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# **HIDDEN DEATH**

## **Land Mines and Civilian Casualties In Iraqi Kurdistan**

**October 1992**

**Middle East Watch  
A Division of Human Rights Watch**

**"... we have always had our dream, freedom, self-determination, a voice in our future -- this is the Kurdish dream. We have come so close but so many things conspire against us, and now these mines, this blight in our fields - they will surely kill our dream, even if we are successful in all our other efforts."**

**Hussain Arif  
Kurdish Author  
Suleimaniya  
September 1991**

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## **1. SUMMARY AND CONCLUSIONS**

**The Iraqi army sowed millions of land mines in northern Iraq (Iraqi Kurdistan) that were unrecorded and unmarked. These mines do not self-destruct. Because the Iraqis failed to clear them after the end of the Iranian war in 1988 (or, as to mines on the Turkish and Syrian borders in Dohuk governorate, after the 1991 Gulf War), we find that the Iraqi land mine practice in northern Iraq was indiscriminate as a matter of customary international law.**

**These unmarked, unrecorded, nondegradable and unremoved land mines are an ongoing threat to the lives, limbs and well-being of the Iraqi Kurdish population in northern Iraq. Records from the Sulemaniyah City Hospital alone indicate that from March to September 1991 some 1,652 cases of land mine injuries were treated, including 397 involving surgical or traumatic amputation. In a survey of June 1992, Handicap International tabulated 658 cases of persons handicapped because of land mines in the governorate of Sulemaniyah alone; casualties in the other two governorates of Iraqi Kurdistan, Erbil and Dohuk, are estimated to be somewhat lower. Reports as of August 1992 indicate that land mine casualties continue at a rate of 12-20 a week.**

**Part of the problem lies in the fact that, since vast quantities of land mines were readily available, vast quantities were sown, far in excess of the needs of military strategy. The inevitable land mine injuries to civilians began to occur following the Iraqi army withdrawal from northern Iraq in April 1991. Kurdish farmers returned to the lands from which they had been forcibly ejected by the army years before, joined by homeless Kurdish refugees fleeing government repression in government-controlled areas like Kirkuk. They found their good farming and pastureland heavily salted with land mines, years after the war with Iran was over.**

**It is a reasonable conclusion that the Iraqi army laid and abandoned these millions of mines to make large areas of Kurdistan unusable for all time. Though several mined areas were fenced, warning markings were only employed in isolated cases. The omission of warnings is unconscionable as they would not have vitiated any legitimate military purpose of the mine fields in the slightest. Further exacerbating the difficulty of future clearance, no maps of the minefields are known to have been kept by the Iraqi army.**

**Irresponsible creation and abandonment of these minefields in Kurdish areas traditionally dedicated to farm and pastureland reflect Iraqi government hostility to the Kurds on ethnic grounds. These practices continue the long Iraqi policy of driving the Kurds from their lands and punishing them collectively.**

**Finally, the design of the land mines used by the Iraqi army makes clearance particularly difficult and dangerous. The design cynically disregards the spirit of the United Nations Land Mines Protocol<sup>1</sup> and the manufacturers and distributors share a moral responsibility for the situation in Iraqi Kurdistan.**

**The collusion of other governments is a central factor. The devices used in Iraqi Kurdistan were**

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<sup>1</sup> *See* Section 9, below.

**mostly Italian-manufactured or -designed. The devastation that they caused is attributable, in part, to Italy's careless and venal approach to the export of land mines.**

**Thus the fault for the terrible number of civilian injuries and deaths now resulting from these land mines lies not only with the irresponsible manner in which they were laid and then not cleared by the Iraqi army but also with the designers, producers and distributors of landmines and those who facilitated this vile trade.**



## **2. BACKGROUND**

**Mine-related civilian casualties have only become a major issue during the period since mid-1991, when the Iraqi Army withdrew from most of Kurdistan. Kurds who had been forcibly displaced by that army years earlier were finally free to return to their farms. They found their homes and villages destroyed by the army which had left land mines in many areas where the Kurds had formerly grown crops and grazed their sheep and goats.**

**The Kurdish demand for autonomy from the central government, has been part of Iraqi history since the creation of the Iraqi state after World War I. Middle East Watch has recently conducted hundreds of interviews with Kurdish civilians regarding abuses by the Iraqi army.<sup>2</sup> The villagers testified about hundreds of incidents of forcible displacement and destruction of villages. Most of the displacement and destruction took place under the one-party regime of the Ba'ath Party, led by Saddam Hussein, which came to power in a 1968 coup.**

**According to those we interviewed, the Iraqi army forcibly routed them from their villages, district centers, and even cities, in several campaigns since the 1960s. In the first of these campaigns, the army and militia periodically bombed, shelled, looted and burned the villages to punish the villagers for presumably harboring Kurdish guerrillas, known as *pesh merga*. The peasants fled often to the mountains and hid until the army departed, then ventured back to rebuild the villages. Sometimes they would stay in the mountains for months or years at a time, returning clandestinely to farm their fields at night.**

**The years from 1970 to 1974 were relatively peaceful because of negotiations between the government and the Kurdish resistance, led by the Barzani family and the Kurdistan Democratic Party (KDP). The situation reverted to open warfare from 1974-75; in exchange for a cutoff of military aid from Iran (and the US and Israel) to the *pesh merga*, Iraq made border concessions to the Iranian government. The guerrillas and their families were defeated and fled to Iran. Thousands of families of the Barzani tribe, who did not go to Iran, were forcibly displaced to the south of Iraq and their villages in the Barzan valley were leveled in 1976.**

**After the Barzani movement was crushed in 1975, systematic destruction of villages continued along an increasingly wide border region, presumably for counterinsurgency purposes.**

**Kurdish farmers particularly in Dohuk governorate were displaced to "arabize" the area. Government benefits and incentives were extended to poor Arabs from the south to move in and farm the Kurdish lands. Sometimes the displaced Kurds would receive, or were offered, compensation, but for a fraction of the value of the expropriated property. The Kurds were required to live in model villages or complexes in Dohuk on the side of the highway, where they could be controlled by the Iraqi army.**

**When the Iran-Iraq War was launched in 1980 with Iraq's invasion of Iran, thousands of Iraqi troops were moved away from Kurdistan, to the front line. The vacuum they left was quickly filled by the , operating on their own traditional agenda and in alliance once again with the Iranian government,**

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<sup>2</sup> These interviews were conducted in Iraqi Kurdistan from April to September 1992.

headed by Khomeini since 1979 in place of the Shah. (In turn, the Iranian Kurds had the backing of the Iraqi army to strike at the Iranian government.)

The Iraqis were pushed back to their borders by 1982 and, in 1983, the Iranians and their *pesh merga* allies occupied parts of Iraq, including border areas in Iraqi Kurdistan such as Hajomran and, briefly, Penjwin. The 1983 Iranian incursion was followed by Iraqi retaliation; thousands of Barzani men, who had been forcibly displaced earlier with their families to three complexes under government control, were rounded up in a single morning and disappeared. From 1983-88, The Iran Iraq War was characterized by large-scale offensives by the Iranians against entrenched, heavily-fortified and mined Iraqi positions on Iraqi territory. With few exceptions, such as the Iranian capture of the Fao peninsula in the south in 1986, the Iraqis repelled these human wave attacks and the front line remained relatively static.

Far from the front line, the Iraqi army continued to destroy Kurdish villages and to displace the residents forcibly, even in areas where there was little or no *pesh merga* presence, as on the Erbil plain.

Typically, the farmers were given advance warning to move, permitted to move their belongings and occasionally offered compensation. Then the army would move into the deserted villages and destroy them with bulldozers and dynamite, leaving nothing standing, not even government buildings. The area was then put off limits for any use or human presence. The displaced farmers were required to relocate into the model villages or complexes near the main highways, where they would be under army control.

In 1988, as the war with Iran was winding down, the Iraqi army reappeared in Kurdistan in force. It launched a well-organized and massive military operation, dubbed "Anfal."<sup>3</sup> Although presumably directed against the *pesh merga*, the campaign targeted Kurdish civilians, their homes, farms, identities and lives.

Anfal consisted not only in the usual looting and destruction but also in the mass disappearance and murder of tens of thousands of Kurds: men, women, and children. Fleeing this military campaign by the Iraqi army, marked also by the use of chemical weapons as in Halabja and other places, Kurds by the scores of thousands crossed the borders to Turkey and Iran. The 1988 scorched earth campaign destroyed the rural economy of most of Iraqi Kurdistan. The razed villages were put off limits by the Iraqi government for agricultural, pastoral, residential or other purposes. Those Kurdish villagers who had not secured refuge in Iran or Turkey, and were not dead or in jail, were crammed into government-controlled complexes. The following year the Iraqi army systematically destroyed the city of Qaladiza, including the city's approximately 10,000 households and all its mosques, schools, public buildings, the electric substation and the water pumping plant.

In 1990, just two years after the end of its protracted war with Iran, Iraq invaded Kuwait. The January-March 1991 air and land war by an allied coalition led by the United States ousted Iraqi forces

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<sup>3</sup> Anfal is the name given by the Iraqis to this military campaign. Taken from the Koran, this term means "booty taken from infidels in war." The Iraqi Kurds are not "infidels" but Sunni Muslims, like the ruling Iraqi Arabs. Nevertheless, the use of a word rooted in religious doctrine implies that the government considered that its campaign was sanctified.

from Kuwait and, at the same time, severely damaged Iraqi industry and public services.

In March 1991, as a direct result of this war and the apparent encouragement from President George Bush, the vast majority of the nearly four million Iraqi Kurds rebelled against the Iraqi government. The March 1991 Kurdish uprising was popular, widespread and initially successful; three major cities fell, in part because of aid from the Kurdish militia, which had participated with the Iraqi army in the destruction of Kurdish villages and, in the Anfal campaign, switched sides. Even unarmed Kurds helped storm police headquarters in anger, searching for disappeared relatives or their own secret police files. These attacks often occurred before the *pesh merga* even arrived on the scene. The deep hatred of the Kurds for the regime was expressed in the widespread destruction of Ba'ath Party, military and secret police facilities, and, in Suleimaniya, in the summary execution of hundreds of defeated police, military and Ba'ath party cadre in the security police headquarters after a two-day attack on that bastion.<sup>4</sup>

For a time it seemed that the uprising would succeed. At one point, every major city in the north except Mosul had fallen to the rebels. But the expected allied military support never came. After months of decisive action to protect the smaller population of Kuwait, the world community -- led by the United States -- watched from the sidelines as Saddam Hussein's forces mowed down the Iraqi Kurds. The cities that the *pesh merga* occupied fell by April 1.

The *pesh merga* withdrew to the Iraqi, Turkish and Iranian mountains. At the same time, frightened Kurds from the cities and the sprawling complexes fled the advance of the feared Republican Guard. Over one million reached Iran and more than 450,000 Turkey.

Media attention and public pressure in the West to the desperate plight of the Kurdish refugees starving in the snow-covered mountains in Turkey shamed the allies into a belated reaction. On April 5, 1991, the UN Security Council adopted a resolution expressing grave concern about "the repression of the Iraqi civilian population, including most recently in Kurdish populated areas which led to a massive flow of refugees towards and across international frontiers and to cross border incursions, which threaten international peace and security in the region."<sup>5</sup> The Security Council condemned the repression and demanded that Iraq immediately end it. In Resolution 688, the UN Security Council insisted that Iraq allow immediate access by international humanitarian organizations to all those in need of assistance in all parts of Iraq. It also requested "the Secretary-General to pursue his humanitarian efforts in Iraq and to report forthwith . . . on the plight of the Iraqi civilian population, and in particular the Kurdish population, suffering from the repression in all its forms inflicted by the Iraqi authorities." The Security Council further insisted that the Secretary-General use all the resources at his disposal to address the critical needs of the refugees and displaced Iraqi population, and appealed to all member states and to all humanitarian organizations to contribute to these humanitarian relief efforts.

Separately, a safe haven was created in Iraqi Kurdistan by 30,000 U.S., French and British troops who accompanied the refugees back into Iraq from Turkey, so that the Kurds might return from exile

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<sup>4</sup>See Middle East Watch, "Endless Torment: the 1991 Uprising in Iraq and its Aftermath" (June 1992).

<sup>5</sup>UN Security Council Resolution 688 (1991), S/RES/688 (1991).

without fear of Saddam's reprisals -- and, incidentally, so that the Turks, allies in the Gulf War coalition against Iraq, would not have to cope with hundreds of thousands of Iraqi Kurds in addition to their own rebellious Kurdish population. The "safe haven," created in April 1991 as a novel abridgement of territorial sovereignty, included the Iraqi towns of Zakho, Dohuk, Amadiyah, and Suri in Dohuk governorate. The allies prohibited armed Iraqi officials from entering the safe haven.

