

# Reaffirming the commitment

2000-2001 REPORT ON THE  
CANADIAN LANDMINE FUND



Department of Foreign Affairs  
and International Trade

Ministère des Affaires étrangères  
et du Commerce international



Canada



Max Deneau/CRC

A young landmine survivor receives care at an International Committee of the Red Cross orthopaedic centre in Addis Ababa, Ethiopia.



## Reaffirming the commitment: 2000-2001 Report on the Canadian Landmine Fund

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# Reaffirming the commitment

## 2000-2001 Report on the Canadian Landmine Fund

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Earlier this year, I travelled to South Eastern Europe where I witnessed firsthand the terror caused by anti-personnel mines. In places like Sarajevo, where conflict ceased years ago, civilians are still being victimized by these insidious weapons and those previously injured are adjusting to life as landmine survivors.

In this, the most mine-affected region in Europe, I also saw evidence of the difference that the global community is making in addressing the landmine problem. In Bosnia and Herzegovina alone, over 7.1 million square metres of land were cleared in 2000. Similar progress is being made in almost every other severely mine-affected country in the world.

This progress is testimony to the success of the Ottawa Convention. Through its comprehensive ban on anti-personnel mines and its meaningful provisions on cooperation and assistance, the Convention provides the world with a framework for addressing the global landmine problem.

I am proud of the leadership that Canada is providing to help implement this framework for action. The Canadian Landmine Fund supplies important support for this leadership, disbursing approximately \$23 million in fiscal year 2000 to support every facet of mine action in a total of more than 25 countries.

While the progress we have made is impressive, much work remains. I encourage states to reaffirm the commitment they made when they ratified or acceded to the Convention. For its part, Canada will indeed remain active in ensuring the Convention's success. I look forward to continued, vibrant engagement of all states, as well as non-governmental and international organizations, in ensuring that our efforts do not diminish until we reach our common goal of a world free of the terror of anti-personnel mines.

**John Manley**  
*Minister of Foreign Affairs*



We at the Department of National Defence are conscious that anti-personnel mines continue to kill, maim and threaten the lives of countless innocent people each day. We are also conscious that the terror of landmines prevents individuals from reclaiming their lives – whether by preventing people displaced by war from returning home, or by rendering fields, roads, bridges, and farm land unusable.

The Department of National Defence continues to support the broader Canadian effort to rid the world of landmines and their consequences. Obviously, the work of the Canadian Forces – in clearing landmines and training personnel from other militaries to do the same – provides just one more illustration of how our men and women in uniform promote peace and the well-being of others in far-flung regions of the world.

The Centre for Mine Action Technologies in Suffield, Alberta represents another key part of our work in this area. Over the years, the Centre has established an international reputation for its ability to develop and field successful products. The Centre has also been able to play a leading role in assisting international organizations such as the International Test and Evaluation Program and the Demining Technology Information Forum.

I am very proud of how the Department and the Forces have supported Canada's goals with respect to the Ottawa Convention. Together, they are leading the way on practical measures to deal with the global problem of landmines.

**Art Eggleton**  
*Minister of National Defence*

Anyone who has ever seen a child who has had a limb blown off by a mine would never doubt how important the Canadian Landmine Fund is. This annual report shows how Canada continues to help the people of mine-affected countries deal with the devastating legacy of landmines. In countries where the problem seemed overwhelming only a few years ago, progress has been made in identifying the scope of the problem, building national capacity to remove mines and helping landmine victims. The results of Canada's efforts are clear: as mines are cleared, families and communities are able to get back to the business of everyday living, which is a vital step toward ensuring safety for all and supporting sustainable development.

In many other countries, however, the effects of landmine use have yet to be over-

come. These countries, which are usually still ridden by conflict, are among the most seriously affected by landmines. As we look ahead to helping these societies rebuild, it is clear that we face difficult challenges that will require our long-term attention. We will follow through on our program of making strategic investments to help build the capacity of these nations to implement educational and mine clearance programs and to provide rehabilitation for victims.

Our mine action program is a direct investment in the future of children, families, and communities — we are helping them rebuild their lives by overcoming the impact of conflict and we are continuing to provide development assistance.

***Maria Minna***  
*Minister for International Cooperation*



Each year, thousands of innocent men, women and children are killed or disfigured by anti-personnel mines. For these people, who have often already suffered through years of war, this means burying one more loved one, a life lived in even greater poverty or living with a crippling injury.

Canada continues to play a leadership role in the global campaign to eradicate landmines. Industry Canada is proud to contribute to this effort. It has partnered with the Department of National Defence to form the Canadian Centre for Mine Action Technologies, which promotes research, development and commercialization of demining and victim assistance technologies.

One example of the kind of technologies being funded by this venture is PRO MAC Manufacturing Ltd.'s Brushcutter/Deminer BDM 48 machine adapted from brush cutters used in the forestry industry. The company received funding from Technology Partnerships Canada, an Industry Canada program, to build this tool designed to remove foliage as well as to destroy anti-personnel mines.

Canada has a global reputation for promoting the ways of peace. All too often, this also means destroying the remnants of war. Industry Canada is proud to have a part to play in this endeavour.

***Brian Tobin***  
*Minister of Industry*





A landmine survivor carries her child in Kuito, central Angola.







# Reaffirming the commitment

Significant progress has been made over the past few years in fighting the terror of anti-personnel mines. While these insidious and indiscriminate weapons continue to be a source of human suffering in dozens of countries, the response of Canada and the global community is having a significant impact. The Ottawa Convention has been embraced by the vast majority of the world's states as a comprehensive framework for addressing the global landmine problem. Work to implement the Convention is proceeding apace.

However, to ensure that the Convention lives up to its promise, the commitment of states, non-governmental organizations and multilateral bodies must be sustained. Through the Canadian Landmine Fund, Canada continues to play a leadership role, making significant contributions to universalizing and implementing the Convention, ensuring compliance with it and consolidating its work.

## Anti-personnel mines

Anti-personnel (AP) mines are mines designed to be exploded by the presence, proximity or contact of a person, and that will incapacitate, injure or kill one or more persons. Cheap and easy to produce, AP mines are indiscriminate – they cannot tell the difference between soldiers and civilians. Most of the people injured or killed by

AP mines are civilians, many of whom live in countries ill-equipped to provide the care they need.

The impact of AP mines is severe. Many landmine victims die from their injuries; many never make it to a hospital. Those who survive often lose a limb or limbs, their sight or hearing.

Years after conflicts have ended,



photos by Chamrong Lo/CRC

Anti-personnel mines, like the PMD-6M wooden blast mine (left) and the POMZ-2 fragmentation stake mine (right), continue to injure and kill indiscriminately years after being laid.



Robert Semenuk



Adrian Brooks/CRC

(Left) A Cambodian boy near a known mined area.

(Right) A landmine survivor in Mazar-e-Sharif, Afghanistan learns to walk on her new prosthesis.

AP mines continue to injure and kill indiscriminately. Mines, and the fear of mines, prevent the safe and productive use of land, roads and other infrastructure, posing a serious obstacle to the delivery of humanitarian aid, the safe return of refugees, post-conflict reconstruction and sustainable development.

The stark humanitarian impact of AP mines outweighs their marginal military utility. AP mines have been proven to be of limited use to militaries, yet their impact on millions of civilian lives and the broader socio-economic well-being of entire countries is far-reaching.

### The Ottawa Convention

Revulsion at this human-made problem, and the view that there was an achievable solution, sparked an international movement to ban AP mines in the early 1990s. Non-governmental organizations (NGOs) carrying out development assistance in countries such as Cambodia, Afghanistan and Mozambique saw their efforts and those of local people being thwarted by

the persistent mine threat. Reconstruction and development were being stymied by wide-spread critical injuries and mine-infested land and infrastructure.

In 1992, a coalition of NGOs formed the International Campaign to Ban Landmines (ICBL), and a more coordinated movement to ban AP mines, clear mined land and assist landmine victims was launched. This movement was later joined by states, including Canada. The resulting state-civil society partnership, and a unique form of fast-track diplomacy initiated by Canada in 1996, became known as the Ottawa Process. The result was the successful negotiation in 1997 of the *Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction*, the Ottawa Convention.

The Ottawa Convention is unique in that it sets out both a comprehensive ban on a weapon that has been in common use for generations and a set of steps that must be undertaken to address the human suffering it causes.



States that agree to be bound by the Convention commit themselves to:

- immediately end the use, production and transfer of AP mines;
- destroy existing stockpiles of AP mines within four years;
- clear mined land within 10 years;
- provide assistance for the care and rehabilitation of mine victims;
- assist other states in meeting their obligations under the Convention; and
- cooperate to ensure full compliance with the Convention.

The Convention signing ceremony, held on December 3, 1997, was a proud moment for Canada. One hundred and twenty-two states gathered in Ottawa to sign the humanitarian instrument which Canada's efforts had helped to achieve. A few months earlier, the ICBL and its coordinator, Jody Williams, had been awarded the Nobel Peace Prize for their work in support of a ban, focussing the world's attention on the landmine issue and the Convention. But Canada, the ICBL and the global community knew that even greater tasks lay ahead.

### Canada's commitment

During the period when it was open for signature, 133 states signed the Convention, signalling their intention to adhere formally at a later date and, under international law, accepting that they must not do anything that undermines the Convention's purpose. On March 1, 1999, with unprecedented speed, the Convention had been ratified by enough states to allow for its entry into force, and support for the Convention continues to grow. As of November 1, 2001, 122 states had formally accepted its terms. To ensure the Convention's universal acceptance, work must continue, and Canada is at the forefront of these efforts.

Canada also leads in efforts to facilitate the implementation of the Convention. Domestically, Canada did not have to contend with clearing mined areas. However, Canada ensured the expedient and effective implementation of other elements of the Convention by destroying remaining



stocks of AP mines and establishing implementing legislation even before the Convention had entered into force.

The tasks associated with clearing mined land and destroying stockpiled AP mines are much more challenging for states that have emerged from conflict or which possess stockpiled mines from the Cold War period. Impressive strides have been made in clearing mined land, assisting landmine survivors and destroying mine stockpiles, but more must be done to ensure that the world abides by its commitment to assist landmine survivors and to eradicate AP mines. Canada is providing vital leadership in promoting the reaffirmation of these commitments.

Canada also promotes a renewed commitment to compliance with the Convention and the new international norm suggested by it. In 2000, Canada facilitated a comprehensive discussion on the Ottawa Convention's compliance provisions. These discussions have been useful in reinforcing the Convention's spirit of cooperation and in ensuring that questions regarding compliance concerns are effectively

Prime Minister Jean Chrétien addresses the 1997 Ottawa Convention signing conference.

Canada's Ambassador for Mine Action Daniel Livermore (right) speaks with mine action activists in Calgary.



Nancy Ingram

addressed. In addition, Canada has been a leader in underscoring the need for states that have not yet accepted the Convention to comply with its non-use provisions. Canada is one of few states that continues to express its concern about new cases of AP mine use.

This year has seen a further consolidation in the Convention's general operations. At the First Meeting of the States Parties to the Convention in 1999, an intersessional work program was established to advance the international community's mine action efforts. At the Second Meeting of the States Parties in 2000, the intersessional work program's Standing Committees were enhanced, in part through a Canadian-led initiative to ensure greater participation from mine-affected and developing countries. More recently, at the Convention's third annual meeting in September 2001, States Parties seized the opportunity to consolidate the work of the Convention by establishing a cost-effective implementation support unit, which will be housed at the Geneva International Centre for Humanitarian Demining.

### **The Canadian Landmine Fund**

Canada provided financial support for the goals of the Ottawa Convention when, in December 1997, Prime Minister Jean Chrétien announced the establishment

of the five-year, \$100 million Canadian Landmine Fund to continue efforts to universalize the Convention and achieve its objectives. This report is intended to inform Canada's Parliament and citizens on activities undertaken through the Canadian Landmine Fund in fiscal year 2000 (April 1, 2000 to March 31, 2001).

