement; and focusing on supporting the institutionalization of new approaches, guidelines, policies and frameworks.

While there are many WTRP projects with robust efforts at creating long-term results and sustainability, there are a few projects that have activities that do not reflect sustainability characteristics. However, some of these might serve other purposes, such as testing out a new partner or approach, advancing a NACD policy priority, or making a small investment to maintain a strategic partnership.

Recommendations

1. The WTRP should increase its profile and engagement with Canadian civil society and academia. This should be done with the aim of both strengthening project identification and development and increasing the program's visibility. The program should also take steps to increase its visibility within GAC and the Government of Canada.

2. The WTRP should increase the level of sharing of best practices and lessons learned among existing funding recipients, and with potential funding recipients. This could include documented experiences and virtual meetings.

3. The WTRP should continue its advocacy with international partners for GE and its integration into projects. The WTRP should further explore opportunities for GE-rated projects in its programming, particularly in the chemical security portfolio. There are opportunities to build upon the existing work done by WTRP-funded partners and others regarding best practices in integrating GE into CBRN work.

Considerations

Future collaboration

The evaluation found that the WTRP regularly works with the division responsible for NACD policy in GAC. A recent reorganization has separated the WTRP and policy staff into different branches and different physical buildings. With this reorganization, it will be important to ensure continued collaboration between the policy and programming sections. Having established practices, such as regular meetings and routine sharing of new information/leads, would ensure a healthy ongoing relationship.

Future resourcing

As noted, one of the WTRP's key strengths is its staff and the long-term presence of many individuals at the program. With the expected departures of key personnel in the years ahead, succession planning will be paramount. However, it is difficult to develop and access staff in the security programming area due to lack of mobility opportunities, a limited pool of CBRN security specialists in the department, limits on travel, etc. It would benefit the department to make a concerted effort to develop personnel with deep knowledge of international security programming matters to facilitate succession planning and ensure the continued complement of high-quality staff.

Availability of disaggregated data

During the analysis of the data provided for the evaluation, it was not possible to assess the reach and impact of WTRP funding at the country level. There is an important data gap regarding disaggregated data pertaining to which countries have received funding and are participating in WTRP projects (more than half of projects are coded at the regional level). It is therefore difficult to fully understand the extent to which WTRP-funded activities are having impacts (for example, whether a country signing a treaty can be linked to the WTRP or a WTRP-funded activity). While this information may be possible to pull out from a detailed review of all the project files, having and populating a country field in the program's database would ensure that this information is more easily available to decision makers.

Annexes

Annex I: WTRP portfolio descriptive information

Portfolio	Description	Total budget (6 years)	No. of projects (6 years)	Main executing agencies (based on total funding over 6 years)
Nuclear and radiological security (NRS)	NRS programming supports international efforts to enhance the security of nuclear and other radioactive materials in order to reduce the threat of nuclear or radiological terrorism. It also seeks to reinforce compliance with non-proliferation and disarmament obligations through monitoring and verification.	$186M (largely consistent year over year)	101 (ranging in size, from $7,000 to $9.8M)	International Atomic Energy Agency (IAEA) ($62M) United States Department of Energy ($42M) Canadian Commercial Corporation (CCC) ($26M) World Institute for Nuclear Security (WINS) ($11M) U.S. Civilian Research and Development Foundation ($7M)
Biological security	This portfolio supports a wide range of activities designed to strengthen biological security (biosecurity) and biological safety (biosafety) and to enhance the capacity of partner countries to prevent, detect and respond to deliberate (i.e. bioterrorism and bioweapons) or accidental biological threats, with spillover benefits for the control of naturally occurring disease.	$237M (large one-time surge in 2020-21 in response to the COVID-19 pandemic)	114 (ranging in size from $10,000 to $10.5M; one additional project related to COVID-19 in the amount of $90M)	Coalition for Epidemic Preparedness Innovations (CEPI) ($110M) World Health Organization (WHO) ($25M) World Organisation for Animal Health (WOAH) ($22M) CCC ($20M) International Criminal Police Organization (INTERPOL) ($12M)
Chemical security	The chemical security portfolio supports initiatives to address global chemical threats. It is guided by the Global Partnership Chemical Security Sub-Working Group's strategic vision to counter the spread and use of weapons-related chemicals and precursors, supports initiatives that promote chemical security across industry and other relevant communities, and maintains awareness of—and contributes as appropriate to—chemical safety-related efforts.	$57M (large increase in 2021-22 in response to the war in Ukraine)	29 (ranging in size from $50,000 to $10.1M)	Organisation for the Prohibition of Chemical Weapons (OPCW) ($19M) CCC ($18M) INTERPOL ($9M) United States Department of Defense ($5M) Stimson Center ($3M)

Annex I: WTRP portfolio descriptive information (cont.)

