



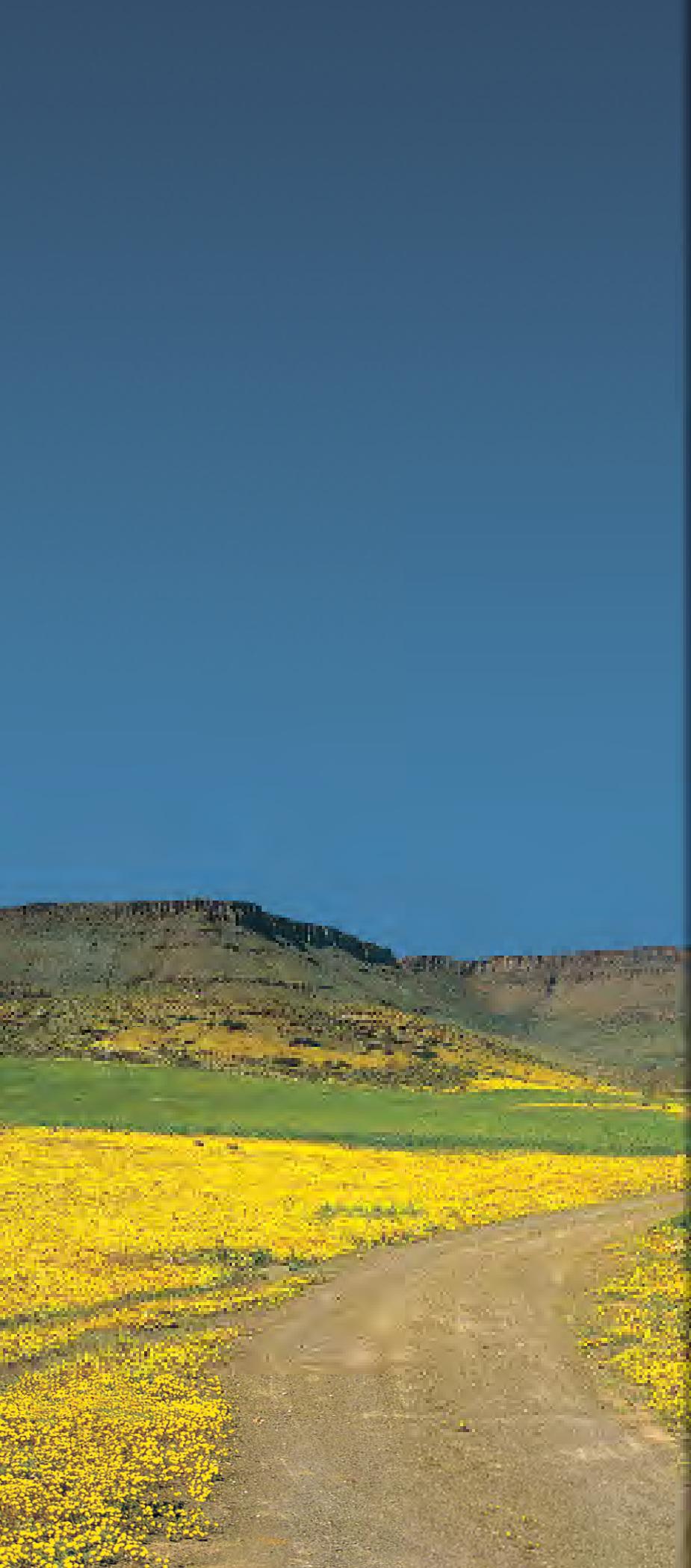
THE UNITED STATES COMMITMENT  
TO HUMANITARIAN MINE ACTION

# TO WALK THE EARTH IN SAFETY

UNITED STATES  
DEPARTMENT OF STATE  
BUREAU OF POLITICAL-MILITARY  
AFFAIRS



FIFTH EDITION ■ AUGUST 2004



# To Walk the Earth in Safety

The United States Commitment to  
Humanitarian Mine Action

Fifth Edition • August 2004

This report covers program activities in 2003.

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# Introduction

This fifth edition of *To Walk the Earth in Safety* contains information on specific programs and accomplishments of the U.S. Humanitarian Mine Action Program through the end of 2003. Although the United States did begin providing substantial mine action assistance to Afghanistan as early as 1988 and then to Cambodia and some other countries starting in 1991, the formal program as we know it today really began in 1993. Thus, 2003 is a milestone, marking ten uninterrupted years of genuine and significant U.S. action to eradicate persistent landmines—both anti-personnel and anti-vehicle—as well as unexploded ordnance wherever they threaten civilian populations or deny them access to their land, homes, markets, schools, churches, and hospitals.

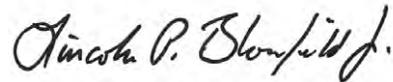
Throughout this past decade, the United States has been by far the largest humanitarian mine action donor, having contributed between one third and one half of all of the money invested worldwide on this cause. The evidence of our commitment is exhibited in this fifth report. This edition describes accomplishments and achievements in our mine action program in 40 countries and regions.

We have achieved much in the last ten years, and have registered real successes in many countries plagued by landmines, countries that experienced hundreds, and in some cases even thousands of injuries and casualties annually.

In order to qualify for mine action assistance from the United States, countries must have a strategic plan with goals, objectives and a clearly defined end state. Building indigenous capacity and identifying the high impact mine affected areas are also critical elements of a successful national mine action program.

After more than a decade of living with landmines, Djibouti was declared mine-safe in January 2004, thanks to U.S. assistance. We began assisting Zambia in 2000, and anticipate that it will soon have an indigenous, sustainable demining capability. Thailand has been receiving U.S. mine action assistance since 1998, and is now able to set an example as the regional leader in humanitarian mine action. With help from the United States and the OAS, Costa Rica is now mine-safe. In 2003, the United States initiated a major humanitarian mine action program in Iraq, and we are also evaluating requests to help start or reinforce programs in other mine-affected nations.

Through bilateral assistance and encouragement of the participation of civil society, via innovative public-private partnerships, we will continue to invest in those countries deserving our aid and assistance in their fight against the humanitarian threats posed by persistent landmines. Humanitarian mine action is in accord with America's core values: respect for life, caring in the face of human suffering, support for economic independence and self-sufficiency and concern for animals. Therefore, we, along with all other donor nations, must make every effort to assist those landmine-plagued nations in establishing an indigenous, self-sufficient and sustainable humanitarian mine action program.



Lincoln P. Bloomfield, Jr.  
*Special Representative of the President  
and Secretary of State for Mine Action, and  
Assistant Secretary of State for Political-Military Affairs*

# U.S. HUMANITARIAN MINE ACTION PROGRAM FUNDING HISTORY

FY 1993–2003 (DOLLARS IN THOUSANDS)

COUNTRY	SOURCES	FY 93–FY 95	FY 96	FY 97	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04 Est.	SOURCE TOTAL	
Afghanistan	DOS NADR	–	–	1,000	2,200	2,615	3,000	2,800	4,000	5,300	11,300	32,215	
	DoD OHDACA	–	–	–	–	–	–	–	1,800	–	–	1,800	
	USAID Leahy	–	–	–	–	–	–	–	1,000	–	1,000	2,000	
	ERF (State)	–	–	–	–	–	–	–	3,000	3,000	–	6,000	
	DoD ARCENT	–	–	–	–	–	–	–	2,464	–	–	2,464	
	DOS FMF	2,000	1,000	–	–	–	–	–	–	–	–	3,000	
	DOS PRM	4,000	1,000	2,000	–	–	–	–	–	–	–	7,000	
	DOS IO	1,000	–	–	–	–	–	–	–	–	–	1,000	
	USAID	5,200	–	–	–	–	–	–	–	13,925	12,962	32,087	
	CDC	–	–	–	–	–	–	–	600	700	400	1,700	
	<b>Country Total</b>	<b>12,200</b>	<b>2,000</b>	<b>3,000</b>	<b>2,200</b>	<b>2,615</b>	<b>3,000</b>	<b>2,800</b>	<b>12,864</b>	<b>22,925</b>	<b>25,662</b>	<b>89,266</b>	
Albania	DOS NADR–ITF	–	–	–	–	–	–	684	326	1,417	1,750	4,177	
	USAID Leahy	–	–	–	–	–	–	–	–	–	340	340	
	SEED	–	–	–	–	–	1,049	–	–	–	–	1,049	
	<b>Country Total</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>1,049</b>	<b>684</b>	<b>326</b>	<b>1,417</b>	<b>2,090</b>	<b>5,566</b>	
Angola	DOS NADR	–	–	1,000	2,400	–	3,096	2,844	2,800	3,500	5,300	20,940	
	DoD OHDACA	3,900	–	100	–	–	–	–	–	–	–	4,000	
	USAID Leahy	–	2,500	768	732	–	–	1,000	900	–	800	6,700	
	DOS FMF	1,170	2,000	–	–	–	–	–	–	–	–	3,170	
	<b>Country Total</b>	<b>5,070</b>	<b>4,500</b>	<b>1,868</b>	<b>3,132</b>	<b>–</b>	<b>3,096</b>	<b>3,844</b>	<b>3,700</b>	<b>3,500</b>	<b>6,100</b>	<b>34,810</b>	
Argentina	DoD OHDACA	–	–	–	–	–	–	–	550	–	–	550	
	<b>Country Total</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>550</b>	<b>–</b>	<b>–</b>	<b>550</b>	
Armenia	DOS NADR	–	–	–	–	–	300	850	1,200	250	–	2,600	
	DoD OHDACA	–	–	–	–	–	1,110	–	1,441	–	–	2,551	
	USAID Leahy	1,148	–	–	–	–	–	–	–	–	–	1,148	
	DOS FSA	–	–	–	–	–	–	–	1,800	–	1,200	3,000	
	<b>Country Total</b>	<b>1,148</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>1,410</b>	<b>850</b>	<b>4,441</b>	<b>250</b>	<b>1,200</b>	<b>9,299</b>	
Azerbaijan	DOS NADR	–	–	–	–	–	500	1,100	1,380	1,600	2,468	7,048	
	DoD OHDACA	–	–	–	–	140	1,110	–	1,690	1,600	–	4,540	
	DOS FSA	–	–	–	–	–	–	–	1,100	–	–	1,100	
	<b>Country Total</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>140</b>	<b>1,610</b>	<b>1,100</b>	<b>4,170</b>	<b>3,200</b>	<b>2,468</b>	<b>12,688</b>	
Bosnia & Herzegovina	DOS NADR	–	–	–	300	2,305	–	–	–	–	–	2,605	
	DoD OHDACA	–	1,238	375	2,100	–	–	–	–	–	–	3,713	
	ITF	–	–	–	–	6,175	5,500	5,161	5,150	2,960	3,000	27,946	
	DoD HAP/EP	–	550	–	–	–	–	–	–	–	–	550	
	DOS PKO	–	1,000	–	–	–	–	–	–	–	–	1,000	
	SEED	–	8,500	5,000	7,000	–	–	–	–	–	–	20,500	
	CDC	–	–	–	–	–	–	300	500	500	500	1,800	
		<b>Country Total</b>	<b>–</b>	<b>11,288</b>	<b>5,375</b>	<b>9,400</b>	<b>8,480</b>	<b>5,500</b>	<b>5,461</b>	<b>5,650</b>	<b>3,460</b>	<b>3,500</b>	<b>58,114</b>
	Cambodia	DOS NADR	–	–	1,000	2,000	1,500	2,580	2,468	2,290	2,765	3,466	18,069
DoD OHDACA		1,985	420	1,584	–	–	90	207	319	158	–	4,763	
USAID Leahy		777	–	–	750	1,300	390	1,904	1,600	1,187	865	8,773	
DOS FMF		2,050	1,000	–	–	–	–	–	–	–	–	3,050	
DOS PKO		–	250	–	–	–	–	–	–	–	–	250	
DOS PRM		1,643	–	–	–	–	–	–	–	–	–	1,643	
<b>Country Total</b>		<b>6,455</b>	<b>1,670</b>	<b>2,584</b>	<b>2,750</b>	<b>2,800</b>	<b>3,060</b>	<b>4,579</b>	<b>4,209</b>	<b>4,110</b>	<b>4,331</b>	<b>36,548</b>	
Chad	DOS NADR	–	–	–	400	732	622	300	350	500	650	3,554	
	DoD OHDACA	–	–	–	1,500	1,000	17	–	–	161	–	2,678	
	<b>Country Total</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>1,900</b>	<b>1,732</b>	<b>639</b>	<b>300</b>	<b>350</b>	<b>661</b>	<b>650</b>	<b>6,232</b>	
Croatia	DOS NADR	–	–	–	–	600	–	–	–	–	–	600	
	ITF	–	–	–	–	–	2,975	2,658	4,570	1,779	1,500	13,482	
	<b>Country Total</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>600</b>	<b>2,975</b>	<b>2,658</b>	<b>4,570</b>	<b>1,779</b>	<b>1,500</b>	<b>14,082</b>	
DR of Congo***	USAID Leahy	–	–	–	–	–	–	–	800	–	–	800	
	<b>Country Total</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>800</b>	<b>–</b>	<b>–</b>	<b>800</b>	
Djibouti	DOS NADR	–	–	–	–	–	746	400	404	350	–	1,900	
	DoD OHDACA	–	–	–	–	–	227	723	–	150	–	1,100	
	<b>Country Total</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>973</b>	<b>1,123</b>	<b>404</b>	<b>500</b>	<b>–</b>	<b>3,000</b>	

## U.S. HUMANITARIAN MINE ACTION PROGRAM FUNDING HISTORY (Continued)

FY 1993–2003 (DOLLARS IN THOUSANDS)

COUNTRY	SOURCES	FY 93–FY 95	FY 96	FY 97	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04 Est.	SOURCE TOTAL	
Ecuador	DOS NADR	–	–	–	–	1,000	1,000	963	360	–	–	3,323	
	DoD OHDACA	–	–	–	–	–	412	700	650	–	–	1,762	
	<b>Country Total</b>	–	–	–	–	1,000	1,412	1,663	1,010	–	–	5,085	
Egypt	DoD OHDACA	–	–	–	–	–	10	708	–	–	–	718	
	<b>Country Total</b>	–	–	–	–	–	10	708	–	–	–	718	
El Salvador	USAID Leahy	1,000	500	–	–	–	–	–	–	–	–	1,500	
	CDC	–	–	–	–	–	150	300	300	450	450	1,650	
	<b>Country Total</b>	1,000	500	–	–	–	150	300	300	450	450	3,150	
Eritrea	DOS NADR	–	–	500	919	–	500	1,050	1,602	2,400	1,452	8,423	
	DoD OHDACA	3,190	537	218	525	10	–	5	–	–	–	4,485	
	DOS FMF	660	613	–	–	–	–	–	–	–	–	1,273	
	DOS PKO	–	287	–	–	–	–	–	–	–	–	287	
	CDC	–	–	–	–	–	150	150	150	–	–	450	
	<b>Country Total</b>	3,850	1,437	718	1,444	10	650	1,205	1,752	2,400	1,452	14,918	
Estonia	DOS NADR	–	–	–	–	335	300	–	200	235	–	1,070	
	DoD OHDACA	–	–	–	–	–	698	853	–	–	–	1,551	
	<b>Country Total</b>	–	–	–	–	335	998	853	200	235	–	2,621	
Ethiopia	DOS NADR	–	–	500	1,220	–	250	–	1,275	300	–	3,545	
	DoD OHDACA	2,532	537	290	610	10	–	5	–	–	–	3,984	
	USAID Leahy	730	–	–	–	–	–	–	500	–	–	1,230	
	DOS FMF	600	400	–	–	–	–	–	–	–	–	1,000	
	DOS PKO	–	500	–	–	–	–	–	–	–	–	500	
	CDC	–	–	–	–	–	200	350	350	400	400	1,700	
	<b>Country Total</b>	3,862	1,437	790	1,830	10	450	355	2,125	700	400	11,959	
Georgia	DOS NADR	–	–	–	39	–	27	1,000	1,100	1,050	1,500	4,716	
	DoD OHDACA	–	–	–	–	–	1,110	–	–	–	–	1,110	
	<b>Country Total</b>	–	–	–	39	–	1,137	1,000	1,100	1,050	1,500	5,826	
Guinea-Bissau	DOS NADR	–	–	–	–	–	99	489	–	225	–	813	
	<b>Country Total</b>	–	–	–	–	–	99	489	–	225	–	813	
Iraq	DOS NADR	–	–	–	–	–	–	–	–	2,950	–	2,950	
	IRRF	–	–	–	–	–	–	–	–	–	12,268	61,000	73,268
	DOS NEA	–	–	–	–	–	–	–	2,150	–	–	2,150	
	<b>Country Total</b>	–	–	–	–	–	–	–	2,150	15,218	61,000	78,368	
Jordan	DOS NADR	–	–	400	500	1,900	1,511	947	850	893	950	7,951	
	DoD OHDACA	–	–	–	–	859	1,555	4	–	–	–	2,418	
	DOS FMF	–	300	–	–	–	–	–	–	–	–	300	
	CDC	–	–	–	–	–	200	300	300	400	400	1,600	
	<b>Country Total</b>	–	300	400	500	2,759	3,266	1,251	1,150	1,293	1,350	12,269	
Kenya ***	USAID Leahy	–	–	–	–	–	–	–	400	–	–	400	
	<b>Country Total</b>	–	–	–	–	–	–	–	400	–	–	400	
Kosovo	DOS NADR	–	–	–	–	500	–	–	–	–	–	500	
	DoD OHDACA	–	–	–	–	500	3,800	–	–	–	–	4,300	
	ITF	–	–	–	–	–	899	1,945	1,681	–	–	4,525	
	SEED	–	–	–	–	1,636	4,628	–	–	–	–	6,264	
	USAID	–	2,307	1,816	2,378	2,537	1,062	1,108	–	–	–	11,207	
	<b>Country Total</b>	–	2,307	1,816	2,378	5,173	10,388	3,053	1,681	–	–	26,796	
Laos	DOS NADR	–	–	1,000	1,700	1,800	1,486	993	1,328	1,200	1,412	10,919	
	DoD OHDACA	59	1,800	3,737	864	396	–	–	–	–	–	6,856	
	USAID Leahy	750	–	800	1,000	1,800	–	–	500	500	500	5,850	
	DOS FMF	–	500	–	–	–	–	–	–	–	–	500	
	DOS PKO	–	250	–	–	–	–	–	–	–	–	250	
	<b>Country Total</b>	809	2,550	5,537	3,564	3,996	1,486	993	1,828	1,700	1,912	24,375	
Lebanon	DOS NADR	–	–	–	291	530	1,282	1,000	1,200	1,475	900	6,678	
	DoD OHDACA	–	–	–	–	–	15	–	–	489	–	504	
	USAID Leahy	–	–	–	300	500	–	600	–	600	700	2,700	
	<b>Country Total</b>	–	–	–	591	1,030	1,297	1,600	1,200	2,564	1,600	9,882	

# U.S. HUMANITARIAN MINE ACTION PROGRAM FUNDING HISTORY (Continued)

FY 1993–2003 (DOLLARS IN THOUSANDS)