The Fund is governed by an innovative collaboration among four government departments: the Department of Foreign Affairs and International Trade (DFAIT), the Canadian International Development Agency (CIDA), Industry Canada (IC) and the Department of National Defence (DND).

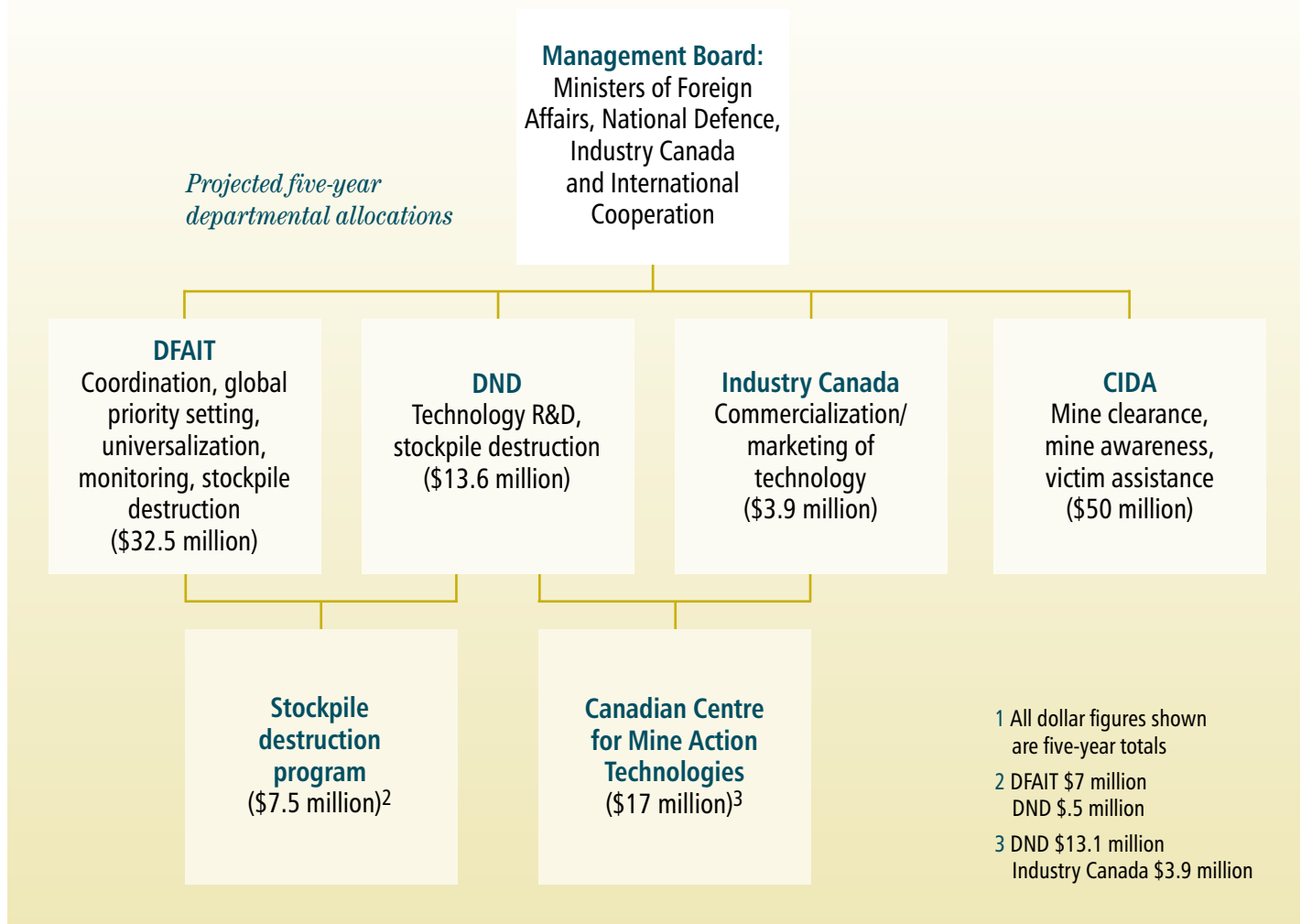
To coordinate this effort and signal the priority it is given, Canada appointed a special ambassador to serve as its international focal point on all matters pertaining to Convention universalization and implementation. Since 1999, Daniel Livermore has served as Canada's Ambassador for Mine Action. In addition, a special DFAIT unit focusses on the landmine issue and the Convention.

Among the departments, DFAIT takes the lead on initiatives involving Convention universalization, small-scale mine action initiatives designed to build and reinforce Convention support, international coordination and policy leadership, monitoring compliance with the Convention and outreach to Canadians on the landmine issue. DFAIT also works with DND in a program



## The Canadian Landmine Fund

\$100 million<sup>1</sup>



that assists other states in destroying their stockpiles of AP mines.

CIDA leads in the areas of mine clearance, mine awareness and victim assistance. CIDA's mine action support helps to advance reconciliation and reconstruction in countries seriously affected by landmines and assist in resuming sustainable development in the wake of serious conflicts. CIDA's approach is to strengthen the capacity of key institutions, working through Canadian NGOs, the private sector and multilateral organizations, including United Nations agencies, the International Committee of the Red Cross (ICRC) and the World Health Organization (WHO). CIDA also supports mine action in a number of countries through its ongoing development assistance program.

DND has joined Industry Canada in

establishing the Canadian Centre for Mine Action Technologies (CCMAT). The CCMAT's mission is to carry out research and development of low cost, sustainable technologies for mine detection, mine neutralization, personnel protection and victim assistance and to investigate alternatives to AP mines. The Centre evaluates technologies developed through on-site research as well as those produced by Canadian industry. This is done using the facilities available through the Centre's association with Defence Research Establishment Suffield (DRES). Industry Canada takes the lead in commercializing and marketing technologies which show the most promise. DND also contributes to mine action by providing technical advisors to mine action centres in affected regions.



# Ending the use, production, export and stockpiling of anti-personnel mines

In 2000-2001, extremely positive signs emerged pointing to growing support for the Ottawa Convention. By November 1, 2001, 122 states had formally accepted the Convention's obligations. Among them are states such as Eritrea and Congo-Brazzaville which have recently been involved in conflicts in which AP mines have been used. In April 2001, Greece and Turkey put aside past reservations regarding the Convention to announce jointly that they would proceed in unison to join it.

With this increased support, the world has witnessed progress in the Convention's general status and operation. In August 2001, the International Campaign to Ban Landmines (ICBL) noted reduced use of AP mines in recent years; a dramatic drop in production – from 55 country producers to 14; an almost complete halt in the AP mine trade; and the destruction of more than 27 million AP mines by over 50 countries.

## **Success rests in partnerships**

In all tasks related to the universalization, implementation, operation of and compliance with the Convention, success rests in reaffirming a commitment to the partnerships that were at the root of the movement to ban AP mines. Ensuring the sustainability of the coalition between states and key organizations like the ICBL, Mines Action Canada (the ICBL's Canadian component) and the International Committee of the Red Cross (ICRC) continues to be a high priority for Canada.

Comprised of more than 1,300 NGOs, the Nobel Laureate ICBL is widely recognized as the driving civil society force behind the Ottawa Convention. In fiscal year 2000, the DFAIT Mine Action Partnership Program

provided \$346,000 to support the ICBL's continued work toward the universalization and implementation of the Convention. Canada's contribution supported the staffing and operation of the ICBL coordination office in Washington, its resource centre in Yemen and its government relations work. Canadian funding also facilitated ICBL participation at the Second Meeting of the States Parties and the Meetings of the Ottawa Convention's Standing Committees.

To foster continued Canadian NGO leadership in the global effort to eradicate landmines, the DFAIT Mine Action Partnership Program provided \$468,000 to the Canadian NGO coalition Mines Action Canada (MAC). Canada's funding supported MAC's





TMAC

Representatives of the International Campaign to Ban Landmines participate in Thailand's first stockpile destruction ceremony at Lopburi, Thailand, January 2001. Left to right: Sister Denise Coghlan (Cambodia Campaign), Liz Bernstein (ICBL Coordinator), Alfredo Lubang (Philippines Campaign), Annalisa Formiconi (Landmine Monitor Regional Coordinator for Asia) and Anitra Puangsuwan (Thailand Campaign).

domestic and international education and outreach activities, its efforts to increase Canadian capacity in mine action programming and its initiatives aimed at universalizing the Convention. Composed of more than 40 Canadian organizations, MAC plays an important international role as a member of the ICBL Coordinating Committee and the Core Group of the Landmine Monitor research initiative.

Canada also continued to enhance regional and country-specific partnerships, frequently using the successful model of regional conferences as a catalyst for activity. In fiscal year 2000, Canada supported:

- *North Atlantic Treaty Organization Euro-Atlantic Partnership Council South Eastern Europe Initiative Workshop on Regionally Focused Mine Action, Thessaloniki, Greece, May 4 and 5, 2000*

This workshop provided the framework for North Atlantic Treaty Organization Euro-Atlantic Partnership Council (NATO-EAPC) involvement in humanitarian mine action in South Eastern Europe. Through the plan of action developed in Thessaloniki, NATO-EAPC has begun to act as a clearing house on mine action related information; provided technical expertise for fact finding missions; and, at Canada's initiation, developed a Trust

Fund to assist countries in destroying stockpiled mines. The DFAIT Mine Ban Initiatives Program provided \$17,000 to NATO to support this workshop.

- *14th Asia-Pacific Roundtable, Kuala Lumpur, Malaysia, June 3 to 7, 2000*  
Organized by the ASEAN Network of Institutes of Strategic and International Studies, the Roundtable drew several hundred government, academic and NGO participants from more than 20 countries in the region. To promote awareness and support for mine action, the DFAIT Mine Ban Initiatives Program provided \$2,400 to the New Zealand Campaign Against Landmines for the panel "The Landmines Ban Treaty and Humanitarian Mine Action in Southeast Asia." Canadian Forces Colonel Chip Bowness was featured among the panel participants.

- *Horn of Africa/Gulf of Aden States Conference on Landmines, Djibouti, Republic of Djibouti, November 16 to 18, 2000*

This conference focussed regional attention on the AP mine issue and encouraged states in the region to ratify and implement the Ottawa Convention. The DFAIT Mine Ban Initiatives Program provided \$10,000 to the Institute for Practical Research and Training for the publication and distribution of the conference proceedings.



Ugandan landmine survivor Margaret Arach Orech opens the Seminar on Universalization and Implementation of the Ottawa Convention in Africa.

- *Seminar on Universalization and Implementation of the Ottawa Convention in Africa, Bamako, Mali, February 15 and 16, 2001*  
The DFAIT Mine Ban Initiatives Program provided \$219,000 to support this continent-wide meeting on the universalization and implementation of the Ottawa Convention in Africa. Organized by Mali, with the support of Canada and France, the seminar featured African expertise and experience, and aimed to identify mine action needs and develop relevant action plans. The political momentum generated by the seminar contributed significantly to recent formal acceptance of the Convention by 10 African states.
- *Universidad del Rosario Conference on Colombia's Obligations under the Ottawa Convention, Bogota, Colombia, February 26 and 27, 2001*  
The DFAIT Mine Ban Initiatives Program provided \$6,800 for a conference held at Universidad del Rosario in Bogota, Colombia on Colombia's obligations

under the Ottawa Convention, which entered into force for the country on March 1, 2001. The seminar brought together members of civil society, international organizations and government and military officials to encourage dialogue and to develop a Convention implementation working plan.