Portfolio	Description	Total budget (6 years)	No. of projects (6 years)	Main executing agencies (based on total funding over 6 years)
Conventional weapons	This portfolio supports the universalization and national implementation of international arms control regimes related to conventional weapons. Key objectives include strengthening the institutional capacity of the various regimes' secretariats, developing tools and guidance on helping realize the goals of the treaties, facilitating efforts for countries to accede, and assisting with broad efforts to help countries meet their treaty obligations. The portfolio also supports gender and disarmament objectives.	$35M (large increase in 2022-23 in response to the war in Ukraine)	23 (ranging in size from $15,500 to $15M)	CCC ($23M) Geneva International Centre for Humanitarian Demining (GICHD) ($6M) Small Arms Survey (SAS) ($1.4M) International Campaign to Ban Landmines (ICBL) ($1.2M) Norwegian People's Aid (NPA) ($0.8M)
Support for implementation of UNSCR 1540	UNSCR 1540 requires states to refrain from providing support to non-state actors that attempt to develop or acquire nuclear, chemical and biological weapons and their means of delivery and to fully implement the multilateral treaties that aim to eliminate or prevent proliferation of WMDs. The 2022 review of the resolution's implementation status remarked that implementation was a long-term task, challenged by various factors, including a lack of financial resources and state capacity. The work of the UNSCR 1540 portfolio has been reconsidered in recent years due to the increase in state-based actors active in the space (as opposed to non-state actors, the focus of the resolution) and the emergence of new issues demanding response across the CBRN spectrum (e.g. disinformation).	$13M (significant decrease each year since 2019-20, with less than $1M in each of the last 2 years)	16 (ranging in size from $60,000 to $3M)	Department of National Defence ($3.4M) United Nations Office on Drugs and Crime ($2.7M) Stimson Center ($2.4M) World Customs Organization ($1.3M) Parliamentarians for Global Action ($0.9M)