COUNTRY	SOURCES	FY 93–FY 95	FY 96	FY 97	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04 Est.	SOURCE TOTAL
Liberia ***	USAID Leahy	1,115	225		500	1,000				416	173	3,429
	<b>Country Total</b>	<b>1,115</b>	<b>225</b>		<b>500</b>	<b>1,000</b>				<b>416</b>	<b>173</b>	<b>3,429</b>
Macedonia	ITF	–	–	–	–	–	–	1,000	505	97		1,602
	<b>Country Total</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>1,000</b>	<b>505</b>	<b>97</b>		<b>1,602</b>
Mauritania	DOS NADR	–	–	–	–	534	461	400	–	–		1,395
	DoD OHDACA	–	–	–	–	450	1,123	1,123	661	595		3,952
	<b>Country Total</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>984</b>	<b>1,584</b>	<b>1,523</b>	<b>661</b>	<b>595</b>		<b>5,347</b>
Moldova	DOS NADR	–	–	–	–	–	–	–	–	–		–
	DoD OHDACA	–	–	–	–	71	–	–	–	–		71
	<b>Country Total</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>71</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>		<b>71</b>
Mozambique	DOS NADR	–	–	200	1,000	1,900	3,840	2,180	2,110	2,632	1,372	15,234
	DoD OHDACA	6,165	100	2,484	1,600	1,100	–	–	–	–		11,449
	USAID Leahy	2,900	–	633	1,000	–	–	–	–	–	–	4,533
	DOS FMF	400	200	–	–	–	–	–	–	–	–	600
	DOS PRM	1,000	–	–	–	–	–	–	–	–	–	1,000
	CDC	–	–	–	–	–	200	300	300	400	350	1,550
	<b>Country Total</b>	<b>10,465</b>	<b>300</b>	<b>3,317</b>	<b>3,600</b>	<b>3,000</b>	<b>4,040</b>	<b>2,480</b>	<b>2,410</b>	<b>3,032</b>	<b>1,722</b>	<b>34,366</b>
Namibia	DOS NADR	–	–	400	708	1,053	485	40	65	600		3,351
	DoD OHDACA	1,165	100	1,485	1,650	–	–	–	–	–		4,400
	DOS FMF	270	400	–	–	–	–	–	–	–	–	670
	<b>Country Total</b>	<b>1,435</b>	<b>500</b>	<b>1,885</b>	<b>2,358</b>	<b>1,053</b>	<b>485</b>	<b>40</b>	<b>65</b>	<b>600</b>		<b>8,421</b>
Nigeria	DOS NADR	–	–	–	–	–	–	–	1,449	–		1,449
	<b>Country Total</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>1,449</b>	<b>–</b>		<b>1,449</b>
OAS** (Honduras, Costa Rica, Guatemala, Nicaragua, Ecuador & Peru)	DOS NADR	–	–	500	1,400	2,242	1,903	1,350	1,695	1,511	2,611	13,212
	DoD OHDACA	310	200	1,480	1,720	600	460	1,170	550	200		6,690
Guatemala,	USAID Leahy		–	–	–	500	–	–	100	478	1,000	2,078
Nicaragua,	DOS FMF	1,050	400	–	–	–	–	–	–	–	–	1,450
Ecuador & Peru)	USAID "MITCH"	–	–	–	–	–	2,000	–	–	–	–	2,000
<b>Country Total</b>	<b>1,360</b>	<b>600</b>	<b>1,980</b>	<b>3,120</b>	<b>3,342</b>	<b>4,363</b>	<b>2,520</b>	<b>2,345</b>	<b>2,189</b>	<b>3,611</b>		<b>25,430</b>
Oman	DOS NADR	–	–	–	–	–	1,017	273	495	–		1,785
	DoD OHDACA	–	–	–	–	4	179	870	–	–		1,053
	<b>Country Total</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>4</b>	<b>1,196</b>	<b>1,143</b>	<b>495</b>	<b>–</b>		<b>2,838</b>
Peru	DOS NADR	–	–	–	–	1,000	1,000	861	225	–		3,086
	DoD OHDACA	–	–	–	–	–	411	750	650	422		2,233
	<b>Country Total</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>1,000</b>	<b>1,411</b>	<b>1,611</b>	<b>875</b>	<b>422</b>		<b>5,319</b>
Philippines***	USAID Leahy										750	750
	<b>Country Total</b>										<b>750</b>	<b>750</b>
Rwanda	DOS NADR	–	–	500	625	750	285	400	350	142		3,052
	DoD OHDACA	4,580	100	1,610	1,500	–	–	–	–	–		7,790
	DOS FMF	300	400	–	–	–	–	–	–	–	–	700
	<b>Country Total</b>	<b>4,880</b>	<b>500</b>	<b>2,110</b>	<b>2,125</b>	<b>750</b>	<b>285</b>	<b>400</b>	<b>350</b>	<b>142</b>		<b>11,542</b>
Senegal	USAID Leahy	–	–	–	–	–	–	–	–	500		500
	<b>Country Total</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>500</b>		<b>500</b>
Serbia & Montenegro	DOS ITF									833	1,021	1,854
	<b>Country Total</b>									<b>833</b>	<b>1,021</b>	<b>1,854</b>
Sierra Leone***	USAID Leahy						61	32	1,000			1,093
<b>Country Total</b>							<b>61</b>	<b>32</b>	<b>1,000</b>			<b>1,093</b>
Somalia	DOS NADR				343	1,150	1,400	1,400	1,200	450		5,943
	<b>Country Total</b>				<b>343</b>	<b>1,150</b>	<b>1,400</b>	<b>1,400</b>	<b>1,200</b>	<b>450</b>		<b>5,943</b>
Sri Lanka	DOS NADR	–	–	–	–	–	–	–	–	2,400	1,775	4,175
	DoD OHDACA	–	–	–	183	–	–	–	40	24		247
	USAID Leahy	100	200	200	200	300	400	400	400	400	900	3,500
	ESF	–	–	–	–	–	–	–	122	–	–	122
	CDC	–	–	–	–	–	–	50	50	–	25	125
	<b>Country Total</b>	<b>100</b>	<b>200</b>	<b>200</b>	<b>383</b>	<b>300</b>	<b>400</b>	<b>450</b>	<b>612</b>	<b>2,824</b>	<b>2,700</b>	<b>8,169</b>

## U.S. HUMANITARIAN MINE ACTION PROGRAM FUNDING HISTORY (Continued)

FY 1993–2003 (DOLLARS IN THOUSANDS)

COUNTRY	SOURCES	FY 93–FY 95	FY 96	FY 97	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04 Est.	SOURCE TOTAL
Sudan	DOS NADR									896	2,858	3,754
	Country Total									896	2,858	3,754
Swaziland	DOS NADR				210							210
	DoD OHDACA	–	–	–	–	828	8	–	–	–		836
	Country Total	–	–	–	210	828	8	–	–			1,046
Tanzania***	USAID Leahy			300				300	600			1,200
	Country Total			300				300	600			1,200
Thailand	DOS NADR	–	–	–	–	1,050	1,220	1,270	650	–		4,190
	DoD OHDACA	–	–	–	77	1,773	932	229	68	–		3,079
	Country Total	–	–	–	77	2,823	2,152	1,499	718	–		7,269
Uganda***	USAID Leahy	1,000										1,000
	Country Total	1,000										1,000
Vietnam	DOS NADR	–	–	–	139	1,096	1,000	1,650	1,500	2,427	2,076	9,888
	DoD OHDACA	–	–	–	–	–	454	96	118	93		761
	USAID Leahy	4,730	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,300	1,000	17,530
	CDC	–	–	–	–	–	–	–	100	400	400	900
	Country Total	4,730	1,500	1,500	1,639	2,596	2,954	3,246	3,218	4,220	3,476	29,079
Yemen	DOS NADR	–	–	–	270	1,462	1,236	1,023	750	750	773	6,264
	DoD OHDACA	–	–	78	3,622	216	710	5	–	–		4,631
	Country Total	–	–	78	3,892	1,678	1,946	1,028	750	750	773	10,895
Zambia	DOS NADR	–	–	–	–	–	12	772	816	450		2,050
	DoD OHDACA	–	–	–	–	–	–	–	424	–		424
	Country Total	–	–	–	–	–	12	772	1,240	450		2,474
Zimbabwe	DOS NADR	–	–	–	680	743	1,140	523	–	–		3,086
	DoD OHDACA	–	–	–	1,500	1,000	765	–	–	–		3,265
	Country Total	–	–	–	2,180	1,743	1,905	523	–	–		6,351
Multi-country or	DOS NADR	–	–	–	865	7,524	7,202	10,061	7,678	7,841	9,968	51,139
	DoD OHDACA	1,200	1,200	6,172	6,108	1,377	7,424	3,441	7,839	2		34,763
Unallocated	USAID Leahy	985	115	925	1,200	3,100	7,649	4,264	700	6,519	3,902	29,359
	ITF	–	–	–	–	–	768	1,236	1,768	2,914	2,670	9,356
	CDC	–	–	–	–	–	–	2,550	2,450	1,300	500	6,800
<b>Account Totals</b>	(reiteration of above figures)											
	DOS NADR *	–	–	7,000	18,210	34,320	39,499	39,407	39,322	45,325	49,015	272,098
	All Other DOS	16,143	19,000	7,000	7,000	1,636	5,677	–	8,172	15,268	62,200	142,046
	DoD OHDACA	25,086	6,232	19,613	23,559	10,334	22,620	10,889	16,800	3,894		139,027
	USAID Leahy	15,235	5,040	5,126	7,182	10,000	10,000	10,000	10,000	11,900	11,930	96,413
	ITF	–	–	–	–	6,175	10,141	12,684	14,000	10,000	9,941	62,941
	DoD RDT&E	10,000	3,000	14,746	16,663	17,234	18,847	12,728	13,220	12,893		119,331
	CDC	–	–	–	–	–	900	4,300	5,100	4,550	3,425	18,275
	All Other DoD/USAID	5,200	2,857	1,816	2,378	2,537	3,062	1,108	2,464	13,925	12,962	48,308
<b>GRAND TOTAL (all accounts)</b>		<b>\$71,664</b>	<b>\$36,129</b>	<b>\$55,301</b>	<b>\$74,992</b>	<b>\$82,236</b>	<b>\$110,746</b>	<b>\$91,116</b>	<b>\$106,929</b>	<b>\$117,754</b>	<b>\$149,473</b>	<b>\$900,072</b>

\*Does not include NADR Admin Funds.

\*\*DoD Marminka figures are included in OAS.

\*\*\*A description of USAID Leahy War Victims Fund (LWVF) activities in this country may be found in the LWVF annual Portfolio Synopsis.

# Overview of the U.S. Humanitarian Mine Action Program

*To Walk the Earth in Safety* describes the United States commitment to help rid the world of landmines that threaten civilians around the world. This effort supports the U.S. Strategic Objectives to advance sustainable development and global interests by providing a humanitarian response to the harmful social and economic effects generated by landmines and unexploded ordnance and to advance peace and security by promoting regional stability through the use of mine action as a confidence-building measure. Accordingly, the United States helps to reduce the number of civilian landmine casualties, return refugees and internally displaced persons threatened by landmines to their homes and enhance the political and economic stability of those countries affected by landmines.

A U.S. Government Policy Coordinating Committee (PCC) Subgroup on Mine Action, chaired by the National Security Council, with the U.S. Department of State (DOS), the U.S. Department of Defense (DoD), the U.S. Agency for International Development (USAID), the Centers for Disease Control and Prevention (CDC), and the Central Intelligence Agency as members, is in charge of approving, developing and coordinating U.S. humanitarian mine action assistance. A typical U.S. program involves assisting a landmine-infested country in the establishment of a mine action center (MAC) or a national demining office (NDO), a mine risk education program and a demining training program and often also involves funding actual mine clearance operations. As the country develops its mine clearance capabilities, the PCC Subgroup periodically evaluates the progress of the program. When the program reaches self-sustainment, the United States relinquishes its active role to the host nation.

The Department of State, through its Office of Weapons Removal and Abatement (PM/WRA) in the Bureau of Political-Military Affairs, is the lead agency in coordinating U.S. humanitarian mine action programs worldwide. PM/WRA's mission is to develop policy options, implement destruction and mitigation programs and engage civil society in order to reduce the harmful

worldwide effects generated by the indiscriminate use of illicit and abandoned conventional weapons of war. PM/WRA oversees the day-to-day management of bilateral mine action assistance programs among its other responsibilities. In addition, PM/WRA encourages the participation of civil society in mine action through a unique public-private partnership program. Visit [www.state.gov/t/pm/wra/c10388.htm](http://www.state.gov/t/pm/wra/c10388.htm) to learn more about this program.

USAID promotes sustainable development by providing humanitarian services in post-conflict situations. Its Bureau of Humanitarian Response, Office of Transition Initiatives, bridges the gap between emergency humanitarian assistance and long-term development assistance by supporting organizations and people in emergency transition in conflict-prone countries. In addition, USAID's Senator Patrick J. Leahy War Victims Fund (LWVF) contributes to improving the mobility, health and social integration of the disabled, including landmine survivors. Typically, USAID works through non-governmental organizations to develop a country's capacity of sustainable services for amputees.

In some situations, DoD funds a humanitarian mine action program's start-up costs, and DOS provides subsequent funds to procure the necessary equipment, further training (such as for managers) and continue support until the program reaches the U.S. Government's end-state. The components of the DoD mine action program are: (1) mine risk education; (2) MAC development; (3) civil-military cooperation; (4) immediate trauma aid for mine accident survivors; and (5) demining training and "Train-the-Trainer" instruction.

*To Walk the Earth in Safety* describes the extensive history of the U.S. commitment to humanitarian mine action since the program's inception in Fiscal Year 1993. The preceding table depicts all U.S.-funded humanitarian mine action endeavors through the end of Fiscal Year 2003.

# Defining Humanitarian Mine Action

Humanitarian mine action comprises three major components: mine detection and clearance, mine risk education and survivor assistance. Depending on the needs of a given country, the United States may assist with financial support in one, some or all three components. Research and development in new demining technologies and advocacy and diplomacy are also considered by some to be components of humanitarian mine action. In most instances, the affected nation will establish a mine action center (MAC) or a national demining office (NDO) to coordinate demining priorities and mine action activities.

## **Mine Detection and Clearance**

A Landmine Impact Survey (LIS) is the initial step to determine the specific nature and extent of the effect landmines produce in a country. The survey is designed to identify the broad areas within a country where mines exist and to estimate the impact these mines have on the local community. Areas where mines do not exist are also recorded in the survey. Although mine clearance and mine risk education often must begin before the survey is complete, the LIS provides mine action authorities an important tool for long-term strategic planning. A technical survey is conducted to document more specific details on the landmine contamination. Mined areas are demarcated, and the number and types of mines or unexploded ordnance (UXO) found are recorded. A technical survey is done in preparation for clearance of permanent marking of mine fields.

No single technology can be employed in all circumstances, in all terrain and weather conditions and against all types of mines. Metal detectors and hand-held probes remain the primary tools to find mines, but these two manual technologies are essentially 60 years old. Increasingly, deminers are recognizing the value of mine detecting dogs (MDDs) and learning how to integrate man, dogs and machines in a combined effort. Dogs are able to detect the chemical explosives in mines, and they are becoming increasingly important as their success rate increases and their reputation for safe and efficient mine detection spreads. Additionally, various mechanical technologies have greatly assisted mine clearance efforts by significantly reducing areas that ultimately require manual mine clearance.

Even with advanced mine-detection methods, the precise location of the majority of landmines in the ground today is unknown. International law requires that those who lay mines must identify the type of landmines emplaced and

make maps of their locations so that they are removed at the conclusion of hostilities. Whether combatants in a war between nation-states, or factions in a civil war, hostile parties are increasingly ignoring international law, placing mines indiscriminately without marking or recording their use or emplacement. Often, when maps and other records are available, natural events may, over time, negate their utility. Mines tend to migrate from their original location as a result, for example, of shifting sands in the deserts of the Middle East, or when heavy rains wash away the topsoil in tropical areas in Central America or Africa.

Clearing mines is slow, laborious, tedious and highly dangerous. U.S. law states: "...as a matter of policy, U.S. Forces shall not engage in physically detecting, lifting, or destroying landmines, unless it does so for the concurrent purpose of supporting a U.S. military operation; or provides such assistance as part of a military operation that does not involve the armed forces." Therefore, U.S. military personnel use a "Train-the-Trainer" approach to assist a country in clearing landmines. These personnel train an initial team of host-nation personnel in mine clearance techniques, which includes medical evacuation procedures in the event of a demining accident. In turn, this indigenous cadre is able to train another indigenous group until adequate numbers of the country's nationals are sufficiently competent to independently clear mines safely and efficiently.

Once found, mines are usually not removed from their location. They are normally left in place, marked and then destroyed. If the terrain is suitable, specially equipped vehicles are maneuvered through the minefield to destroy multiple mines. For buried landmines and UXO, the United Nations standard is that the depth of clearance should not normally be less than 13 centimeters below the original surface level. In conjunction with mine clearance, a quality assurance program is used to assess the efficacy of the operations; MDDs are very efficient for this process.

## **Mine Risk Education**

Teaching people how to recognize and avoid landmines, and to inform demining authorities of the presence of landmines helps to reduce the number of casualties significantly. Mine risk education uses a variety of materials and media to convey important messages. The materials, and the manner in which the information is presented, are sensitive to the cultural mores of the local population. For example, in Afghanistan, women, not men, teach this subject to other women.

# Defining Humanitarian Mine Action (Continued)

Mine risk education attempts to educate entire populations, allowing them to incorporate safety procedures into their daily lives. Mine risk education teachers must discourage children from picking up and playing with mines and UXO. Educating children to the dangers of landmines and UXO is often difficult, because they are fascinated with these toy-like metal and plastic objects. However, the majority of mine casualties are young men. Informing adolescents and adults about the types of mines they may encounter and the injuries they inflict, and teaching them the proper procedures to follow if a mine is found, saves lives and limbs.

U.S. military personnel also conduct mine risk education during “Train-the-Trainer” humanitarian mine action deployments. These personnel are fluent in the language of each mine-affected country to which they deploy, and they undergo country-specific cultural training prior to engaging in this activity.

### Survivor Assistance

The third mine action component is survivor assistance, an endeavor that requires a long-term commitment to both the landmine survivor and to his or her family members. Although important, treating the initial injuries is not enough. Many children are landmine survivors and, as they grow, new prosthetic limbs are required, and a lifetime of

additional operations and related expenses is necessary. Over time, the psychological injury to a landmine survivor also becomes a factor in recovery and for family members. For these reasons, mine action programs encourage a holistic approach to providing assistance to the survivors of landmine injuries.

As a general rule, neither PM/WRA nor the DoD uses humanitarian demining funds for survivor assistance. PM/WRA funds some survivors’ assistance initiatives from a special fund to support the Republic of Slovenia’s International Trust Fund for Demining and Victims Assistance. However, the principal PM/WRA-managed demining fund does not support such initiatives. The DoD, using Overseas Humanitarian, Disaster and Civic Aid and other operations and maintenance funds, pays for Blast Resuscitation and Victims Assistance. Additionally, USAID and the State Department’s Bureau of Population, Refugees and Migration (PRM) fund programs to alleviate the suffering of landmine accident survivors and their families. USAID uses the LWVF to provide long-term treatment and prosthetics to these survivors. PRM’s programs assist with the resettlement of refugees and internally displaced persons, many of whom are endangered by landmines in the course of flight from their homes and subsequent return.

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**Note: the United States believes that the term “mine-safe,” denoting clearance of those landmines that have a humanitarian impact, is a more appropriate term to use than “mine-free,” because it is impossible, even by International Mine Action Standards, to guarantee that every single landmine has been cleared from an affected country or region. Furthermore, it is more realistically attainable, cost-effective, practically feasible and morally defensible to clear those mines that have an immediate humanitarian impact and to fence off suspected or known mined areas that are a lesser threat or less economically critical for clearance at a later time, so that funds may be devoted to clearing other mined countries or regions where landmines and UXO continue to pose a grave menace.**





**ANGOLA**

**CHAD**

**DJIBOUTI**

**ERITREA**

**ETHIOPIA**

**GUINEA-BISSAU**

**MAURITANIA**

**MOZAMBIQUE**

**NAMIBIA**

**NIGERIA**

**RWANDA**

**SENEGAL**

**SOMALIA**

**SUDAN**

**ZAMBIA**

# **AFRICA**

# AFRICA



# ANGOLA

## The Landmine Problem

More than three decades of internal conflict left Angola with one of the world's most serious landmine problems. No comprehensive national mine survey exists, so the actual number of landmines in the country is unknown. The humanitarian demining organization, *Menschen gegen Minen* (MgM), estimates the true quantity of mines is probably in the hundreds of thousands, rather than millions. Large quantities of unexploded ordnance (UXO) also are present. Eight of Angola's 18 provinces are heavily mined, including Moxico, Malange, Kuando-Kubago and Bie, covering nearly 50 percent of the country in a band from the northwest border with the Congo to the southeast border with Namibia. Combatants

## United States Assistance

Since Fiscal Year (FY) 1995, the United States contributed \$38,000,000 in humanitarian mine action assistance to Angola, still provided exclusively through non-governmental organizations (NGOs), primarily to facilitate IDP and refugee resettlement and for the delivery of humanitarian assistance. The Department of Defense Humanitarian Assistance Program has provided excess equipment to supplement the mine detectors, vehicles and safety and communications equipment previously purchased with U.S. funds. Approximately one in 334 Angolans is an amputee mine survivor, and the United States has funded programs to assist them. Since 1996, the U.S. Agency for International Development (USAID) has provided more than \$5,900,000 to a Vietnam Veterans of America Foundation program to render rehabilitation and social and economic reintegration to those with mobility needs in Angola's isolated eastern regions. Through a rehabilitation center and fully functioning orthopedic

## Accomplishments

U.S. humanitarian mine action assistance has augmented that of other donor nations and NGOs so that Angola could train and equip more than 800 deminers, medical technicians, and supervisors; return thousands of refugees and IDPs to Angola's central highlands—a high-priority area for government and international community resettlement programs; and provide prosthetics and training in their use to thousands of landmine survivors.

With U.S. and international support, Angola continues to make progress in eliminating landmines, a major hindrance to the implementation of humanitarian aid programs, economic reconstruction, and internal movement and resettlement in those areas of the country

planted these mines to destroy or deny access to Angola's infrastructure. Landmines pose a critical obstacle to freedom of movement and to restarting Angola's domestic food production. Mines are concentrated around roads, railways, bridges and public facilities, such as schools, churches, water supply points and health care facilities, as well as near some provincial capitals, military facilities, footpaths and fields. These mines hinder humanitarian aid, economic reconstruction and the resettlement of millions of refugees and internally displaced persons (IDPs). Landmines affect a large portion of the population, with 80,000 amputees and an ever-expanding number of victims under the age of 15.

workshop located in war-torn Moxico Province, the program has repaired more than 350 prostheses and orthoses, produced and delivered 1,800 mobility aids and provided 6,000 physiotherapy interventions.