Additional protection for the Kurds against Saddam Hussein's reprisals was provided by the allies' prohibition of Iraqi fixed wing or helicopter flights over Iraqi territory above the 36th parallel, a much larger zone than the safe haven encompassing the urban areas of Erbil, Rawanduz, Shaqlawa, and Qaladiza.<sup>6</sup> Kurdistan above the 36th parallel is patrolled daily by some 40 allied aircraft overflights, jokingly referred to by the Kurds as the "Kurdish Air Force." This arrangement is to continue at least through December 1992, when the use of Turkish air bases for these overflights is again up for reconsideration by Turkish authorities.

Other protection was provided by the symbolic presence of several hundred lightly-armed members of the United Nations Guards Contingent in Iraq (UNGCI), blue-bereted guards stationed throughout Iraq, including the *pesh merga*-held area of Kurdistan, pursuant to a Memorandum of Understanding between the Iraqi government and the UN in June 1991, renewed in late 1991. The stated purpose of their presence is to protect UN relief operations in Iraq. In Kurdistan, they have been stationed even below the 36th parallel, in Suleimaniya and Kalar.

Another element of protection was provided by the Kurds themselves. Through their own efforts they succeeded in expanding their control of territory beyond the allied military umbrella. The Iraqi authorities, who never succeeded in retaking the entire area of Kurdistan, entered into an agreement with the Kurdish leadership in mid-1991. Pursuant to the agreement and under cover of military "coordinating committees," the *pesh merga* returned to the cities and, often led by popular outbursts, harassed and squeezed the Iraqi army and police out of many Kurdish urban and rural areas. As of October 1991, the Kurdistan Front (composed of seven political parties) and various *pesh merga* groups belonging to political parties controlled most areas of Iraqi Kurdistan, including Dohuk and Suleimaniya governorates, most of the governorate of Erbil and part of the Kurdish area in the governorate of Tamim (Kirkuk).<sup>7</sup>

Taking advantage of the safety provided by these various forms of protection, thousands of Kurds began returning in 1991 to their villages and towns from which the Iraqi army had expelled them years earlier. Many went to inspect what remained, finding only rubble. Those who<sup>8</sup> recommenced farming on their own lands.

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<sup>6</sup> Interview with Military Coordinating Committee, Zakho, Iraq, April 11, 1992.

<sup>7</sup> The area around the city of Kirkuk, still under government control, contains a key oil-field and refining facility and is possibly also the site of coal, copper and uranium deposits. The Kurds believe that over the years the government, pursuant to a plan to arabize the oil-rich area, has attempted to introduce a majority of ethnic Arabs into the population to undermine any Kurdish claim on the city.

Kurds have long claimed that the city of Kirkuk should be included in any Kurdish autonomous region.

<sup>8</sup>Not all were able to return; those families whose men had disappeared during Anfal could not hope to reconstruct homes and plough fields with only the elderly, women and children.

**En route home from refuge in Turkey and Iran, Kurds encountered land mines in their paths. Farmers returning to their destroyed villages found land mines in the pastures. Kurds from government-controlled areas like Kirkuk, who had been afraid to go home after fleeing the crushing of the uprising in March 1991,<sup>9</sup> ventured into farmland with which they were unfamiliar, and encountered unmarked landmines the locals already knew about.**

**International assistance followed the returning refugees and displaced, but barely in time for the winter snows. Food was provided but in many cases the tents and building materials for temporary shelters in the wasted villages did not arrive on time. The destruction was so vast, however, that more than one season was necessary to rebuild. Reconstruction by organizations such as Kurdistan Relief Organization operating with Caritas Switzerland, continued in 1992.**

**Although international aid has diminished, the Kurds continue to return to the rural areas, including mined areas, because of their attachment to their traditional homes and for lack of any realistic economic alternative.**

**The economic situation of Iraqi Kurdistan has continued to deteriorate. The UN Security Council imposed economic sanctions on all of Iraq following the invasion of Kuwait in August 1990. Kurdistan was, and still is, included in the UN sanctions. These even bar imports of agricultural and industrial equipment needed to re-start the Kurdish economy, destroyed years ago by the Iraqi government.**

**In October 1991, Baghdad compounded the UN blockade by cutting off all but a trickle of funds and supplies going to the entire area controlled by the Kurdistan Front. The displaced and refugees returning to the destroyed villages were sharply affected. Along the front line with Kurdistan, Iraqi troops at checkpoints vigorously police the blockade, minutely searching travelers into Kurdistan and confiscating food and other items, even draining gasoline from vehicles to enforce the fuel embargo.**

**Baghdad also ordered all civil service employees in Kurdistan to relocate to other parts of Iraq,<sup>10</sup> and withdrew all central government from the region.<sup>11</sup> Essential government services, particularly education and health, and sorely needed reconstruction, lack funding. UN agencies only partially fill the gap left by the central government cutoff.**

**In May 1992, free elections were held in Kurdistan for a parliament.<sup>12</sup> This body, and the ministers it appointed in July 1992, are charged with administration of the area, a difficult task in view of**

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<sup>9</sup>The UNHCR estimates that there are about 70,000 Kurdish refugees from the government-controlled cities of Kirkuk, Tuz Khurmatu and Khanaghin, Tamim governorate, who have fled into *pesh merga*-controlled Kurdistan.

<sup>10</sup>Although the Arabs in the civil service generally complied with the withdrawal order, public services continue to function in Kurdistan with Kurdish employees who are reluctant to abandon the civilian population.

<sup>11</sup> For instance, the appellate court in Baghdad will recognize no appeals coming from the administratively blockaded Kurdish area, and no pensions are distributed in Kurdistan. Pensioners must make the hazardous journey through Iraqi checkpoints to pick up their checks in government-controlled cities.

<sup>12</sup>See International Human Rights Law Group, "Ballots without Borders, A Report on the May 1992 Elections in Iraqi Kurdistan" (1992).

**the lack of revenue and the Iraqi blockade. The Kurds have been heavily dependent on scarce international humanitarian and UN funds to survive.**

**But this UN assistance is in jeopardy. The Memorandum of Understanding between the United Nations and Iraq was allowed to expire by the Iraqi government in late June 1992. Its expiration threatens to paralyze continued UN relief efforts because government donors to UN programs are reluctant to support programs based on legally uncertain grounds.**

**Negotiations by the UN to renew the Memorandum were stalled,<sup>13</sup> and then ended by the Iraqis in August, leaving UN guards and nongovernmental relief agency personnel under UN contract without visas and in effect in the country illegally. The 500 UN guards initially stationed in Iraq are now down to below 100. Because of the initiation of an allied "no-fly zone" below the 32nd parallel in southern Iraq, the Iraqi government has threatened to expel all UN guards.<sup>14</sup>**

**It is apparently the intent of the Iraqi government, by termination of UN programs and the internal blockade, to force the Kurds back into the regime's fold through starvation.**

**The situation remains extremely unstable. The allied coalition which monitors Iraqi troop movements has noted a large concentration of Iraqi troops on the front line with Kurdistan for several months. Sporadic shelling occurs along this line.<sup>15</sup> These military observers state that but for the threat of allied military action, Iraqi troops could retake Erbil in three hours and Suleimaniya in less than a day.**

**It is in this economic and political context that the widespread dissemination of land mines, causes havoc to the Kurdish people who have returned to the lands from which they had been driven by Iraqi troops attempting to destroy their communities, their identity as a people and their very lives.**

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<sup>13</sup>The UN had been made to feel most unwelcome. Anonymous attacks on UNGCI headquarters and residences, with grenades, rockets and machine gun fire, usually attributed to secret Iraqi agents, have resulted in property damage and wounded four UN guards, and the killing of one guard in his sleep. In related attacks on foreigners assisting the Kurds, six Kurds have been killed, including four in a July 1992 car bomb attack on the caravan of Danielle Mitterand, the wife of the French President. Several more have been wounded.

<sup>14</sup>Trevor Rowe, "Ouster of Security Force Seen Harming Relief Efforts," *The Washington Post*, August 26, 1992.

<sup>15</sup>Chris Hedges, "Iraqi Forces Shell Kurdish Rebels In Apparent Cease-Fire Violation," *The New York Times*, March 31, 1992.

### **3. SAMPLE MINEFIELDS**

**Given the recent military history of the region, Middle East Watch had no difficulty locating mine fields, especially those adjacent to international borders. Since these border mines might fall within Iraq's legitimate right to safeguard the integrity of its territory, and if properly marked might be legitimate under current international standards, our focus during our field research was on those cases where mining was conducted in disregard of applicable international humanitarian law and where the civilian population was significantly endangered. These were:**

**A. Where landmines presented an ongoing or potential threat to the civilian population as a result of:**

- i) Absence of, or inadequate, warning signs.**
- ii) Absence of, inadequate, or incorrectly sighted perimeter fencing.**
- iii) Random dissemination of devices in areas regularly used by civilians.**
- iv) Placement of landmines in, or close to, land required by the civilian population for planting, livestock grazing or other essential purposes regardless of any restrictions which existed prior to Iraqi army withdrawal from the area in mid-1991.**

**B. Where the original purpose of a minefield was no longer valid or reasonable.**

**The 15 minefields surveyed are a limited sample. Other areas of Kurdistan, such as Bradost north of Hajomran, are known to have substantial numbers of landmines. Even in this limited sample, however, these were five minefields where a total of 30 persons, mostly refugees fleeing the Iraqi army, had been killed in the space of five months. All the minefields surveyed were heavily mined with a variety of sophisticated devices, many booby-trapped to prevent easy clearance.**

**We also encountered unexploded ordnance,<sup>16</sup> which cannot strictly be classified under the heading of land mines. Such ordnance usually presents a much lower threat to the community than mines; it is nonetheless a long-term hazard. These large quantities of ordnance probably were abandoned when military forces withdrew from firebases and posts during the Iran-Iraq conflict. Although often remotely situated, these sites provide a source of income, fuel and building materials for local people, and attempts to convert discarded ordnance into cash, probably as scrap, will probably claim lives.**

**The presentation is arranged geographically from Erbil to Suleimaniya to Dohuk governorates, north to south, east to west. A map charts our trip. (Map One)**

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<sup>16</sup> Shells, bombs and other explosive devices designed to explode on or soon after impact which have failed to do so and remain live.

## **MAP One**



Wherever possible we cite longitude and latitude, determined by satellite fixings taken at key locations within or at the perimeter of the field.<sup>17</sup> Where access to four or more satellites was possible a mean height above sea-level has been included for each reference point.

In most cases names given for minefields are those in common usage by the Kurdish population.

#### **A. Erbil Governorate**

##### **SHIRAWASH: Kirkuk refugees imperiled**

**Ref: 16-3-RA**

**Area:** Hajomran, Iranian border

**Position:** The Shirawash minefield, and the refugee settlement of that name, lie in the no-man's-land between the Iraqi and Iranian border posts on the Hajomran (Iraq)-Naqadeh (Iran) road.

**Findings:** Shirawash, alone among the minefields surveyed by Middle East Watch, is a case of people, rather than landmines, being in the wrong place. It illustrates the desperate plight of dispossessed Kurds.

There are several hundred Kurdish refugees, mostly from Kirkuk,<sup>18</sup> who live in makeshift shacks literally on top of this minefield. The refugees buy sunflower seeds in Iran and sell them in Iraq, the price differential allowing them to retain a subsistence supply of seeds for their own use. Their attempts to plant crops and graze a small number of animals place them at constant risk, as is the case with virtually every community activity.

On our first visit to Shirawash, we found small children playing within five meters of anti-personnel pressure- and tripwire-initiated anti-personnel mines. One mine was discovered within inches of a well-trodden path to the main community water source. Though adults take considerable care to protect their children from the mines, the children themselves have become inured to mines and pay them scant attention.

Some men have attempted to neutralize the devices, with varied results. One man with some military experience, whose teenage son we interviewed, had begun to clear the mines by disarming them and was said to have cleared several hundred in this way before sustaining a traumatic amputation of the left leg when he stepped on a concealed device. Another group of men told us they had been trying to "lasso" Valmara 69 bounding mines in an attempt to detonate them. Luckily they had been unsuccessful. In most cases, several of these mines have been interlinked on a single tripwire and the results of the men's action could have proved devastating.

When asked why they continue to stay in such a dangerous place, a spokesman for the community told Middle East Watch:

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<sup>17</sup> Positions accurate to +/-5 meters.

<sup>18</sup> The Kirkuk refugees fled the city as the Republican Guard crushed the uprising there in late March 1991. Kirkuk refugees are scattered throughout Kurdistan.