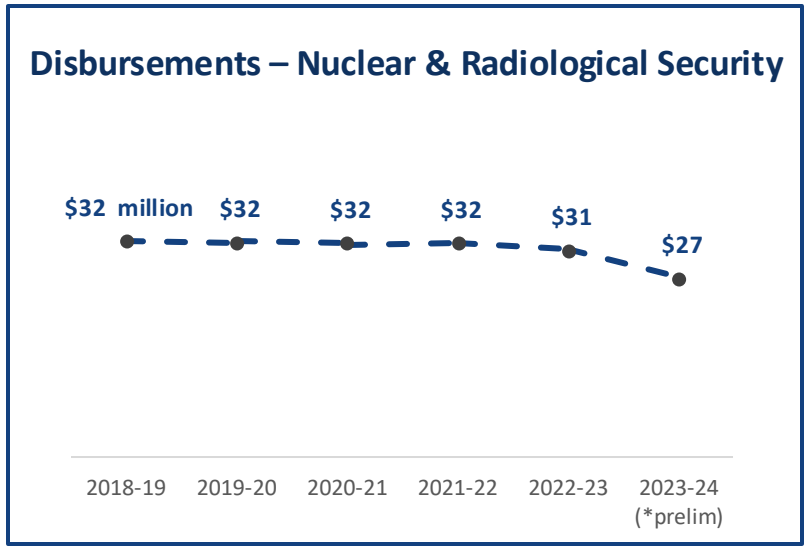
Annex II: WTRP financial data

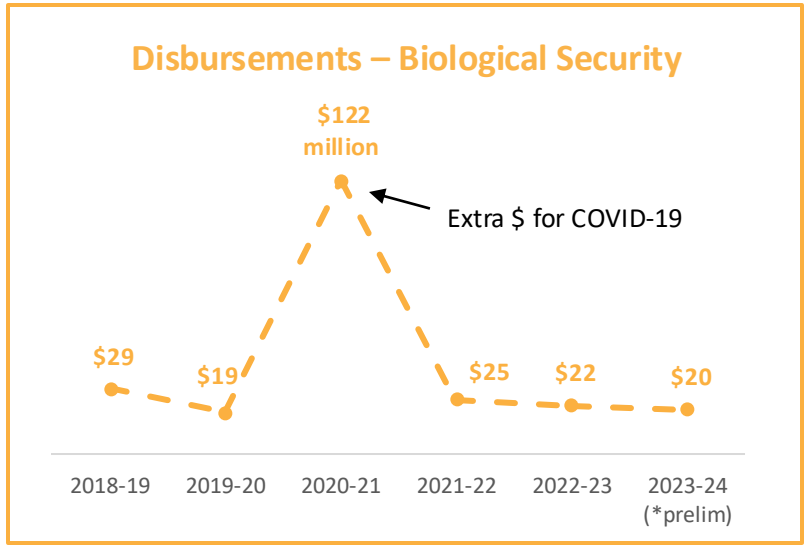
	Fiscal year						
	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Reference levels:							
Grants and contributions (Vote 10)	$63,490,000	$63,490,000	$63,490,000	$63,490,000	$63,490,000	$63,490,000	$380,940,000
Supplementary (Vote 10)	$5,000,000	$0	$102,500,000	$18,000,000	$22,500,000	$7,172,000	$155,172,000
Total Vote 10	**$68,490,000**	**$63,490,000**	**$165,990,000**	**$81,490,000**	**$85,990,000**	**$70,662,000**	**$536,112,000**
Other government departments (Vote 1 Programming) *	$3,075,000	$3,075,000	$3,075,000	$3,075,000	$3,075,000	$3,075,000	$18,450,000
Total reference levels (not incl. O&M)	**$71,565,000**	**$66,565,000**	**$169,065,000**	**$84,565,000**	**$89,065,000**	**$73,737,000**	**$554,562,000**
Disbursements:							
Grants and contributions (Vote 10)	$68,252,241	$63,299,962	$165,514,054	$82,325,426	$85,828,164	$70,654,326	$535,874,173
Other government departments (Vote 1 programming)	$2,769,569	$2,692,039	$1,681,515	$1,657,577	$2,077,315	$3,005,012	$13,883,027
Total disbursements (actuals)	**$71,021,810**	**$65,992,001**	**$167,195,569**	**$83,983,003**	**$87,905,479**	**$73,659,338**	**$549,757,200**
Difference	**$543,190**	**$572,999**	**$1,869,431**	**$581,997**	**$1,159,521**	**$77,662**	**$4,804,800**
Percentage of variance	**0.76%**	**0.86%**	**1.11%**	**0.69%**	**1.30%**	**0.11%**	**0.87%**

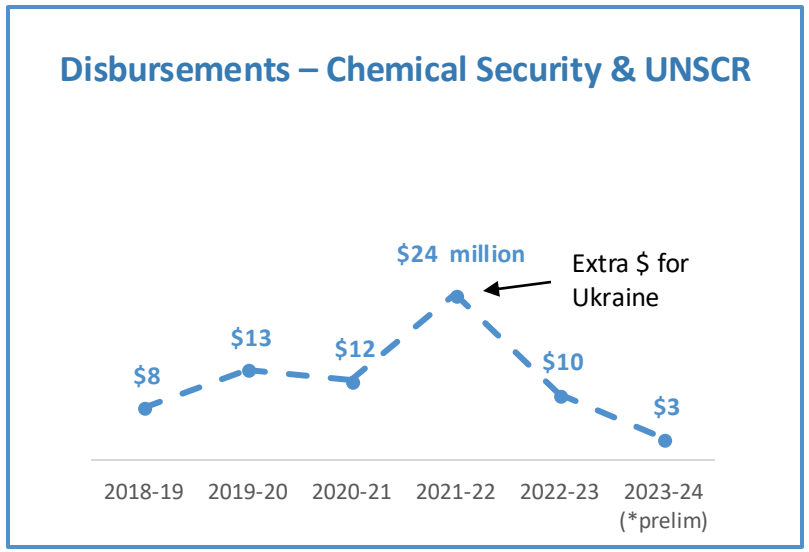
* Reference levels per Treasury Board; actual Vote 1 programming allocations from GAC's Finance Branch (CFO) at start of FY were consistently less.