In FY03, the United States allocated approximately \$4,000,000 in financial assistance to Angola. These funds include \$500,000 to the LWVF; \$1,320,000 to The Hazardous Area Life-Support Organization Trust to continue clearance operations in Bie and Huambo Provinces; \$980,000 and \$705,000 to Norwegian People's Aid and MgM, respectively; and \$395,000 to Mines Advisory Group (MAG) for the Eastern Angola Road Access Project. These NGO demining efforts provided for the resettlement of IDPs; increased agricultural land for subsistence farming; allowed access to water and firewood for the resident civilian population; and opened roads and rural areas to provide access routes for humanitarian relief.

that are relatively free from conflict. Following 2002 demining operations in the Province of Moxico, a water pumping station is again operational, providing Luena's population of more than 120,000 residents with access to potable water. In Huila Province, mine clearance allowed for the construction of a surgery room in Mavinga Hospital, and allowed the safe return of more than 1,000 IDPs to their homes in Cussava along the Dongo-Cussava Road. Between 1995 and the end of 2003, more than 319,000 landmines and more than 88,500 pieces of UXO have been destroyed, and almost 13,000,000 meters<sup>2</sup> of land rendered mine-safe.

# AFRICA



## CHAD

### The Landmine Problem

As a result of 37 years of invasion and rebellion, Chad suffers a severe landmine and unexploded ordnance (UXO) problem. Libya's occupation of the northern half of the country in the 1980s resulted in large (2–60 kilometers long) defensive minefields around all the population centers of Chad's desert. Rebellions in the south, east and west also left a large number of small, nuisance minefields and thousands of tons of UXO spread throughout many regions. At the end of these conflicts, the country had an estimated 500,000 landmines. A Landmine Impact Survey, funded by the United States and the United Kingdom, and implemented by the non-governmental organizations (NGOs) Survey Action Center and Handicap International

### United States Assistance

The United States has contributed more than \$5,420,000 to Chad's humanitarian mine action program since it began in 1998, to help renovate Chad's National Demining Office building, establish a national mine action center and create a database identifying the location of minefields.

In FY03, the U.S. Department of State allocated \$500,000 of financial assistance to Chad's mine action program. These funds, in addition to the United States' FY02 contribution of \$350,000, continued to provide the National High Commission for Demining with an

### Accomplishments

The United States played a key role in launching Chad's mine action program in January 1998. U.S. military personnel trained a cadre of Chadian deminers who were capable of independently training personnel in humanitarian mine action techniques and procedures. The United States also provided necessary demining equipment. Since the start of actual demining in September 2000, progress has been made in reducing deaths and injuries, and reopening access to cropland, water and housing.

After 18 years of blockage due to mine and UXO infestation, mine clearance operations reopened the traditional route of villagers, camel herders, merchants, and traders into northern Faya, significantly easing and securing the life of the locals. The reopening of the road south of Faya to the capital has enhanced the life of the local residents by improving communications with the capital and the rest of Central and West Africa. In Moyto, land was opened to agriculture. In Massenya, UXO removal allowed the airport to reopen. The demining of Ounianga-Kebir opened it for future tourism and trade. Continued U.S. humanitarian mine action assistance will enable the Government of Chad to demine its northern provinces and to benefit from economic and social development in those regions.

France, that was completed in May 2001, identified the presence of landmines and UXO in 249 localities and determined that the most severely affected areas are in the north and east of the country. UXO, estimated to have contaminated almost 7.9 million meters<sup>2</sup> of land, is found in and around homes, schools, former ammunition storage areas and abandoned combat vehicles. The population in the vicinity of military firing ranges is in particular danger. UXO also blocks nomadic herders from access to water and agricultural land, while livestock are poisoned by toxins leached into the soil from UXO, or by licking UXO in an effort to increase salt intake.

emergency medical air evacuation capability from remote field operations to N'djamena, the location of the only hospital in the country capable of performing life-saving surgery. Without this medical evacuation capability, Chad's demining operations would have been forced to shut down. Additionally, in 2003, the Department of Defense conducted humanitarian mine action training for the first time since 1999, focusing on areas requested by the National High Commission for Demining: UXO specialist training, mine risk education, national demining office management skills and computer maintenance.



**A U.S. Department of State-U.S. Department of Defense Program Management Assessment Team examines unexploded ordnance around a minefield clearance project in Chad.**

Since June 2002, U.S.-trained Chadian deminers cleared more than 2.2 million meters<sup>2</sup> of land and, in the process, destroyed approximately 6,206 landmines and more than 16,838 metric tons of UXO. Demining operations are currently underway in Ounianga-Kebir and Fada, on the Fada-Kiko road, and in Biltine. Deminers are also destroying thousands of serviceable landmines half-buried in abandoned Libyan ammunition dumps.

# AFRICA



## DJIBOUTI

### The Landmine Problem

Djibouti declared itself safe from the humanitarian impact of landmines on January 29, 2004, and subsequently graduated from the U.S. Humanitarian Mine Action Program. This report chronicles the period up to 2003 before Djibouti achieved this success, the first such accomplishment in any African mine-affected nation. Djibouti had a small landmine problem from an internal conflict in 1991–1994 between the Front for the Restoration of Unity and Democracy (FRUD) and the Government of Djibouti (GoD). The exact number of landmines and the areas of their concentration were not known. A small unexploded ordnance (UXO) threat also existed. According to figures provided by the Djiboutian military, landmines killed 31 and injured 90 people between 1997 and early 2000. However, only one landmine incident was reported after the peace agreement between the Djiboutian government and the FRUD was signed in February 2000. In 2001, a landmine blew up a military vehicle in Obok, killing one soldier and injuring four others.

Djibouti's northern plateau, the most heavily contested area during the civil war, contained most of the suspected minefields or mined routes, particularly in the districts of Obok and Tadjoura, north of Djibouti City. In the town of Obok, the Djibouti army laid mines to protect an army camp and key installations. FRUD forces reportedly also mined these areas as well as access roads out of Obok and sites near the village of Andoli. A section of road leading south from the town of Ali Sabieh to the border was also mined. Deminers conducted a Landmine Impact Survey in these areas in September 2001 to determine the extent of the landmine and UXO problem.



*A U.S. Marine Corps "Train-the-Trainer" carefully observes a Djiboutian deminer who is learning to detect landmines.*

### United States Assistance

Since Fiscal Year (FY) 1999, the United States has provided Djibouti with \$3,000,000 for humanitarian mine

action. In FY03, the United States allocated \$250,000 for mine clearance, training and equipment for Djibouti.

### Accomplishments

U.S. Marine Corps personnel trained the first cadre of 35 Djiboutian deminers in 2001. With U.S. assistance, the GoD outfitted a mine action center, refurbished the facilities for demining training and took delivery of an initial complement of vehicles, including ambulances, for transporting deminers and mine survivors. From October 2002 through March 2003, Djiboutian demining teams

destroyed more than 341 landmines and cleared more than 13,800 meters<sup>2</sup> of land that have been returned to productive use. This demining effort has been especially important to economic development and the alleviation of impoverishment in the north of the country. As a result, Djibouti became the first mine-affected nation in Africa to declare itself "mine-safe," on schedule in January 2004.

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# ERITREA

## The Landmine Problem

30 years of civil strife and the war with Ethiopia between 1998–2000 left Eritrea with a severe landmine problem and an estimated 300,000 internally displaced persons (IDPs). The National Demining Center in Asmara estimated that some 2,000,000 to 2,500,000 mines and an equal quantity of unexploded ordnance (UXO) infest the country. Since 1995, the Eritrean Historical Research Department has identified more than 100 minefields in 38 villages. Ten of the 11 major battle sites believed to contain mines are in the northern and northwestern provinces; the 11th is in a southeast province. The majority of landmines

## United States Assistance

Since FY94, Eritrea has received more than \$12,068,000 in U.S. humanitarian mine action assistance. The funds have paid for the establishment of a national demining headquarters in Keren, renovation of two regional demining headquarters, training of several 80-man companies of deminers and medical personnel, the

## Accomplishments

Since 1996, Eritrean demining units, trained by U.S. military personnel, have cleared significant amounts of land for farming, grazing, road building, utility projects and harvesting natural resources. During the 1998–2000 war, one company of deminers removed or destroyed more than 1,600 mines and 4,000 UXO items, opening 1,650,000 meters<sup>2</sup> of land and 110 kilometers of road. Hundreds of thousands of Eritrean refugees returned from Sudan and resettled the cleared land. It is noteworthy that the demining companies had not suffered a single serious injury through 2003, and mine risk education programs have reduced civilian

are around the cities of Keren, Nafka and Asha Golgol. Combatants used landmines to defend strongholds around cities and populated areas, military camps and roadways. Landmines are also found in rural farmlands, near water sources and along the borders.

The landmines, many located in populated areas, routinely inflict casualties on people and animals and present major problems to Eritrea's reconstruction, rehabilitation and development efforts. Landmines in the Temporary Security Zone still pose a major danger to IDPs now returning to their homes.

shipment of 60 U.S. 4x4 vehicles to transport demining teams and establishment of a Mine Detecting Dog (MDD) capability, to include a modern, hygienic kennel to support national demining objectives.

In FY03, the United States allocated \$2,400,000 in funds for demining and mine risk education in Eritrea.

casualty rates dramatically. Additionally, eight teams of MDDs and their handlers began mine clearance operations in late summer 2001. From October 2002 through August 2003, more than 1,928,000 meters<sup>2</sup> of land had been cleared. Mine clearance operations have cleared land near the town of Tserona, an area in close proximity to 11 small villages with six schools and a population of 3,613. The cleared land is now used for agricultural production and grazing livestock. The successes of the Eritrean humanitarian mine action program are making a vital contribution to the country's continued economic growth.



*The modern mine detecting dog kennels at Ashagolgol provided to Eritrea by the United States. Local building materials were used.*

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# ETHIOPIA

## The Landmine Problem

The Government of Ethiopia's Mine Action Office estimated that up to 2,000,000 landmines, as well as a large quantity of unexploded ordnance (UXO), litter its territory, threatening every province, particularly Tigray. Prior to the border war with Eritrea in 1998–2000, the Ethiopian Demining Headquarters identified 97 minefields in three regions of the country where it was operating. Many of

the mines and minefields are near populated areas in which both people and livestock have become casualties. Flooding and erosion cause landmines to migrate, exacerbating the problem. The greatest danger to people and livestock comes from UXO, rather than landmines, because the minefield locations are fairly well known, but the UXO is randomly distributed.

## United States Assistance

In FY93, the United States began funding humanitarian mine action in Ethiopia and has provided about \$12,000,000 to the program through FY03. In FY03, the U.S. Department

of State allocated \$300,000 for humanitarian mine action in Ethiopia.

## Accomplishments

Since the beginning of the program, the U.S. military's "Train-the-Trainer" programs yielded a total of 340 Ethiopian deminers who are, in turn, capable of training additional Ethiopian deminers to International Mine Action Standards. From 1995 until the resumption of hostilities with Eritrea in 1998, these deminers destroyed more than 68,000 landmines and more than 364,000 pieces of UXO. After the cessation of hostilities, deminers and combat engineers cleared an additional 203,011 anti-personnel landmines and 10,319 anti-tank mines. As a result of demining operations from May 2, 2002 through May 3, 2003, 1,847,510 meters<sup>2</sup> of land were cleared, and a total of 379 landmines and 481 pieces of UXO were destroyed. The people of Ethiopia are now using the cleared land for farming, grazing, electric power and telecommunications projects, road construction, development of natural resources, such as mining and drilling, and resettlement of refugees in more than 170 villages. Initial survey work has resulted in more than a 90-percent reduction of targeted areas,

from 134,072,743 meters<sup>2</sup> to 12,312,725 meters<sup>2</sup>, in effect returning previously suspect land to use. Mine risk education has played a significant role in the dramatic reduction of civilian casualties.

Since 1993, the U.S. Agency for International Development (USAID) has funded the Prosthetic Orthotic Training Center in Addis Ababa. This center has provided training in the manufacture and use of prosthetic components to more than 100 technicians from 28 countries, and produced thousands of prostheses, orthoses and crutches. Additionally, under USAID's Leahy War Victims Fund Omega Initiative, a four-year, \$2,452,154 subgrant was awarded to build capacity and strengthen the provision of rehabilitation services at the Dessie Orthopedic Center; improve accessibility to rehabilitation services in Bahir Dar; increase the availability of wheelchairs in the region; and improve access to social and economic opportunities for people with disabilities.

# AFRICA



## GUINEA-BISSAU

### The Landmine Problem

Guinea-Bissau was affected by an estimated 16,000–20,000 persistent landmines. Some mines date from the 1962–1974 colonial war of liberation, but the majority are attributed to the 1998–99 military mutiny. Minefields infested approximately 30 kilometers<sup>2</sup> of land, most of it close to populous areas in Central Bissau and its environs. In addition, unexploded ordnance (UXO), much of it

exposed to the weather and in a deteriorated condition, is scattered throughout populated and agricultural areas. The mines and UXO represent a persistent danger to the civilian population and a hindrance to the resumption of normal commercial activity.

### United States Assistance

Since the program's inception in 2000, the United States has provided over \$813,000 in humanitarian mine action assistance. In FY03, the United States contributed

\$225,000 to Guinea-Bissau's demining operations through Humanitarian Aid (HUMAID), a local non-governmental organization.



### Accomplishments

Since January 2000, deminers from HUMAID have cleared 355,886 meters<sup>2</sup> of land and destroyed more than 3,300 mines and more than 26,000 pieces of UXO. Because of these efforts, people are able to build homes on safe land, schools have begun operating again and agricultural land has been cultivated for crops, such as manioc, beans and cashews.

*Deminers from the NGO Humanitarian Aid (HUMAID) and officers from Guinea-Bissau's armed forces observe a pile of unexploded ordnance carefully gathered for safe destruction. (Photo courtesy of HUMAID)*



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# MAURITANIA

## The Landmine Problem

An estimated 50,000–100,000 landmines remain in Mauritania from the war in the Western Sahara. The majority of these mines are on the Cap Blanc Peninsula. Others are at Bir Mogreïn, Ain Bin Tili and around Zouirat. On most occasions, combatants laid mines without regard to future mine clearance requirements. Shifting of dunes, instability of the soils, absence of natural barriers and the

lack of reliable maps present huge obstacles to locating and neutralizing landmines. The remaining landmines and unexploded ordnance (UXO) in northern Mauritania continue to hinder economic development. Although landmine casualties are not extensive, Mauritanian military personnel and civilians have suffered injuries.

## United States Assistance

From FY99 through FY03, the United States provided over \$5,000,000 to the country's mine action program, including \$595,000 in FY03. Over the years, United States assistance enabled the construction of a regional demining base in the northern town of Nouadhibou; establishment of a long-range radio communications

system to facilitate mine action; a mine risk education campaign; training of deminers; construction of a building to be used as a demining school; establishment of a National Demining Office; and provision of vehicles and demining equipment—all with the objective of creating an indigenous humanitarian mine action capability.

## Accomplishments

Mauritania has experienced a significant reduction in landmine casualties since the inception of the U.S.-supported humanitarian mine action program. Between 1978 and 1999, on average, the country suffered about 28 landmine casualties a year; in 2000, only two; in 2001, just one. Through a mine risk education program, 30,000 booklets were distributed to schools in the north. Under the U.S. "Train-the-Trainer" program, U.S. military personnel trained 52 Mauritanian military deminers to International Mine Action Standards. In 2003, U.S. Army trainers conducted additional courses in demining, technical survey, UXO disposal and mine risk education.



**Mauritanian deminers setting up a minefield training site in Nouadhibou during a U.S. Department of State–U.S. Department of Defense Program Management Assessment Visit in 2001. (Photo courtesy of Deborah Netland, Office of Weapons Removal and Abatement)**



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# MOZAMBIQUE

## The Landmine Problem

Twenty-six years of conflict, including a war for independence and then civil war, left Mozambique littered with landmines and unexploded ordnance (UXO). Although landmines are found in all of Mozambique's provinces, the most heavily mined regions are in the north, along the Zimbabwean border, and in Zambezia, Tete, Maputo and Inhambane Provinces.

Two typhoons struck Mozambique early in 2000, and subsequent heavy flooding displaced many landmines. At the request of the Mozambique National Demining Institute (IND), the Department of State used some of the \$3,800,000 in FY00 assistance to Mozambique to fund a U.S. contractor to address the problem. Under IND direction, the contractor conducted high-priority demining of the most dangerous threats.

While significant progress has been made in clearing landmines and UXO and reducing casualties, a number of these remaining devices continue to injure people, inhibit refugee resettlement and hinder economic development, preventing the rehabilitation of key transportation links and the development of potentially fertile agricultural land. Landmines surround entire communities, and many residents are unable to farm. The presence of landmines



**An armored bulldozer operated by U.S. Department of State contractor RONCO Consulting Corporation clears landmines along the Sena rail line. (Photo courtesy of Office of Weapons Removal and Abatement)**

also makes it difficult to install water supply systems. UXO also pose a threat to the population, littering some 70 percent of the country and further hindering farming and economic development.

## United States Assistance

Since Fiscal Year (FY) 1993, the United States has provided over \$34,000,000 in humanitarian mine action assistance to Mozambique. In FY02, the United States provided \$2,410,000 to fund demining operations on the Sena rail line between Beira and the Malawi border, and to train IND staff in the areas of general management, mine risk education, quality assurance, and administration. In FY03, the United States allocated \$2,431,861 to The Hazardous Area Life-Support Organization (HALO) Trust to conduct demining operations in Cabo Delgado Province and Zambezia Province. Throughout the years, the United

States has provided trucks, metal detectors, personal protective equipment, terrain-clearing tools (such as brush-cutters) and a mine detecting dog capability and has supported non-governmental organization (NGO) mine action operations. In 2003, the U.S. Department of State contractor, RONCO Consulting Corporation, provided refresher training and upgrading of equipment for the U.S. Department of Defense-trained Mozambican military demining unit engaged in humanitarian demining operations.

## Accomplishments

From 1992 through October 2001, NGO mine clearance operations, funded by the United States, such as the U.S. Agency for International Development (USAID) Demobilization/Reintegration Project, have removed more than 17,000 landmines and more than 64,500 pieces of UXO, and cleared 16,987,355 meters<sup>2</sup> of land. These operations opened more than 4,500 kilometers of roads, including 2,400 kilometers in Sofal, Manica, and Zambezia Provinces, facilitating post-war resettlement of agricultural land and reconnecting nearly one million people to their local economies.

USAID's Leahy War Victims Fund (LWVF) has undertaken a number of initiatives to strengthen Mozambican management capabilities, improve health outreach and support private-sector opportunities to assume production and distribution

of prosthetics. Additionally, the LWVF effort has resulted in visible change; possibly 70 percent of the amputee population has been directly served, receiving appropriate devices to assist their mobility. In central Mozambique, USAID funded a charter airline company to provide all logistical support of demining operations, including emergency evacuation of landmine survivors. The USAID program in Mozambique ended in 2002.

In a partnership with Japan, the United States contributed \$1,000,000 to clear landmines around the Massingir Dam, a facility vital to Mozambique's overall development strategy. The dam is capable of supplying electricity and irrigating 9,000,000 meters<sup>2</sup> of land. In 2003, U.S.-funded The HALO Trust demining operations opened up roads, farming areas and land for



## MOZAMBIQUE (CONTINUED)

construction of homes in four severely mine-affected northern provinces. The HALO Trust is also clearing key roads and power lines in that region. Mozambican military deminers, trained by U.S. military personnel to International Mine Action Standards, have cleared the Komatipoort-to-Maputo power lines, the capital's main source of electricity. The U.S. demining contractor, RONCO Consulting Corporation, is clearing the Sena rail line. The restored rail line will open large areas of the Zambezi River Valley, key to development of the central provinces, by facilitating the export of agricultural and mineral products to the country's second largest city and port, Beira. It will also allow access to Mozambique's

infrastructure and valuable resources including coal, agricultural products and small farms and businesses. Refugees have returned to land that the Advanced Demining Program organization has cleared, schools and health clinics have been built on it and agricultural production has resumed.

U.S.-provided vehicles and computers purchased for the IND have increased its ability to function as a national mine action coordinator. The United States continues to work with the IND to increase the Institute's responsibility in overseeing all aspects of mine action and to improve interaction and cooperation among the various mine action organizations and NGOs operating in the country.