Other examples of Canada's country-specific initiatives, funded through the DFAIT Mine Ban Initiatives Program in fiscal year 2000 included:

- \$16,000 to the Mines Advisory Group for a multi-media education program in Angola aimed at sustaining public and diplomatic support for mine action in the country.
- \$30,000 to the Indian Institute for Peace, Disarmament and Environmental Protection for workshops on the Ottawa Convention in the Jammu and Kashmir region of India, and for the Fourth National Conference on Landmines, held in New Delhi in May 2000. This series of grassroots activities raised the profile of the issue in India and strengthened the network of activists in the country.
- \$60,000 to support the work of a Boston, Massachusetts-based "Mine Action Scholar-in-Residence." Dr. Christopher Kirkey carried out a discussion tour and led faculty development workshops at universities and colleges in the United States. He also facilitated the design and creation of college and university courses that feature the Ottawa Convention. An additional \$29,000 was provided to Dr. Kirkey for research on the establishment and implementation of the Ottawa Convention. One output of his efforts was the journal article, *Washington's Response to the Ottawa Landmines Process*, which appeared in the August 2001 edition of *Canadian-American Public Policy*.
- \$18,000 to the San Rafael, California-based organization Roots of Peace for a major awareness-raising event in Palo Alto, California which featured United Nations Secretary-General Kofi Annan, Canada's Consul General in Los Angeles Kim Campbell and representatives from



the American State Department and NGOs.

- \$9,000 to support a Jane Bunnett and the Spirits of Havana concert series in the USA promoting the landmine issue in an effort to sustain public awareness of and support for the AP mine ban.

### **Lieutenant General Gordon Reay and the Stability Pact for South East Europe**

An important element in building support for the Convention has been military-to-military dialogue. Lieutenant General (Retired) Gordon Reay, served as Special Advisor to Canada's Ambassador for Mine Action from 1999 until his death on December 21, 2000 in Zagreb, Croatia after being involved in a car accident. A former commander of the Canadian army, General Reay was Chair of the Stability Pact for South East Europe Regional Support Group for Mine Action and was in Croatia to help establish a mine action coordinate mechanism.

General Reay played a key role in Canada's efforts to universalize and implement the Ottawa Convention, serving as an advocate of stockpile destruction and engaging military officials and civilian leaders in dialogue about alternative military doctrine without the use of AP mines. The Stability Pact for South East Europe Regional Support Group for Mine Action has been renamed The Reay Group in his honour and continues to encourage mine action cooperation in the region.

### **Monitoring compliance**

The DFAIT Mine Monitoring Program provided \$250,000 to the ICBL for the independent, civil society Landmine Monitor research initiative. Landmine Monitor involves a global network of non-governmental researchers who contribute to a 1000+ page annual report on states' efforts to implement the Ottawa Convention and their policies and behaviour with respect to AP mines. Canada's funding supported the initiative's research, training and core administrative expenses as well as the production and distribution of the annual *Landmine Monitor Report*.



Lieutenant General (Retired) Gordon Reay played a key role in Canada's efforts to universalize and implement the Ottawa Convention.

### **Destroying stockpiles**

Canada has been a leader in promoting fulfilment of the obligation, under Article 6 of the Convention, to provide assistance for the destruction of stockpiled AP mines. In an effort to ensure compliance with the Convention's requirement that stockpiled AP mines be destroyed within four years, Canada launched a series of initiatives in fiscal year 2000.

Canada and Hungary co-hosted the Seminar on the Destruction of the PFM-1 Mine, held in Budapest in February 2001. The DFAIT Stockpile Destruction Program provided \$53,000 to support the conference that focussed on the technical challenges of destroying the PFM-1, or butterfly mine. Representatives of states of the former Soviet Union and other states of the region possessing PFM-1 mine stockpiles were brought together with technical experts and donor countries to identify a plan for stockpile destruction. The technical and financial challenges of destroying the PFM-1 are significant due to the mine's chemical make-up and the large numbers of the mine



Melanie Reginald/DFAIT

Officials at the Regional Seminar on Stockpile Destruction of Anti-Personnel Mines in the Americas. Left to right: Canadian Forces Chief Warrant Officer Graham Goodrum, Canada’s Ambassador for Mine Action Daniel Livermore, Colonel Hernan Bedon Martinez of Ecuador and International Campaign to Ban Landmines – Mexico representative Claudio Torres Nachon.

stockpiled in former Soviet states. The seminar facilitated discussion of these issues among experts in an international setting, and laid the groundwork for further technical work to be conducted through the Geneva International Centre for Humanitarian Demining and for consultations among donor countries and implementing agencies.

In collaboration with the Organisation of American States (OAS), Canada and Argentina co-hosted the Regional Seminar on Stockpile Destruction of Anti-Personnel Mines in the Americas, held in Buenos Aires in November 2000. The DFAIT Stockpile Destruction Program provided \$86,000 to support the seminar which brought together states of the Americas to exchange information on stockpile destruction methodologies.

Following the seminar, Canada promoted the Managua Challenge, intended to accelerate destruction of AP mines by states in the Americas. In return for technical and financial assistance, states were asked to complete their stockpile destruction in time for the Third Meeting of the States Parties, held in Managua, Nicaragua in September of 2001.

The DFAIT Stockpile Destruction Program provided \$209,000 in fiscal year

2000 to the OAS for the Managua Challenge Fund, created to assist OAS Member States in acquiring appropriate stockpile destruction technologies and accessing destruction monitoring and verification measures. Stockpile destruction assistance was provided to Ecuador, Honduras, Nicaragua and Peru through the Managua Challenge Fund.

Since the launch of the Managua Challenge, more than 600,000 of the 800,000 AP mines stockpiled by OAS Member States have been destroyed, with Honduras, Peru and Ecuador destroying all of their stockpiles within the time-lines of the Managua Challenge.

In Albania, approximately 1.6 million AP mines are being destroyed through a project funded by the DFAIT Stockpile Destruction Program. The NATO Maintenance and Supply Agency (NAMSA) is managing the project on behalf of eight donor countries, through the Euro-Atlantic Partnership Council Partnership for Peace Trust Fund for Anti-personnel Landmine Stockpile Destruction. Canada is the project’s lead state and the initiator of the Trust Fund. A total of \$234,000 was contributed to the project in fiscal year 2000: \$23,000 was contributed to NAMSA for the preparation of a stockpile destruction plan; \$10,000 was provided to Jacques Whitford





Stockpiled anti-personnel mines (left) being destroyed by open detonation in Peru (right).

photos by Bjorn Holmberg/UN-LIREC

Environment Ltd. of Ottawa for an environmental assessment; and \$151,000 was allocated to NAMSA for the execution of the project. DND provided additional stockpile destruction technical assistance through the deployment of a Canadian Forces Ammunition Technical Officer. DFAIT provided \$50,000 to support this deployment.

The DFAIT Stockpile Destruction Program contributed \$86,000 to the Canadian International Demining Corps to purchase explosives for the Thailand Mine Action Centre's (TMAC) destruction of landmines. The TMAC was provided with quantities of FIXOR, a two-part liquid and powder explosive produced by the Kingston, Ontario firm MREL Specialty Explosive Products Ltd., to assist with the disposal of mines that had been located, stockpiled and awaiting destruction. Training to use this new explosive safely and efficiently was a component of the contribution.

Canada is committed to assisting Ukraine with the destruction of its approximately 6 million PFM and 400,000 PMN AP mines. A Memorandum of Mutually Beneficial Cooperation on the issue was signed between the countries in 1999. A Framework Arrangement setting out the structure of cooperation on AP mine



Sadic Koci, Director of the ULP Mjekës demilitarization facility, and Gwyneth Kutz, a representative of Canada's mission to Albania, assist in the first demilitarization of Albania's 1.6 million anti-personnel mines.

William Hunt

destruction between Canada, other donors and the Government of Ukraine was subsequently signed in March 2001.

The DFAIT Stockpile Destruction Program provided \$57,000 in fiscal year 2000 to support plans for the destruction. A contribution of \$51,000 facilitated the preparation of technical materials to assist Ukrainian officials to plan destruction

Afghan deminer Mohammad Usman and Canadian Carol Isfeld at the Second Meeting of the States Parties to the Ottawa Convention in Geneva, Switzerland. Usman holds an Izzy doll, named for Isfeld's son Master Corporal Mark Isfeld, who was killed by a landmine explosion in Croatia in 1994. Carol Isfeld still crochets these dolls that Mark would give to children he encountered during his peacekeeping duties. The dolls are now distributed by Mark's fellow soldiers.



Brian Isfeld

operations; and \$6,000 was provided to the Geneva International Centre for Humanitarian Demining for a technical feasibility assessment and project proposal for the destruction of Ukraine's PMN mines.

Responding to requests from the international community for increased availability of stockpile destruction information, DFAIT developed a web site, [www.stockpiles.org](http://www.stockpiles.org), as a contribution to the United Nations Mine Action Service (UNMAS). A contribution of \$15,000 from the DFAIT Stockpile Destruction Program was provided to ND Technologies for the project, which has been integrated into the newly created, broader UNMAS mine action site, [www.mineaction.org](http://www.mineaction.org).

### **Ensuring the effective operation of the Ottawa Convention**

Canada provided \$75,000 through the DFAIT Mine Ban Initiatives Program to the Geneva International Centre for Humanitarian Demining (GICHD) Sponsorship Program for Meetings of the Ottawa Convention, to increase participation in Meetings of the States Parties and meetings of the Ottawa Convention's Standing Committees. This program was

established to aid mine-affected states parties and participants from expert organizations that require financial assistance to attend meetings. The program is administered by the GICHD, with a steering group of donors including Canada, Switzerland, Belgium, Norway, the Netherlands and the United Kingdom.

In fiscal year 2000 Canada provided its share of the costs of the Third Meeting of the States Parties, held in Managua, Nicaragua, September 18 to 21, 2001, through a contribution of \$56,000 from the DFAIT Mine Ban Initiatives Program to the United Nations.

In addition, Canada supported the participation of Brian and Carol Isfeld in the Second Meeting of the States Parties to the Ottawa Convention, held in Geneva, Switzerland, September 11 to 15, 2000. The Isfelds are the parents of Canadian soldier Master Corporal Mark Isfeld, who was killed by a landmine explosion while on a peacekeeping mission in Croatia in 1994. The DFAIT Mine Ban Initiatives Program provided \$6,000 to the Landmine Survivors Network to facilitate the Isfelds' participation in the opening ceremonies of the meeting. The Isfelds were two of 18 landmine survivors from 14 different countries who participated in the ceremonies.



# Reducing mine casualties and delivering mine awareness education

In the mid-1990s rough estimates indicated that AP mines claimed approximately 26,000 new victims a year. The International Campaign to Ban Landmines now suggests that the number of new mine victims is 15,000 to 20,000 per year. This is still too many human tragedies, but clearly progress is being made in the global effort to address the suffering cause by AP mines.

In the majority of the most mine-affected countries and areas, casualty rates continue to decline:

- In Afghanistan, one-third fewer new casualties were recorded in 2000 than in 1999.
- In Albania, 25 casualties were recorded in 2000, down from 191 in 1999.
- In Cambodia, where the casualty rate has steadily declined since 1996, there were 20 percent fewer new mine victims in 2000 than in 1999.
- In Kosovo, 95 new casualties were noted in 2000, down from 342 recorded in 1999.
- In Croatia, the casualty rate in 2000 was less than half the rate in 1999.

One of the principal means for reducing mine casualties is the delivery of mine awareness education. Mine awareness education seeks to reduce high risk behaviour in mine-affected areas by increasing knowledge of the dangers of landmines and teaching mine-smart behaviour.

In 2000, advances continued to be made in the field of mine awareness. Building upon the development of its *International Guidelines for Landmine and Unexploded Ordnance Awareness Education*, UNICEF has announced its intention to develop

guidelines for monitoring and evaluating mine awareness programs. Handicap International, a pioneer in the development of mine awareness education, published the highly useful *Mine Risk Education Implementation Guide*. And, the Geneva International Centre for Humanitarian Demining undertook an in-depth multi-country study examining the effectiveness of high-cost media and materials used in mine awareness education programs.