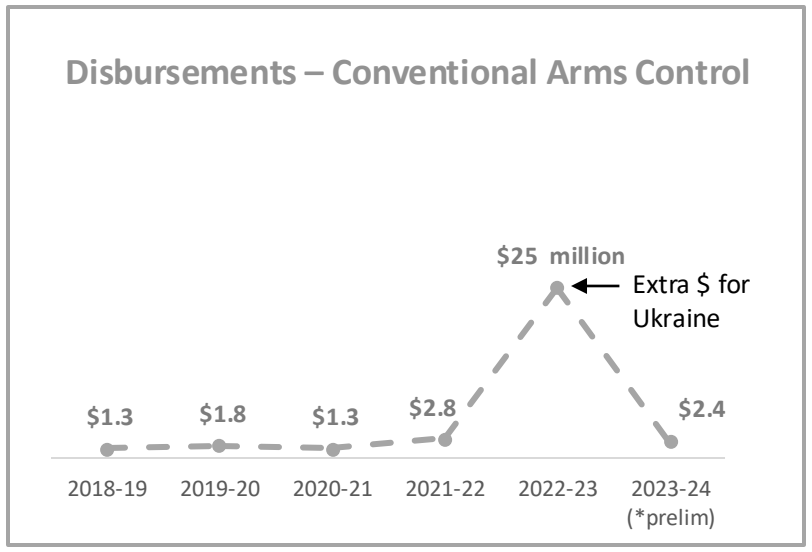
Source: WTRP program financial data

Annex II: WTRP financial data









Source for disbursements: Extract from GAC's financial database. Figures for 2023-24 were preliminary at time of extraction.

Annex III: Logic model

Ultimate outcome	1000 Reduced threats to Canadians and the international community posed by the proliferation and use of weapons of mass destruction (WMD) (including related materials) and conventional weapons by state and non-state actors.			
Intermediate outcomes	1100 Improved prevention[4], detection and response to proliferation and use of WMD and related materials by intermediaries[5].		1200 Improved gender- responsive prevention[6], detection and response to proliferation and use of WMD (including related materials) and conventional weapons by intermediaries.	1300 Increased universalization, compliance and enforcement by intermediaries of legal or policy frameworks related to the non-proliferation and use of WMD (including related materials) and conventional weapons by state and non-state parties.
Immediate outcomes	1110 Increased awareness, knowledge, skills and capacity of intermediaries to prevent, detect and respond to the proliferation and use of WMD and related material.	1120 Increased capacity of intermediaries to use and maintain equipment, tools, resources and infrastructure for the prevention, detection and response to the proliferation and use of WMD and related materials.	1210 Increased gender-responsive awareness, knowledge, skills and capacity by intermediaries in the prevention, detection and response to proliferation and use of WMD (including related materials) and conventional weapons.	1310 Increased capacity by intermediaries to design, strengthen, implement and monitor legal and/or policy frameworks related to the non-proliferation and use of WMD (including related materials) and conventional weapons by state and non-state actors.

[4] Prevention includes, but is not limited to: activities including investigation, verification, destruction, and securing of sources.