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*In April 2001, with the agreement of the Government of Mozambique, the U.S. Department of State established the world's first Quick Reaction Demining Force (QRDF). The QRDF consists of professional civilian Mozambican deminers working under the supervision of RONCO Consulting Corporation. The QRDF is able to rapidly deploy worldwide when called upon by the Department of State to respond to emergency or crisis situations such as a cessation of hostilities that results in the rapid return of large numbers of internally displaced persons or refugees to their homes and lands in mine-affected areas. When not deployed outside Mozambique, the QRDF keeps its skills sharpened by helping to demine Mozambique's own mined areas at the request of the IND. In April 2002, at the direction of the Department of State, the QRDF made its first external deployment to Sri Lanka shortly after the ceasefire between the Government of Sri Lanka and the Liberation Tigers of Tamil Eelam insurgents, in order to survey and demine lands from which ethnic Tamil civilians had been displaced. Almost simultaneously, the QRDF deployed to the Nuba Region in Sudan to support a ceasefire between the Government of Sudan and the Sudan People's Liberation Movement/Army, in order to facilitate the safe return of internally displaced persons and refugees to their homes and lands in that region. During May–August 2003, the QRDF deployed to Iraq where it performed invaluable service in clearing mines, cluster munitions and other UXO from heavily populated urban areas, along power lines and agricultural fields.*

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# AFRICA



# NAMIBIA

## The Landmine Problem

Landmines and unexploded ordnance (UXO) have infested about 100,000 kilometers<sup>2</sup> of land (about 12 percent of Namibia) that contain some of the highest population densities in the country. By the time Namibia achieved independence from South Africa in 1989, South African Defense Forces (SADF) had laid more than 44,000 landmines in defensive perimeters around military and police bases and two water supply towers along the Namibia-Angola border in the nation's northwest. The resulting 10 minefields encompassed more than 360,000 meters<sup>2</sup> of land. The SADF also laid mines around 410 electric power pylons stretching from the northern town of Ruacana south approximately 200 kilometers to the northern border of the Estosha National Game Reserve. A 900-meter<sup>2</sup> area around each pylon contained 24–36 landmines. Hundreds of thousands of UXO continue to be embedded along Namibia's northern border, a major battleground during the war for independence. From

December 1999 through May 2002, *União Nacional para a Independência Total de Angola* (UNITA) and factions of the *Forças Armadas de Angola* (Angolan Armed Forces [FAA]) in the Angolan civil war laid landmines in the Caprivi and Kavango regions of northeast Namibia. Although these mines affect a relatively small geographic area along some 300 miles of the border shared by Namibia and Angola, Namibian Police believe that a significant quantity endanger much of the rural population, frighten away tourists and discourage farmers from planting crops. The mines are difficult to locate, because they are unmarked and unmapped. In addition, combatants probably buried many mines along the edge of rivers and, over time, sand and vegetation growth have covered many of them. The landmines will most probably be found one at a time. For these reasons, the Namibian Police expect landmine casualties will continue to occur until deminers clear the affected areas.

## United States Assistance

Since FY94, the United States has provided \$8,421,000 in humanitarian mine action assistance. With \$600,000 in 2003, the United States provided refresher training, equipment and vehicles to demining and explosive ordnance demolition (EOD) mobile response teams made up of personnel from the Namibian Defense Forces (NDF) and Namibian Police Forces. An operational plan was implemented, and the teams have been actively clearing the last of the country's landmine contamination along the northern border areas.

Over the years, U.S. assistance has funded a multiphase mine action program, including training, clearance, mine risk

education, medical assistance, communications and other related equipment. The United States also provided a berm processor to extract landmines in the earthen berms around electric pylons. Additionally, the U.S. Government participated in a highly successful test of a machine built in Namibia, the Rotar, to sift mines from the soil. The Rotar proved so effective that the Department of Defense paid for the development of an improved system. When rugged terrain hampered UXO disposal efforts in the northern regions, the United States purchased 4x4 vehicles to enable deminers to reach the clearance sites.

## Accomplishments

Overall, the establishment of Namibia's demining program is complete. In 1998, U.S. military personnel completed the "Train-the-Trainer" program for the NDF and Police, having instructed 114 military engineers and police in demining operations to International Mine Action Standards. Deminers have cleared more than one million meters<sup>2</sup> of land, restoring it to productive use, and destroyed more than 5,000 mines and 200,000 UXO. By January 2001, the NDF had cleared all known minefields and 410 electric power pylons. The Namibian Police EOD

teams continue to respond to UXO reports and to conduct mine risk education programs. In FY01, a nationwide mine risk education program was implemented that included ad campaigns in local newspapers and medical kits for mine awareness teams using materials printed in four indigenous languages that reached more than 400,000 inhabitants. That and subsequent mine risk education efforts are unquestionably credited with having reduced the number of accidents from mines and UXO.

# AFRICA



## NIGERIA

### The Unexploded Ordnance Problem

The January 27, 2002 explosion of the Ammunition Transfer Depot at the Ikeja Military Cantonment in Lagos started a series of fires and explosions that spread from the Depot to an adjacent market, then to houses and buildings as far as the International Airport of Lagos. The humanitarian disaster resulted in more than 1,000 civilian casualties and left a considerable amount of unexploded ordnance (UXO) around the disaster site. At the request of the Government of Nigeria, the Department of Defense

immediately deployed Task Force AVID RECOVERY, a 59-person detachment from the U.S. European Command, for 60 days to assist the Nigerian army with recovery. The Department of State provided subsequent assistance through its contractor, RONCO Consulting Corporation, which supported the operation with three UXO clearance teams recruited and trained in Mozambique.

### United States Assistance

In FY02, the Department of State provided \$1,449,480 for emergency removal of UXO and

munitions training to Nigerian forces, conducted by RONCO Consulting Corporation.

### Accomplishments

The United States provided three fully equipped and trained ten-man UXO clearance teams to support UXO clearance work in Lagos, from April 2002 to mid-August

2002. U.S. assistance significantly contributed to a safer, more comprehensive and faster UXO clean-up operation.

# AFRICA



## RWANDA

### The Landmine Problem

Rwanda emerged from its 1994 civil war with an estimated 100,000–250,000 landmines scattered throughout the country. Despite the lack of written records and maps, the Government of Rwanda believes that the heaviest concentrations of landmines, some 50,000–60,000, were in the Kigali area and in four prefectures in the north and northwest, about 10 kilometers from the border with Uganda, an area approximately 120 kilometers long. An additional 1,200 kilometers<sup>2</sup> of suspected

mine-contaminated land is situated south of this region. Significant portions of Rwanda's roads were mined, cutting off entire regions and hindering the flow of humanitarian aid and commodities. Overall, the mines and unexploded ordnance (UXO) have been a major impediment to the economic and social development of the country. Moreover, the thick vegetation and steep hilly terrain have posed enormous challenges to mine clearance activities.

### United States Assistance

U.S. humanitarian mine action assistance has dramatically improved Rwandan society for the better. In FY03, the U.S. Department of State contributed \$142,095 to the Rwandan National Demining Office (NDO). On May 9, 2003, Rwanda's NDO signed an agreement with the U.S. Department of Defense's Humanitarian Demining Research and Development Office for deployment and field evaluation of the mini-mulching system (MAXX). The deployment of the remote-controlled armored MAXX, modified by DoD, is assisting mine clearance activities in the country by helping to remove vegetation from mined areas. Since the NDO began demining in 1994/95, a total

of 24 minefields consisting of 450,000 meters<sup>2</sup> of land and 17 kilometers of road have been cleared, and 28,524 mines and UXO have been destroyed. Rwanda's main and secondary roads are now clear of landmines, allowing valuable exports, necessary imports, consumer goods and international aid to flow freely. Much of the cleared land supports subsistence farming, helping to decrease the food shortage. The rate of landmine casualties has dropped substantially, thanks to the removal of the most dangerous landmines and successful mine awareness campaigns. The humanitarian demining program in Rwanda is now at the sustainment phase.

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## RWANDA (CONTINUED)

### Accomplishments

In 1994, 218 casualties were reported. In 2002, only 10 casualties were reported. Some 400,000 refugees and 200,000 internally displaced persons have returned to their villages, many to houses that the Rwandan Patriotic

Army built on cleared land. The clearance of a minefield in the Mulindi tea plantation increased production of tea for export from 3,895,267 to 11,209,973 kilos.



*A Rwandan demining dog handler wearing U.S.-provided personal protective equipment closely monitors his mine detecting dog, also provided by the U.S., as it sniffs for the scent of explosives in suspected landmines. (Photo courtesy of Office of Weapons Removal and Abatement)*



*A Rwandan deminer in U.S.-provided personal protective equipment clips vegetation in order to be able to effectively continue probing for landmines. In Rwanda and many other mine-affected countries, manual removal of vegetation can consume an inordinate amount of time that would otherwise be devoted to actual mine detection and clearance. (Photo courtesy of Office of Weapons Removal and Abatement)*

# AFRICA



## SENEGAL

### The Landmine Problem

In 1982, supporters of the *Mouvement des Forces Democratiques de la Casamance* demanded that the Government of Senegal grant independence to the Casamance region, an isolated section of southwestern Senegal located between Gambia and Guinea-Bissau. This demand sparked a 19-year-long conflict, which only recently began to be resolved. The conflict worsened in the late 1990s with the appearance of anti-personnel

and anti-tank mines. These landmines adversely affected the population (an anti-tank mine killed two people in September 2001), agricultural activities and tourism and have hampered donor and non-governmental organization efforts in the region. No accurate information is available regarding the total quantity of landmines or the number of landmine casualties.

### United States Assistance

In July 2001, the U.S. Agency for International Development, through its Leahy War Victims Fund (LWVF), began providing the first of the \$499,751 committed to Senegal, to Handicap International (HI) France to support mine-survivor rehabilitation services and mine

risk education assistance programs in the Casamance region. Another component of LWVF aid, implemented via HI France, supports local associations that assist people with landmine injuries during their treatment and eases their return to family and communities.

### Accomplishments

To facilitate the rehabilitation of landmine victims, HI France is promoting the decentralization of orthopedic services in the region. Additionally, HI France has

collected data on mine accidents, and produced maps that indicate mine locations. This information enables HI France to target prevention activities more effectively.

# AFRICA



## SOMALIA

### The Landmine Problem

Northwest Somalia (Somaliland) has a severe landmine and unexploded ordnance (UXO) problem. Several conflicts have left large quantities of landmines and UXO along the border between northwest Somalia and Ethiopia, the perimeters of military installations, important access routes and urban areas. Following the Ethiopian conflict, the Somali Army laid mines near the border and around

nearby military bases as a defense strategy. The civil war in 1988 saw the continued practice of laying mines, restricting both military and civilian movement within the country. The Somalia Mine Action Center (SMAC) has confirmed the presence of at least 28 mined roads and 63 known and 17 suspected minefields in Somalia.

### United States Assistance

The United States awarded \$450,000 in Fiscal Year (FY) 2003 to The Hazardous Area Life-Support Organization (HALO) Trust for demining operations in northwest Somaliland. In FY02, the U.S. Department of State also provided \$1,200,000 in humanitarian demining assistance to

fund mine clearance operations conducted by HALO Trust. Since 1998, the United States has funded nearly \$6,000,000 in mine action assistance to northwest Somalia.

### Accomplishments

Operations completed by The HALO Trust from March 1, 2003–June 30, 2003, were successful. Five manual demining teams and one explosive ordnance disposal team were deployed. One manual team worked as a battlefield-area clearance team and cleared land around Hargeisa that allowed the resettlement of refugees. Another team was deployed to Lascanod in Sool Region, an area often ignored due to security reasons, and is making progress. Together, the teams have manually demined or battlefield-area

cleared a total of 14,901,674 meters<sup>2</sup> of land, destroying 54 anti-personnel mines, 62 anti-tank mines, and 770 items of UXO. More equipment, including metal detectors, arrived in Somalia in 2003 to help expand the program and increase the speed of clearance operations. In addition to the recent Landmine Impact Survey, additional surveys by HALO teams and coordination with SMAC will allow a greater understanding of the mine situation in the entire country.

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## SUDAN

### The Landmine Problem

Sudan has a serious landmine and unexploded ordnance (UXO) problem as a result of its civil war that began in 1983. Both the Government of Sudan (GoS) and armed opposition groups, such as the Sudan People's Liberation Movement/Army (SPLM/A), emplaced landmines to protect fixed garrisons and interdict roads,

respectively. Local records indicate that between 1989 and February 2002, an estimated 1,160 persons became landmine victims in the Nuba Mountain region of southern Sudan. Both landmines and UXO currently hinder the movement of cease-fire monitors, humanitarian goods and the civilian population.

### United States Assistance

In late April 2002, the United States deployed a portion of its Quick Reaction Demining Force (QRDF) to conduct mine clearance operations in the Nuba Mountains.

In Fiscal Year 2003, Sudan received \$896,000 in U.S. humanitarian mine action assistance.

### Accomplishments

The QRDF's mine clearance operations opened eight kilometers of a critical stretch of road, lessening the likelihood of additional casualties, as refugees and internally displaced persons returned to areas where mines were known to exist and into other areas suspected

of being mined. These mine clearance operations also contributed to the success of the first phase of the ceasefire between the GoS and the SPLM/A and the operations of the Joint Military Commission, an international agency in which the United States plays a leading role.

# AFRICA



# ZAMBIA

## The Landmine Problem

Nearly 20 years of fighting for independence, beginning in the 1960s when guerrillas from the neighboring countries of Angola, Mozambique, Namibia, and Zimbabwe waged their anti-colonial wars, left Zambia with a landmine problem of largely unknown dimensions. The Government of the Republic of Zambia (GRZ) is unable to estimate the quantity and types of landmines in its soil, because combatants laid the mines in a "nuisance pattern," and accurate records were not maintained. GRZ requests to former colonial authorities and former liberation movement participants to obtain information about the landmines they emplaced have not been successful. The Government's best estimate is that landmines affect 2,500 kilometers<sup>2</sup> of land in five provinces, stretching from Mwinilunga, bordering the Democratic Republic of the Congo in the Northwestern Province, and continuing along

## United States Assistance

Since FY00, the United States has donated \$2,474,000 to Zambia for mine clearance operations. In FY02, United States assistance amounted to \$1,240,000 to support mine action activities, including staff management, survey and database management, mine clearance operations,

## Accomplishments

The ZMAC, established in 2001, is now making satisfactory progress towards making Zambia mine-safe. ZMAC personnel are trained and equipped and are now working to complete a nationwide Landmine Impact Survey. When the survey results are complete and available, possibly in 2004, ZMAC will be able to produce a prioritized demining plan. At a minimum, however, ZMAC should have enough survey data in 2004 to plan demining operations for the next year's May-to-November dry season.

By the end of 2002, the U.S.-funded contractor, RONCO Consulting Corporation, trained and equipped four ZMAC demining teams. Each team consists of one demining team leader, six deminers, one minefield supervisor and three personnel to fill medical or leadership functions. The next deployment of deminers is scheduled to clear ordnance that has prevented the completion of a road project near Chongwe in Lusaka Province. In May 2002, deminers were deployed to Siavonga and quickly finished their first assignment. The survey team has covered all four mine-affected districts in Northwestern Province and two districts in Lusaka Province. Zambia is now well on the way to establishing an indigenous, sustainable humanitarian mine action capability.

its western borders to Lundazi in the Eastern Province. Landmines also infest the Western, Southern, Lusaka and Central Provinces. A high-density minefield threat does not appear to exist, but rather a threat of isolated and nuisance mines along routes and around camps that the freedom fighters once used. Nevertheless, large amounts of productive land in the mine-affected provinces have been virtually "no-go" areas for more than 30 years. The fear of mines has prevented the use of roads, schools, waterways, rural health centers and airports and has impeded socio-economic development. Since Zambia achieved its independence in 1980, landmines have killed or maimed at least 200 people. The number may be higher, because hospitals do not specifically identify landmine victims in their overall casualty records.

medical support and additional mine risk education conducted by U.S. military personnel. The United States committed \$450,000 in FY03 to support further Zambian Mine Action Center (ZMAC) operations.



**Zambian Mine Action Center deminers and a RONCO Consulting Corporation trainer, under contract to the U.S. Department of State, pose for a group photo after a grueling day of mine clearance. (Photo courtesy of Office of Weapons Removal and Abatement)**



**AFGHANISTAN**

**CAMBODIA**

**LAOS**

**SRI LANKA**

**THAILAND**

**VIETNAM**

# **ASIA**

# ASIA



# AFGHANISTAN

## The Landmine Problem

Afghanistan remains severely affected by landmines and unexploded ordnance (UXO). According to the UN Mine Action Program for Afghanistan (MAPA), the situation worsened after Coalition activities against the Al Qaeda terrorists and the Taliban authority began on October 7, 2001. Prior to the current conflict, MAPA identified 780 kilometers<sup>2</sup> of land as being mine-affected and had assessed 404 kilometers<sup>2</sup> of this area as a high priority for clearance. The UN estimates that the country is infested with five to seven million landmines, but some non-governmental organizations (NGOs) claim that, based on their clearance experiences in heavily mined areas, the UN estimate is far too high. While no one can specify a firm figure for the quantity of emplaced landmines, the actual findings from demining and area-reduction operations now seem to indicate that the figure may be closer to one million mines, a serious threat nonetheless. The most heavily mined areas are in the provinces bordering Iran and Pakistan. Most mines are located in agricultural fields,

irrigation canals and grazing areas. Mines are also found on roads and in residential and commercial areas. Security belts of landmines also exist around major cities, airports, government installations and power stations. An equally significant problem is UXO that, even prior to Coalition activities against the Taliban, inflicted extensive injuries and destruction.

According to MAPA, there are some 200,000 mine and UXO accident survivors, and, prior to the initiation of military action against Al Qaeda and the Taliban, the death and injury rate ran at some 150–300 incidents per month. MAPA suggests that “mine and UXO injuries have escalated due to the new contamination and also due to increased population movement, often in unfamiliar areas, as people shift to avoid areas of fighting or return to newly secure locations.” According to MAPA, UXO, not landmines, now cause approximately 80 percent of the casualties experienced in Afghanistan.

## United States Assistance

Since FY89 (October 1988) and through the end of FY03, the United States has provided more than \$63,604,000 in humanitarian mine action funds to Afghanistan. The United States allocated \$22,925,000 to Afghanistan in humanitarian mine action funds for FY03 alone. The U.S. Agency for International Development (USAID) Leahy War Victims Fund (LWVF) provided \$1,000,000 in assistance to 11 national and international NGOs to increase the quality and scope of rehabilitation services delivered. The United States granted RONCO Consulting Corporation, a U.S.-funded commercial demining contractor, \$2,300,000 to assist the transfer of demining skills to local NGOs and to support MAPA and explosive ordnance disposal training. USAID expended an additional \$190 million to reconstruct the Kabul-to-Kandahar highway, of which \$10 million was devoted to demining and UXO clearance along that route. The Hazardous Area Life-Support Organization (HALO) Trust received \$2,100,000 from the U.S. Department of State for mine clearance operations, and UN Mine Action Service received \$2,600,000 from the U.S. Department of State to fund local NGOs working in Afghanistan.

In FY02, the United States provided \$12,864,000 to support a wide range of mine action initiatives in support of MAPA. Of this amount, The HALO Trust received \$3,200,000 to clear landmines from priority sites, such as roads, key economic infrastructure, residential areas, and other sites used by humanitarian relief organizations. Another \$3,100,000 went to RONCO Consulting Corporation to provide specialized UXO removal training to Afghan demining NGOs, so that they will be able to restore the full tempo of UXO and mine clearance operations around the country. An FY02 assistance grant of \$700,000 went to the



*Afghan children play in the rubble of a war-damaged building.*

United Nations Children’s Fund to fund mine risk education initiatives, to be implemented by Save the Children, an American NGO. In addition, the U.S. Department of Defense contributed more than \$3,700,000 of the FY02 total assistance to provide technical advisors and to support clearance efforts around the critical airstrips of Kandahar and Bagram. Finally, the U.S. Centers for Disease Control and Prevention provided \$800,000 to another NGO, the Vietnam Veterans of America Foundation, to provide a post-conflict landmine/UXO contamination assessment. The purpose of the assessment was to determine the level of new contamination by landmines and UXO and to measure the incidence of war-related injuries and disabilities. The United States divided its FY01 contribution of \$2,800,000 between UNOCHA (\$800,000 for demining equipment and \$900,000 for mine clearance) and The HALO



## AFGHANISTAN (CONTINUED)

### Accomplishments

Trust (\$1,100,000 for mine clearance). A U.S. Government prototype system—the Airspade—has been used in Afghanistan to uncover landmines that eliminates the need for probing.

U.S. support for humanitarian mine action in Afghanistan has, through September 30, 2003, enabled more than 1.8 million refugees and internally displaced persons to return to their homes. In addition, the clearance of 23,825,611 meters<sup>2</sup> of high-priority areas in the first quarter of 2002 enabled MAPA to employ more than 9,200 farmers and industrial workers. Agricultural outputs valued at \$14.2 million, and livestock production valued at \$43.4 million, have increased.