Mine awareness programming took place in more than 45 countries in 2000. This indicates that states are responding to their obligation under Article 6 of the Ottawa Convention to provide assistance for mine awareness programs. Canada continued to do its part through assistance to the mine awareness education programs of NGOs and international and multilateral organizations.

## Angola

The CIDA Tapping Canadian Creativity Program provided \$250,000 to UNICEF Canada for mine awareness education in Angola as part of a three-year, \$750,000 contribution. The project delivered mine awareness education aimed at reducing mine injuries in Angola's most mine-





UNICEF Angola

A UNICEF mine awareness education presentation in Angola.

affected provinces and allowing displaced communities to return to their places of origin, aware of the dangers posed by landmines. A range of education techniques was used including group discussions, door-to-door interviews, child-to-child activities, theatre and puppetry. In addition to teaching appropriate avoidance behaviour to children and their families, the project helped to improve the capacity of local organizations and the Angolan Ministry of Education to disseminate appropriate mine awareness information.

### Ethiopia and Eritrea

The CIDA Multilateral Institutions Program provided \$200,000 to the United Nations Mine Action Service for the establishment of a mine action program in the Ethiopia/Eritrea Temporary Security Zone. Canada's contribution supported the area's mine awareness program, aimed at the local population, government and UN officials, peacekeepers and relief workers. The funding also contributed to the development of

a community-based network to continue mine awareness education once displaced people returned to their homes.

Through the same program, \$600,000 was provided to the United Nations Development Programme (UNDP): \$400,000 to support the Government of Ethiopia in developing and strengthening Ethiopia's mine action program, including community level mine awareness campaigns; and \$200,000 to support a mine action program in Eritrea which includes the promotion of mine awareness education.

### Georgia

The DFAIT Mine Ban Initiatives Program provided \$50,000 to the British NGO HALO Trust for its integrated mine action program in Abkhazia, Georgia, which included mine awareness education. Canada's contribution was used to support the operation of three mine awareness teams and the production and broad distribution of school supplies bearing mine awareness messages.



Giovanni DiFidenti/ICRC

With the assistance of the International Committee of the Red Cross, a theatre troupe in Republika Srpska, Bosnia and Herzegovina presents a version of *Little Red Riding Hood* adapted to deliver mine awareness messages.

### Laos

As part of a three-year, \$505,000 contribution, the CIDA Multilateral Institutions Program provided \$150,000 to the UNDP Trust Fund for UXO LAO in support of Laos' national mine action program, which includes mine awareness education. UXO LAO's mine awareness program raises awareness among rural communities of the continued dangers of unexploded ordnance (UXO) and educates villagers on ways to minimize the hazard. With the support of Canada's \$205,000 contribution made during the previous fiscal year, community awareness teams brought their message to 746 villages and briefed more than 175,000 people.

### Lebanon

The DFAIT Mine Ban Initiatives Program provided \$200,000 to the United Nations Mine Action Service to set-up and administer the Southern Lebanon Mine Action Coordination Cell. The Coordination Cell monitors and organizes all mine related activities in Southern Lebanon, including a detailed assessment of the landmine/UXO problem in the area, the establishment of a comprehensive mine action database and the delivery of mine awareness education.

### Yemen

The CIDA Multilateral Institutions Program provided \$59,000, as part of a two-year \$150,000 contribution to the UNDP for its strategic mine action plan for Yemen. Following up on the Level One Socio-Economic Survey completed in 2000 (which Canada supported with 1.5 million in previous fiscal years), the plan is aimed at building capacity in Yemen for mine awareness, mine marking, mine clearance and victim assistance, targeting the most seriously affected communities identified through the survey.

### International Committee of the Red Cross

As part of a two-year, \$600,000 contribution from the CIDA Multilateral Institutions Program, \$300,000 was provided to the International Committee of the Red Cross (ICRC) Mine Action Appeal 1998-2003 for Victim Assistance and Mine Awareness. The ICRC assisted 30 mine-affected countries in 2000. Mine awareness programs were carried out in 18 countries, including Afghanistan, Lebanon and Bosnia and Herzegovina.





# Clearing mined land

The global landmine problem is no longer considered insurmountable. Widespread acceptance that the nature of the problem is better explained by the human impact of landmines than by the number of mines in the ground has led to mine clearance proceeding in areas that have the greatest socio-economic value to affected communities.

Mine detection dog teams have helped to clear substantial areas of mined land in the Balkans.



**M**ore sophisticated priority-setting combined with the Ottawa Convention's impetus to clear mined areas within a 10-year time-frame means that the terror of landmines can be eliminated in years, not decades. However, given the painfully slow pace of mine clearance activities, concerted efforts will be required to achieve this goal. Approximately 60 states are mine-affected and require outside assistance in addressing their landmine problems. Mine clearance operations continued in most of these states in 2000, and some notable progress has been made:

- In Afghanistan, 24 million square metres of mined land or land suspected of being mined were cleared.
- In Cambodia, 32 million square metres of contaminated land were cleared, opening valuable terrain for cultivation.
- In the Balkans, 7.1 million square metres of land were cleared in Bosnia and Herzegovina, 9.8 million square metres were cleared in Croatia and 19.4 million square metres were cleared in Kosovo.
- In Mozambique, 5 million square metres of land were cleared along with 317 kilometres of road.

Efforts to clear mined areas were assisted by a 10 percent increase in funding from 17 key donors in 2000. Other important developments that occurred in 2000 included the completion of the UN's





Damir Atkovic/NPA

A Norwegian People's Aid deminer clearing land near Sarajevo, Bosnia and Herzegovina.

*International Standards for Mine Action* and major studies by the United Nations Development Programme (UNDP) and Oslo's International Peace Research Institute (PRIO) on the socio-economics of mine clearance.

Canada's contributions to the global effort to clear mined areas in 2000 continued to support a range of activities.

### **Bosnia and Herzegovina**

The CIDA five-year, \$10 million Integrated Country Program for Bosnia and Herzegovina provided:

- \$120,000, as part of a multi-year, \$1.7 million contribution to the UNDP for institutional support to the Bosnia and Herzegovina Mine Action Centre and Entity Mine Action Centres. Canada's contribution will enhance the capacity and sustainability of the mine action centres by developing technical, safety and training standards, preparing local staff to take over the duties of international advisors and upgrading the centres' communication infrastructure.
- \$680,000, as part of a multi-year, \$1.3 million contribution to the Canadian International Demining Corps for the training and deployment of mine detection dogs and their handlers. The dogs

and their handlers have been successfully trained and accredited to Bosnia and Herzegovina Mine Action Centre standards and are now working in the field with the Entity Army, Bosnian mine clearance NGO Akcija Protiv Mina and Civil Protection mine clearance teams.

- \$400,000, as part of a multi-year, \$1.1 million contribution to Norwegian People's Aid (NPA) for the training, equipment and deployment of a 29-person manual demining team in the Sarajevo Canton. As part of the larger NPA demining operation in the region, the team funded by Canada located, cleared and destroyed landmines and unexploded ordnance in and around the heavily mined Sarajevo area.
- \$450,000, as part of a three-year, \$1.9 million contribution, to provide insurance coverage for all 550 Entity Armed Forces and SFOR Engineer Branch deminers in Bosnia and Herzegovina. The contribution also enabled Entity Army mine detection dog teams to purchase their own dedicated vehicles.

\$800,000 of the funding listed above was channeled through the International Trust Fund for Demining and Victim Assistance, releasing matching contributions from the United States and Slovenia.

A HALO Trust deminer clearing a lane in lower Gali, Abkhazia, Georgia.



HALO Trust

### **Bulgaria**

The DFAIT Mine Ban Initiatives Program provided \$65,000 to the Canadian International Demining Corps to procure 15 protective mine clearance suits for the Bulgarian Army and to provide training on their use. The equipment and training, purchased from Med-Eng Systems Inc. of Ottawa, helped the Bulgarian military to field experienced and trained deminers to work in the region.

### **Cambodia**

Through the CIDA \$4.9 million Landmine Development Program for Cambodia, \$1.7 million was provided for the National Level One Socio-Economic Survey being carried out by Burlington, Ontario-based GeoSpatial International Inc. As of March 31, 2001, 28% of all villages in Cambodia had been surveyed, quality assured and entered in the central database. The survey is being conducted to international standards and the database is consistent with the *Information Management System for Mine Action* standard.

### **Croatia**

The DFAIT Mine Ban Initiatives Program provided \$50,000 to the Canadian International Demining Corps to help establish a training program for mine detection dog teams in Croatia. Undertaken with Croatian NGO Pas U Humanitarnom Djelovanju (PHD) and the Croatia Mine

Action Centre, the training program has been integrated into CIDC and CIDA mine detection dog programs already operating in the region.

### **Ethiopia and Eritrea**

The CIDA Multilateral Institutions Program provided \$200,000 to the United Nations Mine Action Service for the establishment of a mine action program in the Ethiopia/Eritrea Temporary Security Zone. The program established a Mine Action Co-ordination Centre, conducted an emergency survey and did emergency mine clearance work.

Through the same program, \$600,000 was provided to the United Nations Development Programme (UNDP): \$400,000 to support the Government of Ethiopia in developing and strengthening national capacity for planning, co-ordinating, managing and implementing all mine action activities in the country, including area surveys, database development and mine/UXO clearance; and \$200,000 to support a national mine action program in Eritrea, aimed at strengthening national capabilities for planning, coordinating, managing and implementing the full range of mine action activities in Eritrea.

### **Georgia**

The DFAIT Mine Ban Initiatives Program provided \$50,000 to the British NGO HALO Trust for its integrated mine action program in Abkhazia, Georgia, including survey and mine marking activities. Canada's contribution supported ongoing survey work, the operation and deployment of two mine marking teams and the continued operation of the specialist explosive ordnance disposal section.

### **Honduras**

The DFAIT Mine Ban Initiatives Program provided \$190,000 to the OAS for mine clearance in Honduras. Coordinated by the OAS Assistance Program for Demining in Central America, in conjunction with the Inter-American Defense Board and the Honduran Army, the final module of the country's mine clearance program is scheduled to wind up in the department of





Hank Morris

Choluteca in December 2001. Honduras will then become the first state in the Americas to be declared mine-free since the establishment of the Ottawa Convention.

A contribution of \$60,000 was provided to the OAS from the same program to purchase tents and related equipment for Honduras' demining teams. The shelters were intended to improve the deminers' living conditions, making clearance safer and more effective. When mine clearance in Honduras finishes, the tents will be transferred to other mine action programs in the region.

### Jordan

The DFAIT Mine Ban Initiatives provided \$30,000 to the Canadian International Demining Corps to procure protective demining gear from Med-Eng Systems Inc. of Ottawa for the Royal Jordanian Corps of Engineers. The equipment will assist mine clearance efforts in the Jordan Valley.



Canadian Embassy, Amman, Jordan

(Top) Canada provided tents like this one to improve the living conditions of Honduran deminers.

(Bottom) Protective demining suits from Med-Eng Systems Inc. were provided to assist the Royal Jordanian Corps of Engineers.



## Laos

As part of a three-year, \$505,000 contribution, the CIDA Multilateral Institutions Program provided \$150,000 to the UNDP Trust Fund for UXO LAO. Canada's contribution supported clearance of UXO from nine severely affected provinces, the implementation of national UXO survey findings, assessment of ongoing data collection in order to prioritize areas to be cleared and development of capacity to manage the National UXO Program.

## Lebanon

The DFAIT Mine Ban Initiatives Program provided \$200,000 to the United Nations Mine Action Service to help set up and administer the Southern Lebanon Mine Action Coordination Cell. The Cell monitors and organizes all mine action activities in Southern Lebanon including development of a comprehensive mine action database, assessment of the landmine/UXO problem in the area, emergency survey operations and mine clearance.