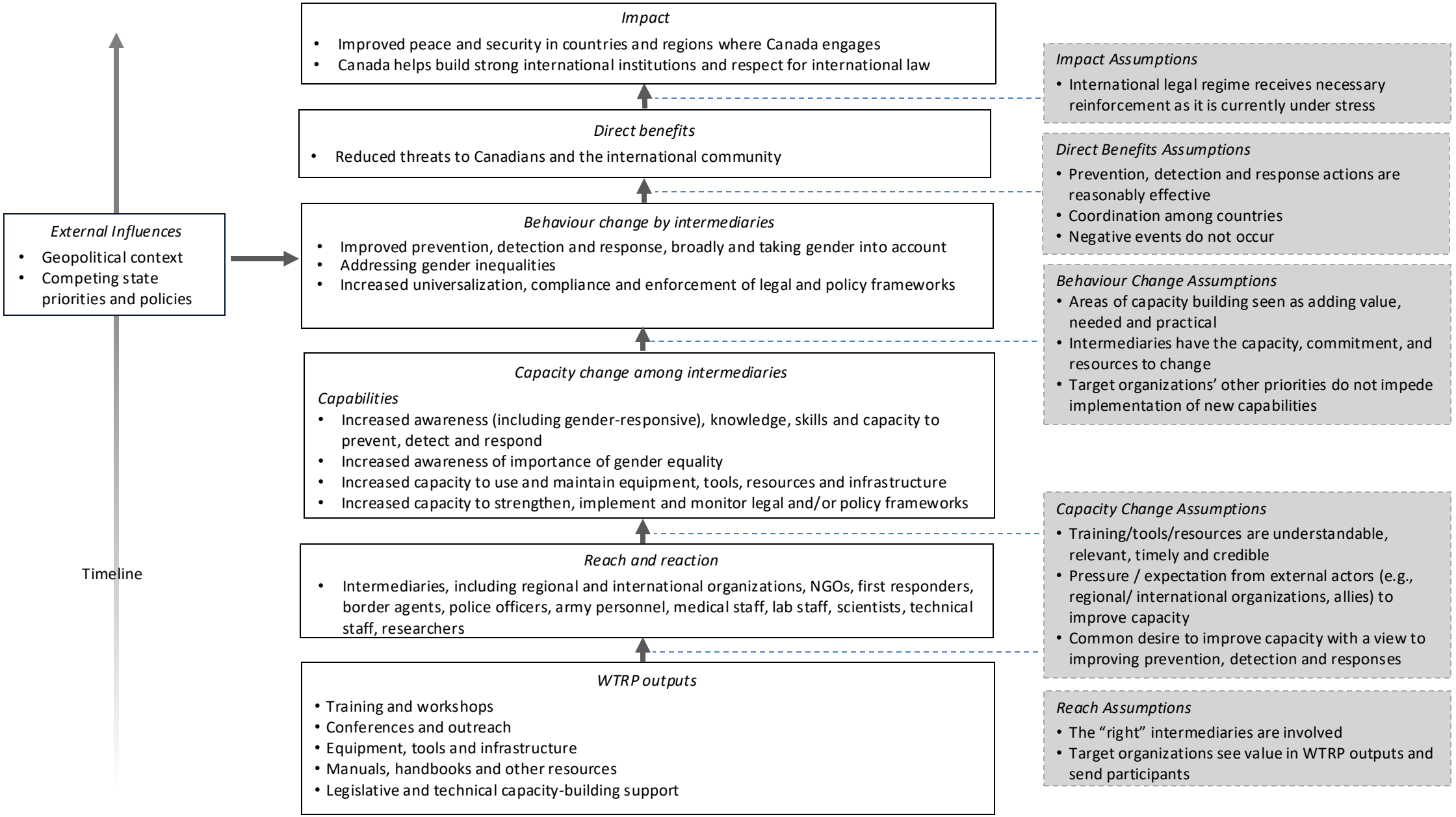
[5] Intermediaries include, but are not limited to: states; regional and international organizations; non-governmental organizations; CBRN first responders; border agents; police officers; army personnel; medical staff; laboratory staff; scientists; technical staff; researchers; etc. Intermediaries can be defined as individuals, groups, institutions or governments, that are not the ultimate beneficiary of the project, but that will experience a change in capacity and a change in behaviour, practices or performance that will enable them to contribute to the achievement of a sustainable change of state of the beneficiaries. Intermediaries are often mandate holders or duty bearers that are responsible for providing services to the ultimate beneficiaries. They are the entities that implementers work with directly.

[6] Following definitions in Canada's National Action Plan on Women, Peace and Security (2017-2022), the Logic Model differentiates between the terms gender-sensitive, gender-responsive and gender transformative. **Gender-responsive** policies or programs are developed with the consideration of gender norms, roles and inequalities, with measures taken to actively address them. **Gender-sensitive** indicates a cognitive awareness of gender differences, but appropriate action may not have been taken. **Gender transformative** interventions go beyond gender responsiveness and specifically aim at transforming unequal gender relations to promote shared power, control of resources, decision making, and support for women's and girls' empowerment.