Demining operations by The HALO Trust in 2002, funded by the United States, covered a large geographical area and removed thousands of mines and UXO. HALO Trust demining teams worked in the provinces of Kabul, Parwan, Baghlan, Balkh, Kunduz and Takhar and cleared a total of 11,608 mines, 2,743 UXO, 2,530 BLU cluster munitions, and 46,707 rounds of stray ammunition, and covered a total land area of 1,015,129 meters<sup>2</sup> by manual teams, 279,668 meters<sup>2</sup> by mechanical teams, and 8,339,531 meters<sup>2</sup> by battlefield-area clearance teams. In addition, 1,335,748 meters<sup>2</sup> of land were surveyed.

USAID underwrote the majority of the demining and reconstruction of the vital Kabul-to-Kandahar highway that reopened to traffic in December 2003 after more

In 1989, the USAID funded the original mine detecting dog (MDD) program, turning it over to the UN in 1994. Today, the MDD Center bears responsibility for the program and breeds and trains all MDDs used in Afghanistan.

than 1,060 landmines and UXO were cleared. The completion of this first key phase in the reconstruction of Afghanistan's national highway system reduced travel time between the capital and Kandahar from two days to five hours, enhancing health care for Afghans, increasing labor mobility, offering greater diversity of products and services due to increased inter-provincial trade, enabling farmers with wheat surpluses in the north to have access to wheat deficient markets in the south and fostering national unity. In June 2003, the United States assisted in the destruction of more than 10,000 anti-vehicle mines in Afghanistan's Kandahar province. The landmines were located in an unsecured ammunition supply point where terrorists had access to explosive materials. Teams from RONCO Consulting Corporation, the Demining Agency for Afghanistan and Handicap International Belgium destroyed the mines in nine days, adhering to international standards.

Finally, while unexploded cluster munitions from Operation Enduring Freedom constituted only a small fraction of the UXO problem in Afghanistan, special efforts were made to survey and clear all accessible areas.



# ASIA

# CAMBODIA

## The Landmine Problem

The Cambodian Mine Action Center (CMAC) estimates that between 300,000 and 1,000,000 landmines and more than 2,500,000 pieces of unexploded ordnance (UXO) contaminate 2,000 kilometers<sup>2</sup> of Cambodian soil. The northwest region remains the most heavily mined area, accounts for the largest number of casualties and, therefore, is the highest demining priority. In addition, two central and southern provinces contain large areas of suspected minefields. A combined CMAC and Geo-Spatial Landmine Impact Survey found that mines and UXO had contaminated 45.5 percent of the villages surveyed. Aerial-

delivered UXO is found mainly in the eastern and central provinces. Landmines and UXO have killed or injured more than 30,000 people. In 2001, 813 casualties were recorded, and in 2000, the number of casualties was 847. However, these figures are significantly lower than in the preceding years, and the casualty rate continues to drop. Despite this progress, mines and UXO constitute a serious problem and a long-term threat that has a severe humanitarian impact and hinders the socio-economic development of the country.

## United States Assistance

Cambodia has received more than \$36,120,000 in U.S. humanitarian mine action assistance since FY93. This funding augmented financial assistance from the UN Development Program Trust Fund and other international donors, allowing Cambodia to obtain demining training and equipment. In FY03, the U.S. Department of State provided \$2,765,000 in grants to CMAC, The Hazardous Area Life-Support Organization (HALO) Trust and Mines Advisory Group (MAG) for operations in Cambodia. This funding was for mine clearance operations and the acquisition of demining equipment and personal protective gear.

USAID has invested more than \$11,000,000 in Cambodia's prosthetics and rehabilitation programs, providing services to landmine survivors through national rehabilitation centers. The funds support the Disability Action Council, a semi-autonomous body with delegated authority by the Government to oversee all programs related to people with disabilities, and the Vietnam Veterans of America Foundation (VVAFA)—supports four rehabilitation centers in the country. In 2003, two Department of State and USAID LWVF-supported animated public service messages created by Warner Bros. espousing mine risk education and mine survivors' social acceptance were broadcast by Cambodian television stations nationwide. Both messages featured the cartoon characters Bugs Bunny and Daffy Duck, and an animated Cambodian boy landmine survivor named "Rith," speaking in Khmer. The messages were designed to reinforce existing mine risk education and mine survivor efforts in Cambodia.



The U.S. Department of Defense has provided tools for vegetation clearance—a highly effective system called the Pearson Survivable Demining Tractor and Tools—to a non-governmental organization (NGO) in Cambodia for field-testing and evaluation. The U.S. Agency for International Development (USAID) Leahy War Victims Fund (LWVF) supports programs addressing the physical, social and economic reintegration of persons disabled by landmines.

## Accomplishments

The Cambodian program now has a fully trained staff of about 2,400 Cambodians, 35 foreign technical advisors, and six UN staff members. The information in the Cambodian Red Cross Mine Incident Database has proved invaluable to CMAC, NGOs and donors in making informed planning and prioritization decisions. U.S. and international assistance have lowered reported landmine casualties from 2,799 in 1996 to 813 in 2001, a reduction of almost 70 percent. These statistics reflect the success of large- and small-scale mine clearance and mine-marking operations and an aggressive mine risk education campaign conducted by demining groups and other NGOs.

the Kien Khleang Physical Rehabilitation Center has become a globally recognized facility offering a full range of services. In 2003 alone, USAID's program produced and fit 980 prostheses, 2,400 orthoses and 500 wheelchairs.

USAID funds have enabled Cambodia's prosthetics and rehabilitation programs to provide mobility assistance to about 10,000 landmine victims and other people with disabilities and have been instrumental in the development and success of a national coordinating agency for the disabled. Since 1992, when funding support for the VVAFA Cambodia Prosthetics and Rehabilitation Program began,

U.S.-funded heavy equipment, including tractors, vegetation-cutters and mini-flails, continues to assist deminers, accelerating the pace of their activities by as much as 60 percent. From 1992 to June 2003, CMAC, HALO, MAG and Royal Cambodian Armed Forces deminers cleared a total of 199.98 kilometers<sup>2</sup> of land. From March 2002 to February 2003, HALO cleared 36 minefields totaling 1,036,597 meters<sup>2</sup> of land and removed 778 anti-personnel (AP) mines, 39 anti-tank mines and 2,182 pieces of UXO. From June 1, 2002 to May 31, 2003, MAG cleared 240,820 meters<sup>2</sup> of land, finding and destroying 64 AP mines, and 171 items of UXO in the northern province of Preah Vihear, directly benefiting 281 families and indirectly benefiting 792 families for resettlement, agriculture, schools and road access.



# LAOS

# ASIA

## The Landmine Problem

Between 1964 and 1973, intense ground combat and the air campaign during the war in Vietnam that released approximately two million tons of ordnance—up to 30 percent of which may not have exploded—left more than 87,000 kilometers<sup>2</sup> of Laos, approximately two-thirds of the country's land area, infested with landmines and unexploded ordnance (UXO). No realistic estimates exist as to the number of landmines or unexploded submunitions, referred to by the Laos as "bombies." The presence of UXO is widespread in nine of Laos's 17 provinces. The most contaminated areas are in the northern provinces of Houaphan and Xieng Khouang and along the border

with Vietnam. The widespread UXO contamination not only causes death and injuries, but also denies the use of agricultural land and prevents the restoration of economic infrastructure in those regions. From 1987 through 1996, the number of UXO victims averaged 240 annually, a sharp drop from the average of 1,100 annually from 1973 through 1976. Nevertheless, UXO continues to wound and kill a significant number of Lao citizens and inhibits efforts to expand agriculture and infrastructure. In 2001, landmines caused 122 casualties; of the 122, 51 were children, and, of these, 35 were fatalities.

## United States Assistance

The United States is the single largest donor to the landmine and UXO clearance program in Laos, having contributed more than \$24,000,000 since Fiscal Year 1995, and it is also the most significant provider of a variety of humanitarian mine action-related assistance, including training and U.S. Defense Security Cooperation Agency funds. In Fiscal Year (FY) 2003, the U.S. Department of State provided Laos with \$1,200,000 in humanitarian mine action funding. In FY02, the country received \$1,828,000 in U.S. humanitarian mine action aid. The United States funds operating expenses throughout the country, and has provided particular support to the UXO LAO

National Training Center and community mine risk education. U.S. assistance helped establish the National Demining Office and supports the Center, staffed by Lao instructors, that offers courses in community-based mine/UXO risk education, mine and UXO clearance techniques, medical training and leadership development. U.S. funds also supported mine and UXO awareness in seven provinces; supported mine and UXO clearance in another six provinces; established rapid response teams in the remaining four provinces; and provided five prototype demining technologies for evaluation.

## Accomplishments

U.S. military personnel have trained more than 1,200 Lao to International Mine Action Standards, creating an indigenous demining capability as well as the capacity to train additional personnel. From FY96, when U.S. assistance began, through June 2001, UXO LAO personnel have destroyed almost 363,000 pieces of UXO, and cleared more than 32,700,000 meters<sup>2</sup> of land, now used primarily for agriculture. UXO LAO personnel also conducted mine/UXO awareness visits in more than 2,400 villages.

two Laotian provinces to provide medical intervention and educational programs to reduce the effect of unexploded ordnance. The program has provided technical and management training to more than 400 medical, nursing and technical staff in the two provinces and upgraded the training skills of 110 medical staff. With its educational component, the program has brought a mine risk education program to 1,200 schools in 19 districts of the four provinces most highly affected by UXO; developed a curriculum of student-centered, activity-based instructional materials for more than 86,000 students in the five primary school grades; and provided training in student-centered teaching and learning to over 2,800 primary school principals and teachers.

Thus far, more than 300 Lao medical staff members have received training in emergency rehabilitation or laboratory services, and one provincial and five district hospitals have received medical equipment and supplies. The U.S. Agency for International Development's Leahy War Victims Fund supports The Consortium to work in



*Laotians learn about the dangers of unexploded ordnance and landmines at a community mine risk education class funded by the United States.*



# ASIA

# SRI LANKA

## The Landmine Problem

In February 2002, the Government of Sri Lanka and the Liberation Tigers of Tamil Eelam (LTTE) signed a cease-fire agreement and began planning for peace talks to take place in a neutral country. The 18-year-long civil war produced a serious landmine and unexploded ordnance (UXO) problem. The most heavily mined and UXO-littered areas are Jaffna in the north (controlled by the Government of Sri Lanka) and the areas directly to the south of Jaffna, stretching to Trincomalee and Batticaloa on the east coast (controlled by the LTTE). According to the United Nations Development Program, there are

an estimated 100,000–150,000 mines in Jaffna. There could also be up to 400,000 mines in the Wannu region in the north, which is also controlled by the LTTE. The UN estimates that 10–20 Sri Lankans are killed or injured in mine/UXO accidents each month. Through the year 2000, 499 landmine casualties were reported, most of which were military personnel. There are fears that these figures could spike due to the steady return of internally displaced persons (IDPs) to areas in the north and east. The overall number of refugees and IDPs expected to resettle in Sri Lanka is estimated to be about 800,000.

## United States Assistance

In Fiscal Year (FY) 2003, the U.S. Department of State provided \$2,400,000 to support the initial humanitarian mine action capacity building of the Sri Lankan Army. Also, FY02 and FY03, the U.S. Department of State provided \$2,350,000 for two separate deployments of its Quick Reaction Demining Force (QRDF). Following a request from the Government of Sri Lanka for demining assistance in March 2002, the United States conducted an initial

assessment of the landmine situation. In April, two U.S. Department of State QRDF teams with mine detecting dogs (MDDs) were deployed to Sri Lanka from their home base in Mozambique. The two teams were tasked to perform emergency clearance operations supporting the return of refugees and IDPs to areas from which they had fled during the war.

## Accomplishments

In October 2002, after seven months of operations, the U.S. Department of State's QRDF team working in the key village of Sarasalai, about 15 kilometers from Jaffna, successfully completed its clearance project. The team cleared approximately 122,000 meters<sup>2</sup> of land and removed 980 mines and 42 UXO, in accordance with International Mine Action Standards (IMAS). In March 2003, a second QRDF team was tasked to operate on the Jaffna Peninsula. The team's principal operations focused on a site near the devastated town of Chavakachcheri, adjacent to the QRDF-cleared land in Sarasalai. The team removed 244 mines and 106 pieces of UXO, and cleared 72,208 meters<sup>2</sup> of land. Both QRDF operations have greatly assisted the safe return of some 500,000 IDPs left in the country. Since the unilateral cease-fires

in December 2001, nearly 300,000 IDPs have returned to their homes in the north and east. Another Department of State-funded mission began in August 2003 to train Sri Lankan Army deminers at a facility in the southern part of the country. Using the "Train-the-Trainer" concept, the U.S. helped to build an indigenous demining/UXO clearance operational capacity by training two Sri Lankan Army demining platoons, including medics. 102 civilian landmine/UXO casualties were reported in 2003, a 28 percent reduction in the reported casualty figures for 2002. This improvement stemmed from the operations of the QRDF, the training of Sri Lankan Army deminers to IMAS standards, and a U.S.-supported, comprehensive mine risk education program implemented by UNICEF among high-risk populations.



*One of the mined areas in the Jaffna Peninsula that was cleared by the QRDF. While some minefields in Sri Lanka are relatively open like these former paddies, others have become overgrown with foliage, further adding to the challenge of clearing them.*

# ASIA



# THAILAND

## The Landmine Problem

During the past four decades, Thailand's internal and external conflicts have left landmine and unexploded ordnance (UXO) contamination along all four of its borders, and new mines are being laid along the northwestern Thai-Burma border. The Thailand Mine Action Center (TMAC) estimates that the country's soil contains more than one million mines and UXO. The results of a Landmine Impact Survey show that landmines and UXO are present at 933 sites occupying an area of 2,500 kilometers<sup>2</sup>, affecting

530 communities with a cumulative population of more than 400,000. The principal socio-economic impacts of landmine and UXO contamination are reduced availability of land for cultivation and grazing and decreased access to forest resources. According to TMAC, landmines and UXO have killed or injured 3,468 people since 1997; however, the casualty rate is decreasing, with only 346 casualties reported during 1999–2000.

## United States Assistance

U.S. humanitarian mine assistance to Thailand totals more than \$7,269,000 since Fiscal Year (FY) 1998. The United States provided \$718,000 in humanitarian mine action assistance to Thailand in FY 2002. Some of the funds enabled U.S. military personnel to conduct two final Train-the-Trainer sessions. Remaining funds supported field operations conducted by Thai demining forces. In preceding years, funding had supported the procurement of demining equipment as well as the establishment of a mine detecting dog (MDD) program. A total of 26 dogs were purchased for both Humanitarian Mine Action Unit (HMAU) and MDD handler courses.

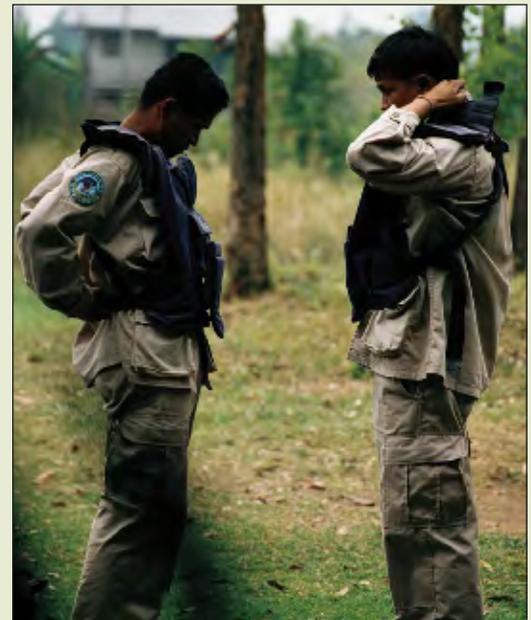
In addition to providing essential demining equipment, the funds have helped to establish facilities for basic

demining training at Ratchaburi and a demining school at Lop Buri to teach mine risk education. U.S. military personnel have trained more than 200 Thais to International Mine Action Standards.

The U.S. Department of Defense has provided several systems for field testing in Thailand: the Pearson Survivable Demining Tractor and Tools, the Tempest, Thiokol demining flares and LEXFOAM, a liquid explosive foam. TMAC personnel not only demonstrated the effectiveness of two vegetation clearance systems, they also gained invaluable experience in integrating mechanical systems into their demining operations.

## Accomplishments

In June 2000, the Government of Thailand dedicated the TMAC. Demining continues in Sa Kaeo, Chantaburi, Ratchaburi, and Nong Ya Khao Provinces. A quality assurance committee has, for the first time, approved the use of TMAC-cleared land. This significant step highlights TMAC's achievements in becoming a bona fide MAC. Through the combined efforts of the HMAU, manual deminers, machines, and dog teams, 56,544 meters<sup>2</sup> of land have been cleared in the Nong Yah Kaew village, Sa Kaeo Province. TMAC's U.S.-trained trainers at Ratchaburi have instructed 18 Thai civilian deminers, and they are now a most effective resource for mine risk education activities in their communities. Overall, by the end of 2001, Thai deminers had destroyed almost 1,000 mines and approximately 1,300 pieces of UXO, while clearing more than 4,956,000 meters<sup>2</sup> of land. In May 2002, two cleared areas totaling almost 40,000 meters<sup>2</sup> were returned to the Subtaree Village, Chantaburi Province. Local communities continue to reap benefits from these handovers, planting cassava and other crops. With U.S. support, Thailand has emerged as a regional leader in humanitarian mine action.



*Two Thai deminers suit up with U.S.-provided personal protective equipment before venturing into a minefield.*

# ASIA



## VIETNAM

### The Landmine Problem

As a result of 30 years of war, Vietnam has an estimated 350,000–800,000 tons of landmines and various types of unexploded ordnance (UXO) scattered throughout all 61 provinces and major cities. The current estimated area of contamination is 16,478,000,000 meters<sup>2</sup>. Quang Tri Province, which adjoins the former border between North and South Vietnam, is one of the most affected regions of Vietnam, although mines and UXO also pose a

threat near its border with China, and in regions bordering Laos. A 1999 Government of Vietnam report claimed that, as of May 1998, landmines and UXO had killed 38,248 and injured 64,064 people. The U.S. Agency for International Development (USAID) has observed that, with more than 2,000 landmine casualties annually, Vietnam has been left with perhaps the world's highest proportion of amputees.

### United States Assistance

The U.S. Department of State allocated \$2,427,000 to Vietnam in Fiscal Year (FY) 2003 for equipment for BOMICO, the Vietnamese Army Engineer Command's Center for Bombs and Mines Treating Technology operations and to expand the Vietnam Veterans of America Foundation (VVAFA) operations in Quang Tri Province. In FY02, the country received \$3,218,000 for equipment replacement and enhancement of BOMICO operations. Metal detectors have received the highest priority in this endeavor, followed by vehicles and specialized equipment, such as river demining equipment and tree cutters. In preceding years, United States assistance provided for the purchase of demining equipment, including personal protective equipment, metal detectors and vehicles and for assistance to survivors of landmine accidents. The assistance also supported a much-needed Landmine Impact Survey to determine the scope of the landmine and UXO problem and to assist the Vietnamese in identifying areas where landmines and UXO pose the greatest threat to civilians, arable land and economic infrastructure. Complementary projects include the funding of a computer system and database designed to identify the location of not only landmines, but also the location and type of UXO used during past conflicts. Another new computer system

will aid the Government of Vietnam in managing its mine and UXO clearances efforts.

Although Vietnam did not formally enter the U.S. Humanitarian Mine Action Program until 2000, the United States provided funds in 1998 and 1999 to Peace Trees Vietnam, a non-governmental organization, and to the Mine Action Information Center at James Madison University, to establish a mine awareness training center. The center, located at Dong Ha, Quang Tri Province, focuses on mine risk education for children, using local "people's committees" to conduct the training. Additionally, U.S. Army Pacific, the U.S. Pacific Command's Army component, provided a field hospital to augment the ability of the Quang Tri Provincial Medical Department to provide medical assistance to mine/UXO victims and injured deminers.

The VVAFA agreed in February 2003 to assist Vietnam's Ministry of Defense in conducting a field survey in the central provinces of Quang Tri, Quang Binh and Ha Tinh. The U.S. Department of State is providing \$6 million and experts to identify the most mine- and UXO-polluted areas in the region. After this preliminary phase, it is anticipated that the project will be implemented in additional provinces.

### Accomplishments

Since 1999, USAID's Leahy War Victims Fund and its partners have supported an increasingly sophisticated and appropriate response to the needs of Vietnam's population living with disabilities.

Among USAID-funded activities, the Vietnam Veterans of America Foundation's (VVAFA) rehabilitation program, implemented in partnership with the Ministry of Health, is based at two of the leading hospitals in Hanoi: the National Institute for Pediatrics (NIP) and Bach Mai University Hospital. More than 7,400 orthotic devices and 150 wheelchairs have been provided to mine survivors and other war victims from NIP and Bach Mai.