## Mozambique

The CIDA Integrated Country Program for Mozambique provided \$2.8 million, as part of a five-year, \$7.5 million contribution to support mine action in Mozambique. The contribution supported technical assistance, equipment and training for:

- *A National Level One Socio-Economic Impact Survey*  
Level One Survey data have been transferred into the National Institute for Demining (IND) *Information Management System for Mine Action* database and are being shared with and used by mine action and development stakeholders in the country.
- *Production of maps and a sustainable toponymic system*  
The Canadian International Demining Corps produced a toponymy dataset of more than 10,000 geo-referenced point locations (villages and urban areas) in electronic format. This dataset has formed the basis for the *Information Management System for Mine Action*

databases installed at IND and the UNDP/Accelerated Demining Program, representing a major step in database coordination.

- *Building the capacity of the UNDP/Accelerated Demining Program*  
The installation and use of hardware and software to support the new, globally-recognized *Information Management System for Mine Action* database has led to more efficient management of minefield information by ADP staff.
- *Building the capacity of the National Demining Institute (IND)*  
Technical assistance was provided to IND for development of its strategic plan and vision statement and development of a multi-year project proposal to strengthen its institutional capacity to plan, coordinate and manage mine action throughout Mozambique. The *Information Management System for Mine Action* has been translated into Portuguese to ensure easy comprehension and manipulation by IND staff.

The CIDA Tapping Canadian Creativity Program provided \$400,000, as part of a multi-year \$1.3 million contribution to the Canadian Auto Workers (CAW) integrated mine action program in Mozambique, matching the CAW's funding of the program. Implemented in partnership with Canadian NGO Cooperation Canada Mozambique (COCAMO) and Handicap International, the program includes proximity demining and post-clearance community development activities. The project's mine clearance has provided local people with safe access to a variety of facilities and social services.

## Nicaragua

The CIDA Multilateral Institutions Program provided \$500,000 to the OAS as part of a three-year, \$2 million contribution to mine clearance in Nicaragua. The funding supported the mine clearance program in Nicaragua's northern border region, coordinated by the OAS Assistance Program for Demining in Central America, in conjunction with the Inter-American Defense Board and the Nicaraguan Army. Canada's contri-



Mohammed AhmedUNMAS

bution covered operational expenses in the field, protective clothing, food for the deminers, vehicle maintenance, insurance and administrative costs for field offices in rural areas.

### Thailand

The DFAIT Mine Ban Initiatives Program provided \$156,000 to the Vietnam Veterans of America Foundation for the completion of a Level One Socio-Economic Impact Survey of landmine contamination in Thailand. Carried out by Norwegian People's Aid under the auspices of the Survey Action Center, initial stages of the survey found that landmine contamination in Thailand was more extensive than previously expected. Canada's contribution supported extension of the survey and comple-

tion of its final phase. Survey results have allowed the newly-formed Thailand Mine Action Centre to establish an effective mine clearance program.

### Yemen

The CIDA Multilateral Institutions Program provided \$59,000, as part of a two-year \$150,000 contribution to the UNDP for its strategic mine action plan for Yemen. Following up on the Level One Socio-Economic Survey completed in 2000 (which Canada supported with \$1.5 million in previous fiscal years), the plan is aimed at building capacity in Yemen in the areas of mine awareness, mine marking, mine clearance and victim assistance, targeting the most seriously affected communities identified through the Level One Survey.

A deminer clearing land in Southern Lebanon, where all mine action activity is coordinated by the Southern Lebanon Mine Action Coordination Cell.



# The Canadian Centre for Mine Action Technologies

Mine clearance is carried out by methods which have changed little in the last two decades. With vast areas of mined land in dozens of countries around the world, the introduction of new, more effective technology is one of the best ways to improve productivity and complete the task in a reasonable length of time.

**T**he Canadian Centre for Mine Action Technologies (CCMAT) was established in 1998 to develop low-cost, sustainable technologies for mine action and to work toward their successful deployment in the field. This goal is accomplished through a comprehensive program of research and development, testing and evaluation, and active communication with the mine clearance community. The CCMAT has now completed three years of its five-year mandate and has established an international reputation for its ability to develop and field successful products that meet the mine clearance community's needs.

Total spending in fiscal year 2000 from the Canadian Landmine Fund for the CCMAT's operations was approximately \$4.2 million. The following are some specific achievements:

## **Fielding products that meet the needs of the mine clearance community**

The CCMAT introduced four products into service in fiscal year 2000, and a fifth is in process. This product development process involves effectively bringing the product from the laboratory into the field. CCMAT staff, with the requisite technical skills and hands-on experience in mine clearance operations, perform trials and demonstrations of the equipment for the actual user

in his or her own workplace. This approach has proven successful in providing a convincing demonstration of the equipment's value to mine clearance organizations in the environment in which it will ultimately be deployed. The CCMAT is now promoting this successful model for technology insertion within the international community. Products the CCMAT has introduced in 2000 include:

- *Mechanical mine clearance assistance equipment*

The PRO MAC Brushcutter/Deminer BDM 48 is a mine clearance assistance machine that combines the capability of clearing brush and trees with the capacity to destroy mines. Manufactured by forestry equipment company PRO MAC Manufacturing Ltd. of Duncan, British Columbia, the BDM 48 was adapted for mine clearance operations by the CCMAT. After undergoing successful trials in Canada, the machine was user-tested in Thailand, where it is now an important part of the mine clearance program. The BDM 48 substantially reduces both the hazard and cost of mine clearance. It can be operated from mine-free ground adjacent to mined areas. The machine's operator is protected by an armoured cab that has been tested by the CCMAT to resist the blast of a mine or ordnance explosion. Use of this equipment eliminates more than 99% of all





Adapted for mine clearance operations with an investment from Technology Partnerships Canada, the PRO MAC Brushcutter/Deminer BDM 48 undergoes trials in Thailand.

photos by DRES Photo Instrumentation Group



mines before manual deminers are required to enter a mined area.

- *Mechanical reproduction mines*  
The effective testing and evaluation of mechanical mine clearance equipment cannot be done with real mines in a real minefield. The presence of live mines that may have been thrown into places previously cleared or dug into the ground by the action of the machine can create an unknown hazard. With this in mind, the CCMAT developed a series of non-explosive simulated mines whose fuses react to the action of the machine being tested in the same way a real mine would. This has allowed the CCMAT to develop testing procedures for a number of machines. The simulated mines are now manufactured by Amtech Aeronautical Ltd. of Medicine Hat, Alberta and have been sold to interested parties in the United States and the United Kingdom.
- *New and improved explosives for neutralizing mines*  
The CCMAT tested and evaluated FIXOR, an explosive developed by MREL Specialty Explosive Products Ltd. of Kingston, Ontario. FIXOR can be used to neutralize mines and UXO uncovered as

a result of mine clearance operations. It consists of two non-explosive components that are mixed on-site. This two-part composition allows FIXOR to be shipped and stored less expensively than conventional explosives and its distribution and use in the field to be effectively controlled. Following successful testing at the CCMAT, FIXOR was demonstrated to deminers in Kosovo. The DFAIT Mine Ban Initiatives Program provided funding for a supply of the new explosive, and training in its use, for the Thailand Mine Action Centre. Use of FIXOR among mine clearance operations is growing quickly, with organizations such as RONCO and Handicap International among those now using it.

- *Protective equipment for mine clearance*  
The CCMAT has collaborated with the United States in the development of test and evaluation methodology for protective demining equipment. A rigorous research program was conducted on the nature of a mine blast and its means of causing injury. This information was used to design a reliable test methodology applied to the evaluation of the Humanitarian Demining Ensemble manufactured by the Canadian company, Med-Eng Systems Inc. of Ottawa. The test

Testing a Humanitarian Demining Ensemble, developed by Med-Eng Systems Inc., using automotive crash test dummies.



DRCS Photo Instrumentation Group

procedures developed by the CCMAT replace a collection of ad hoc procedures used in the past that did not provide an accurate indication of the degree of protection that could be expected from protective clothing ensembles.

- *Improved prosthetic foot*

A CCMAT contract, awarded to Niagara Prosthetics and Orthotics Corporation of St. Catharines, Ontario, has resulted in the development of a low cost, high performance, injection molded prosthetic foot. The design is intended to overcome shortcomings of current commercial devices, such as poor performance on rough ground and susceptibility to fatigue failure. The cost of the foot will be greatly reduced by the use of specialized materials and manufacturing methods. The Niagara Foot is scheduled for clinical evaluation at the Thailand Mine Action Centre in November 2001.

## Research and development

The CCMAT's research and development program is focussed on detection and neutralization of anti-personnel mines, providing better protection for deminers and improving mine clearance through enabling technologies and greater automation. The

program is carried out in-house and through contracts with industry. Some examples of the research and development program's work include:

- *Detection*

In spite of rapid technological advances, detecting anti-personnel mines remains a difficult technical challenge. Fielding improved detection equipment could result in substantial savings in clearance resources. The following research advances made at the CCMAT show promise of fieldable products:

- Hyperspectral imaging is a promising technology for aerial mapping of mine-affected ground. A prototype imager is in development.
- The feasibility of hyperspectral imaging for tripwire detection has been demonstrated and a prototype is being developed.
- A sonar device that can be used to detect mines under water has been developed by Guigné International Ltd. of Paradise, Newfoundland. The device was successfully evaluated by the CCMAT and a practical instrument is being developed for the detection of mines submerged in waterways and flooded areas.



DRIS Photo Instrumentation Group



Testing a standard issue mine boot using the Frangible Surrogate Leg, composed of materials that react to blast in a manner similar to human tissue.



photos by DRES Photo Instrumentation Group



- A prodder that can distinguish between rock and the metal or plastic surfaces characteristic of mines is in development. This device would speed up mine clearance by reducing the time spent investigating false alarms.
- Advances in signal processing and a better understanding of the influence of soil conditions could enhance the performance of metal detectors.
- *Protection*  
To define the threat from anti-personnel mines and the hazard they pose to deminers, the CCMAT conducts fundamental research in blast physics and investigates the means by which injuries are caused. The data are used to develop and test computer models that predict injury in

various mine clearance positions (standing, kneeling or prone) and the requirements for protection in each. With this information, companies can design and develop better protective equipment. Prototypes are tested at the CCMAT and the data collected are used to refine and improve the design of protective equipment.

- *Enabling technologies*  
The CCMAT is developing a series of demonstrators to showcase mine clearance technologies and to assess their potential performance. Three demonstration systems are planned, one each for vegetation clearance, mechanical neutralization and area detection scanning. Where possible, the systems will use existing technology, such as tele-operation

and navigation systems developed for military applications. The first technology demonstrator, the Articulated Robotic Scanner, has been built and is being evaluated in trials at the CCMAT.

### **Dissemination of information to the mine clearance community**

Technical information is an important product of any research and development program. The CCMAT provided information to the mine clearance community in the following instances during fiscal year 2000:

- The CCMAT participated in an international trial of commercial metal detectors which produced a consumer report allowing deminers to select the equipment best suited to their particular operating conditions.
- Technical experts from the CCMAT participated in detector and other trials in Afghanistan, Cambodia, Colombia, Croatia and Thailand. These visits are an effective means of translating research and development products into practical help for the mine clearance community.
- Information on soil conditions will form part of a proposed World Soil Information Database which will help deminers select the best detector for their operating conditions.
- The CCMAT will contribute results and methodology for the evaluation of protective and mechanical assistance equipment to the development of international mine action standards.
- Fundamental research in blast physics has defined the threat from anti-personnel mines. The data will be collected by the CCMAT in a Mine Effects and Materials Database.