Annex III: Logic model (Cont.)

Examples of outputs	1111 Capacity-building training and workshops provided to intermediaries on prevention, detection and response to the proliferation and use of WMD and related materials. 1112 Conferences and outreach activities provided to intermediaries on raising awareness and knowledge of prevention, detection and response to the proliferation and misuse of WMD and related materials. 1113 Training and coaching provided to intermediaries on the use and maintenance of equipment, tools and infrastructure.	1121 Equipment, tools and infrastructure provided to intermediaries. 1122 Manuals, handbooks or other resources provided to intermediaries.	1211 Gender-responsive capacity-building training and workshops provided to intermediaries on prevention, detection and response to the proliferation and use of WMD (including related materials) and conventional weapons 1212 Conferences and outreach activities provided to intermediaries on raising awareness and knowledge of gender-inclusive prevention, detection and response to the proliferation and use of WMD (including related materials) and conventional weapons. 1213 Gender-inclusive training and coaching provided to intermediaries on the use and maintenance of equipment, tools and infrastructure.	1311 Legislative and technical capacity-building support provided to intermediaries on legal and policy framework design, implementation and amendment. 1312 Training, workshops and conferences provided to intermediaries on network building, regional coordination/collaboration and information sharing. 1313 Institutional support provided to NACD treaties and conventions.

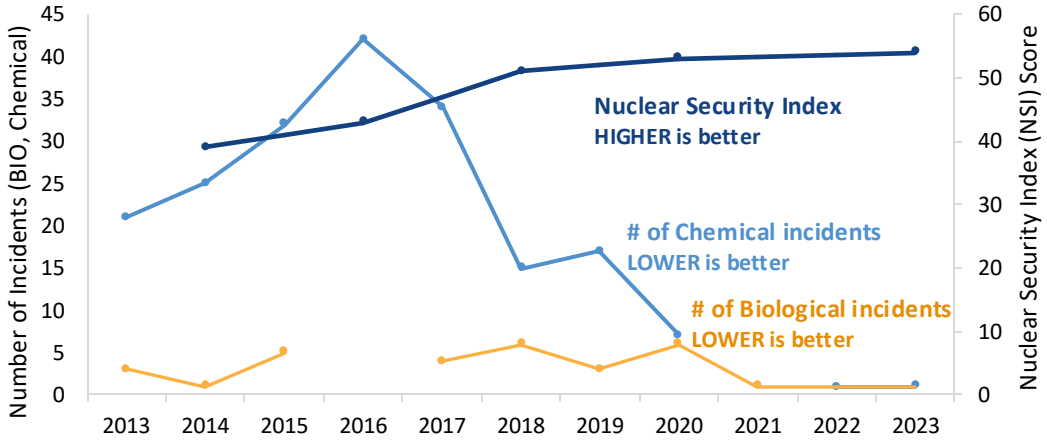
Annex IV: Theory of change



Annex V: Chemical, biological, radiological and nuclear events data and indices

Nuclear, chemical and biological

The number of **chemical** and **biological** incidents have been decreasing, while the **Nuclear Security Index** has been improving.



Sources: Nuclear Threat Initiative;
Global Terrorism Database & Violent Non-State Actor CBRN Data Portal (U. of Maryland)

A review of the available CBRN databases reveals that the number of threats has decreased within the timeframe of the evaluation for nuclear, biological and chemical weapons. The Nuclear Threat Initiative's Nuclear Security Index has been increasing, that is, improving, while the number of chemical and biological incidents has been decreasing (as measured by the University of Maryland's Global Terrorism Database and the Violent Non-State Actor CBRN Data Portal).