To meet the needs of the large disabled population living outside urban areas, VVAFA – with support from Ford Vietnam Limited and collaboration from Bach Mai hospital and the National Institute of Pediatrics – began a Mobile Outreach Program. Since its 1999 inception, the program has visited 11 provinces, fitting more than 1,500 patients with 1,900 orthotic devices and delivering another 209 wheelchairs.

Viet-Nam Assistance for the Handicapped (VNAH) works to expand opportunities for the disabled by providing several hundred assistive devices and promoting legislation on barrier-free accessibility.

The Prosthetics Outreach Foundation is advancing the standards for orthopedic component technology by working with the BaVi Orthopedic Technology Center to develop more functional, durable and lighter orthopedic components. As a result, high-quality, locally-produced components are offered at reasonable cost to hundreds of thousands of Vietnamese with disabilities.

Other forms of U.S. Government assistance, as well as the efforts of NGOs such as the VVAFA, the United Nations Association of the USA's Adopt-A-Minefield program, the Landmine Survivors Network, Clear Path International, PeaceTrees Vietnam, Kids First, Vietnam Veterans Memorial Fund and others have enabled Vietnam to make significant progress in clearing landmines and UXO and in restoring mobility and self-sufficiency to its war victims.



**ALBANIA**

**ARMENIA**

**AZERBAIJAN**

**BOSNIA AND HERZEGOVINA**

**CROATIA**

**ESTONIA**

**GEORGIA**

**MACEDONIA**

**SERBIA AND MONTENEGRO**

# EUROPE



# ALBANIA

**The Landmine Problem**

The Albanian Mine Action Executive (AMAE), the demining coordination agency of the Government of Albania, estimates that mines placed by Serb and Kosovar Albanian forces before and during the Kosovo conflict affect almost 14,000,000 meters<sup>2</sup> of land. Some 36 kilometers in the Kukes and Hasi Districts appear to have been mined within 300–400 meters of the border with Kosovo, and 18 of 24 kilometers of the country's border territory in the Tropoja District are suspected of landmine contamination. In addition, reports indicate that mines are located in the Bajram Curri District on the border with Montenegro and Kosovo, and other unrecorded minefields

were emplaced in border regions during the Cold War by past regimes. Presently, there is no way to accurately assess the quantity of landmines in these respective areas. Unexploded ordnance (UXO) is also a problem as a result of the North Atlantic Treaty Organization bombing campaign in the spring of 1999. The Government of Albania also includes in its UXO problem some 13 “hot spots,” former military ammunition storage depots, but the quantities of UXO at these locations are also unknown. Since the beginning of 1999, landmines and UXO have inflicted at least 225 casualties, with more than 20 victims dying from their wounds.

**United States Assistance**

The United States provides humanitarian mine action assistance to Albania primarily through the International Trust Fund (ITF) for Demining and Mine Victims Assistance located in Slovenia. Since the inception of the program in FY00, the United States has contributed \$5,566,000 to

support Albanian mine action activities. In FY02, \$326,110 was contributed to support mine clearance efforts in partnership with a corresponding Swiss donation, and in FY03, the United States provided \$1,416,926 to fund mine action assistance to Albania through the ITF.

**Accomplishments**

Mine risk education and mine clearance programs are largely responsible for a sharp decrease in landmine and UXO casualties. Demining operations commenced in early June 2000, with commercial demining teams from Bosnia working on AMAE-assigned priority demining tasks. By November 2002, the project cleared 104,576 meters<sup>2</sup> of land and removed 480 UXO and 491 mines. In September 2002, Danish Church Aid also began clearance operations and removed 1,588 mines, cleared 24,136 meters<sup>2</sup> of land

and surveyed six million meters<sup>2</sup> of land to be returned to the local population. In addition to clearance efforts, U.S. funds enabled the ITF to arrange for the rehabilitation of 21 Albanian mine victims at the Institute for Rehabilitation of Slovenia. An additional 30 victims received care at the Institute by the end of 2003.



## ARMENIA

### The Landmine Problem

The war between Armenia and Azerbaijan from 1988–1994 is the primary source of Armenia's landmine problem. The Government of Armenia (GOA) estimates that between 80,000 and 100,000 mines contaminate its soil. This number includes active minefields along the line of contact in the sparsely populated Tavush region in the northeast that are still being maintained for defensive purposes. While the GOA has stressed that the most severe landmine problems are in the region of Nagorno-Karabakh, problems also exist in the southeast, in the Syunik region along the

now peaceful border between Armenia and Armenian-occupied Azerbaijani territory. This region, which includes the cities of Goris and Kapan, has suffered at least 40–50 civilian landmine-related deaths and injuries in the last seven years. According to the GOA, approximately 1,800 to 2,500 kilometers<sup>2</sup> of land are known or suspected to be mine-affected. In addition, the GOA suspects that there is unexploded ordnance (UXO) along border areas, in and around villages, in agricultural areas, pastures and forests and along roads and bridges.

### United States Assistance

In Fiscal Year (FY) 2002, the United States provided \$4,441,000 in humanitarian mine action assistance to Armenia, a portion of which was used by the U.S. Department of State contractor RONCO Consulting Corporation to train the newly established Armenian Humanitarian Demining Center (AHDC) in the operation and management of a national humanitarian mine action program. In FY03, the United States provided Armenia with another \$250,000 in humanitarian mine action aid. This funding was used to build on the infrastructure established in the previous year. The funds provided for training and equipping the first demining company, medical technicians, a mine detecting dog (MDD) section, and effectively integrating the MDDs into survey and clearance

operations.

Due to the GOA's firm commitment to address its landmine problem, in 2002 the U.S. Embassy in Yerevan provided \$1,800,000 of its Freedom Support Act funds that were used to augment the existing demining program, assist the GOA to establish a National Demining Training Center and purchase a mechanical vegetation removal/area reduction system. U.S. military personnel trained and equipped a second Armenian demining company and medical section and have provided advanced training in management, mine risk education, UXO identification and destruction and information management. In addition, 178 deminers, medics, MDD handlers and staff personnel were trained and equipped.

### Accomplishments

AHDC began its first mine clearance operation in September 2002 in the Tavush Region. Armenian deminers surveyed and marked more than 700,000 meters<sup>2</sup> of land in a village that was heavily shelled during the country's internal conflict. In February 2003, the United States, assisted by the Armenian Demining Cadre, began training a second demining company, an MDD section and four

additional medics. Armenia also completed five months of mine risk education training in the areas of product development, survey and market analysis. AHDC also received an Armored Personnel Carrier-mounted flail for mechanical demining and has begun to train operators and mechanics.



## AZERBAIJAN

**The Landmine Problem**

The conflict with Armenia over the Nagorno-Karabakh region in 1988–1994, and other Azerbaijani land that Armenian troops held, left Azerbaijan with a landmine and an unexploded ordnance (UXO) problem. The UN estimates that landmines and UXO affect 604 kilometers<sup>2</sup> of liberated Azerbaijani land in 64 villages in 11 affected districts. Although no accurate estimate of the total number of landmines is available, the International Committee of the Red Cross believes that there are 50,000 mines just in the Nagorno-Karabakh region. A ceasefire has been maintained since 1994. The Government of Azerbaijan has decided that the internally displaced persons (IDPs) from the regions of Fizuli and Agdam,

which Azerbaijan reclaimed shortly before the ceasefire, should return home. Many of the 800,000 IDPs have already returned, but they run the risk of injury, primarily from UXO, as the landmine threat is secondary. Yet landmine contamination seriously constrains the reconstruction and rehabilitation efforts of the Government and international agencies. The Director of the Azerbaijan Agency for National Mine Action (ANAMA) has stated that, since 1998, landmines have caused 1,400 casualties to soldiers and civilians, including 300 fatalities, in 11 war-torn districts. There were 18 mine incidents registered during 2003 that resulted in 28 casualties, 14 of whom died.

**United States Assistance**

The United States has contributed over \$11,088,000 to the humanitarian mine action program in Azerbaijan. In Fiscal Year (FY) 2003, the U.S. Department of State allocated \$1.6 million in continued support for ANAMA's operations, including funds for additional equipment and mine detecting dog (MDD) support. A U.S. Department of State contractor, RONCO Consulting Corporation, helped the Government to establish a national mine action capacity, including a national MDD capability within the ANAMA infrastructure. The funds provided for maintaining the current operational capacity of Relief Azerbaijan and the national demining NGO; training and deploying a new survey team and an explosive ordnance disposal (EOD) team; developing and deploying the national Monitoring and Training Team; and integrating the MDDs with survey and clearance operations. The U.S. Department of Defense (DoD) conducted demining, EOD, mine risk

education and program management training during separate missions between 2002-2004. During this period, the DoD also contributed to the Government of Azerbaijan's national effort with the partial development of two regional Mine Action Facilities in Horadiz and Khanlar, including ANAMA's training center at Horadiz. The United States Corps of Engineers managed the DoD reconstruction efforts.

The Government has expressed a firm commitment to address the landmine problem, and to maintain an effective organization capable of implementing a national demining policy and priorities. As a result of this commitment, in FY02, the U.S. Embassy in Baku provided \$1,100,000 of its Freedom Support Act funds to augment the existing demining program. A total of 100 deminers, as well as a second demining company, medics, MDD handlers and staff personnel, have been trained and equipped.

**Accomplishments**

According to ANAMA reports, since July 2000, a total of more than 7 million meters<sup>2</sup> of land have been cleared. Of this, almost 70,000 meters<sup>2</sup> were the routes of power lines, 200,000 meters<sup>2</sup> were irrigation canals and water pipe routes, 5,200 meters<sup>2</sup> were roads. 778,000 meters<sup>2</sup> were housing areas and the remaining 6,000,000 meters<sup>2</sup> were for agriculture. More than 100,000 people directly benefited from the operations, and they are continuing to benefit from the land, infrastructure and houses that have been made safe for use.

Training for the MDD program continues successfully. U.S. assistance has funded the training of more than 100 Azerbaijani deminers and, in conjunction with the United Nations Children's Fund, a program of mine awareness instruction for 800 teachers, 500 medical personnel and 200 representatives from public organizations. Community-based mine risk education has reached 13 communities throughout 10 districts and has spread the message

of safe behavior rules to local populations. In 2003, Department of Defense-sponsored, ANAMA-executed mine risk education training took place in more than four regions in 10 villages, involved the Executive Powers of eight governed areas and informed more than 300 IDPs and residents of the hazards of landmines and UXO in surrounding areas. ANAMA is currently developing all components of mine action in order to acquire a national, sustainable capability for humanitarian demining that includes an infrastructure to support the return of IDPs to their homes. The Regional Training Center at Fizuli is operational, and is being used to expand national demining efforts. In 2002, U.S.-trained mine clearing personnel focused on clearing those areas with vineyards, a move that is expected to help Azerbaijan restore its war-torn economy. Azerbaijan's landmine problem is still significant, however, and will continue to require U.S. support.



## EUROPE

# BOSNIA AND HERZEGOVINA

### The Landmine Problem

Bosnia-Herzegovina has a substantial landmine problem, the result of the five-year civil war that broke apart Yugoslavia. The Bosnia-Herzegovina Mine Action Center (BHMAC) has records for more than 18,000 minefields and believes landmines and an undetermined quantity of unexploded ordnance (UXO) contaminate an estimated 4,200 kilometers<sup>2</sup> of land. Heavy concentrations of landmines are found in regions where ethnic conflict occurred, particularly along front-line areas that shifted during the course of the war, and along the Inter-Entity Boundary Line separating the Federation of Bosnia-

Herzegovina and the Republika Srpska—the two constituent political entities of Bosnia-Herzegovina. Combatants mined road networks, power plants, bridges, dams and other infrastructure components. In 2002, landmine/UXO incidents killed 26 civilians and injured 46 others, including 19 children. Landmines and UXO continued to cause casualties in 2003, with 13 civilians killed and 14 injured as of May 9, 2003. Currently, the International Committee of the Red Cross database contains information on 4,798 landmine/UXO casualties since 1992, of which 927 were killed and 3,871 injured.

### United States Assistance

The United States has supported demining activities in Bosnia-Herzegovina since FY96, with total expenditures through Fiscal Year (FY) 2003 amounting to more than \$58,114,000. The U.S. Department of Defense played a critical role in establishing training centers in each of the three Entity areas and trained cadre members and staff. By the end of 1998, however, when the U.S. Congress established a separate fund for mine action in the Balkans, all funding shifted to the International Trust Fund (ITF) for Demining and Mine Victims Assistance, based in Slovenia. In FY03, the United States contributed \$3,460,000 for demining activities, and the establishment in Bosnia-Herzegovina of a regional Mine Detection Dog Center for South East Europe (MDDC-SEE). In addition, the U.S. Centers for Disease Control and Prevention have contributed over \$500,000 for the social reintegration of survivors of landmine injuries and other forms of traumatic

limb loss. The project, conducted by the U.S. non-governmental organization (NGO), Landmine Survivors Network, began on September 15, 2003 and will continue for five years. The program includes vocational training; job placement; improvement and evaluation of existing educational materials; methods of improving outreach services; and direct assistance and linkage to care and service providers to provide social reintegration of survivors of landmine injuries and other forms of traumatic limb loss through peer support.

Another major U.S. project included a collaborative effort with the European Union and the ITF to fund a Landmine Impact Survey for the BHMAC. This survey, designed to assist Bosnian mine action authorities in the prioritization of clearance tasks and the allocation of resources to accomplish them, was conducted by U.S.-trained and -equipped local demining NGOs.

### Accomplishments

A national mine action center established in Sarajevo under UN auspices, a mine clearance training school at Brus, and three 80-man humanitarian demining groups based at Banja Luka, Tuzla and Mostar, have contributed to the success of the humanitarian mine action program in Bosnia-Herzegovina. The United States, using RONCO Consulting Corporation-provided humanitarian demining trainers, conducted a training program, and provided necessary demining equipment for 450 military deminers representing the three Entity Armies. The United States also provided necessary demining training and equipment for civilian deminers in Bosnia-Herzegovina, and turned over control of the three civilian demining groups to Bosnian national mine action authorities in 1997. In terms of mine risk education, collaboration among the United States, DC Comics and the United Nations Children's Fund

to distribute a special edition of the *Superman* comic book devoted to this subject contributed to the reduction of the number of landmine victims throughout the country.

Since 1999, U.S.-sponsored efforts removed or destroyed more than 21,052 landmines and UXO devices. Accomplishments in 2003 included the clearing of 92 separate minefields, freeing up 3,599,266 meters<sup>2</sup> of land for refugee and internally displaced person resettlement, infrastructure repair, economic development, the completion of a Landmine Impact Survey and the beginning of the process of integrating data into a system for use in the 2004 demining season. In addition, 83 mine victims received treatment at the Slovenian Rehabilitation Institute in FY03.

# EUROPE



# CROATIA

## The Landmine Problem

Croatia has a serious landmine problem stemming from its 1991–1995 war with the Yugoslav Federation. It is estimated that landmines and unexploded ordnance (UXO) contaminate almost a tenth of Croatian territory. The Croatian Mine Action Center (CROMAC) estimates that minefields cover approximately 1,700 kilometers<sup>2</sup> of land. The mine-affected areas run the length of the

country, roughly paralleling the lines of confrontation between Croatian and Serbian forces during the war. From 1991 through December 2000, the Croatian Center for Demining recorded 1,320 landmine incidents that killed 365 and wounded 1,281, and many of these wounded required amputations. Casualty estimates also indicate that mines and UXO killed nearly 300 children and injured even more.

## United States Assistance

Since Fiscal Year (FY) 1999, the United States has provided more than \$14,082,000 in humanitarian mine action assistance to Croatia. The first U.S.-provided assistance supported the Return Assistance Program through contracts awarded to local demining firms, with the assistance of the UN Mine Action Center in Croatia. This U.S. policy initiative, designed to facilitate reconstruction, rehabilitation, and reconciliation efforts in Croatia, provided mine clearance

assistance to municipalities, thereby encouraging the return of ethnic minorities and other displaced persons. Demining work funded by U.S. contributions was contracted by the International Trust Fund (ITF) for Demining and Mine Victims Assistance, in coordination with the CROMAC. In FY 2003, the United States provided an additional \$1,779,000 in ITF funds to Croatia for demining activities and the completion of a technical survey conducted by Norwegian People's Aid.

## Accomplishments

Since 1999, U.S.-funded demining projects in Croatia have returned nearly 3,500,000 meters<sup>2</sup> of land to safe use, and destroyed more than 800 mines and 300 items of UXO. The United States has also financed the development of a locally manufactured remote-controlled mini-mine flail vehicle and, in a funding partnership with the U.S. non-governmental organization, Roots of Peace, and its U.S.

winemaker backers, has earmarked donations to the ITF for the clearance of mines in the country's grape-growing regions. Both projects have had significant economic, as well as humanitarian, benefits. A mine risk education program, begun in FY99, seems to be having a positive effect.



## ESTONIA

### The Landmine Problem

Although Estonia's landmine and unexploded ordnance (UXO) problem dates back to World War I, the majority of UXO on the ground today date from World War II. In addition, caches of buried UXO are found on a routine basis during planned demining/excavations, as well as in newly constructed building projects both in cities and in the countryside. While it is difficult to estimate the exact number of landmines, Estonian authorities believe that the quantity of UXO is in the hundreds of thousands. Since 1992,

the Government of Estonia has reported finding thousands of pieces of UXO and landmines in its territory, mostly in the Narva region in the northeast (an area of about 20 kilometers<sup>2</sup> has a particularly heavy concentration), in the Voru region, and along the Emajogi River in the east-central Tatu region, where large battles occurred in 1944. In 2002, one civilian was killed and seven others injured in UXO incidents.

### United States Assistance

Estonia received \$235,000 in U.S. funds in FY03 for equipment, technical support, vehicles, diving supplies and maintenance support. Funding from previous years has allowed the Government of Estonia to procure demining equipment and personal protective equipment for deminers; provide training; develop a UXO/mine risk education program; and expand demining/UXO clearance operations to allow establishment of a training center

in Tartu where U.S. military personnel conducted a "Train-the-Trainer" program to International Mine Action Standards (IMAS). U.S. military trainers conducted three humanitarian mine action "Train-the-Trainer" missions from 1999-2000. Twenty-seven U.S.-trained Estonian personnel are now competent to conduct meticulous, safe humanitarian demining in accordance with IMAS.

### Accomplishments

Beginning in 2000, the Government of Estonia's Self-Defense Board, an organization with experience in demining that now possesses modern equipment, training and organization, has been conducting proactive, rather than reactive, landmine and UXO clearance operations. Since 1992, Estonia has cleared more than 116.55

kilometers<sup>2</sup> of farmland, returning it to productive use, and destroyed nearly 27,500 pieces of UXO. In addition, with U.S. assistance, Estonia was able to complete UXO clearance of the Pakri Islands (46.62 kilometers<sup>2</sup>), and declare them safe for public recreation.



## GEORGIA

### The Landmine Problem

The landmine and unexploded ordnance (UXO) problem in Georgia stems primarily from the conflict in the Abkhazia region of the country in 1992–1994. Ongoing partisan activity in some parts of Abkhazia also contributes to the problem. According to the Ministry of Defense of the Government of Georgia (GOG), between 20,000 and 70,000 mines are in the soil, contaminating approximately 18,500,000 meters<sup>2</sup> of land in Abkhazia, and 220,000 meters<sup>2</sup> of land in the rest of the country. The majority of the mines are located in Abkhazia in northwestern Georgia. The remainder are in the South Ossetia/Tskivani region in north-central Georgia; the former Soviet ammunition storage facility in Osiauri in eastern Georgia (an estimated 2,000 mines); Kopitnari Air Base in western Georgia (an estimated 1,000 mines); Omal; Shenako; areas near Georgia's northern border

with Chechnya; and parts of the Georgia-Armenia and Georgia-Azerbaijan borders. Many of these mines are located around former Soviet and present Russian military bases. Others are in minefields adjacent to or collocated with residential, agricultural and grazing areas, posing a serious danger to both people and livestock. The GOG estimates there are approximately 15,000 items of UXO present, mainly in Orfilo in the Akhaltsikhe region in southern Georgia and at the former Russian military base at Vaziani, under Georgian control as of July 1, 2001. Mines and UXO restrict the operations of aid agencies, hinder efforts to rebuild Georgia's shattered infrastructure, and undermine tourism, the former economic mainstay of the country. In 2002, 70 new landmine/UXO casualties were recorded.

### United States Assistance

In FY03, the United States allocated \$1.05 million to Georgia for operations in the Abkhazia region conducted by the non-governmental organization, The Hazardous Area Life-Support Organization (HALO) Trust. Funding in previous years went to continue support of The HALO

Trust's mine clearance operations, and to purchase mine detectors, personal protective equipment and vehicles. Since 1998, the United States has provided more than \$582,600 for humanitarian mine action in Georgia.