### **International collaboration**

Canada is a founding member of the International Test and Evaluation Program (ITEP) and the Demining Technology Information Forum (DTIF). The mandate of the ITEP is to develop universally accepted methods for test and evaluation and to use

these to rigorously evaluate equipment for mine clearance before it is deployed to the field. Canadian experience in the development and deployment of products such as the PRO MAC Brushcutter/Deminer BDM 48 has shown that rigorous test and evaluation is an essential part of procuring effective mine clearance equipment. As an organization with facilities for test and evaluation that are among the best in the world, the CCMAT makes a significant contribution to the ITEP and to the development of accepted test methods and standards.

The DTIF serves as a means of communication between developers and users of mine action technology through workshops and an electronic journal. In June 2001, the CCMAT organized a successful DTIF workshop for the users and developers of mine action technology. The workshop was aimed at bridging the information gap between the two groups, a gap that is blamed for much of the inappropriate technology deployed to the field. Participants urged the DTIF to create a clearinghouse for technical information in the form of a web site. The CCMAT has experience that enables it to play a leading role in implementing these and other recommendations.

### **Impact on Canada's objectives in mine action**

The success of the CCMAT has enabled the Government of Canada to take on a range of technology-related mine action initiatives. The Centre supports DFAIT's work with the Stability Pact for South East Europe Reay Group and its efforts to establish a regional capability for test and evaluation in the Balkans. Through the successful introduction of new equipment such as the PRO MAC Brushcutter/Deminer BDM 48 and the explosive FIXOR in Thailand, relationships between Canada and Thailand have been strengthened and there is opportunity for similar initiatives in other countries in the region.

By providing technology that meets the needs of the mine clearance community, the Canadian Landmine Fund's investment in technology through the CCMAT is a pivotal component of Canada's global mine action leadership.





# Assisting landmine survivors and their communities

Estimating the number of landmine survivors in the world continues to be an inexact science. What is known, however, is that AP mines have significantly added to the number of persons with disabilities and that most of these landmine survivors live in countries that lack the means to effectively provide assistance and social and economic rehabilitation services.

**W**hile complying with the Convention's obligation to assist landmine survivors continues to be a daunting task, important developments have taken place in 2000. At the international level, the Standing Committee on Victim Assistance and Socio-Economic Reintegration promoted the use of voluntary annual reporting by States Parties on means taken to meet states' obligations to landmine survivors. Over the past year, Canada was one of 11 states that provided such a voluntary report using the Canadian-initiated "Form J" attachment to the Convention's Article 7 reporting format.

In 2000, Canada served as the Co-Rapporteur of the Standing Committee on Victim Assistance and Socio-Economic Reintegration. In this capacity, it assisted committee Co-Chairs Japan and Nicaragua in the production of *Providing assistance to landmine survivors: A collection of guidelines, best practices and methodologies*. In addition, through the innovative *Raising the Voices of Landmine Survivors* project, the Standing Committee took steps to increase the participation of landmine survivors in matters that affect them. Canada became committee Co-Chair in September 2001, and is committed to continuing to deepen the role of landmine survivors and to identifying practical means for States Parties to meet their

commitments to them.

Canada provides support for the full range of assistance required by those who have fallen victim to landmines, including surgery and hospital care, orthopaedics, peer counseling, support networks, vocational training, community-based rehabilitation, improvement of care facilities, building the expertise of medical practitioners and improving coordination of assistance and assistance-related information systems. During fiscal year 2000, Canada's programming reflected the need to assist in these priority areas.

## Afghanistan

The CIDA Multilateral Institutions Program provided \$300,000 to support the orthopaedic component of the United Nations Development Programme (UNDP) Comprehensive Disabled Afghan Program, as part of a three-year, \$708,000 contribution. Canada's funding helped provide salaries for orthopaedic technicians, raw materials for orthopaedic devices and training sessions and national seminars on the standardization of orthopaedic technology and physiotherapy training. Through the program, disabled Afghans received more than 4,700 orthopaedic appliances, including prostheses, orthotics, technical aids and wheel chairs.



Oxfam Quebec

The CIDA Afghanistan Country Program provided \$133,000, as part of a three-year, \$378,000 contribution, to support the work of the Guardians Institute of Orthopaedics in Kandahar. Canada's funding assisted the Institute in providing landmine survivors with comprehensive rehabilitation services, particularly orthopaedics and physiotherapy. In fiscal year 2000, the Institute conducted over 8,900 physiotherapy sessions and produced and distributed over 3,500 orthopaedic and prosthetic devices. In addition, \$10,000 was provided to the Royal Ottawa Hospital Rehabilitation Centre to undertake a skills analysis and training for the staff of the Guardians clinic.

### **Bosnia and Herzegovina**

A contribution of \$70,000 was provided to support a Queen's University peer counseling project for landmine survivors and other disabled persons. This funding was part of a two-year, \$270,000 contribution from the CIDA five-year, \$10 million Integrated Country Program for Bosnia and Herzegovina. The project supported

the development and consolidation of a network of peer counseling programs and services. Training for peer counseling group leaders and local health professionals was provided on issues such as care of amputations, prosthetics and orthotics, psycho-social issues, community and family interaction and job creation.

### **Cambodia**

Through the CIDA \$4.9 million Landmine Development Program for Cambodia, \$170,000 was provided as part of a three-year landmine survivor assistance project implemented by Oxfam Quebec. Operating from the Pursat Vocational Training Centre, the project assists landmine survivors with reintegration into the work force. Skills training is offered to men and women in both traditional and non-traditional occupations.

Through the CIDA Tapping Canadian Creativity Program, \$250,000 was provided to World Vision Canada as part of a three-year, \$750,000 contribution for a survivor assistance vocational training program in

At this Oxfam Quebec-sponsored training program, Cambodian landmine survivors learn skills to help them reintegrate into the work force.



several provinces of Cambodia. The project assists disabled persons to reintegrate into society with employment or an established business that will enable them to be self-sufficient. Disabled men are provided with skills training in engine, radio and TV repair, welding, agriculture and typing skills. Disabled women and others who cannot leave their homes for an extended period to study are taught community-based agriculture skills and provided with small loans. To secure the long-term sustainability of the project, its activities are being handed over to the Royal Government of Cambodia Ministry of Social Affairs, Labour, Vocational Training and Youth Rehabilitation.

services, vocational training and placement programs for disabled persons, the development of health and disability information systems and the integration of community-based rehabilitation into the networks of primary health care services. Queen's University's International Centre for the Advancement of Community-Based Rehabilitation is providing Canadian technical expertise for the project.

The CIDA Tapping Canadian Creativity Fund provided \$200,000, as part of a two-year, \$400,000 contribution, to support a Queen's University International Centre for the Advancement of Community-Based Rehabilitation project in Guatemala. The project educated community members and health professionals about community-based rehabilitation principles and strategies.

The same program provided \$75,000 to a Sierra Club of British Columbia project in El Salvador as part of a three-year, \$400,000 contribution. In collaboration with the Salvadoran Centre for Appropriate Technology, the project trained landmine victims in environmentally friendly technologies, such as bicycle repair, provided

Staff from the Queen's University International Centre for the Advancement of Community-Based Rehabilitation train Guatemalan health professionals on community-based rehabilitation strategies.

### Central America

As part of a four-year, \$3.5 million contribution, the CIDA Multilateral Institutions program provided \$750,000 to support a Pan American Health Organization (PAHO) survivor assistance project in Nicaragua, Honduras and El Salvador. The joint Canada-Mexico-PAHO project supports the strengthening of prosthetic and orthotic



Marie Nelson/Queen's University (CACBR)

small enterprise loans and initiated a local alternative economic trading system.

## Colombia

The DFAIT Mine Ban Initiatives Program provided \$10,000 to support a conference aimed at improving medical care and rehabilitation for landmine survivors in Colombia. Hosted by the Colombian Foundation for Surgical Reconstruction (CIREC) in Bogota, Colombia, the conference gathered actors involved in mine victim assistance and rehabilitation in Colombia to exchange expertise on the treatment of mine victims. The conference focussed on surgical methods for treating landmine wounds and the types of prosthetics needed.

## Ethiopia and Eritrea

The CIDA Multilateral Institutions Program provided \$200,000 to the United Nations Mine Action Service for the establishment of a mine action program including victim support in the Ethiopia/Eritrea Temporary Security Zone.

Through the same program, \$600,000 was provided to the United Nations Development Programme (UNDP): \$400,000 to support the Government of Ethiopia in developing and strengthening Ethiopia's mine action program, including victim assistance and \$200,000 to support a mine action program in Eritrea which also included victim assistance.

## Jordan

The DFAIT Mine Ban Initiatives Program contributed \$40,000 to the Landmine Survivors Network to strengthen their Amputee Support Network in Jordan. The Network aims to address the needs of landmine survivors and people who have lost limbs, and promote their socio-economic reintegration. Canada's contribution helped fund Network services including hospital and home visits, the development of rehabilitation service information resources and training of Network staff, over half of whom are landmine survivors or people who have lost limbs.

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Supported by the Landmine Survivors Network, the first Jordanian amputee swim team at practice.



Bill Jordan/Landmine Survivors Network



A UXO-injured child with his family in Laos.



Chantipit Chuaoor/Garneau International

## Laos

As part of a three-year, \$503,000 contribution, the CIDA Tapping Canadian Creativity Program provided \$153,000 to Garneau International for a community-based rehabilitation project in Laos. The project aims to increase the Laotian government's capacity to provide for basic rehabilitation needs of UXO survivors through a broad-based approach including improving its UXO victim monitoring system, increasing technical and management capacity and transferring basic rehabilitation knowledge and skills.

## Mozambique

The CIDA Tapping Canadian Creativity Program provided \$400,000 to the Canadian Auto Workers (CAW) Integrated Mine Action Program in Mozambique as part of a multi-year \$1.3 million contribution, matching the CAW's funding of the program. Implemented in partnership with Canadian NGO Cooperation Canada Mozambique (COCAMO) and Handicap International, the program includes a survivor assistance component aimed at increasing accessibility to adequate

treatment and prosthetics offered through provincial medical centres. This is accomplished by improving safety and living conditions at the centres, promoting awareness of them and providing transportation services.

## Yemen

As part of a three-year, \$400,000 contribution, the CIDA Tapping Canadian Creativity Program provided \$100,000 to Adventist Development and Relief Agency (ADRA) Canada for a survivor assistance project in Yemen. The project integrates adult landmine survivors and other severely disabled adults into their communities and families using a community-based rehabilitation approach along with small enterprise development and vocational training.

The CIDA Multilateral Institutions Program provided \$59,000, as part of a two-year \$150,000 contribution to the UNDP for its strategic mine action plan for Yemen. Following up on the Level One Socio-Economic Survey completed in 2000 (which Canada had supported with \$1.5 million in previous fiscal years), the

Landmine survivors at an International Committee of the Red Cross prosthetic centre in Kabul, Afghanistan.



Franco Pagetti/ICRC

plan will build capacity in Yemen in the areas of mine awareness, mine marking, mine clearance and victim assistance, targeting the most seriously affected communities identified through the Level One Survey.

**International Committee of the Red Cross**

The CIDA Multilateral Institutions Program provided \$300,000, as part of a two-year, \$600,000 contribution to the International

Committee of the Red Cross (ICRC) Mine Action Appeal 1998-2003 for Victim Assistance and Mine Awareness. Canada’s funding supported medical assistance and physical rehabilitation for mine victims and the collection and analysis of mine incident data to help develop appropriate programs. In total, 37 prosthetic/orthotic centres in 14 countries were assisted. For the fourth consecutive year, the number of physically disabled people assisted increased, with 16,442 receiving prostheses and 11,005 receiving orthotics.





# Improving mine action information and coordination

Acquiring more and better information about the global landmine problem is essential to understanding its magnitude and developing coherent priorities for deploying resources. Until recently, the landmine problem was defined according to a rough estimate of the number of mines in the ground around the world. We know now that such a measure is relatively meaningless as it tells us little about the social and economic impact of the threat of mines. Vast approximations of the number of landmine victims worldwide provide little guidance on where the areas of greatest need may be, the nature of particular needs of landmine victims and the level of services available to meet their needs.