**We will not move -- we have no money and here we can at least buy and sell sunflower seeds. If we move how can we be sure that there will be food? We have been told that the United Nations would help us but we do not believe that -- we have been promised things before but have only received some oil and a small ration on two occasions in three months. How could we live on that? We will only move if we are promised regular assistance, but we really want to return to our homes in Kirkuk. We are not crazy, we do not like our children being in such danger, but what good is safety if they are hungry?**

**When we reported the situation to the UNHCR representative at the UN Post in Said Sadiq, we were informed that they were aware of the situation and that the refugees "shouldn't be there." It was, the UNHCR representative said, up to the Kurdistan Front to persuade the refugees to move to a safer place. At a subsequent meeting with Kurdish leaders at Zinway, we were told that there was no problem in finding the refugees an alternate site to settle, but that they were not able to provide tents or food and so could not induce the refugees to relocate.<sup>19</sup>**

**Technical Appraisal: Shirawash settlement and the area immediately surrounding it is a large and ill-defined defensive minefield consisting primarily of surface-emplaced anti-personnel devices. The area to the south of, and immediately adjacent to, the main concentration of refugees appears also to have been used as a dump for unused mines, probably when Iraqi forces withdrew from the frontier post in 1991. In the southern areas it appears that the mines, in most cases, were armed but deployed in a random and careless manner. This is particularly true of the many Valmara 69's<sup>20</sup> which were not buried but linked in series on single tripwires. In one case, more than twelve devices are interlinked in this way. In the same area, many VS-50 and other pressure devices have been scattered at random -- sometimes in groups of twenty or more. Some of these mines are unarmed.**

**The area to the north of the main cross-border road from Hajomran is a defensive minefield of a more conventional pattern. It consists predominantly of anti-personnel mines -- Valsella 69, VS-50 and PMN-HGE,<sup>21</sup> some buried, others surface laid, over a wide ill-defined and unmarked area. Local men who have been involved in attempts to clear mines reported to Middle East Watch the presence of anti-tank mines in this field. Given the level of combat in the area during the Iran-Iraq war,<sup>22</sup> and the border location, it seems likely that these reports are accurate. Descriptions of these devices that we heard suggest that they are Soviet TM-46 or derivatives.**

### **SARDEKAN HILL: Land Needed for Grazing**

<sup>19</sup> The situation at Shirawash was reported verbally and by fax to UNHCR in Geneva by the author.

<sup>20</sup> As discussed in Section 5, some mines of Italian origin and/or design, chiefly the Valmara-69, the VS-50 and the SB-33, may have been assembled or manufactured in other countries, including Iraq.

<sup>21</sup> The PMN is a Soviet device, however, as explained later in this report, most PMN's disseminated in Kurdistan have been manufactured in Iraqi State factories.

<sup>22</sup> Hajomran and more than forty villages in the area were taken by the Iranians during the Wal-Fajr II offensive in July 1983. It was also the center of heavy fighting for several months during 1987. Iraqi forces abandoned the border post in March 1991.

**Ref: 27-6-6**

**Area: Hajomran, border**

**Position: X1 Lat: 36 41'46.7" N Long: 45 20'16.5" E**

**Ht: 1914 Meters**

**X2 Lat: 36 42'24.6" N Long: 45 00'11.2" E**

**Ht: 2022 Meters**

**Above Zinway<sup>23</sup> on the Choman-Hajomran road<sup>24</sup> five kilometers from the Iranian border. (Map Two)**

**Findings: Sardekan Hill is a mountain meadow above Zinway, a traditional grazing area which covers large areas of the high, lightly wooded grassland and the southern face of the hill which falls 300 meters to a line almost level and approximately 700 meters from the Choman-Hajomran road. Most of this pasture was mined during the Iran-Iraq conflict and has a high density of anti-personnel devices.**

**A major Iranian artillery firebase was situated near the summit of Sardekan Hill (everything but the guns are still in place, including large quantities of artillery ammunition and mortar rounds) and it appears that the mines were laid originally as a defensive strategy.**

**Smaller concentrations of mines in the copses near the western base of the hill are unmarked and were disseminated during skirmishes between Iranian and Iraqi forces.**

**Although the upper boundary of the main minefield is clearly delineated by barbed-wire entanglements (the rest of the perimeter, the directions from which an attacking force would have approached, is unmarked but less accessible) there are no mine warning signs. The local population is aware of the mines. Yet the residents are faced with the need to graze their livestock and the situation is becoming more critical as the limited un-mined meadow is over-grazed.**

**New returnees with additional animals add to the pressure on this land and encourage attempts to make use of mined pasture. We met two young shepherds, Ismail, 14, and Ramze, 8, setting out to burn part of the Sardekan minefield so that they could use it to graze their flock. This practice is widespread in Kurdistan. It is not effective.**

**Technical Appraisal: Devices recorded included:**

**1) The Valmara 69: Some of these mines were buried exposing only the fuse prongs in the conventional manner, while others are interlinked by loose tripwires and laid on the surface.**

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<sup>23</sup> Zinway - Lat: 36 41'06.1" N Long: 45 01'30.2" E

<sup>24</sup> This road is sometimes referred to as the "Hamilton" road.

## **MAP TWO**

**2) The VS-50: These are surface laid in considerable quantities.**

**Middle East Watch obtained reports of the presence in this minefield of an all-plastic Iranian pressure mine similar in appearance to the wooden Soviet PMD-7, although probably smaller. Some reports suggest that this device detonates by means of a pressure-release switch, the initial pressure arming the mine.**

**Also present in this minefield are Trip-Flares, which some Kurdish sources describe as mines, often as "carrot-mines." They are, in fact, one-piece plastic flares approximately 25 centimeters overall, incorporating a long stake section below a pyrotechnic upper casing. They are Iranian tripwire operated devices that, although not mines, would cause serious burns and should be disposed of as ordnance.**

### **AZADI MINEFIELD: No Warning Signs Result In Three Refugee Deaths**

**Ref: 29-6-A**

**Area: Hajomran**

**Position: Adjacent to Choman-Hajomran road four kilometers before Zinway on the right-hand side of the road driving from Choman towards Haj Omran.**

**Findings: Azadi<sup>25</sup> is an example of smaller land mine concentrations and their impact on a community. It is also an example of Iraqi government mining of so-called "free-fire zones" to prevent Kurds from returning to their land or their destroyed villages.<sup>26</sup>**

**Middle East Watch was taken to the minefield by Rehman Mohammed Haji, the owner, who explained that the land, an area of three *donims*,<sup>27</sup> was originally mined by Iraqi soldiers in 1983 when Azadi village was dynamited and the inhabitants forced to move to resettlement complexes.**

**Following the withdrawal of Iraqi troops in 1991, people returned to Azadi for the first time in eight years. Although those returnees who had originally lived in the locale were aware of the danger from mines, many refugees from Kirkuk and Suleimaniya who fled to the area to escape government reprisals in April 1991 were unfamiliar with the area and had little or no knowledge of landmines and their dangers.**

**In July 1991, three refugees went into the Azadi minefield to salvage a steel barrel in which to light a cooking fire. They were killed instantly when one of them tripped a series of bounding mines. A local resident who had served in a sapper regiment cleared a path to recover the men's bodies.**

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<sup>25</sup> Azadi is the Kurdish word for "freedom."

<sup>26</sup> See also, "Report on the Medium & Longer Term Resettlement & Reintegration of Displaced Persons & Returning Refugees in the Proposed Kurdish Autonomous Region of Iraq," John R. Rogge (United Nations Development Program), July 6, 1991.

<sup>27</sup> One Donim equals 2500 square meters.

**Technical Appraisal:** Local information indicates the presence of Valmara 69 bounding mines. This is supported by observation of what appear to be loose tripwires in several locations on the land. This would indicate that devices have been buried rather than surface laid. No other devices were apparent. No barriers or warning signs were erected when the mines were laid, although local people and the owner of the land have since fenced the area which they believe to be mined. This fencing is not substantial.

**DERBAND MINEFIELDS: Napalm Bombs Endanger Civilians**

**Ref: 29-6-GAR**

**Area: Choman**

**Location:** Both sides of Derband Gorge on Hamilton road east of Choman.

**Findings:** During much of the Iran-Iraq war, the Derband Gorge was the frontline between the opposing forces, and was the scene of some of the most violent engagements of the war.<sup>28</sup> During 1983, following the second phase of the Wal-Fajr offensive, two of the key positions on hills overlooking the gorge from a height of more than 2,000 meters changed hands three times in several weeks. The result of the gorge's strategic importance is a significant concentration of mines and a high incidence of particularly hazardous napalm devices.

One refugee was killed by a mine explosion at Derband on September 6, 1991, the day of Middle East Watch's survey. Incidents are commonplace, especially among refugees and new returnees, most commonly while searching for firewood or grazing livestock.

Three local men, returnees to the ruins of Derband village, spent several months clearing parts of this extensive minefield. Unfortunately, as they lacked proper training and equipment, their efforts achieved minimal results at considerable risk. Derband covers a wide expanse in an area where, due to the return of the original population and an influx of refugees, land for agricultural use, grazing and settlement is at a premium. There is evidence that loss of life and injuries have become increasingly common since March 1991 and no improvement can be expected until the minefield is cleared.

Since it is impossible, without an expert survey, to determine the perimeters of the minefield, the local population must steer clear of a large area. This includes an expanse of good arable land as well as a wide area of high pasture. Some residential land is also reported at risk, although this has not been confirmed.

**Technical Appraisal:** The most disturbing aspect of the Derband minefield is the presence of booby-traps<sup>29</sup> consisting of 20-liter steel drums of napalm<sup>30</sup> connected on tripwire circuits. The drums

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<sup>28</sup> One source, who served as a senior field surgeon with the Iraqi army, told Middle East Watch of treating "...thousands of casualties every day for weeks..." during the actions in the area in 1983.

<sup>29</sup> In technical usage, in contrast to the legal definition of the word "booby-trap," the term includes the use of purpose-manufactured or improvised traps fitted to mines to prevent their removal and/or destruction.

<sup>30</sup> Napalm is jellied petrol made from naphthalene and coconut oil. The presence of napalm was verified by the author of this report and later by other specialists. In some cases, the 20 liter drums of napalm were interlinked with tripwire detonated mines.

have an explosive charge and are linked by fuse to pull switches. It would appear from those samples examined by Middle East Watch that the tripwires which form part of the initiation circuit are also connected to bounding mines. The napalm containers are, in most cases, buried, leaving the upper 25 percent of the drum exposed. In several instances, however, the drum is totally buried leaving only the top exposed at ground level. The potential for injury from such a combination of burning napalm and shrapnel needs no elaboration.<sup>31</sup>

Much of the other mining appears, as would be expected, to center on key high spots and installations. A large area of land on the opposite side of the road to the water tower is randomly mined with many anti-personnel devices and is not marked, nor is the perimeter of this field defined. As far as could be ascertained, devices present include Valmara 69, PMN-HGE<sup>32</sup> and VS-50. Our observations and our interviews with the three Kurds who are attempting to clear parts of the field indicate that these devices were carefully laid. Some were buried and others were camouflaged on the surface, but no discernible pattern is evident. It is likely that this minefield has been enlarged over an extended period by different units and, in some areas by both Iraqi and Iranian forces. Iranian trip-flares are prominent in some sections of the field.

The ground surrounding the prominent water tower is heavily mined with Valmara 69 and various anti-personnel pressure devices (not positively identified by type). This area is well marked by a substantial barbed-wire entanglement. Although the Valmara-69 was primarily an Iraqi weapon and the Derband water tower was held by the Iranians until probably near the end of the conflict, the level of transfer of weapons and ordnance due to capture during the Iran-Iraq conflict was high. For instance during the Wal-Fajr IV offensive in October 1983 the Iranians reportedly captured 33,000 Iraqi land mines.

#### **KONYARASUKOSA MINEFIELD: Family of Eight Refugees Killed in Unmarked Mine Field**

**Ref: 33-7-G**

**Area: Choman/Nowpredam**

**Position: X1 Lat: 36 36'34.0" N Long: 44 52'18.9" E**

**Ht: 1175 Meters**

**X2 Lat: 36 36'43.4" N Long: 44 52'19.3" E**

**Ht: 1077 Meters**

**Above Choman-Sadiq road, accessible from a partially-metalled track between Nowpredam and Goroni.**

**Findings:** Although the Konyarasukosa minefield probably does not exceed two square kilometers, its impact on the local community has been considerable. It is completely unmarked.

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<sup>31</sup> This consideration this combination of bounding mines and napalm clearly contravenes Protocol II of the UN Convention 1981, Article 6.2, which states: "It is prohibited in all circumstances to use any booby-trap which is designed to cause superfluous injury or unnecessary suffering."

<sup>32</sup> The PMN is a Soviet anti-personnel pressure mine. However, testimony given to Middle East Watch, and other evidence referred to below indicates that the Iraqi government was manufacturing and deploying a copy of this device during the Iran-Iraq conflict. The device is referred to in this report as the PMN-HGE, the designation used by the Iraqis.