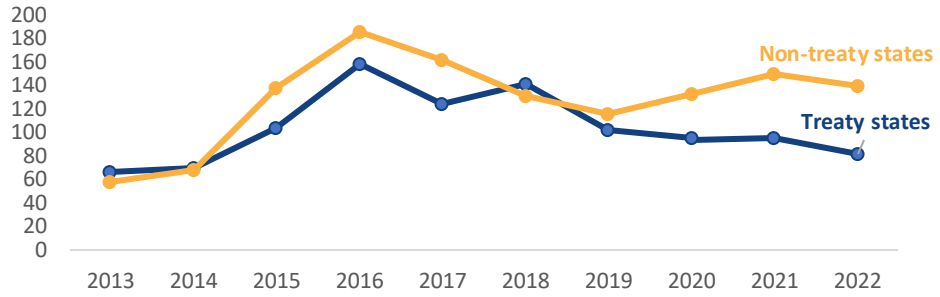
In the nuclear and radiological portfolio, there is evidence of improved adherence to norms in certain regions receiving WTRP funding (including the Caribbean, Central America and South America). However, in many African regions, there has been little to no improvement—and even deterioration—in the risk environment that can undermine nuclear security at the national level. Asia and Oceania regions show little improvements on domestic commitments and capacity. The WTRP's NRS portfolio has been making investments in all these regions, which shows funding is targeted to areas of highest need and that change is a long-term effort.

In the biological and chemical security areas, the documented incidences have been of reduced size and severity, and appear to be less organized in nature. There is also improved handling of potentially bio-hazardous materials in vulnerable regions (for example, Africa).

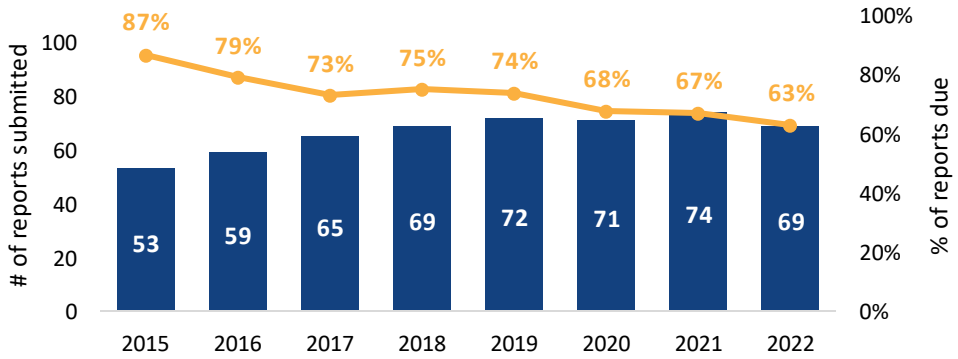
Annex V: Chemical, biological, radiological and nuclear events data and indices

Conventional weapons

Mine and explosive remnants of war Casualties (Adjusted for the number of treaty and non-treaty states)



The **number of reports** filed by states in compliance with the Arms Trade Treaty (ATT) has been stable the past few years, but declining in terms of the **percentage of reports due**.



Source: ATT Monitor Report 2024

Within the conventional weapons portfolio, demining efforts have been effective and achieved clear results, leading to reduced threats (and minimized harm) posed by existing landmines in the countries that received WTRP funding with this aim (including Laos and Ukraine).

As shown in the figure on the left, mine casualties climbed from 2013 to 2016 and started to decline after this period. However, the casualty rate adjusted for the number of reporting treaty and non-treaty states suggests that the casualty rate is somewhat lower for treaty states. This is after taking into consideration the large proportion of casualties from 3 treaty states where threat reduction is challenging because they were or are in an open conflict for the data period (Yemen, Ukraine and Afghanistan). This also takes into consideration the likely under-reporting of casualties from non-treaty states. Especially striking is the substantial drop in casualties per treaty state after 2018. It is not clear whether WTRP programming has had any measurable impact on the reduction of casualties in treaty states, aside from where the program has funded demining efforts.

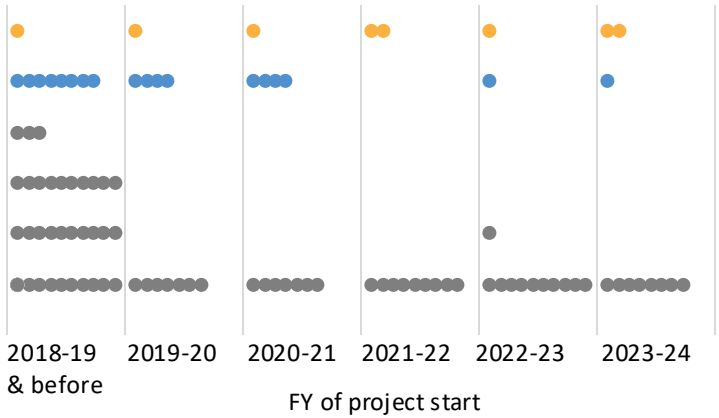
While universalization of the ATT has spread, compliance remains a challenge. The figure at left provides an example from ATT Monitor, which shows that while the number of report submissions from parties to the treaty has remained fairly consistent, with more states becoming party to the agreement, the percentage of states submitting the reports has declined. According to ATT Monitor's content analyses of these annual reports, the percentage of such reports that were meaningfully transparent peaked in 2015 at 46%, and declined to reach a new low at 26% in 2022.