### Accomplishments

In 2000, during a unique U.S. Department of State-inspired initiative ("The Beecroft Initiative"), U.S. military personnel conducted a one-time Humanitarian Mine Action Confidence and Security Building Measure event. Georgia hosted this critical event, allowing the Department of Defense to provide training and equipment to a total of 45 Georgian, Armenian and Azerbaijani deminers who could then conduct manual demining operations in compliance with International Mine Action Standards. The training also included emergency medical treatment and communications. The HALO Trust mine clearance operations from April 1, 2002 to March 31, 2003

in Ochamchire Province have resulted in the manual or mechanical clearance of 279,916 meters<sup>2</sup> of land, and the destruction of 409 landmines and 823 pieces of UXO. Since 1997, The HALO Trust also conducted mine risk education briefings to more than 52,000 people. Overall, since 1997, The HALO Trust has cleared more than 4,594 mines and 3,405 pieces of UXO, returned 936,891 meters<sup>2</sup> of land and briefed 52,000 people on mine risk education. The HALO Trust reports that their efforts have significantly reduced Abkhaz civilian casualties, from 50–60 per year in 1994 to approximately 12 per year currently.



*A U.S.-funded HALO Trust mine risk education session in a Georgian classroom. The instructor is holding a photo of a rusty but still lethal anti-vehicle mine on a beach. It is important that mine risk education materials include depictions of how landmines and UXO are likely to look in field conditions, where they may be partially hidden—if visible at all—and weathered.*



## MACEDONIA

**The Landmine Problem**

Macedonia has a small landmine problem along its border with Kosovo, resulting from the 1999 conflict between Serbian military and police forces and Albanian Kosovar forces. Serbs planted the mines in this territory to block access to routes, and to forestall possible ground attacks by NATO forces supporting the Albanian Kosovo Liberation Army. A number of known but unmarked minefields are located in the mountains along the border with Kosovo, but Macedonian border guards fear that additional landmines may exist in the area, posing a threat not only to their patrolling activities, but also to local civilians and their livestock. A more pressing UXO problem exists as a consequence of a conflict in early 2001 between the Macedonian Army and indigenous ethnic-Albanian forces. The fighting had ceased by August, and in early September, a combined team of representatives from the U.S. Department of State, the International Trust Fund (ITF) for Demining and Mine Victims Assistance and the Macedonian Government conducted an assessment of the situation. The results of the contamination assessment confirmed that the main problem areas were concentrated in the north/northwestern regions of the country. U.S.

**United States Assistance**

Since October 2001, the United States has provided \$1,602,000 in mine action assistance to Macedonia through the ITF. Almost \$400,000 was expended to fund six Bosnian demining teams to conduct emergency clearance work. In addition, the United States also made in-kind contributions of demining equipment valued at approximately \$500,000,

**Accomplishments**

The training of a Macedonian clearance cadre of more than 60 personnel, including 16 explosive ordnance disposal (EOD) specialists schooled at the EOD Center in



***Macedonian humanitarian deminers clear a railroad track. In the foreground, a mine detecting dog searches for the scent of explosive in a possible mine as his handler carefully observes him.***

humanitarian mine assistance to Macedonia commenced in October 2001.

consisting of vehicles, metal detectors, radios, medical gear, a computer and other office equipment. In FY03, the United States contributed \$96,500 for use by local Battle Area Clearance (BAC) demining teams working in the country.

Slovenia, was completed in July 2002. The teams were trained in demining, BAC, EOD and demolitions and began actual operations in the field on September 30, 2002.



## SERBIA AND MONTENEGRO

### The Landmine Problem

Serbia and Montenegro are affected by unexploded ordnance (UXO) and landmines, including some UXO in key waterways. The United Nations (UN)-administered international protectorate of Kosovo has had a serious landmine and unexploded ordnance (UXO) problem as a result of its civil war with greater Serbia in 1999, and the subsequent NATO air strikes against Serbian military and internal security forces located in the province. The UN

### United States Assistance

Since FY99, the United States has allocated more than \$28,650,000 in humanitarian demining assistance to Serbia and Montenegro and Kosovo. This assistance has included mine risk education for Kosovar refugees prior to their return from camps in Albania and Macedonia and emergency demining operations province-wide. It has also funded UXO clearance operations that focused primarily on dud-fired cluster bomb submunitions that posed the major threat to the civilian population. In 1999 and 2000,

### Accomplishments

Landmine and UXO clearance operations were conducted at schools, houses, roads, agricultural areas, water pipelines, irrigation channels, power lines and a customs post for the UN on the Albania-Kosovo border. U.S. assistance also helped to equip the UN Mine Action Coordination Center and supported mine awareness programs sponsored by UNICEF and other non-governmental organizations. These operations have made life safer for the Kosovar population, and were particularly crucial in helping thousands of returning refugees prepare for the harsh living conditions during the winter of 1999 in this war-torn province.

U.S.-funded demining teams were responsible for the clearing of almost 4,900,000 meters<sup>2</sup> of land and destroying 54 mines and more than 4,600 cluster bomb submunitions and other UXO immediately following the 1999 war. Although UNMIK declared all known minefields and cluster munitions in Kosovo to have been cleared "by internationally accepted standards" at the end of the 2001 demining season, new discoveries of UXO and landmines continue to be reported. The task of eliminating the residual threat was turned over to local Kosovar demining

identified approximately 800 mine-affected areas and more than 300 UXO sites in Kosovo and along the borders with Albania and Macedonia. According to the UN, as of July 2004, UXO and landmines had killed 107 and injured 398 people in Kosovo. Kosovo continued to be administered under the civil authority of the UN Interim Administrative Mission in Kosovo (UNMIK), pursuant to UN Security Council Resolution (UNSCR) 1244.

with support from the U.S. Department of State and the United Nations Children's Fund (UNICEF), DC Comics *Superman* mine risk education comic books in Albanian and Serbian, funded by the U.S. Defense Security Cooperation Agency, were distributed to returning refugees and used in schools. In FY03, \$832,500 was provided for battle area clearance activities, excavation/defusing of big bombs and mine risk education in Kosovo.

forces under UN supervision. The local deminers receive training and additional supervision from international non-governmental organizations.

On February 14, 2002, the Mine Action Center Belgrade opened with the help of the United States, the International Trust Fund (ITF) for Demining and Mine Victims Assistance, the Government of Serbia and Montenegro and other donors. Technical survey teams have worked throughout the country to identify four regions with priority status: the Belgrade City Center, Batajnica, Zvezdara and Avala, in addition to the Niš Airport. Clearance operations of these areas began in spring 2003. Initial clearance of the Niš Airport allowed operations to resume and spurred economic development. On September 24, 2002, the Regional Center for Underwater Demining in Montenegro was also established. Ten diving experts have undergone underwater explosive ordnance disposal training at the Center so far. These teams have located large amounts of UXO in the Veriege Strait and in the Danube and Sava Rivers. The Center has also trained underwater humanitarian demining teams from seven countries.



*Left Above—Cover of the Albanian-language version of the mine risk education comic book developed by DC Comics for Kosovo, drawing on findings from past projects and surveys conducted in refugee camps in Albania and Macedonia. First distributed in 1999 to returning ethnic-Albanian Kosovar refugees.*

*Left Below—Page from the DC Comics Albanian-language mine risk education comic book depicting local Kosovar children and Superman discussing the perils and indicators of danger in areas affected by landmines and UXO.*



**GUATEMALA**

**HONDURAS**

**NICARAGUA**

**PERU AND ECUADOR**

# **LATIN AMERICA**



## GUATEMALA

### The Landmine Problem

After 30 years of internal conflict, formerly contested zones in northwest Guatemala harbor a moderate landmine and unexploded ordnance (UXO) problem. The Organization of American States (OAS) estimates that between 1,500 and 2,000 landmines contaminate an area that encompasses the Playa Grande/Ixcan region of Quiche, and the vicinity of guerrilla base camps near the

Atitlan and Tajumulco volcanoes. The OAS also estimates that approximately 5,000 pieces of UXO infest agricultural land, villages and towns in 13 high-risk departments of Guatemala. Since the final peace accord was signed in December 1996, no landmine-related casualties have been reported.

### United States Assistance

In FY03, the United States allocated \$1,511,000 to the OAS/Inter-American Defense Board (IADB) to support humanitarian mine action in Central America. In conjunction with other donors, this contribution has funded training, a landmine/UXO awareness campaign and landmine/UXO clearance in Guatemala.

Central America coping with landmine injuries, war wounds and other disabilities. Additional U.S. assistance continued to support training, mine risk education campaigns, and mine clearance in affected areas. The U.S. Government has also furnished Guatemala with four demining technology prototypes for field-testing.

Since 2000, the U.S. Agency for International Development, in a combined effort with the Pan American Health Organization, has contributed \$500,000 to improve the physical, social and economic status of people in

As of August 2004 when this edition of *To Walk the Earth in Safety* was published, the United States had contributed over \$25,000,000 to the OAS/IADB for all humanitarian mine action in both Central and South America.

### Accomplishments

Since 1998, U.S. support has helped Guatemala to destroy more than 349 mines, and to restore almost 8,631 meters<sup>2</sup> of terrain to productive use.



## HONDURAS

### The Landmine Problem

As a result of conflict with neighboring countries, Honduras is infested with an estimated 15,000–35,000 landmines implanted along its borders with Nicaragua and El Salvador. Although the mined areas are not densely

populated, civilian injuries are periodically reported. In 1998, Hurricane Mitch's high winds and heavy rains shifted previously marked minefields, making them even more difficult to locate and subsequently clear.

### United States Assistance

During FY03, the United States contributed \$2,011,000 to the Organization of American States (OAS)/Inter-American Defense Board (IADB). This funding supported mine clearance, survivor assistance and a mine detecting dog program. Under the supervision of the OAS/IADB, the United States has supported demining operations in Honduras since FY 1993, providing operational and

logistical support for demining training conducted by multinational teams. As of August 2004 when this edition of *To Walk the Earth in Safety* was published, the United States had contributed over \$25,000,000 to the OAS/IADB for all humanitarian mine action in both Central and South America.

### Accomplishments

Through September 30, 2003, the U.S.-trained Honduran demining unit has cleared nine major minefields measuring approximately 431,785 meters<sup>2</sup> of land and destroyed more than 2,271 landmines and several hundred pieces of UXO.

A partnership fostered by the U.S. Department of State between the Polus Center for Social and Economic Development, a U.S. non-governmental organization,

and Grapes for Humanity, a private Canadian charitable foundation, led to the creation of a center in Choluteca, Honduras, devoted to treating landmine survivors and other victims of conflict-related health problems. The Vida Nueva (New Life) center opened in February 2003.



## NICARAGUA

### The Landmine Problem

After 12 years of armed conflict and civil strife, Nicaragua became the most heavily mined country in Central America. Warring factions laid mines during this extended period of conflict. Although the conflict ended in 1990, an estimated 134,000 landmines remained. However, after 11 years of demining efforts by government mine

clearance operations, this quantity has been reduced significantly, to approximately 64,000 landmines. Most of the mine-affected area is confined to the northern and southern borders, and to the central departments of Esteli, Jinotega and Matagalpa. Landmines were also laid around installations in north-central and central Nicaragua.

### United States Assistance

Nicaragua receives assistance from the United States through the Organization of American States (OAS)/Inter-American Defense Board (IADB). In FY03, the United States allocated \$2,011,000 to the OAS/IADB for mine clearance and mine survivor assistance programs. The U.S. Department of Defense Demining R&D Program has assisted Nicaraguan authorities in previous years in conducting a metal detector evaluation to determine the most suitable detection device for their needs.

RONCO Consulting Corporation, a Department of State contractor, has trained a total of 16 mine detecting dog and handler teams to conduct demining operations.

Targeting Nicaragua and other Central American nations, the U.S. Agency for International Development (USAID) Leahy War Victims Fund and the Pan American Health Organization have developed a regional approach to improving the physical, social and economic development of landmine survivors and other people with disabilities.

The program has enhanced professional development and training through a variety of methods including academic scholarships and microfinance activities to extend savings and credit programs to the disabled.

Through a USAID subgrant to the Polus Center for Social and Economic Development, partial funding is provided for the Walking Unidos clinic to manufacture and fit prosthetic limbs and orthotics as well as providing prosthetic replacements, adjustments and foot replacements.

As of August 2004 when this edition of *To Walk the Earth in Safety* was published, the United States had contributed over \$25,000,000 to the OAS/IADB for all humanitarian mine action in both Central and South America. Funds have been used to support training of more than 350 deminers, the purchase of equipment, mine survivor assistance and to conduct mine risk education campaigns.

### Accomplishments

U.S. funds that assist the Nicaraguan program have helped the country become an example of one of the most successful humanitarian mine action programs in the Western Hemisphere. To date, Nicaraguan deminers have

found and destroyed approximately 21,868 landmines, and declared 24 Nicaraguan municipalities and 168 kilometers of international borders mine-safe. In total, approximately 1,047,811 meters<sup>2</sup> of land have been cleared.

*Nicaraguan mine risk education trainers, funded by the United States through the OAS/IADB, teach the dangers of landmines...*



... to rapt young pupils.





## PERU AND ECUADOR

### The Landmine Problem

Two separate conflicts created the current landmine problem in Peru. The first was an internal conflict between Peruvian Armed Forces and armed insurgent groups. During this conflict, the Government of Peru used landmines in several parts of the country to protect critical infrastructure. The Peruvian National Police has reported that more than 54,000 anti-personnel landmines were placed around 1,655 high-tension electrical towers throughout the country. In the second conflict in early 1995, during a brief border war between Peru and Ecuador, mines were laid along the disputed 79-kilometer-long Cordillera del Condor region. Landmines were also placed haphazardly along other sensitive areas of the border during the fighting. Although the actual number of landmines planted is unknown, the Ecuadorian government reports that 50,000–60,000 landmines remain in its soil. The Peruvian Government estimates that 120,000 landmines are situated along its border. The environment poses a significant challenge to mine clearance operations. Many mined areas are in steep terrain and covered with thick

tropical vegetation. Erosion and flooding are also problems in some areas, as is the laterite soil with its high metallic content that can create false signals or mask the presence of landmines from landmine (i.e., metal) detectors. However, casualty rates are relatively low, because most minefields, particularly along the Ecuadorian border and in Peru's most severely affected region, Cenepa Valley, are in sparsely populated areas. Twinza National Memorial Park is a key political priority for clearance, because it is heavily saturated with landmines and unexploded ordnance (UXO). The jungle terrain in Morona-Santiago Province is challenging, because it is filled with a mix of conventional minefields, abandoned fighting positions and UXO. From 1995–1999, approximately 120 landmine casualties occurred in Ecuador. However, due to poor record keeping, mine-casualty statistics, particularly regarding civilians, are incomplete or inaccurate. Peruvian authorities have reported a total of 179 mine victims since 1995. The casualties include 62 military personnel, 67 policemen and 50 civilians.

### United States Assistance

From 1998 through September 30, 2003, the United States contributed \$10,404,000 to humanitarian mine action in both Peru and Ecuador. U.S. military personnel have made contributions to both countries through their "Train-the-Trainer" program, the provision of vehicles and demining equipment and mine risk education. In March 2001, the Government of Ecuador signed a Memorandum of Agreement (MOA) with the Organization of American States (OAS), making it a partner in humanitarian demining

operations in Ecuador on a pilot basis. Peru signed a similar MOA with the OAS in May 2001. The purpose of the OAS Mine Action Program is to ensure that priority is given to location, demarcation and destruction of landmines that endanger the civilian population, as well as to the development of mine risk education campaigns, mine survivor assistance and rehabilitation programs, and the socio-economic recovery of formerly mined areas.

### Accomplishments

Both Peru and Ecuador have made significant progress in their respective humanitarian demining programs. Since 1999, U.S. military personnel have trained 612 Ecuadorians and 140 Peruvian Army personnel in basic demining techniques. In February and July 2000, demining operations began in El Oro Province and in the Oriente Region of Morona-Santiago, Ecuador. In March 2003, the OAS reported that a total of 61,649 meters<sup>2</sup> of land had been cleared of 4,286 anti-personnel landmines. In Peru, between June 2002 and May 2003, 17,651 mines were cleared from around 688 high-tension electrical towers. Land has also been cleared to permit the placement of 28 border markers between the two countries. Mine clearance operations furthered plans for the construction of a road from the Ecuadorian border to the Twinza National Memorial Park. Mine risk education has assisted populations in the Provinces of El Oro and Morona-Santiago.



**Typical rugged landmine-infested terrain along the Ecuadorian-Peruvian border.** (Photo courtesy of Office of Weapons Removal and Abatement)



EGYPT

IRAQ

JORDAN

LEBANON

YEMEN

# MIDDLE EAST



## EGYPT

### The Landmine Problem

Egypt is one of the most landmine- and unexploded ordnance (UXO)-afflicted countries on earth. The Government of Egypt claims that the country is infested with approximately 20,000,000–21,000,000 mines and UXO, and that removing or destroying them is essential to public safety and national development efforts. The largest mine and UXO problem, dating from World War II, exists in the northern portion of the Western Desert, along the coast of the Mediterranean Sea, between the Nile Delta and the Libyan border; the most heavily mined areas are Alexandria, El Alamein, Ras-Al-Hekilometersa,

Marsa Matruth, Sidi Barrani and Salloum. Post-World War II-emplaced landmines and UXO are in the east, in the Suez Canal area, along the western coast of the Red Sea, and in the Sinai Peninsula. The mines and UXO affect 2,800 kilometers<sup>2</sup> of land: 2,539 kilometers<sup>2</sup> in the west, and 261 kilometers<sup>2</sup> in the east. According to the Egyptian Army, landmines and UXO have killed at least 696 people (including 418 civilians) and injured at least 7,617 people (4,599 civilians) since the end of World War II, with the majority of serious injuries having occurred in the east.

### United States Assistance

In previous years, Egypt received assistance from the United States to fund a U.S. military “Train-the-Trainer” program and to provide for the acquisition of modern demining equipment. In addition, the U.S. Department of Defense has evaluated mechanical demining systems in the World War II battlefields surrounding El Alamein.

Humanitarian mine action in Egypt is closely connected to the country’s overall development goals, particularly along the northern Egyptian coast. In 2002, the U.S.-funded training program for deminers continued using residual funds, including a seminar on mine action held at the end of April 2003.

### Accomplishments

The “Train-the-Trainer” program focused on mine detection and disposal, mine risk education and survey and information management. Training also included a leadership and operations seminar for Egyptian Army

battalion and company commanders. In March 2003, Egypt announced a national plan to clear mines and to develop the northwest coast that would begin immediately. It is estimated that this effort will take 20 years to complete.



## IRAQ

### The Landmine Problem

Prior to Operation Iraqi Freedom (OIF), Iraq was believed to be one of the most heavily mined countries of the world. Some landmines there date back to World War II. Iraqi forces placed most landmines during Saddam Hussein's internal and external conflicts in the 1970s and 1980s. Iraq laid more landmines on its own soil during the 1991 Gulf War following its invasion of Kuwait, and sowed additional mines on its territory during the 2003 conflict.

Before OIF, humanitarian mine action efforts were limited to the northern Kurdish-controlled areas. The United Nations, the United States and other donors supported substantial mine risk education and landmine/

### United States Assistance

In 2002, the Department of State provided \$2,150,138 to Mines Advisory Group and Norwegian People's Aid (\$1,413,292 and \$746,846 respectively) to reinforce their existing humanitarian mine action operations in northern Iraq so as to improve the safety and living conditions of Iraqis living in that area. In 2003, the Department of State provided \$15,218,000 to Iraq in humanitarian mine action assistance. These funds helped to establish Iraq's first National Mine Action Authority and regional Mine Action Centers in Baghdad, Irbil and Basrah. Assistance also allowed for the creation of the non-governmental Iraqi Mine/UXO Clearance Organization equipped with modern metal detectors, mine detecting dogs, manual demining and explosive ordnance demolition expertise, highly qualified medical technicians and logistic and administrative support personnel and equipment.

### Accomplishments

Immediately after the defeat of Saddam Hussein's forces, the Department of State's Quick Reaction Demining Force (QRDF) clearance of mines and UXO around downed power lines enabled Iraqi crews to repair the electrical grid system and increase power to Baghdad by fifty percent, affecting service to more than three million Iraqis. The QRDF performed operations in the Al Hilla and Baghdad regions and cleared more than 9,583 kilometers<sup>2</sup> in two minefields, as well as 1,856,434.29 kilometers<sup>2</sup>. In addition, RONCO Consulting Corporation trained and equipped a cadre of nine demining teams with mine detecting dogs and provided technical advice and management training.

The United States also took other significant steps to strengthen humanitarian mine action in Iraq. The Department of State completed a thorough inventory of United Nations "Oil-for-Food" mine action assets

unexploded ordnance (UXO) clearance projects in those areas. Meanwhile, civilians living under the control of Saddam Hussein's regime risked injury or death from persistent landmines, and humanitarian demining was actually prohibited. Following the liberation, Coalition forces, the Department of State's Quick Reaction Demining Force, Department of State-contracted RONCO Consulting Corporation, Mines Advisory Group, Norwegian People's Aid and other non-governmental organizations rapidly began clearing landmines and UXO throughout Iraq, returning valuable land and infrastructure to productive use.