**Konyarasukosa is good grazing land traditionally used by villagers from Nowpredam, Goroni and Mirgha.**

**On April 21, 1991, a family of eight refugees was killed by multiple mine detonations, presumably while looking for shelter near a rock outcrop in the minefield. At least eleven returnees to the village of Nowpredam have been killed or injured since March 1991, four of them young children. Another, 14-year-old Hesamudin Faras Mohammed, who was interviewed by Middle East Watch, sustained an above knee traumatic amputation of the left leg and multiple fractures of the right leg when he stepped on a mine while looking for straying cattle on June 15, 1991. In the same month, three *pesh merga* were killed by bounding mines during an unsuccessful attempt to rescue a seriously injured child from the minefield.**

**Technical Appraisal: This minefield was laid by Iraqi troops to protect the flanks of a fire-base and observation post overlooking the Choman-Sadiq road from assault by *pesh merga*. It is completely unmarked and stretches from the base of the slope below the post to the foothills of the mountains opposite and down towards the Hamilton road.<sup>33</sup> The extent of the minefield in the latter direction has not been confirmed but, from a strategic perspective, it would be surprising if mines had not been disseminated as far as a line parallel with the road and running along the base of the hill to the front of the observation post.**

**Valmara 69 and VS-50 anti-personnel mines were identified.**

**SHEIKH MAWLAN/KANDINOWBERGER MINEFIELD: Poorly Marked Mine Field Causes Deaths of Four Returned Villagers**

**Ref: 36-7-6**

**Area: Nowpredam**

**Position: X1 Lat: 36 36'32.8" N Long: 44 58'01.7" E**

**Ht: 1177 Meters**

**X2 Lat: 36 36'40.1" N Long: 44 53'06.7" E**

**Ht: 1173 Meters**

**X3 Lat: 36 36'45.3" N Long: 44 52'58.5" E**

**Ht: 1189 Meters**

**Findings: This large area of high grassland above the Nowpredam village settlement is heavily mined with anti-personnel devices. There have been four fatal mine incidents here since April 1991, all Nowpredam returnees. The strategic reasons for this minefield are not clear, although it is probable that the field was laid by the Iraqi forces during the war with Iran.**

**The mined area covers most of an extensive traditional grazing ground and the local herders have attempted to clear the mines in some locations by burning. This has led to the destruction of some mines but the majority of devices were unaffected or only partly melted and rendered unstable. Livestock are still being grazed on the limited tracts of land which are not mined, tended by young boys who appear to have little regard for the great danger that surrounds them.**

**Technical Appraisal: Two devices have been used in great quantities in this minefield. Both are**

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<sup>33</sup> This road leads from Choman to Hajomran.



**of Italian origin: the Valmara 69 and the SB-33. (See sketch of Valmara 69.)**

**The author of this report recorded over sixty SB-33s in one area approximately 10 meters by 15 meters. This was a random sample area, and apparently reflected the density of mining in the region. In some places SB-33's, which are particularly difficult mines to discern by casual observation,<sup>34</sup> were placed on dry-stone walls at points where they are most likely to be negotiated.**

**The deployment of Valmara 69's, in lesser numbers than SB-33's, is widespread. In most cases they were buried to the top of the outer casing with just the fuse prongs exposed. Some are inter-linked by tripwires; others appear to be deployed so as to explode under direct pressure.**

**The perimeter of the minefield is marked in some places by a single strand of barbed wire. The location readings given above mark the best defined perimeter to the south-east and north-east. The extent of the field westward is unknown, but we believe it covers a significant expanse.**

**SIRMIN-SINAN MINEFIELD: Mines in Minimally Marked Field Kill Four and Injure Nine Villagers in Five Months**

**Ref: 40-7-GA**

**Area: Eenay**

**Position: X1 Lat: 36 36'12.3" N Long: 44 57'39.7" E**

**Ht: 1616 Meters**

**X2 Lat: 36 36'04.3" N Long: 44 57'43.2" E**

**Ht: 1258 Meters**

**The field begins 350 meters from the village of Eenay and extends for two kilometers.<sup>35</sup>**

**Findings: We arrived in Eenay just as a funeral procession for a man killed by a mine while clearing an irrigation channel wound through the fields from the cluster of huts that stand on the site of the destroyed village. Four villagers were killed and nine suffered amputations from March to September 1991, out of an estimated population of 480.**

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<sup>34</sup> The SB-33 is irregularly shaped and has an anti-reflective surface. It measures only 88mm in diameter and is just 32mm high. Its dull green/grey finish is an effective camouflage against most natural backgrounds.

<sup>35</sup> The positions X1 and X2 mark the beginning and mid-point of the narrow path which passes through the center of the minefield.

**VALMARA 69**

**There are two extensive minefields close to Eenay, Sirmin-Sinan. The whole expanse of the first minefield is a mixture of well irrigated arable land and good pasture which forms a major portion of the farmland which supported Eenay's population prior to the Iran-Iraq war and the expulsion of the Kurdish zone by the Iraqi government. The first minefield extends for approximately two kilometers along one side of a high valley; a narrow packed-earth track runs centrally through the field. On one side of the track, the mined area extends into the low foothills of the mountains more than 750 meters distant; on the other side of the track, the mined area falls to the bank of the river in the valley bottom. (The second minefield is described in the following section.)**

**Four days prior to the Middle East Watch visit, 15 cattle were killed in a single multiple explosion after straying from a small de-mined area where they had been left to graze.<sup>36</sup> Four carcasses remained at the site of the incident. The others were removed and butchered for food immediately.**

**Technical Assesment: Devices evident at the Sirmin-Sinan field were surface-laid and buried Valmara 69's and scattered VS-50's. A large number of 20-liter drums identical in appearance and deployment to the napalm containers examined at Derband are also visible. Shrapnel removed from one of the carcasses consisted of 6mm diameter steel ball-bearings,<sup>37</sup> It was clear from examination of the site that the cattle had been killed by a multiple detonation of several devices -- probably all Valmara 69's. Given the wide expanse covered by this minefield, it is likely that other types of devices, possibly buried, were also deployed. The edge of the minefield adjacent to the central path is marked in some places by barbed wire fencing.**

**KANDIBOKIDERA<sup>1</sup> MINEFIELD: Guns Removed from Firebase but Mine Field Left Intact**

**Ref: 43-7-GA**

**Area: Eenay**

**Position: X1 Lat: 36 36'18.7" N Long: 44 57'83.1" E**

**Ht: 1571 Meters**

**X2 Lat: 36 36'35.4" N Long: 44 56'53.1" E**

**Close to Eenay village below the cliffs at Goribasta. (See Map Three)**

**Findings: This is the second minefield in the area of Eenay village. The ground which forms the minefield is good grazing and agricultural land.**

**Laid during the Iran-Iraq war, this minefield formed a defense for the Iraqi artillery firebase at Goribasta which still remains as it was left by the soldiers, only the guns themselves having been removed by the Iraqi army at the end of the Iran-Iraq war. The initial military purpose for the mine field,**

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<sup>36</sup> Some small isolated sections of this minefield have been cleared by local people. However, these areas could not be termed safe.

<sup>37</sup> Technical data relating to the Valmara 69 shrapnel content states that the main charge is surrounded by "more than 1000 metal splinters." Middle East Watch research indicates that the main charge in all, or many, of the Valmara-69 and its derivatives used in Kurdistan, is surrounded by approximately 650 6mm steel ball-bearings.

<sup>38</sup> Kandibokidera means "valley of the old bride."

protection of the firebase, has long since ceased.

The whole area, as well as being heavily mined, is scattered with large quantities of unexploded (and, in some instances, unpacked) ordnance, particularly artillery and mortar shells. The large amount of war scrap in the area, especially the corrugated iron sheeting and steel hoop-beams used in the construction of artillery sangars, provides a powerful incentive for people to risk scavenging in and around the minefield.

**Technical Appraisal:** Some VS-50 and PMN-HGE were identified but local information indicates that many other types of devices are present in this minefield. Its extent is ill-defined but covers an extremely large area extending from the line between X1 and X2 roughly in a rectangle below the Goribasta firebase and continuing for at least 500 meters beyond.<sup>39</sup> The edge of the minefield between X2 and the Goribasta firebase is delineated by barbed wire entanglement. There is no other marking or fencing.

As with so many other minesfields, the mines could have been cleared at the end of the war, when the Iraqi army removed the guns from the firebase, but that was not done.

## **B. Sulemanyah Governorate**

### **MALOOMA MINEFIELD: Inadequate Marking**

**Ref: 66-11-NE**

**Area: Mawat/Gapillon**

**Location: X1 Lat: 35 48'54.6" N Long: 45 17'52.5" E**

**Ht: 1031 Meters**

**X2 Lat: 35 48'00.4" N Long: 45 19'19.9" E**

**Ht: 980 Meters**

**Wooded slopes south-east of Malooma village.**

**Findings:** This minefield, on steep wooded slopes below sheer cliffs to the south-east of the ruins of Malooma village, is marked by a single strand of barbed wire fence. It extends a considerable distance to the east, probably to the point X2 given above. The farmers and their families who have returned to Malooma are not unduly concerned at the loss of the land involved since an abundance of pasture is available. They are worried, however, about the small number of stray mines and unexploded ordnance in the area. A small boy had suffered a traumatic amputation of the right arm the day before our visit after picking up an RPG rocket which exploded. We disposed of a Valmara 69 that had been discovered near the ruins of the original village.

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<sup>39</sup> A prominent landmark within the minefield is the wreckage of a helicopter. The minefield is believed to extend for at least 100 meters beyond that point.

**MAP THREE**

**Technical Appraisal:** Two types of devices were located in this minefield: Valmara 69 and POMZ-2, both interlinked on common tripwires. Clearance would be at high risk due to the steepness of the slopes and the thick undergrowth. No warning signs are apparent and fencing of the perimeter is inadequate.

**PIRDI KASHAN MINEFIELD: Densely Laid Mine Field Close to a Road**

**Ref: 67-11-G**

**Area: Mawat/Dolbeshk**

**Position: X1 Lat: 35 51'29.9" N Long: 45 23'33.1" E**

**Ht: 991 Meters**

**X2 Lat: 35 51'39.5" N Long: 45 23'41.5" E**

**Ht: 935 Meters**

**North of Mawat between Pirdi Kashan and Dolbeshk. (See Map Four)**

**Report:** The area surrounding the Kashan Bridge<sup>40</sup> saw heavy fighting for much of the Iran-Iraq war; the bridge itself was destroyed three times before the present structure was built. The approaches to the bridge and the river itself are littered with the wreckage of war. The minefield is situated above the bridge where the Dolbeshk to Mawat road marked the front line between Iranian and Iraqi positions.

Casualties are very common among people who are not aware of the hazard, usually from stepping on devices laid close to the verge. There is an abundance of devices extremely close to a busy route and surrounding settlements.

**Technical Appraisal:** Pirdi Kashan was the most densely laid minefield surveyed on this trip and, in places, mines were located only inches from the edge of the road. The most common device, in the eastern section of the minefield (mines are laid on both sides of the road) is the PMN-HGE; literally thousands can be seen stretching up the hill. Some of these devices are buried, leaving only the pressure diagram exposed, but most are scattered randomly over the surface. Valmara 69 are also present in considerable quantities, buried so as to be set off either by tripwire or by direct pressure. A small number of anti-tank mines, Soviet TM-46 or derivatives, were reported to us by residents of the area, as well as a variety of anti-personnel mines.

No marking or fencing has been attempted, although barbed-wire entanglements make access to some parts of the minefield difficult, especially higher up the slopes.

**WULIAWA MINEFIELD: Eleven Refugees Killed in Unmarked Mine Fields**

**Ref: 47-9-G**

**Area: Penjwin/Wullawa**

**Position: X1 Lat: 35 41'06.2" N Long: 45 46'02.4" E**

**Ht: 1200 Meters**

**X2 Lat: 35 41'06.5" N Long: 45 40'10.7" E**

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<sup>40</sup> Pirdi means "Bridge."

**MAP FOUR**

**Ht: 1175 Meters**

**Both sides of metaled Wuliawa-Penjwin road close to Zalan.**

**Findings:** This minefield on good pasture land dates from the Iran-Iraq conflict and is well known to local people from Wuliawa and Zalan. However, the mine field is unmarked and there were at least 11 casualties, all fatal, among refugees who are new to the area since March 1991.

**Technical Appraisal:** Devices are all carefully laid Valmara 69 with short tripwires to metal stakes, in some cases little more than two feet from the mine, but more commonly six to eight feet. The devices do not appear to be interlinked as in other minefields surveyed by Middle East Watch. Access from the road is obstructed by barbed-wire entanglement on both sides. The extent of both fields is unknown and, as far as could be seen, un-marked.