**T**he year 2000 was a landmark in acquiring more and better information on the global landmine problem.

In August 2000, the results of the first completed and certified Level One Socio-Economic Impact Survey were delivered to the Government of Yemen. This survey identified and mapped all suspected mined areas in the country. Socio-economic, victim and behavioural data associated with these suspected areas were collected and the information is being used to determine the relative socio-economic importance of mined areas. Canada was the primary donor to the survey effort in Yemen and has continued to provide leadership in this area.

Almost one-quarter of the funding for the global survey effort has come from Canada. In follow-up to the survey in Yemen, similar projects have now been completed in Mozambique, Chad and Thailand and work is proceeding in Cambodia. In addition, Level One Survey work is being done, or is being considered for, Afghanistan, Angola,

Bosnia and Herzegovina, Ethiopia and Eritrea, Kosovo, Lebanon, north-west Somalia, Western Sahara, and Vietnam.

In addition to Level One Socio-Economic Impact Surveys, United Nations inter-agency assessment missions and technical missions are important tools for acquiring more and better information on the global landmine problem. In 2000, the UN Mine Action Service coordinated assessment missions in Belarus, Egypt, Eritrea and Ethiopia, Georgia, Lebanon, Mozambique, Namibia, Nicaragua, Sierra Leone, Zambia and Zimbabwe. Since 1998, 21 assessment missions been completed.

Effective coordination mechanisms are essential to translating more and better landmine information into a coherent set of priorities for mine action. In recent years, major advances have been made in establishing mine action centres or other coordination bodies. Today, bodies responsible for the coordination and implementation of mine action exist in 35 countries or regions.



Paul F. Wilkinson and Associates

Gathering information from community members about the location and impact of mines as part of Level One Socio-Economic Impact Surveys in Mozambique (top) and Cambodia (bottom).

Canada understands that mine action information and coordination initiatives are important components of our global efforts to address the landmine problem. To this end, Canada supported a variety of these projects in fiscal year 2000.

### Surveys

Through the CIDA multi-year \$4.9 million Landmine Development Program for Cambodia, \$1.7 million was provided for the Level One Socio-Economic Impact Survey of Cambodia being carried out by Burlington, Ontario-based GeoSpatial International Inc. As of March 31, 2001, 28% of all villages in Cambodia had been surveyed, quality assured and entered in the central database. The survey is being conducted to international standards and the database is consistent with the *Information Management System for Mine Action (IMSMA)* standard.

As part of the CIDA Integrated Country Program for Mozambique (\$2.8 million in fiscal year 2000), \$600,000 was disbursed to the Canadian International Demining Corps for completion of Mozambique's Level One Socio-Economic Impact Survey. Survey data have now been transferred into the National Institute for Demining's IMSMA database and are being shared with and



GeoSpatial International Inc.

used by mine action operators and development stakeholders in the country.

The DFAIT Mine Ban Initiatives Program provided \$156,000 to the Vietnam Veterans of America Foundation for the completion of a Level One Socio-Economic Impact Survey in Thailand. Carried out by Norwegian People's Aid under the auspices of the Washington, D.C.-based Survey Action Center, initial stages of the survey found that landmine contamination in Thailand was more extensive than previously expected. Canada's contribution funded the extension of the survey and the completion of its final phase. Survey results have allowed the newly-formed Thailand Mine Action Centre to establish an effective mine clearance program.



Staff at the Bosnia and Herzegovina Mine Action Centre, responsible for the coordination and implementation of mine action in the country.



photos by Damir Atkovic/NPA

Other survey work supported by Canada in fiscal year 2000 included:

- \$200,000 provided by the CIDA Multilateral Institutions Program to the United Nations Mine Action Service to establish a mine action program in the Ethiopia / Eritrea Temporary Security Zone, which included emergency survey work.
- \$50,000 provided by the DFAIT Mine Ban Initiatives Program to the British NGO HALO Trust for its integrated mine action program in Abkhazia, Georgia, which included ongoing survey work.
- \$44,000 provided by the DFAIT Mine Ban Initiatives Program to the Vietnam Veterans of America Foundation to supply IMSMA computer hardware and software for use by the United Nations Peacekeeping Force in Cyprus ongoing survey operations in the UN buffer zone.

### **Assessment missions**

The DFAIT Mine Ban Initiatives Program provided \$22,000 to the Mines Advisory Group (MAG) for an assessment mission to evaluate humanitarian mine action needs in northern Uganda. In collaboration with



Ugandan NGOs, the mission assessed the scale and location of the mine problem and mine action efforts being undertaken to address it. This enabled MAG to devise a strategy of mine action intervention.

### **Mine action centres**

The CIDA Integrated Country Program for Bosnia and Herzegovina provided \$120,000, as part of a \$1.7 million, multi-year contribution to the United Nations Development



Jim Holmes/Handicap International

A UXO LAO team leader briefs clearance staff on the area of land cleared and the types of UXO removed.

Programme (UNDP), for institutional support to the Bosnia and Herzegovina Mine Action Centre and Entity Mine Action Centres. Canada's contribution enhanced the capacity and sustainability of the mine action centres by developing technical, safety and training standards, preparing local staff to take over the duties of international advisors and upgrading the centres' communication infrastructure.

As part of a CIDA Multilateral Institutions Program \$600,000 contribution to the UNDP for mine action in Eritrea and Ethiopia, investments were made in developing and strengthening national capacity for planning, co-ordinating, managing and implementing all mine action activities.

The CIDA Multilateral Institutions Program provided \$150,000 to the UNDP Trust Fund for UXO LAO, as part of a three-year, \$505,000 contribution. In addition to supporting UXO clearance in Laos, Canada's contribution supported the national coordination body's activities including the implementation of National UXO Survey findings, development of management capacity and assessment of ongoing data collection to help prioritize areas to be cleared.

The DFAIT Mine Ban Initiatives Program provided \$200,000 to the United Nations Mine Action Service for the set-up and administration of the Southern Lebanon Mine Action Coordination Cell. The Coordination Cell monitors and organizes

all mine action activities in Southern Lebanon including creating a comprehensive mine action database, assessing the landmine/ UXO problem in the area, clearing mines and doing emergency surveys.

As part of the CIDA Integrated Country Program for Mozambique (\$2.8 million in fiscal year 2000), \$1 million was provided to the National Demining Institute to develop its strategic plan and a multi-year proposal for strengthening the Institute's capacities to plan, coordinate and manage mine action throughout Mozambique. The IMSMA database has been translated into Portuguese to ensure easy comprehension and manipulation by IND staff.

The CIDA Multilateral Institutions Program provided \$59,000 to the UNDP for its strategic mine action plan for Yemen. As part of a two-year, \$150,000 contribution following up on the Level One Impact Survey completed in 2000, the plan will build capacity in Yemen to set priorities for mine action by targeting the most seriously affected communities identified through the impact survey.

### Victim assistance information

The CIDA Multilateral Institutions Program provided \$250,000 to the World Health Organization (WHO) for a landmine injury surveillance initiative in Africa. The two-year, \$500,000 project will improve emergency, post-emergency and rehabilitation



services for people with mine injuries through better data collection and assessment. In fiscal year 2000, the project produced an injury surveillance tool entitled *Guidance for surveillance of injuries due to landmines and unexploded ordnance* which was pilot-tested in Azerbaijan and Kosovo and distributed to WHO offices, governments, NGOs and the United Nations. Initial consultation on the use of the guidelines was conducted with African countries, including Ethiopia, Mozambique and Uganda.

The DFAIT Mine Ban Initiatives Program provided \$9,000 to Nonviolence International Southeast Asia for the collection, analysis and dissemination of information on landmine use and the state of landmine survivor assistance in Burma. The information, gathered through a network of individuals and organizations in Burma, was used in *Landmine Monitor Report 2001*.

### Policy research

The DFAIT Research and Policy Development Program provided \$80,000 to the International Peace Research Institute, Oslo (PRIO) for studies conducted under the Institute's *Assistance to Mine-Affected Communities* research project. Canada's contribution supported the project's field study into the impact of landmines and humanitarian mine action on communities and the role of the community in mine action. The research will provide the analytical foundation for further projects

geared toward developing the capacity of mine-affected communities for coping with landmines and participating in mine action.

The same program provided \$59,000 to the International Development Research Centre for Phase I of its *Integrated Mine Action Development Strategy* project. The project aims to provide mine-affected states with tools to plan for the integration of mine action into ongoing national development structures and plans. As the Ottawa Convention is implemented in mine-affected states over the long-term, many countries will move from being gravely mine-affected to affectedness of a lower-grade, and will move from emergency and post-conflict situations to contexts more associated with longer-term development. Through close consultation with the National Demining Institute in Mozambique, studies on the relationship between mine action and national sectors and workshops to refine the methodology, the project developed a tool for field-testing that is intended to assist with this transition.

In addition, \$109,000 was provided to the York University Centre for International and Security Studies to support the second program year of the Mine Action Research Program. This initiative involved a student research essay competition aimed at producing policy-relevant mine action research and the development of Canadian academic capacity to contribute to a better understanding of global mine action.



# Sustaining the effort

It is important that Canadians and individuals in other countries understand that our efforts must be sustained if we are truly going to ensure that the Ottawa Convention lives up to its promise. To promote public awareness about the landmine problem and what Canada is doing about it, DFAIT implements a comprehensive Outreach and Sustainability Program in partnership with NGOs throughout Canada.

**T**he program disbursed approximately \$1.3 million in fiscal year 2000 to support innovative tools and projects which advanced these goals. Tools produced include the annual report to Parliament on the Canadian Landmine Fund and a newsletter entitled *SafeLane*:

*Canada's Landmine Ban Report. A 17-minute video entitled Measured Steps: The Global Movement to Ban Landmines was produced and distributed at a cost of \$93,000. The outreach program also manages the web site SafeLane: Canada's Guide to the Global Ban on Landmines*



Meredith Daun/MAAP

Declaring Canadian Landmine Awareness Week 2001: Manitoba MLA Doug Martindale and Youth Mine Action Ambassador Meredith Daun hold the proclamation near a symbolic shoe pile at a Winnipeg shopping mall.





Jessamyn Waldman/YMAAP



Meredith Daunp/YMAAP

(Top) A family views the mine action exhibit at the Canadian National Exhibition in Toronto.

(Bottom) A Winnipeg student plays the Canadian Red Cross *World in Jeopard-e!* mine action game.

([www.mines.gc.ca](http://www.mines.gc.ca)). In fiscal year 2000, \$38,000 was spent to redesign, update and substantially upgrade the site.

For the third year, the DFAIT Outreach and Sustainability Program supported the Youth Mine Action Ambassador Program (YMAAP). This innovative community-based education initiative raises awareness of the landmine issue and helps create sustainable community action to support the landmine ban. Coordinated with Mines Action Canada and the Canadian Red

Cross, and supported by Canada's Youth International Internship Program and the Canadian Landmine Foundation, the program placed 12 recent university graduates with host NGOs in Vancouver, Calgary, Regina, Winnipeg, Toronto, Ottawa, Montreal, Quebec City, Halifax, Sydney and St. John's.

Since its inception in 1998, the YMAAP has facilitated thousands of mine action education sessions, volunteer training initiatives and community events, the reach of which has been extended through coverage by local, regional and national media. The DFAIT Outreach and Sustainability Program provided \$494,000 to support the efforts of the YMAAP in fiscal year 2000.

In the summer of 2000, Youth Mine Action Ambassadors delivered landmine education presentations at major exhibitions across Canada, including Expo Québec in Quebec City, the Canadian National Exhibition in Toronto, the Canadian Central Exhibition in Ottawa and Klondike Days in Edmonton. An estimated 200,000 people toured interactive exhibits depicting life in a mine-affected community, which were developed and produced with a DFAIT contribution of \$95,000.