**Abandoned ordnance left behind in sizable quantities throughout Iraq by Saddam Hussein's forces also posed a major humanitarian threat, besides emplaced landmines and UXO. The U.S. Army Corps of Engineers has made significant progress in securing former regime munitions, such as this cache of artillery shells and mortar rounds, and commencing their safe destruction.**

in northern Iraq and then successfully transferred UN authority and those assets (equipment, vehicles, facilities) to Iraqi control. Turnover was completed in November 2003. Also in 2003, the Department of State designed a national humanitarian mine action strategy for Iraq and formulated a mine action budget for the following year - fiscal year 2004- in excess of \$100 million of which about \$40 million is being funded by Iraq. The Iraqi Government has made a significant contribution to Iraq's demining and UXO clearance needs by contributing personnel, equipment, facilities and vehicles to its national and regional mine action infrastructure. Finally, the Department of State created a national landmine database and first accredited and then coordinated all civil mine action activities with those of the Coalition forces.



## JORDAN

### The Landmine Problem

According to the Royal Corps of Engineers of the Jordanian Armed Forces (JAF), approximately 310,000 landmines seriously affect an area of approximately 100 kilometers<sup>2</sup>. Most mines date from the 1967 Arab-Israeli conflict. The majority of landmines are located in two discrete areas in the northwest region of the Jordan River Valley: one area near the northern end of the Valley on the border with Syria, near Lake Tiberias, and the other farther south, near the northern end of the Dead Sea. Israeli-laid minefields are located mainly in the southwest part of the country in the Araba Valley in areas restored to Jordan after the Israeli occupation. Unexploded ordnance (UXO) is not a serious problem in Jordan. According to the head of the Engineering Corps, "The Jordanian Armed Forces planted up to 236,774 mines among which 85,665 are anti-tank (AT) and 151,009 are anti-personnel (AP) in the Aqaba region, Jordan Valley, the Jordanian-Syrian borders, while

Israel planted up to 73,153 mines among which 8,323 are AT and 64,802 are AP in the Jordan Valley and Al Baqoura." Demining is difficult because many of the mines, laid more than 30 years ago, have moved due to erosion, shifting sands, rain and mudslides. At present, the Government's demining operations focus on the 300 minefields in the Jordan River Valley. The Valley is the most fertile farmland in Jordan, a country where arable land is scarce, and these mines severely impede the production of food crops. JAF Medical Services reports that at least 636 Jordanians, including 370 civilians, have become landmine victims since 1967, and 92 of these victims died from injuries. The majority of civilian casualties were farmers, shepherds, hunters and children. The Government reported 15 new mine casualties in 2002, and casualties continued in 2003 with the injury of two more people.

### United States Assistance

In FY03, the U.S. Department of State committed \$893,000 for the purchase of equipment and spare parts for Jordan's humanitarian mine action program. The majority of funding from previous years went to the purchase of demining equipment and spare parts. The funds also enabled Jordan to receive U.S. military humanitarian mine action training to International Mine Action Standards and to acquire a computer-managed training system known as the Demining Support System. Many of the remaining minefields are in areas with rough terrain. Demining in these areas will require heavy equipment and new technologies that U.S. funding can provide, such as bulldozers, front-end loaders, dump trucks and manual demining equipment (personal protective vests, helmets, and mine detectors). The U.S. Department of Defense has tested several mechanical mine clearance systems in Jordan, including the Mini-Flail, the Enhanced Teleoperated Ordnance Disposal System and the Rhino. The United States will continue to support Jordan's mine action operations and work with the Government toward the goal of the country becoming mine-safe early this century.



***Jordanian deminers wearing U.S.-provided personal protective equipment bring up lane demarcation stakes.***

### Accomplishments

Since 1997, a national mine risk education program and successful demining operations have reduced civilian casualties dramatically, while the use of more effective personal protective equipment has lowered military casualties significantly. U.S. military training has improved the capabilities of Jordan's Royal Corps of Engineers in mine detection and disposal, mine risk education and survey and information management. At present, Jordan is conducting Technical Surveys of minefields along the

Syrian border. In addition, after a joint effort to clear 10 Israeli-laid minefields in the Araba Valley, Jordan and Israel are discussing a strategy to remove the remaining mines. U.S. assistance has helped Jordan to keep 100 deminers in the field on a daily basis. From the beginning of the national demining program in 1993 to April 2003, demining operations have cleared and destroyed 57,391 anti-personnel mines and 40,407 anti-vehicle mines from 10,953 kilometers<sup>2</sup> of land.



## LEBANON

### The Landmine Problem

The French Mandate period (1923–1943), the Lebanese Civil War (1975–1990) and the time during which Israel occupied south Lebanon (1978–2000) have created a country with a large landmine and unexploded ordnance (UXO) problem. There are approximately 130,000 landmines and UXO in the former Israeli security zone, and approximately 150,000 more in the rest of Lebanon. In December 2001, the Government of Israel informed the Government of Lebanon of the presence of another 300,000 landmines, mainly along the border between the two countries. A U.S.-funded survey conducted by Lebanon's Landmines Resource Center in 1998 and 1999 confirmed that minefields and suspected minefield locations include agricultural areas, former battlefields and cities and

villages located along old demarcation lines. Although some minefields are marked and fenced off, many others remain unmarked. Subsequent assessments have also found that the threat of improvised explosive devices, coupled with mines and other UXO, have left Lebanon with an unusually diverse and complex problem. More than 40 percent of reported landmine victims suffered injuries while engaged in agricultural activities, the major source of income for villagers. In South Lebanon and West Bekaa a noticeable decrease in agricultural production has been noted because of the presence of landmines. New minefields and dangerous areas are still being discovered and tasked for clearance as demining progresses in South Lebanon.

### United States Assistance

In Fiscal Year (FY) 2003, the United States allocated \$1,475,000 in humanitarian mine action aid. With help from the United States, Lebanon implemented a mine detecting dog (MDD) program, provided logistical demining training services to the National Demining Office of the Lebanese Armed Forces (NDO/LAF) and purchased mine detectors and heavy demining equipment, all of which have provided an innovative means of improving the country's demining capability. In 2003, Department of Defense personnel provided training to NDO and LAF personnel focusing on areas of UXO identification and destruction, mine risk education and program management. In preceding years, the U.S. Department of Defense provided Thiokol demining flares to the LAF for field-testing in an effort to enhance their capability to dispose of landmines and UXO. Additional assistance has come from the U.S. Agency for

International Development (USAID), which funded the establishment of a mine-victim rehabilitation center in Jezzine, the site of the highest concentration of landmine victims. The Rehabilitation Center provides vocational training for 374 landmine victims and organizes mine risk education campaigns warning about the dangers of landmines.

In 1996, USAID's Leahy War Victims Fund began supporting the World Rehabilitation Fund's (WRF) nationwide prosthetics and orthotics program, facilitating greater awareness and understanding of the magnitude of the landmine problem and its related social burden. Findings from this effort set the foundation for the 1998 launch of a first-of-its-kind, nationwide humanitarian mine action program.

### Accomplishments

In 2002, the Lebanese Army reported demining 1.7 million meters<sup>2</sup> of land, 70 percent of which will allow the construction of new housing for returnees to these previous mine-affected areas, as well as the use of infrastructure and roads. In 2003, the Army reported clearing 642 anti-personnel mines, 160 anti-vehicle mines, 14,031 bombs and other UXO. The United States continues to work with Lebanon toward the goal of achieving a qualified, trained and equipped cadre of deminers capable of conducting the country's own humanitarian mine action program.

Now, USAID funds WRF's "Expanding Economic Opportunities for Survivors of Landmines in the District of Jizzine in South Lebanon" program to foster the economic inclusion of war-affected individuals. Through this initiative, landmine survivors engage in income-generating agricultural activities such as egg production, bee keeping and honey processing.



## The Landmine Problem

Mines were used in Yemen during three main periods: 1962–1969, 1970–1983 and in 1994. A Landmine Impact Survey identified 592 mine-affected communities in 95 districts in 19 of Yemen’s 20 Governorates. Approximately 828,000 people, about six percent of the population, live in these communities. Of the approximate 1,100 identified contaminated areas, 859 contain mines affecting 799 kilometers<sup>2</sup> of land, and unexploded ordnance (UXO), located in 200 locations, cover an area of 200 kilometers<sup>2</sup> of land. Combatants laid these landmines in an arbitrary and haphazard fashion in sand dunes and fields and alongside roads without marking their locations. The mines block access to grazing land and to water sources for drinking and irrigation. For this reason, herders and children who do not attend school are the most vulnerable to landmine injuries. Since 1998, landmines have caused more than 700 casualties.



*A Yemeni Army deminer, garbed with personal protective equipment supplied by the United States, learns how to properly excavate a landmine as a U.S. military “Train-the-Trainer” instructs him.*

## United States Assistance

The United States contributed \$750,000 to humanitarian mine action to Yemen in FY03. U.S. funding from previous years has enabled Yemen to acquire, among other items, additional demining equipment, vehicles, mine clearance materials, medical supplies and logistic support items and to continue current mine clearance contracts. In addition, mine detectors, vehicles and personal protective equipment for all deminers were procured to help equip a demining company.

U.S. assistance has also funded a national demining program infrastructure and a Train-the-Trainer program, conducted by U.S. military personnel. Mine risk education and mine survivor assistance teams have educated the local populace on demining efforts, while locating and offering help to those injured by landmines. As part of its commitment to the Government of Yemen, the United States will help to establish a program that will assist the country in becoming mine-safe.

## Accomplishments

Yemen’s humanitarian mine action program is producing visible results, and it enjoys an exceptional reputation, locally and internationally. Using the results of the world’s first nationwide Landmine Impact Survey, funded in part by the United States, a five-year strategic plan was developed to clear 14 high-impact communities.

By the end of 2002, six of these communities had been cleared and declared safe.

A U.S. ophthalmology team has treated more than 100 landmine survivors and has simultaneously conducted medical training for local personnel.

# Office of Weapons Removal and Abatement



The Office of Weapons Removal and Abatement (PM/WRA) in the U.S. Department of State's Bureau of Political-Military Affairs, creates local, regional and international conditions conducive to peace, stability and prosperity by curbing the illicit proliferation of conventional weapons of war such as light automatic weapons and rocket propelled grenades and removing and destroying others, such as persistent landmines and abandoned stocks of munitions, that remain and pose hazards after the cessation of armed conflict.

The Office develops, implements and monitors policy, programs and public engagement efforts that contribute to the prevention and mitigation of conflict, as well as post-conflict social and economic recovery. The focus is three-fold: to curb the illicit trafficking, availability and indiscriminate use of conventional weapons of war that fuel regional and internal instability; to pursue and help manage post-conflict cleanup of such weapons in areas needed for civilian use; and to engage civil society to broaden support for our efforts and enhance U.S. influence.

Conventional weapons and munitions addressed by the Office include but are not limited to landmines, unexploded ordnance (UXO), abandoned ordnance (AO), man portable air defense systems (MANPADS) and other small arms and light weapons (SA/LW). The office strives to limit the access of terrorist and criminal groups to such weapons and munitions. By addressing acute humanitarian needs, this office also demonstrates the United States commitment to a set of values that respects human life. The Office works closely with other U.S. Government agencies as well as non-governmental organizations, international organizations and private enterprises.

Formed in October 2003, the Office incorporated the functions and responsibilities of the Bureau of Political-Military Affairs' former Office of Humanitarian Demining Programs, the former Office of Mine Action Initiatives and Partnerships, and the small arms/light weapons and MANPADS duties formerly managed by the Bureau's Office of Plans, Policy, and Analysis. To learn more about the Office's activities and its efforts to encourage civil society participation in these issues, visit [www.state.gov/t/pm/wra/c10388.htm](http://www.state.gov/t/pm/wra/c10388.htm).

Telephone: 202-736-7132 (in October 2004: 202-663-0100)  
Fax: 202-647-2465 (in October 2004: 202-663-0090)  
Web site: [www.state.gov/t/pm/wra/](http://www.state.gov/t/pm/wra/)



**Secretary of State Colin L. Powell meets delegates of Roots of Peace "Pennies for Peace" initiative in the U.S. State Department Treaty Room. Students from Marin County, California, and other U.S. locations, raised 7 million pennies (\$70,000) to help demine schoolyards and soccer fields in Afghanistan. Roots of Peace is one of PM/WRA's partners in mine action. (Photo courtesy of the U.S. Department of State)**



**Richard Kidd, Director of the Office of Weapons Removal and Abatement, congratulates a mine detecting dog handler, trained under PM/WRA's extensive humanitarian mine action program in Iraq. In 2003 alone, the U.S. Department of State invested more than \$15 million in humanitarian mine action in Iraq. U.S. humanitarian mine action assistance to Iraq has increased even more since that time. (Photo courtesy of the Office of Weapons Removal and Abatement)**

# Humanitarian Demining Training Center



The U.S. Department of Defense's Humanitarian Demining Training Center (HDTC) is the U.S. Government focal point for mine action training. The Center is located at Fort Leonard Wood, Missouri, providing the training and subject-matter expertise for the U.S. Humanitarian Mine Action (HMA) Program. The HDTC's primary mission is to train U.S. military personnel in accordance with International Mine Action Standards to assist mine-affected countries in establishing and building a self-sustained, indigenous HMA capacity. Training covers both HMA and explosive ordnance disposal (EOD), with special emphasis on mine clearance, mine risk education, management of mine action and the U.N.-approved Information Management System for Mine Action (IMSMA).

The HDTC has extensive training areas, a large collection of inert landmines, various mine detectors, personal protective equipment and educational displays. The facility maintains a fully equipped, state-of-the-art computer classroom for in-depth IMSMA instruction whose software is populated with geographic information and infrastructure from the local Fort Leonard Wood area, including simulated hazard areas. This real-time application allows students to conduct realistic practical landmine surveys and input this information into the IMSMA system. The HDTC conducts field exercises within Fort Leonard Wood using built-up and rural areas that emphasize lesson-specific instruction. Surveys are conducted using "simulated" landmine-hazard areas within housing areas, on school grounds and around other nearby infrastructures. The Center also conducts extensive hands-on training that includes demining training lanes, metal-free detector lanes, mine and UXO identification lanes, a full-scale mine clearance demonstration area and a functioning Regional Mine Action Center that directly supports mine action situational training exercises.

Since its inception in 1996, the HDTC has trained more than 1,500 U.S. Special Operations Forces personnel who have deployed to 33 mine-affected countries in support of U.S. HMA program goals. The HDTC also trains thousands of U.S. civilian, military and NGO personnel in mine risk education and mine awareness.

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*Training lane for deminers at the HDTC. (Photo courtesy of HDTC)*



*Terrain board of clearance operations. (Photo courtesy of HDTC)*

# U.S. Army Night Vision & Electronic Sensors Directorate



The U.S. Army Night Vision & Electronic Sensors Directorate executes the Humanitarian Demining Research and Development (HD R&D) Program with funding and oversight from the Department of Defense. The Program develops, tests, demonstrates and validates various technologies that increase the efficiency and enhance the overall safety of humanitarian demining operations. This is accomplished through the adaptation of commercial off-the-shelf equipment, the application of mature technologies and leveraging current technology developments from the U.S. Army's Countermine mission area. The Program's primary goal is to field as many prototype technologies as possible for the demining community's use in the global landmine crisis.

Every year, the HD R&D Program invites representatives from international mine action centers and NGOs to its requirements workshop. Based on the needs identified, and on ensuing in-country site assessments, decisions are made regarding the next year's developmental efforts, followed by design and development of prototype technologies. All prototype technologies undergo extensive testing to ensure design requirements are met and the equipment is ready for use.

The real test of a system is an operational field evaluation in a host nation, because the equipment undergoes testing in minefields. The evaluation allows the host country to

***The Mine Clearing Cultivator, deployed to Angola in 2003, is a remote-controlled system able to clear anti-vehicle and large anti-personnel landmines without leaving behind mine-laden berms normally associated with large mechanical mine-clearing systems. (Photo courtesy of NVESD)***

operate the equipment and determine if the prototype is useful, suitable, cost-effective and efficient. This process is extremely beneficial to all participants. The Humanitarian Demining R&D Program acquires invaluable feedback, experience and knowledge that enable it to be a more productive technology development entity. The host nation has the potential to increase the safety of deminers and to improve the efficiency of demining operations by evaluating and using the prototype equipment.

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Web site: www.humanitarian-demining.org

# Mine Action Information Center



JAMES MADISON UNIVERSITY

The Mine Action Information Center (MAIC) is a public policy center that acts as a clearinghouse of information relevant to humanitarian mine action and conducts mine action management training courses. Since the MAIC at James Madison University was established as a center of excellence in 1996, it has been a major player in international efforts to ameliorate the effects of landmines.

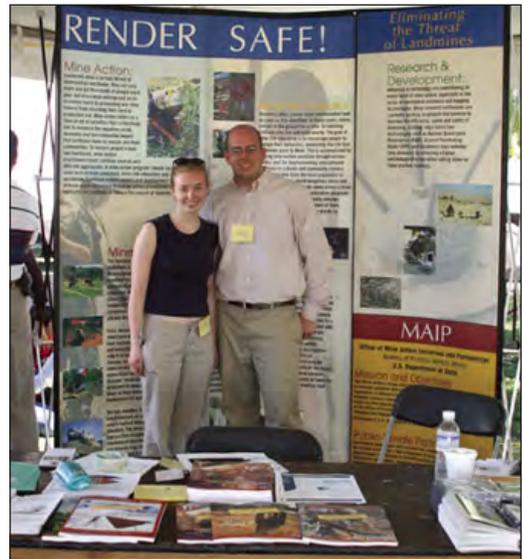
The MAIC supports many clients, including the Department of State, the United Nations, the governments of Canada and Switzerland, and regional organizations, such as the International Trust Fund for Demining and Mine Victims Assistance, and the OAS. It manages information topics that span the diverse functions within the realm of mine action, such as current mine action news; key organization contact information; studies and surveys; databases; technological advances; conference events; partnering and employment opportunities; and geographic information system software. These measures are often accomplished through the outreach of the *Journal of Mine Action*, the MAIC Web site and MAIC-hosted seminars, workshops and conferences.

The MAIC conducts the UN Development Program Senior Mine Action Manager's Course and has planned and conducted mine awareness training in Vietnam.

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**James Madison University hosts the Regional Seminar on Anti-personnel Landmine Victims, Bogotá, Colombia, October 2003.** (Photo courtesy of MAIC)



**MAIC staff members at the MAIC-Department of State exhibit booth at the 2004 South Florida Landmine Action Group Landmine Awareness Festival, co-sponsored by the U.S. Department of State.** (Photo courtesy of MAIC)

# Mine Detection Dog Center for South East Europe



The Mine Detection Dog Center (MDDC) for South-East Europe was officially opened on October 14, 2003. Funded by the U.S. Department of State—through the International Trust Fund for Demining and Mine Victims Assistance—the MDDC is recognized by the South-Eastern Europe Mine Action Coordination Council.

The Center's main goal is to develop a local capacity to train the next generation of mine detecting dogs in South-East Europe. The first steps in this process are the training of two local mine detecting dog trainers and the first six of 12 mine detecting dogs (MDD) and handlers. The first set of six MDD teams completed training in August 2004. The MDDC commenced training the second set of six MDDs shortly afterwards. On completing the training of the MDD teams, the MDDC will then begin to train MDDs for local non-governmental organizations.

The MDDC, in coordination with the Bosnia and Herzegovina Mine Action Center, United Nations Children's Fund and other partners, developed "Project Brenda," a mine risk education program that combines an MDD team demonstration with mine risk education lectures to warn children in Bosnia and Herzegovina about the dangers of landmines. The MDDC also organizes workshops for MDD users in Bosnia and Herzegovina in an effort to improve standards and operational procedures, as well as exchange experience, knowledge and expertise. Additionally, the MDDC is developing seminars for mine dog evaluators, trainers and handlers and quality control inspectors.

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**Amer Skenderagić, a student trainer, working with Macho, a German Shepherd.** (Photo courtesy of MDDC)



# Notes

A large, empty rectangular area for taking notes, bounded by a thin black line on the top, left, and right sides.

“Challenge coin” of the U.S. Humanitarian Mine Action Program (formerly U.S. Humanitarian Demining Program) that is given to foreign recipients of U.S. mine action aid and whose logo also appears on vehicles and other specialized mine clearance equipment that is donated by the United States. The U.S. Humanitarian Mine Action Program is an inter-agency initiative whose various programs in the field—mine clearance, mine survivors assistance, mine risk education and research and development—are managed by the U.S. Department of State, U.S. Department of Defense, U.S. Agency for International Development’s Patrick J. Leahy War Victims Fund and the Centers for Disease Control and Prevention.



FRONT



BACK



**Bureau of Political-Military Affairs**  
U.S. Department of State

**\* In October 2004,  
the Office of Weapons Removal and Abatement is scheduled to move  
to Department of State Annex 3**

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