### **CHAPAZRA MINEFIELD: Adequate Warning Signs Prevent Casualties**

**Ref: 48-9-6**

**Area: Penjwin/Daramyana**

**Position: X1 Lat: 35 37'26.1" N Long: 45 49'02.2" E**

**Ht: 1159 Meters**

**X2 Lat: 35 37'25.9" N Long: 45 49'00.3" E**

**Ht: 1220 Meters**

**Both sides of main Penjwin road near Daramyana village.**

**Findings:** There have been no casualties in this minefield, primarily because of clear marking and good local knowledge. However, the land is prime pasture which is urgently needed by the people of Daramyana.

While this site clearly illustrates how responsible use of perimeter marking can reduce the risk to the civilian population, the loss of such large areas of pasture should not be allowed to continue indefinitely. Experience in similar situations in Afghanistan has shown that even good marking has its limitations; when land is at a premium, farmers and herders will eventually begin to encroach onto mined land, with inevitable consequences.<sup>41</sup>

**Technical Appraisal:** Chapazra is atypical of the minefields surveyed by Middle East Watch for two reasons other than its absence of casualties -- the variety of device types deployed and the presence of at least one standard mine warning sign.

Chapazra has clearly delineated boundaries adjacent to the road marked by barbed wire entanglement. One standard mine marker was visible and others may be present.

Two models of anti-tank mine were used here: the VS-3.6 and the VS-2.2, both of which were plastic devices employing the Valsella VS-N pressure fuse. At Chapazra they have been surface-laid and are protected against removal by Valsella 69 and VS-50 anti-personnel mines, both of which are also disseminated widely in an independent role.

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<sup>41</sup> See "When going home may kill you..." Lecture Notes, McGrath/ARIC, Peshawar, Pakistan, July 1990.



**Middle East Watch found two, as yet unidentified, anti-personnel devices, believed to be of Iranian origin: one is a "stake" mine, probably of the fragmentation-type set off by tripwire; the other is a small box-shaped mine of plastic construction which may be the Iranian pressure-release device described by local sources in other areas. (See Sardekan Hill description, above) Local reports and descriptions also indicate the presence of SB-33 and POMZ-2 (or derivatives).**

**Middle East Watch also found SAT Mine Fuses in this minefield. These are Italian multi-purpose fuses which may be used to set off old or obsolete anti-tank mines by pressure or anti-lift device.<sup>42</sup> The fuses are coupled to buried anti-tank mines which are not visible, although we surmise that these may be MISAR SBP-04 or SBP-07 which were fitted with SAT fuses.**

### **PIRDI KON MINEFIELD: Unmarked Iranian Minefield**

**Ref: 55-10-A**

**Area: Halabja/Serwan**

**Position: X1 Lat: 35 17'11.7" N Long: 45 55'10.2" E**

**Ht: 487 Meters**

**The Pirdi Kon<sup>43</sup> minefield follows the east bank of the River Zalam in a southerly direction for four to five kilometers from the bridge situated two kilometers northwest of Serwan.**

**Findings: The Pirdi Kon field was laid by Iranian forces during their occupation of the area between the border and Halabja. Approximately 120 meters in width, it follows the east bank of the River Zalam south to the foothills of a mountain range about five kilometers distant.**

**The district of Serwan is famous for its watermelons and this wetland stretch is the best possible planting area for a melon crop. It has been unused for nearly four years and, although it is unmarked, the local population knows of the hazard and there have been no casualties. However, we met two boys aged eight and twelve years who told us they knew "safe tracks" through the minefield and offered to act as guides; the offer was declined, and the boys were advised not to risk their lives again.**

**Technical Appraisal: One device, an M16-A2, a US pattern bounding anti-personnel mine, was located.<sup>44</sup> There had been an attempt to destroy it by small-arms fire the previous day, which was only partially successful. The propelling charge had been set off but not the main charge. We did not determine the whereabouts of other mines.**

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<sup>42</sup> Originally manufactured by MISAR SpA of Brescia, Italy, in January 1990 the company was taken over by BPD Difesa e Spazio srl. of Rome who now market three devices in what they call the "SAT mine fuse family" - SAT/N, SAT/QZ and SAT/TL. The fuses are identical in appearance although they differ in explosive content and technical specification.

<sup>43</sup> Pirdi Kon means "old bridge."

<sup>44</sup> It is the presence of these mines that leads us to believe that this was an Iranian minefield. The US M16 bounding mines were supplied to the Shah of Iran by the United States, and are not thought to have been a stock item in the Iraqi armory.

**GAPILON MINEFIELD: Grazing Land Mined**

**Ref: 65-11-G**

**Area: Penjwin/Gapilon**

**Position: X1 Lat: 35 47'24.3" N Long: 45 22'27.9" E**

**492 Meters**

**X2 Lat: 35 47'27.2" N Long: 45 22'21.9 E**

**492 Meters**

**Situated on both sides of semi-metalead road between Kareza and Gapilon, two kilometers from Gapilon.**

**Findings:** The Gapilon minefield was laid by the Iraqi army in March 1988 to interdict and prevent the return of *pesh merga* forces after their withdrawal from Kareza.

The mined area extends to the foothills on both sides of the road, an overall width of approximately 1.5 kilometers. It is about 120 meters long, parallel to the road. Although poorly fenced, the minefield is well known to the local population who have been successful to date in warning incoming refugees and returnees of the hazard. The field is situated on excellent grazing land.

**Technical Assessment:** Gapilon appears to have been laid with buried pressure anti-personnel mines. We have no reliable information on the types of devices and we detected no mines at the time of our survey. One military casualty, a prisoner escaping from the Iraqis during 1988, was fatally injured by a mine in the field.<sup>45</sup> No other incidents were reported to us.

**C. Dohuk Governorate**

**ZAKHO-SAHELA MINEFIELD: 32 Kilometer Unmapped Minefield**

**Ref: 86-15-AGR**

**Area: Zakho/Turkish Border**

**Position: X1 Lat: 37 09'01.8" N Long: 42 39'17.8" E**

**X2 Lat: 37 02'34.5" N Long: 42 23'06.3" E**

**Ht: 338 Meters**

**Follows the bank of the River Tigris for 32 kilometers from Zakho to a point opposite the Sahela settlement. (A sample section from this minefield in accompanying diagram.)**

**Findings:** Detailed technical information on this extensive minefield, laid in 1990 to act as a barrier to an expected coalition attack from Turkey during the Gulf War, was given to Middle East Watch by two sources who had been directly involved in the operation. One of

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<sup>45</sup> Interview with *pesh merga* commander in charge of the Gapilon area.

## **Zakho map**

**these sources also acted as our guide to the minefield.<sup>46</sup> Their testimony demonstrates the total lack of responsibility displayed by the military authorities involved in laying the minefield.**

**The scale and density of this 32-kilometer minefield is such that it clearly exposes civilians to an unjustifiable level of danger. The population in the border areas is now growing due primarily to continuing military actions by the Iraqi army against the Kurds which increases the potential risk to innocent lives.**

**Large tracts of this good agricultural land were expropriated for military purposes from the farmers. Its location prevents safe access to the river from other farming areas which makes resettlement and reconstruction of villages in this area virtually impossible.**

**Casualties are reported to be frequent among *pesh merga* who have bases along this stretch of the border. Young boys grazing livestock also account for a large percentage of mine victims from this sector.**

**Technical Appraisal: The two devices most in evidence in this minefield are PMD-HGE and Valmara 69, in some sections laid in dense concentrations.<sup>47</sup> Some VS-50 and anti-tank devices are also present. We estimated that 15 to 20 percent of the mines are un-armed.**

**Most of the perimeter of the Zakho field is delineated by barbed wire, but no warning signs were in evidence. In one location we saw a fenced safe path to a forward observation/listening post in the minefield; others may exist.**

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<sup>46</sup> Interviews with both informants are included in this report, below at Section 4.

<sup>47</sup> A random sample section 15 meters by 10 meters contained 31 PMN-HGEs, six Valmara 69s and two TM-46 anti-tank mines. There were also seven PMN-HGEs that were either unarmed or inoperative for other reasons. All anti-personnel devices were surface laid.

#### **4. IRAQ'S MINE DISTRIBUTION AND MAPPING STRATEGIES**

**Interviews with former Iraqi army officers illustrate the irresponsible political and military strategies that created the minefields described above.**

**An officer and a soldier involved in the 1990 large-scale land mine laying campaign in Zakho made it clear that mines were laid without any mapping and in a hasty and careless manner.**

**The Iraqi government claims that minefield maps were kept but destroyed during the March 1991 uprising. This is contradicted not only by these two witnesses but also by Middle East Watch's research.**

**On September 4, 1991 the author of this report visited the main Iraqi army map store in the town of Rawanduz. The facility is guarded by *pesh merga* and appeared not to have been changed in any way other than the conversion of two offices into living and sleeping accommodations for the guards.**

**We checked every set of maps in a specific search for minefield records. Although extremely detailed maps of military roads and free-fire zones were found among large-scale maps covering the whole of northern Iraq, no minefield maps or records were located in this facility.**

**It would be remarkably perverse if the Kurds had themselves removed and destroyed every minefield map and record from such a facility and subsequently had replaced every other map in its correct place. It is clear that the Iraqi military retained no records of their mine-laying or, if they did, that it was not retained by the local military command.**

**The third interview, with a *pesh merga*, gives the perspective of a rebel confronted with the long-term effects of widespread and unmapped mining, especially on the Iranian border in the 15- kilometer belt that was heavily mined.**

##### **Interview #1: Strategy in laying land mines in Zakho**

**Date: September 15, 1991 / Zakho**

**Subject: This source was an Iraqi officer, the *Istikhbarat* (military intelligence) officer attached to a Divisional Engineer Unit with responsibility for a section of the defenses along the Iraqi-Turkish border prior to the Gulf conflict.**

**Q> Could you explain the strategic thinking behind the large land mine concentrations in the Zakho area?**

**A> After the invasion of Kuwait and the subsequent political and military reactions following the UN condemnation of the action, there was a strong body of opinion in the Iraqi high command that US forces would favor an attack from Turkish territory. For four months before the coalition invasion, from September (1990) I think, we were involved in building a defensive barrier in the triangle formed by the Syrian and Turkish borders. It was an extremely large-scale operation -- eight divisions were moved into the front and each began preparing minefields to protect its positions.**

**Q> Do you have any idea how many mines were laid during that period?**

**A> I doubt if anyone would have an exact answer, except maybe the ordnance supply quartermaster**

**in Mosul. This is how big it was -- for four months we laid mines throughout the front, every day -- there simply weren't enough military trucks to bring them from the stores in Mosul so civilian vehicles were used as well.**

**Q> Did each division or unit keep a record, maps, of the minefields it laid?**

**A> I never saw any maps. We, the officers, knew where the mines were meant to be laid and those instructions were passed down to the sappers. No, I don't think any maps were made.**

## **Interview #2: Actual mine laying in Zakho**

**Date: September 15, 1991 / Zakho**

**Subject: The interviewee was a section commander of a divisional sapper unit of the Iraqi army involved in defensive mine-laying operations in the period following the invasion of Kuwait and prior to the invasion by Coalition forces.**

**Q> Could you explain the composition of your unit?**

**A> Yes. It was a divisional field engineer section consisting of one officer and twenty other ranks.**

**Q> How many such sections belonged to each division?**

**A> Fifteen. That is fifteen sections whose responsibility was laying minefields.**

**Q> So there were one hundred and twenty sections like yours operating in this [Zakho] area at that time [after the invasion of Kuwait]?**

**A> There were seven or maybe more divisions, yes, that would be about right.**

**Q> If what you say is true there were more than 2500 soldiers laying mines -- is that correct?**

**A> Probably. Minelaying was the priority at that time.**

**Q> Could you explain how your section operated, give me a description of an average day's work?**

**A> We worked most of the time a long way from the road so we organized it like this -- three or four men would unload the boxes of mines from the trucks and carry them to where we were working. Then another three or four men would work at opening the boxes and preparing the mines. Three would dig holes and five would actually lay the mines. The rest of the section would stretch the barbed wire. This is the way we worked from first light until it was too dark for work -- sometimes thirteen or fourteen hours.**

**Q> On average how many mines would you lay each day -- just your section?**

**A> Usually about five thousand, never less than four thousand.**

**Q> And how long did your section work in this area?**

**A> We worked here for twenty days then we were rushed to the south of Iraq to do the same job there.**

**Q> So your section alone laid between eighty and one hundred thousand mines in the Zakho area -- is that correct?**

**A> Yes, and we were just one of many such sections.**

**Q> What types of mines did you lay?**

**A> Mostly anti-personnel mines, but also some anti-tank.**

**Q> Please tell me what types, specifically. You can draw them on the paper if we have trouble understanding your description.**