Annex VI: Gender equality

The graphs below, drawn from program data, illustrate all GE projects by portfolio with disbursements during the timeframe of the evaluation.

Nuclear and Radiological Security: 101 projects

Every dot is a project.



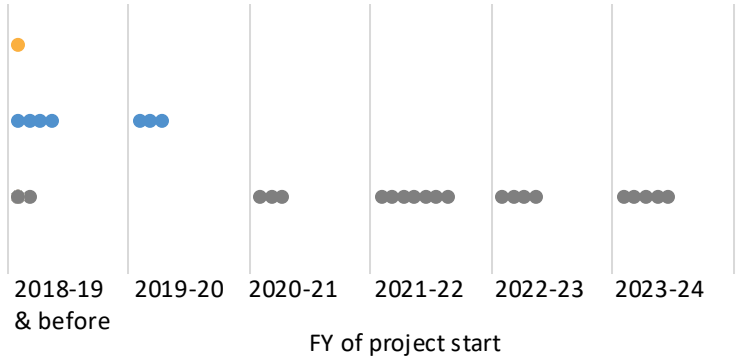
8 projects coded GE-02

18 projects coded GE-01

75 projects with **no GE** outcomes

Chemical Security: 29 projects

Every dot is a project.



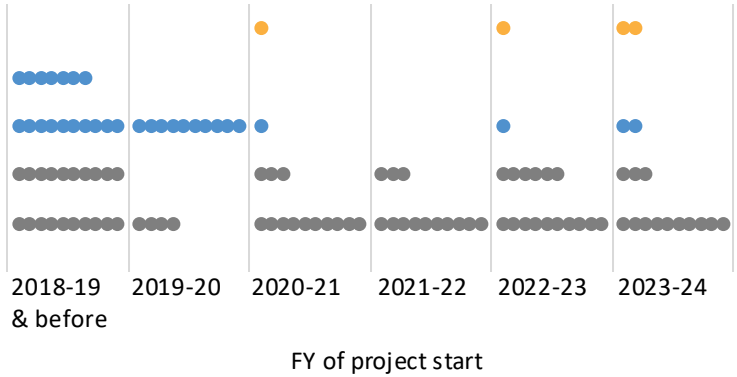
1 project coded GE-02

7 projects coded GE-01

21 projects with **no GE** outcomes

Biological Security: 114 projects

Every dot is a project.



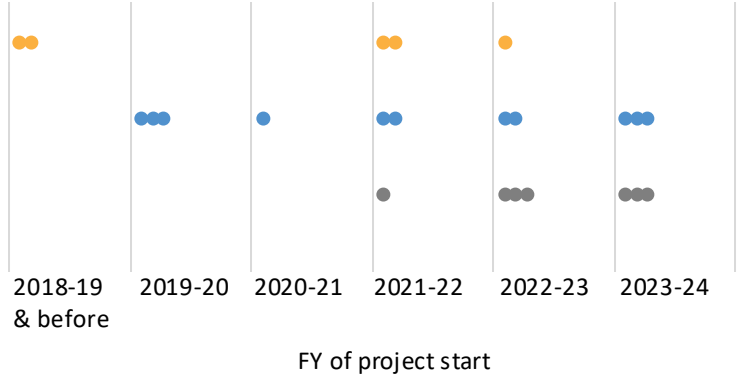
4 projects coded GE-02

31 projects coded GE-01

79 projects with **no GE** outcomes

Conventional Arms Control: 23 projects

Every dot is a project.



5 projects coded GE-02

11 projects coded GE-01

7 projects with **no GE** outcomes