Exhibits and public engagement activities on the landmine issue also featured prominently in the Conferences on War-Affected Children held in Accra, Ghana and Winnipeg in 2000, and at the Americas Cultural Showcase held during the Organisation of American States General Assembly meeting in Windsor in June 2000.

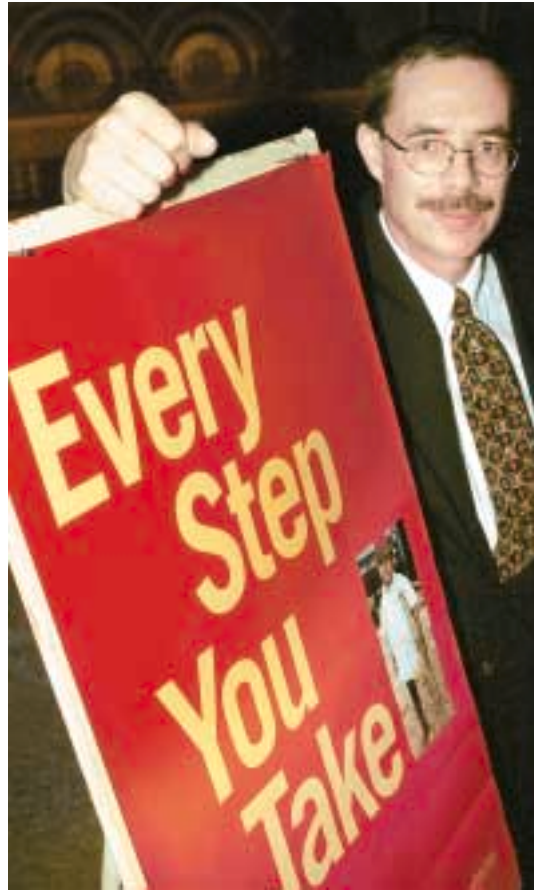
During Canadian Landmine Awareness Week in March 2001, high school students from Alberta, Ontario, Quebec and Newfoundland participated in a Virtual Classroom on landmines to promote learning about the global landmine problem. Facilitated by the Communications Research Centre Canada, the Virtual Classroom featured Minister of Foreign Affairs John Manley and Cambodian landmine survivor Song Kosal in a video conference panel discussion with students.

Other cooperative initiatives to raise awareness of the landmine issue included:

- \$80,000 provided to the Canadian Red Cross for the development of its *Survive*



Dennis Dreaver



Derek Baldwin/The Belleville Intelligencer

(Left) Minister of Foreign Affairs John Manley presents Cambodian landmine survivor Song Kosal with a copy of the Ottawa Convention at Ottawa's Rideau High School.

(Right) Steve Elston of Eastminster United Church in Belleville, Ontario spearheaded a community campaign for Adopt-A-Minefield (Canada) through the Canadian Landmine Foundation. Funds raised helped to clear mined land in Battambang province, Cambodia.

the Peace landmine education campaign. Canada's funding supported the creation of campaign materials including an interactive web site, launched in a series of public events across the country during Canadian Landmine Awareness Week. The campaign is intended to provide multimedia educational tools for use by Canadian Red Cross staff and volunteers in their efforts to deliver education on the landmine issue.

- \$10,000 provided to the charitable choir group Consort Caritatis to support choral performances in Toronto and Kitchener, launching the group's third fundraising CD. A portion of the proceeds are being donated to World Vision Canada and the Mennonite Central Committee mine action programs.
- \$10,000 provided to Montreal-based NGO Club 2/3 to support the inclusion of mine action education in their annual youth march, held in May 2000. Funding assisted the production and distribution of an educational kit for Quebec schools.

- \$8,000 provided to I Choose Me Productions for the creation of *Living Bombs*, an educational web site that encourages youth to learn more about global mine action through interactive role play simulations.

Canada continued to support the promotion of sustainable private sector funding for mine action. In fiscal year 2000, Canada provided \$236,000 to support the work of the Canadian Landmine Foundation, a private charity established to raise funds for mine action and promote the long-term sustainability of mine action programming. Canada's support helped the Foundation launch the international fundraising initiative *Night of 1,000 Dinners* aimed at holding fundraising dinners around the world on or around November 30, 2001. Other Foundation initiatives in 2000-01 included the Adopt-A-Minefield (Canada) program, run in conjunction with the United Nations Association of the USA and a fundraising partnership with Rotary Canada. The Foundation also continued to operate its fundraising web site [www.clearlandmines.com](http://www.clearlandmines.com).



# 2000-2001 Canadian Landmine Fund Spending Summaries



## Departmental expenditures by program

Department /program	Spent fiscal year 2000-01
<b>DFAIT</b>	
Mine Action Partnership	\$ 814,232
Mine Ban Initiatives	1,816,743
Mine Monitoring	252,701
Mine Action Research and Policy Development	429,635
Outreach and Sustainability	1,307,392
Stockpile Destruction	852,544
Policy Support Unit	843,723
<b>Total DFAIT</b>	<b>\$ 6,316,970</b>
<b>CIDA</b>	
Integrated Country Program – Mozambique	\$ 2,797,000
Integrated Country Program – Bosnia and Herzegovina	1,787,000
Tapping Canadian Creativity	1,428,000
Country Initiative – Asia	2,107,000
Integrated Country Program – Americas	1,250,000
Multilateral Institutions Program	2,392,000
Support Unit	300,000
<b>Total CIDA</b>	<b>\$ 12,061,000</b>
<b>DND</b>	
Canadian Centre for Mine Action Technologies	\$ 3,967,000
<b>Total DND</b>	<b>\$ 3,967,000</b>
<b>Industry Canada</b>	
Canadian Centre for Mine Action Technologies	\$ 319,000
<b>Total Industry Canada</b>	<b>\$ 319,000</b>
<b>TOTAL</b>	<b>\$ 22,663,970</b>

## Investments in banning landmines

	Total spending FY 2000-01
<b>A Investments in support of international advocacy and prevention</b>	
Africa	\$ 15,800
North America	115,941
South Asia	39,000
<b>B Investments in support of global efforts to ban landmines</b>	
International Campaign to Ban Landmines	\$ 346,355
Mines Action Canada	467,877
<b>C Investments in support of Convention implementation and universalization conferences</b>	
Africa	\$ 229,030
Colombia	6,758
South East Asia	2,380
South East Europe	17,310
<b>D Investments in support of monitoring compliance</b>	
Landmine Monitor 2001	\$ 250,000
<b>E Investments in support of stockpile destruction</b>	
	\$ 852,544
<b>Total investments in banning landmines</b>	<b>\$ 2,342,995</b>

## 2000-01 Investments by thematic area of mine action

**Banning Landmines** refers to investments in promoting the universalization and effective implementation of the global ban on anti-personnel mines, including stockpile destruction.

**Mine Action Information** refers to investments in more and better information on the landmine problem for the purpose of more effectively targeting other mine action efforts. Mine action information includes assessment missions, surveys, information tools, and research into building capacity and developing best practices.

**Research and Development** refers to investments in scientific research and subsequent development into new or improved technologies and processes for addressing the landmine problem.

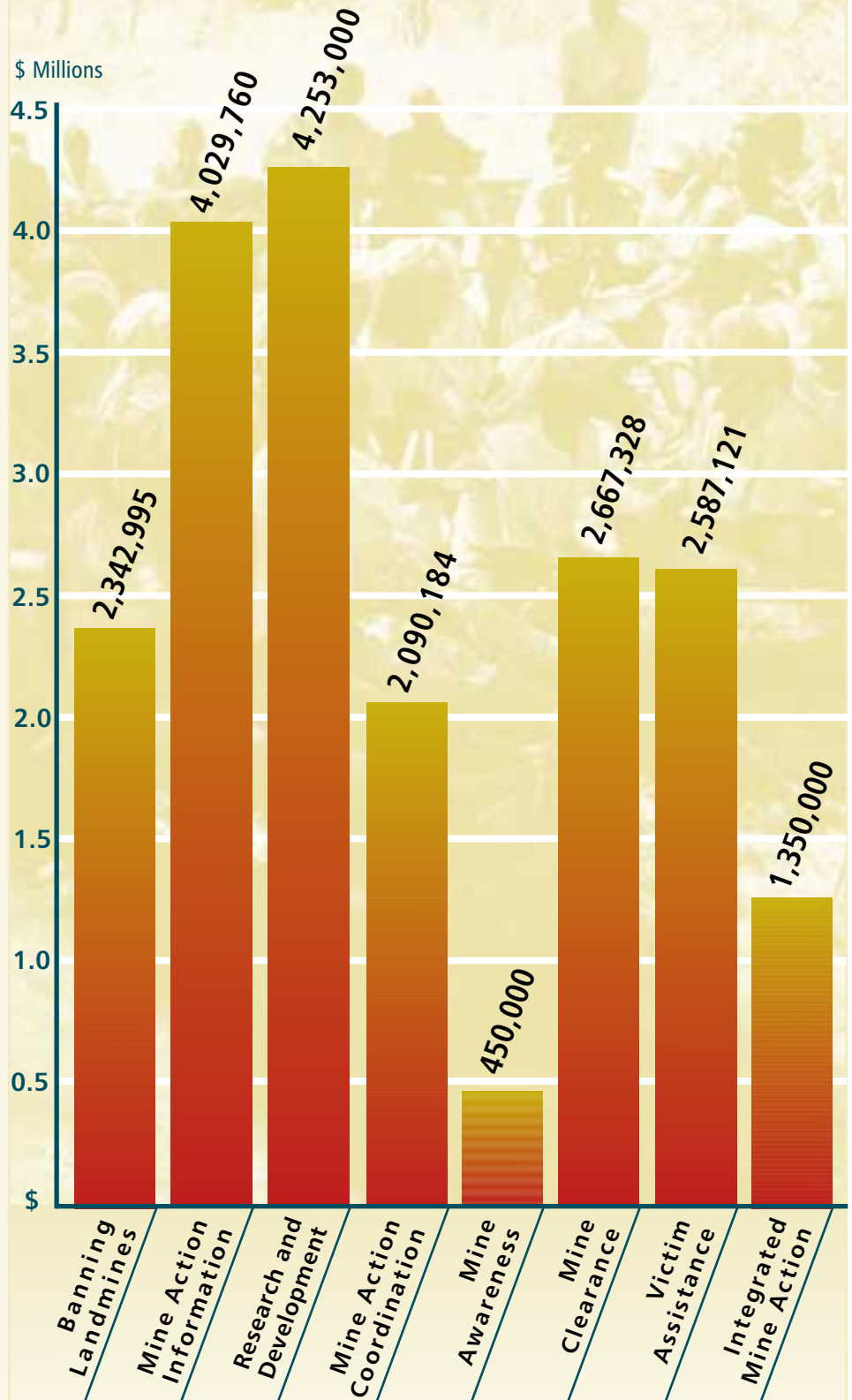
**Mine Action Coordination** refers to investments in structures and organizations that will support greater coherence in, and progress towards, addressing the landmine problem.

**Mine Awareness** refers to investments in education and training programs that will reduce high risk, mine-related activities and therefore prevent casualties.

**Mine Clearance** refers to investments in the full spectrum of activities related to clearing mined land, including mapping and marking minefields, training, supporting mine dog detection teams, providing equipment and protective clothing, demining and quality assurance.

**Victim Assistance** refers to investments in providing services to victims of mine incidents, including medical services; prosthetics, orthotics and other aids; and physical, vocational, social and psychological rehabilitation.

**Integrated Mine Action** refers to investments in programs that incorporate more than one core mine action activity into a single program.





## 2000-2001

### Mine action spending by country

This map shows 2000-2001 Canadian Landmine Fund country-specific total expenditures on mine action information, mine awareness, mine clearance, victim assistance, stockpile destruction and integrated programming.