**A> Two kinds of anti-tank. There was a plastic type (draws and subsequently identifies a Valsella VS2.2) and then we also laid TM-46 which was metal with handles.**

**Q> Did you always lay anti-tank mines? Who made the decisions regarding this?**

**A> No, we only laid them where the officers thought there was a danger of tanks being used by the Americans.**

**Q> What kinds of anti-personnel mines did you use?**

**A> We used a lot of *Broom*.**

**Q> I don't understand, please draw the mine. (The source drew what appears to be a Valmara 69 bounding A/P mine.) Is this what you mean? (The interviewer showed him a photograph of a Valmara 69.)**

**A> Yes – we called them *Broom*. We also laid the black Iraqi mine and stick mines. (The source drew and identified a PMN and POMZ-2.)**

**Q> Wait. You said the black mine, the PMN, was Iraqi -- why do you say that?**

**A> Because we were told it was made in military factories here. I think everyone knows that -- it's not a secret.**

**Q> What other devices did you lay?**

**A> We laid trip-flares as well.**

**Q> Did you keep maps or sketches of the minefields you laid?**

**A> (Laughs) No.**

**Q> Did the officer keeps records or maps, or did anyone else keep records to your knowledge?**

**A> No, we were too busy, we just kept a count of the number of mines we laid. That was the only record anyone was interested in.**

**Q> I have seen some unusual minelaying here at Zakho and in other Iraqi minefields near the Iranian border. Can you say, firstly, why the Valmara 69, the Broom, is so often just placed on the surface rather than buried to the correct depth?**

**A> It's simple. That is a heavy mine<sup>48</sup> and was very unpopular for that reason. When you lay mines for twelve or more hours you get very tired. We were meant to emplace them as you say but very often we couldn't be bothered. No one cared, no one checked.**

**Q> Secondly, we have seen the PMN, the black mine, scattered in groups on the surface. Often, when I checked, some of them were unarmed. Why?**

**A> That is what we did with faulty mines or when there were not enough detonators. Also sometimes we were tired and laid good mines without arming them. I myself laid hundreds like that.**

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<sup>48</sup> The Valmara 69 weighs in excess of 3 kilograms or 6.6 pounds.

**Q> Why?**

**A> (Laughs and shrugs) No reply.**

**Q> Can you draw a sketch of a typical minefield layout as you would have laid it?**

**A> Yes. It's very easy – we did nothing else but lay mines.**

**Q> Did you use any other markings apart from the barbed wire entanglements?**

**A> No.**

**Interview #3: Pesh merga combatant**

**Date: August 6, 1991 / London**

**Subject: Now resident in London, fought with pesh merga for ten years and also acted as an instructor in guerrilla tactics and weapons.**

**Q> How would you assess the problem of land mines in northern Iraq? A> It is an extremely complex situation, particularly in and around villages where the Iraqi army have used mines to stop inhabitants having contact with the pesh merga, and also as part of the official policy to deny large areas of the country to the Kurds. They have also mined randomly, sometimes from the air, to restrict the movement of the Kurdish resistance groups. However, climatic conditions make the problem worse because after heavy rains and snow the mines sometimes move. I have only mentioned the mines aimed at the Kurdish people, but we are also affected by the millions of mines laid by both sides in the war with Iran.**

**Q> Are the majority of the mines anti-personnel?**

**A> Well, of course, the resistance had no tanks so virtually all the mines are anti-personnel apart from a few near the border with Iran which are anti-tank to stop Iranian armor.**

**Q> Who laid the mines?**

**A> The great majority have been laid by the Iraqi government to terrorize the Kurdish population and restrict the mobility of the resistance. Some, however, are Iranian from the Iran-Iraq war.<sup>49</sup>**

**Q> Which areas are most affected in your experience?**

**A> That's a difficult question. The mines are scattered throughout Kurdistan and affect virtually all areas to some extent. In my own experience the belt about 15 kilometers from the Iranian border is most dangerous due to both Iraqi and Iranian mines – Penjwen, Mawat and Hajomran. There are many victims in these areas.**

**Q> Who are the most affected, the most vulnerable, to these mines?**

**A> The ordinary peasants, just living their lives, are most vulnerable. But particularly livestock herders and children.**

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<sup>49</sup> Our field research indicates that the greatest concentrations of mines were laid during the Iran-Iraq conflict and to interdict coalition forces in the Gulf conflict. Land mine use specifically aimed at the Kurdish population was the exception rather than the rule.



**Q> Do you know of any maps or plans of the mined areas in Kurdistan?**

**A> The military may have kept some maps of the minefields near the borders but, as for the rest, I don't see how any record can have been kept -- they are just dumped everywhere at random. The resistance have made some plans, but these are to show the tactics used rather than the location of specific minefields.<sup>50</sup>**

**Q> Is anyone attempting to mark the minefields or warn people of the dangers?**

**A> I must admit we have a problem here -- you see the resistance, the pesh merga, want the Kurds to return to their villages, that is our policy, not to be driven out of our homeland by the Iraqi government. But if we issue general warnings of the dangers, given the scale of minelaying around the villages, who would go back? However we do warn the people about specific minefields. As for marking, there is some, but no organized attempt.**

**Q> Is anyone laying mines now?**

**A> Yes, the Iraqi forces lay mines around any area they gain control of -- all military posts are heavily protected by mines. But when they leave they do not remove the mines.**

**Q> Would Kurdish groups support and assist a survey of mined areas?**

**A> Yes, of course. Apart from the fact that this would help villagers to return to their homes, which suits us politically, we see the mines as one of the long-term dangers facing our people.**

**Q> Have any booby-traps been used?**

**A> Not now, although the Iranians used booby-traps on their mines sometimes and maybe the Iraqis did also during the war. But there is no need to use such refinements against us Kurds -- the mines alone are effective enough without additions.**

**Q> Have there been any attempts to clear mines by Kurdish or other groups?**

**A> The resistance has used probes and cutters to make paths to attack Iraqi military posts<sup>51</sup> but that is all I know about.**

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<sup>50</sup> This source made available to the interviewer plans of Iraqi minelaying strategies which proved to be reasonably accurate as an indication of the methods used by Iraqi forces in some of the minefields surveyed by Middle East Watch.

<sup>51</sup> Here the source was referring to military breaching operations aimed at clearing a narrow path through a minefield as an attack or withdrawal route.

## **5. SOURCES OF LAND MINES**

**The most common mines Middle East Watch encountered during this mission were the Valmara 69 and the VS-50. The SB-33 and PMN-HGE were also extremely common. Three of these mines are of Italian design, while the PMN-HGE is a derivative of the Soviet PMN. French, American and Chinese land mines are also to be found in Kurdistan.**

**It is beyond the scope of this report to document fully how each different type of land mine gets to the mountain pastures of Iraqi Kurdistan. Even so, we discuss briefly what we know about the prominence of the most common mines found in the areas surveyed by Middle East Watch.**

**1. Two of the mines, the Valmara 69 and the VS-50, are designed and manufactured by an Italian company, VALSELLA MECCANOTECNICA SpA of Brescia, one of the world's leading manufacturers and exporters of land mines.**

**Because Valsella could not obtain an export license for Iraq it formed a new company in Singapore, which was not subject to an export ban, and obtained a licence from the Italian government for export to that company. The mines were then re-exported to Iraq.**

**In February 1991, seven executives of Valsella were convicted of illegally exporting nine million land mines to Iraq between 1982 and 1985. They all received suspended prison sentences ranging from 18 to 22 months.**

**At trial, the company's defense was that the Italian government was fully informed of the arms sales to Iraq. This was not the first time that Valsella had been cited in connection with alleged illegal export of land mines through shell or foreign companies. (In September 1987, a Tuscan magistrate, Augusto Lama, told journalists that he had issued warrants against Valsella's chairman and three executives of the company because he had documentary evidence that Valsella had illegally exported mines to Iran through Spanish, Turkish and Nigerian companies.)**

**Iraq had in the meantime begun to manufacture mines that were clones of the Valsella mines. In May 1989, at the Baghdad Arms Fair, the Iraqi stand displayed Valmara 69 Bounding mines identical to those manufactured by Valsella but apparently manufactured in Iraq.**

**A Singapore-based company, Chartered Industries, partly owned and controlled by the Singapore government, also advertises devices identical to the Valmara 69 and the VS-50 as its own products; they are designated as VS-69 and VS-50 by Chartered Industries.<sup>52</sup>**

**We do not know if Iraq and Chartered Industries produced these copies of the Valsella mines with a license from Valsella, but we note that it would be remarkable if so aggressive a marketing firm as Valsella allowed large scale and public pirating of its products to go unchallenged.**

**2. The SB-33 is described by its Italian manufacturers, BPD DIFESA E SPAZIO of Rome, Italy to be a**

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<sup>52</sup> The VS-50 is also marketed under the name SPM-1 by Chartered Industries of Singapore.

**general purpose local action mine "... complying with Italian Army and NATO technical and operational specifications and ensures the requested effectiveness in all operational scenarios."<sup>53</sup> Yet given Italy's prohibition on arms exports to Iraq, it is not clear how so many SB-33's found their way to the minefields of Kurdistan.**

**One answer could be that these mines are identical to the EM-20 marketed by the Greek company Elveiemek S.A., Hellenic Explosives & Ammunition Industry of Athens. Coincidentally, in addition to having identical technical specifications to the Italian SB-33, the Greek company's advertising brochure for the EM-20 says, "The EM-20 mine complies with NATO technical and operational specifications and ensures the requested effectiveness in all operational situations."**

**3. The PMN<sup>54</sup> is a Soviet-designed and manufactured anti-personnel blast mine used in many regional conflicts but especially in Afghanistan, where it is was widely disseminated by Soviet and Afghan government forces. The mine of the same design found in Kurdistan is a copy of the original, manufactured in Iraq, according to testimony given to Middle East Watch and confirmed by Mines Advisory Group<sup>55</sup> inquiries.**

**This mine was displayed as an Iraqi-manufactured device at the Baghdad Arms Fair in May 1989. It differs from the Soviet version only in the method of securing the rubber pressure diaphragm to the thermoplastic casing of the mine. We do not know whether the Iraqi PMN-HGE is manufactured under license from the Soviet Union but we assume that the Soviets supplied PMNs to the Iraqis before the local version was produced.**

**The examples above are not exceptional nor more complex than the results of any attempt to trace the convoluted routes by which land mines are obtained by Iraq or other countries, regardless of trade embargoes or similar restrictions. Manufacturers, middlemen and, quite clearly, governments have a cynical attitude to the supply of mines. That attitude may be paraphrased simply: "If we don't sell the mines someone else will -- so why lose the profit?"**

**Regimes like that of Iraq's Saddam Hussein benefit from such corporate greed to the great detriment of civilians like the Iraqi Kurds.**

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<sup>53</sup> Extract from BPD Difesa E Spazio advertising pamphlet.

<sup>54</sup> The PMN is sometimes referred to as PMN-1 to differentiate it from the later and more advanced Soviet device, the PMN-2.

<sup>55</sup> The Mines Advisory Group is a United Kingdom-based agency specializing in the design of mine survey techniques and the establishment of humanitarian landmine eradication programs.

## **6. THE THREAT TO NON-COMBATANTS: VULNERABLE OCCUPATIONS AND CASE HISTORIES**

**Land mine design has advanced dramatically in the years since the Vietnam War; it is also true that these technological advances have not improved the selectivity of land mines.<sup>56</sup> Every mine is as likely to claim a civilian victim as a combatant. When mines are laid in an irresponsible manner, as in northern Iraq, the risk to non-combatants increases considerably. In rural agricultural communities civilian casualties can reach alarming levels as the need to rehabilitate farmland and re-establish life-supporting activities becomes paramount.**

**As in other countries where extensive mining of agricultural areas has occurred, farmers and their families in Kurdistan face the deadly dilemma of either accepting the risk presented by land mines or abandoning the land they need to survive. Experience in Afghanistan,<sup>57</sup> Cambodia and other countries has shown that farmers and herders will take greater risks as their personal economic circumstances become increasingly critical and their familiarity with the presence of mines overcomes their fear. This familiarity is rarely accompanied by an increased knowledge of the true risk element involved in straying into mined areas.**

**The sudden, and largely unplanned, exodus from Kurdish complexes and cities to rural areas following the withdrawal of the Iraqi army in mid-1991 gave the Kurdish people little opportunity to fully comprehend the danger they face from land mines. This is well illustrated by the high rate of casualties and the continuing belief in some areas that land can be made safe by burning hillsides and similar strategies.**

**It is obvious that certain occupations expose people to extreme danger. These occupations are firewood collection, livestock herding, often done by children, and mine clearance.**

**In addition, many are injured by land mines when they return to reconstruct their homes in areas that were previously destroyed by the Iraqis as part of their scorched-earth counterinsurgency campaign, suggesting that the mines were left there precisely to discourage civilians from returning to their lands.**

### **a) Firewood Collection**

**This vital task causes many mine injuries among the Kurdish rural and refugee population. Experience in Afghanistan and Cambodia has been similar. Fuel collection entails constant ventures**

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<sup>56</sup> In one respect selectivity has been incorporated in land mine design, to avoid detonation of mines by animals - thus wasting an opportunity to claim a human casualty. The Soviet VP-13 is a product of such technology.

<sup>57</sup> In one surveyed area of Afghanistan only 27 percent of villages had suffered no mines casualties during a two year period and only 28 percent reported no fatalities in the same period. The most vulnerable groups were males between 20 -- 40 years and females between 10 and 20 years. The overall casualty figure for the area was more than six per week. Data for Farah Province (not the worst affected) from the Report of the Afghanistan Mines Survey, Mines Advisory Group, United Kingdom, February 1991.

onto new ground. Especially where the person is unfamiliar with the area, the risks are high in mine-strewn territory.

**Mohammed Namik Mamour Salah, 48, from Penjwin,<sup>58</sup> suffered a traumatic amputation of his right foot while collecting firewood. He knew mines were a danger but did not know where they were. Even if he did, he said, his family must have fuel and he could not see how one could always be looking for mines and live.**

#### **b) Livestock Herding**

**This occupation also involves high risks in any mined rural area. Given the high incidence of mined pasture, the fact that most shepherds are children and the central nature of livestock farming within the Kurdish culture, it is not surprising that casualties are common in this group.<sup>59</sup> This trend is likely to continue and can be expected to worsen in some seasonal conditions.**

**Osmana Rashid, 12, area unknown,<sup>60</sup> suffered a traumatic amputation below the knee of his right leg. The multiple fractures of his left leg probably require surgical amputation. A shepherd, he was grazing sheep with his two cousins aged 11 and 13. He did not know about mines but was just looking for good grazing land when one of them hit a tripwire. Both cousins died.**

#### **c) Mine Clearance**

**Many Kurds have become involved in attempts to clear mines from their land and, in some cases, groups and individuals have undertaken responsibility for regional clearance. In terms of risk, individuals who rarely have more than a basic understanding of land mine technology are exposing themselves to great danger and are unlikely to escape without injury. Yet they take this step out of frustration and need.**

**Those Kurds who attempt some level of organized clearance, however, are often men with military experience and a considerable knowledge of the task they are undertaking. The risks they run reflect the sheer scale of the assignment and the number of mines with which they come into contact rather than any uncalculated factor. To limit casualties, the best hope would appear to lie in discouraging inexperienced clearance while integrating the work of expert personnel into an organized eradication program.**

**Hansa Namet Rahsool, from Mawat,<sup>61</sup> had his left leg amputated below the knee. This patient, a pesh merga, is something of a legend in Kurdistan. After the declaration of the security zone, he set himself up as a one-man mine clearance program and is reputed to have cleared as many as 50,000**

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<sup>58</sup> Interviewed in Sulemaniya City Hospital, September 11, 1991.

<sup>59</sup> Shepherds grazing animals on high ground are probably at higher risk than any other occupation group in Afghanistan.

<sup>60</sup> Interviewed in Sulemaniya City Hospital, September 11, 1991.

<sup>61</sup> Interviewed in Sulemaniya City Hospital, September 11, 1991.

mines. When interviewed by Middle East Watch, he just shrugged his shoulders and said he had stopped counting, but agreed that he had cleared thousands of devices. On the day he was injured, he told us, he had cleared more than a hundred French anti-personnel mines when he stepped on one. Rahsool was philosophical about his injury saying, "It was certain to happen one day." He wanted to accompany us to Mawat and show us the mine fields he knew.

**Fatah Hassan, 42, from Sulemaniya, was assisting the removal of land mines in the Penjwin area. For 45 days he removed mines until a mine exploded and his left hand was cut off at the wrist; his thumb, index, ring and middle fingers of the right hand were also destroyed.<sup>62</sup>**

**Jalal H. Mohammed, 36, from Mawat,<sup>63</sup> suffered multiple fractures in his right leg. He had removed about a hundred mines on farmland when he stepped on a VS-50 that he had overlooked.**

**Mahmoud Said, 21, from Penjwin,<sup>64</sup> suffered a partial left hand amputation. He had de-fused some 250 to 300 mines. A VS-50 exploded as he removed the detonator.**

#### **d) Return to the land and general agricultural activities**

**A Farmer,<sup>65</sup> 29, from Sayid Sadiq,<sup>66</sup> suffered an amputation below the knee of the right leg. He was working in a field when he tripped a mine. He did not know there were any mines in that area but he was aware of the danger generally because he and his family knew more than 40 people who had been killed or injured due to land mines.**

**Rafoor Mohammed Ahmed, 66, from Mawat,<sup>67</sup> was injured in his right foot. He was collecting grapes in his garden shortly after returning to his home; had heard about mines but did not know where they were.**

**Sharif Mohammed, 24, from Penjwin,<sup>68</sup> suffered multiple injuries to his upper body, groin and both arms and legs. He was walking with a friend in an area they thought was safe. His friend hit a tripwire and was "torn to pieces."**

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<sup>62</sup> Certificate of Dr. R. Mirza, December 31, 1991, Sulemaniya. The victim is in need of an artificial hand and has petitioned international organizations for assistance.

<sup>63</sup> Interviewed in Sulemaniya City Hospital, September 11, 1991.

<sup>64</sup> Interviewed in Sulemaniya City Hospital, September 11, 1991.

<sup>65</sup> Many interviewees in Kurdistan wished to remain anonymous.

<sup>66</sup> Interviewed in Sulemaniya City Hospital, September 11, 1991.

<sup>67</sup> Interviewed in Sulemaniya City Hospital, September 11, 1991.

<sup>68</sup> Interviewed in Sulemaniya City Hospital, September 11, 1991.

**Sabah Amin, 34, from Penjwin,<sup>69</sup> had his left foot amputated. He stepped on a mine while walking home on a road verge.**

**Hassan Jalal, 22, from Mawat,<sup>70</sup> lost heel and calf tissue from his right leg, and suffered multiple shrapnel injuries to left leg. He left the road to pick some grapes, and stepped on a mine.**

**Mohammed Aziz Faraj, 30, from Penjwin,<sup>71</sup> suffered multiple fractures of both legs and lost his left eye. A melon farmer, he tripped a wire in tall undergrowth. He did not know the field was mined.**

**Ali Shaswa Ali, 40, from Penjwin,<sup>72</sup> had his right foot surgically amputated. He was walking with 12 year old niece when a mine exploded. He has no idea who tripped the mine. His niece had her foot amputated and sustained serious facial and upper body injuries. He thought the area had been cleared of mines.**

**Lahman Ali Faraj, 18, from Pira Magrun, Suleimaniya,<sup>73</sup> suffered multiple shrapnel injuries and fractures while farming an area he knows well. Another man was killed in the same incident. He says he is sure the area was free of mines before March 1991 and thinks mines were placed since then.**

**Abdullah Faraj Haji Mohammed, 28, from Nowpires,<sup>74</sup> had his left leg amputated below the knee. While building a house in the suburbs of Nowpires he tripped a wire as he was collecting wood for construction. He told us there had been 12 land mine casualties in Nowpires that he knew of since the end of June 1991, of which eight were fatal.**

**Omar Mohammed Darush, 38, from Mawat,<sup>75</sup> had his right leg amputated below the knee. While rebuilding his home with his family near a main road into Mawat he stepped on a mine very close to the road. He knew there were mines in the area, but thought it would be safe so close to the main road. He saw many PMN's near where he was injured as he waited to be evacuated.**

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<sup>69</sup> Interviewed in Sulemaniya City Hospital, September 11, 1991.

<sup>70</sup> Interviewed in Sulemaniya City Hospital, September 11, 1991.

<sup>71</sup> Interviewed in Sulemaniya City Hospital, September 11, 1991.

<sup>72</sup> Interviewed in Sulemaniya City Hospital, September 11, 1991.

<sup>73</sup> Interviewed in Sulemaniya City Hospital, September 11, 1991.

<sup>74</sup> Interviewed in Sulemaniya City Hospital, September 11, 1991.

<sup>75</sup> Interviewed in Sulemaniya City Hospital, September 11, 1991.

## **7. MEDICAL ASPECTS**

**Casualties from land mines continue to demand emergency and long-term rehabilitation efforts from a severely strained medical system. Middle East Watch visited five medical facilities during September 1991, and found that they treated 1,652 land mine casualties in Sulemaniya and 475 in eastern Erbil during a five-month period alone.**

### **A. Suleimaniya**

**Suleimaniya City Hospital<sup>76</sup> treated many land mine victims, according to Hospital Director Abdul-Rehman Rieze and Emergency Ward Manager Kamal Mohammed Sharif.**

**Hospital records show that 1,652 land mine patients were treated from March to September 11, 1991; of these, 397<sup>77</sup> involved surgical or traumatic amputation. There were 28 victims in the hospital on the day of our visit.**

**Suleimaniya City Hospital is a combination of what were the teaching<sup>78</sup> and emergency hospitals for the city. The present hospital has 350 beds and 30 doctors.**

**There was considerable upheaval at the hospital during 1991. In March 1991, during the uprising, the military hospital, along with virtually every government facility in the city, was destroyed. In response, the army took over the Suleimaniya Hospital and, when they left in July, they reportedly looted it. One member of the nursing staff told us:**

**They took everything, even some of the furniture. Much of the surgical equipment was looted as were virtually all the drugs. The soldiers were seen selling our medical equipment and drugs in the bazaar. Now we have a shortage of everything, most of us have just one uniform -- the one we were wearing when the military pulled out.**

**A medical staff member at the hospital told Middle East Watch:**

**All the hospitals in Iraq were suffering from shortages as a result of the trade sanctions; we were no exception. Then the government told hospitals to send teams to Kuwait to take whatever they required from Kuwaiti hospitals and medical stores. In Suleimaniya we did not have to worry about the moral issues of looting another hospital -- the offer wasn't open to us -- we were Kurdish and therefore excluded.**

**The hospital bears the brunt of the work related to land mine injuries in Kurdistan. Its catchment**

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<sup>76</sup>Visited on September 11, 1991.

<sup>77</sup> This figure increased to 398 as we left the hospital at the same time as a six-year-old boy with a traumatic above-knee amputation of the right leg from a mine was being admitted.

<sup>78</sup> The University of Suleimaniya, including the medical school that used this facility, was relocated by the Iraqi government to Erbil in 1982, under Kurdish protest.



area includes the heavily mined border regions of Penjwin and Mawat, as well as Halabja and Sayed Sadiq.

**Kamal Mohammed Sharif, the emergency and surgical ward Manager, expressed concern about the future of amputees:**

**We only have 60 emergency beds and we cannot keep patients here for the normal period of care. There are no provisions for prostheses. Before the uprising, an amputee would have been sent to Baghdad, but now, even if such an opportunity arose, no Kurd could go to Baghdad. No one thinks about the mental aspects; you cannot be blown up by a mine, maybe watch your family or friends blown to pieces beside you, you cannot experience things like that without mental scars. But we can only just cope with the physical injuries never mind the mental ones. At least a program to provide artificial limbs would solve a lot of the problems these people and their families face. When you are dealing with fifteen patients every week who have been torn apart by land mines it is hard to believe that the world cares what happens to our people.**

**MedicIns San Frontières (Belgium) Surgical Field Hospital,<sup>79</sup> in Sayed Sadiq, Sulemaniya, was coordinated by Dr. Michael Schubert (MSF France).**

**The hospital is a well set up tent facility that admitted 40 mines casualties in the 10 weeks prior to our visit. The hospital staff also stabilized many land mine victims en route to Suleimaniya Hospital.**

**Dr. Schubert told us of the high incidence of upper-body injuries and partial foot amputations in addition to the leg amputations more normally associated with mine injuries.<sup>80</sup> He stressed the urgent need for a prosthetics program. Dr. Schubert stressed that medical responses, no matter how good, are not a solution:**

**We have been hoping for a clearance program to start, but, of course, when you don't know what is involved it is difficult to assess the needs or know what to expect.**

**The Red Crescent Field Hospital, Penjwin, Sulemaniya,<sup>81</sup> is a tent field hospital that opened on May 5, 1991. Dr. Kamaran, Dr. Mohammed (General Surgeon), and Dr. Awas reported that the facility had dealt with more than 200 land mine casualties in the four months since then. Dr. Kamaran estimated that total casualties in the Penjwin area numbered near 500, including those who died before reaching assistance and patients who were taken directly to Suleimaniya Hospital. Approximately 20 percent of the victims were under 15 years.<sup>82</sup>**

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<sup>79</sup>Visited on September 10, 1991.

<sup>80</sup> This may be due to the high concentrations of bounding mines, particularly the Valmara 69, in northern Iraq.

<sup>81</sup>Visited on September 9, 1991.

<sup>82</sup> The admittance log for the six days prior to our visit indicated the scale of the problem in the Penjwin area:  
9.9.91 Amputation, above-knee right leg  
8.9.91 Amputation, below-knee right leg  
8.9.91 Amputation, both legs & right hand

**Common mine-related injuries were traumatic below-knee amputations, upper body injuries, some hand and above-knee amputations and some cases of blindness. About 10 percent of mine-injured patients admitted died due to shock and vital organ injuries.**

**The hospital had no surgical facilities and saw its main role as stabilizing mine casualties for the one and a half hour evacuation to Suleimaniya Hospital. At the time of the Middle East Watch visit the hospital had no ambulance; casualties were being transferred to Suleimaniya by private transport hired by relatives. This delay, say the medical staff, can often be critical and increases the incidence of fatalities.<sup>83</sup>**

**Dr. Kamaran has collected some data on causes of contact with mines which show that most casualties take place while collecting firewood, herding livestock, scavenging for scrap metal or attempting to disarm or destroy mines.**

**Dr. Kamaran is not optimistic about the future, he told Middle East Watch:**

**Although there has been some decrease in mine casualties over the past two months as people become more aware of the danger, they don't really have any choice but to go to areas which may have mines. When the winter comes, I believe we will see a sharp increase in mine incidents, particularly if the people do not have adequate shelter because this will increase their need for fuel and that means going to the hills. It is there that they are most at risk. Many people have come here and promised us help, promised to do their best for us – we just wait and do our best -- but it is not enough.**

## **B. Erbil**

**At Rawanduz Hospital,<sup>84</sup> in Rawanduz, Erbil, senior doctor Dr. Mohammed Kadir estimated treating 456 land mine casualties from March through September 1991.**

**The facility was a dispensary until the uprising. It was established as a hospital on March 20, 1991 to deal with the increased number of patients.**

**Between March and July the hospital received an average of four land mine casualties per day, mostly lower limb injuries, among which traumatic below knee amputations were most common. The majority of patients were men, often *pesh merga*, but the hospital treated 30 children under 15 for mine injuries. It also treated more than 15 women during that period.**

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**7.9.91 Amputation, both legs & both hands**  
**4.9.91 Amputation, below-knee right leg**  
**2 deaths on or after arrival**

<sup>83</sup> The nonprofit group Christian Outreach donated 7000 Dinars to the Penjwin Hospital to fund the repair of an old ambulance.

<sup>84</sup> Visited on September 3, 1991.

**Most mine casualties came from the Hajomran or Choman areas. Dirty wounds were reported to be a particular problem and Dr. Kadir estimated that 90 percent suffered secondary infections. He also told Middle East Watch that the ratio of fatalities was high due to a lack of anti-tetanus.**

**Since the German Emergency Doctors Field facility opened in Choman in July 1991, very few patients came to Rawanduz and the facility now treats approximately four land mine patients every month. Dr. Kadir told us that people had become more aware of the threat posed by mines and this had partly contributed to a decrease in mine incidents but he thought that any new movement of the population, especially resettlement of refugees, would lead to a dramatic increase.**

**The German Emergency Doctors Field Hospital,<sup>85</sup> Choman, Erbil, is a surgical field hospital with two trailers used for surgical work and tent wards.**

**Dr. Maria Dines, Dr. Matthew Funk, and Nurse Wolfgang Kokoschka said the field hospital began operating on July 10, 1991; it received 19 land mine casualties in the nine weeks since then. There were 10 land mine casualties at the hospital on the day of Middle East Watch's visit.**

**The staff estimates that 20 percent of mine casualties in the area are due to attempts to destroy mines by small arms fire.**

**Wolfgang Kokoschka estimated that the land mine casualties they saw were only one-third of the problem in this area.**

**Of course some patients go straight to Suleimaniya or maybe to MSF, it depends on where the incident happens. But we have come to realize that, for every casualty who arrives here for treatment, there are two that don't make it. They die in the hills, or before their family can get them to medical assistance. There are no records kept: when they die, they are buried. We know, for instance, that two men have been killed in the past 24 hours -- we usually get to hear through our Kurdish staff or from the patients.<sup>86</sup> The community impact of these injuries is serious, there are no prostheses available in Kurdistan and in the majority of cases we treat, the patient is the main breadwinner for the family. The full implications won't be apparent until the winter comes and then these families will face enormous problems.**

**The doctors at the GED facility have no X-Ray available and, because mine injuries are dirty, they experience problems in ensuring that all foreign bodies and shrapnel are removed.**

**Since our visit, additional efforts have been undertaken to address the problem.**

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<sup>85</sup> Main Office: Komitee Cap Anamur GED Kupfer Str. 7, 5210 Troisdorf, Germany. The field hospital was visited on September 7, 1991.

<sup>86</sup> One of the two fatalities referred to was killed in the Derband minefield on September 9, 1991 just prior to the Middle East Watch survey of the field.

**Handicap International, a French-based nonprofit organization, has opened a much-needed workshop for the production of prostheses in Sulemaniya. As of June 1, 1992, they had assessed 1,190 handicapped people; of those cases, 658 cases or 55.2 percent were the result of land mines. Another 189 cases were the result of bombs, or 15.8 percent.**

**In connection with the assessment, they produced a map of the land mines accidents in the area of Sulemaniya governorate. (Map Five)**

**Handicap International produced 423 prostheses from November 16, 1991 to May 31, 1992.**

**The International Committee of the Red Cross opened a surgical hospital in October 1991 on the road to Penjwin in the village of Nowpares. Some 80,000 Kurds fleeing the Iraqi Army in April 1991 had sought refuge in this village, situated in a remote area surrounded by snow-capped mountains. The area was littered with mines left over from the war between Iran and Iraq. These mines, according to the ICRC, caused numerous injuries, especially among children playing and people collecting firewood.**

**When Kurdish refugees began to repatriate back into Iraq from refugee camps in Iran (there were over a million there in this period in 1991), there were even more mine injuries.**

**Between the October 1991 opening of the hospital and January 1992, a total of 245 patients, including 117 war casualties from the fighting near Suleimaniya in October 1991, had been admitted to the hospital and 467 operations had been performed there.<sup>87</sup>**

**The hospital, which has about 50 beds, continued to receive about two or three cases a day of land mine injuries as of July 1992.<sup>88</sup>**

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<sup>87</sup>International Committee of the Red Cross Bulletin, April 1992, no. 195.

<sup>88</sup> Interview with ICRC, Suleimaniya, July 4, 1992.

## **MAP Five**

## **8. CONTROL, ERADICATION, MARKING AND AWARENESS INITIATIVES**

### **Community Initiatives**

It is an indication of the determination of the Kurdish people to re-build their way of life that so many groups and individuals have taken on the task of clearing mines to allow land to be returned to use. One of the most remarkable initiatives examined by Middle East Watch was the work of Borhan Hussein and his team in Penjwin. This team has disarmed and collected enormous quantities of land mines and unexploded ordnance and, lacking the explosives and knowledge to destroy their haul, have established two guarded dumps near the *Kommittee Bala*<sup>89</sup> headquarters in Penjwin. Ironically these dumps now contain such a huge amount of ordnance that they place the local community at considerable risk. It is estimated that one of the two dumps contained more than 5,000 mines at the time of our visit. It is situated within 50 meters of the nearest dwellings.

With expert training and supervision, such teams can be an asset of great value to any future mine eradication program. But there is a lack of record-keeping. In many cases this undercuts the work that has been completed, especially if key team members become casualties.

One disturbing practice which is increasingly common within Kurdistan is burning of minefields in the belief that this will destroy the mines. The strategy is usually employed on mined grazing land, particularly mountain pasture, and, to a lesser extent, on arable land.

Middle East Watch examined several minefields which had been burned and found that, while some devices were detonated by heat or rendered inoperable by burning, many were either made unstable or sustained no damage at all. The obvious danger of this practice is that people may be encouraged to believe that the ground is safe for use after burning. In fact, in some instances it may actually prove more dangerous following this treatment. Burning certainly promotes increased vegetation growth, making sighting of mines more difficult.

Other, often-suggested but, happily, less often attempted strategies include the use of herds of animals to clear minefields and the use of small-arms fire to detonate individual devices. Though livestock may be partially effective, their use is a waste of such a valuable resource.

Destruction of devices by small-arms fire requires a high level of marksmanship and, since each shot destroys only one mine, a massive quantity of ammunition. Many casualties in Kurdistan (up to 20 percent in some areas) are a direct result of attempts to destroy mines by this method. This is a common reason for incidents in mined rural agricultural communities throughout the world. The victim may be the person firing at the device, injured through under-estimating the effective range of the mine or a third party may become a casualty due to inadequate warnings. The method is rarely effective, except in the case of isolated devices, since, to ensure a sufficient safety zone, only an experienced marksman is likely to maintain sufficiently accurate fire.

### **b) Organized Clearance Initiatives**

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<sup>89</sup> Joint Committee of the various Kurdish political and community groups.

**In 1991, prior to the Iraqi administrative pullout from Kurdistan, three Iraqi army teams working under the scrutiny and control of the Military Coordination Center based in Zakho were engaged in organized land mine clearance in the Dohuk governorate, in the Zakho, Kanimasi and Mangish areas. Middle East Watch did not observe these operations directly but we were able to interview MCC staff to obtain details. Colonel Reynolds of the US Armed Forces, serving with MCC,<sup>90</sup> told us that the teams ". . . had their limitations and their equipment and skills are not all that could be wished for. The Iraqi officers were unable to read maps and there are problems of operational discipline." However, Colonel Reynolds considered the mines issue so important that any realistic initiative should be supported.**

**In June 1992 the Mines Advisory Group (MAG),<sup>91</sup> funded by the European Community (EEC) Emergency Office, began work training 160 Kurds in the skills required to survey, mark, record and eradicate minefields in Kurdistan. The minefields targeted for the program are those where there is a specific risk to non-combatants and where low income and refugee communities are disadvantaged by the presence of mines.**

**Despite the refusal of the Turkish authorities to allow the transit of mine clearance equipment for use by the MAG teams, the program was reported to be progressing on schedule at the end of August with the first two groups of 40 trainees ready to begin live clearance training.**

### **c) Mine Marking projects**

**Both the Military Coordinating Center in Zakho and the United Nations High Commissioner for Refugees in Penjwin initiated pilot marking projects.**

**The MCC project aimed to mark minefield perimeters with skull and crossbone warning signs. The project began in mid-September 1991.**

**The UNHCR project in Penjwin was said by Amin Awad, their senior UNHCR representative, to have a budget of US\$45,000 and was to be implemented in conjunction with the local Kurdistan Front Committee. Some large signs had already been erected beside the Nowpires-Penjwin road at the time of the Middle East Watch mission giving a general warning:**

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<sup>90</sup> Interview, September 16, 1991, Zakho.

<sup>91</sup>The Mines Advisory Group is a UK-based non-profit humanitarian organization. The group was founded by the primary researcher of this report.

**CAUTION  
AREA IS HEAVILY MINED  
United Nations**

**The signs are bi-lingual and include a white skull and crossbones in one corner.**

**d) Mine awareness projects**

**The Kurdistan Front initiated a mine awareness project in 1991 that involved radio broadcasts giving simple community warnings. This project ran its first broadcast in September 1991. There were also plans to launch a poster campaign throughout high risk areas.**

**Since June 1992, the Mines Advisory Group, with funding from Christian Aid UK and the Kurdish community in London, has conducted community awareness projects among the Kurdish villages in mined areas, targeting the most vulnerable groups through poster campaigns and employing the traditional verbal and play-acting tradition to ensure that children and illiterate villagers benefit fully from the campaign.**



## **9. LEGAL PRINCIPLES**

**Under customary international law, the Iraqi practice of leaving land mines in Kurdistan, unrecorded, unmarked and which do not self-destruct within a reasonable amount of time, is per se indiscriminate.**

**While creation of minefields on the Iranian front lines during the Iran-Iraq War in areas emptied of civilians may have had a legitimate military purpose from 1980-88, whatever justification they had ended when the parties entered a cease-fire agreement in August 1988 and hostilities ceased. The irresponsible manner in which the minefields were created, with millions of industrially produced mines that do not self destruct or degrade, with no maps and only minimal marking, was compounded by Iraqi government failure to clear the mine fields during the three years they were under their control after the end of the Iran war.**

**Irresponsible creation and failure to clear these minefields in Kurdish areas traditionally dedicated to crops and pastureland reflect Iraqi government hostility to the Kurds on ethnic grounds. These practices continue the long Iraqi policy of driving the Kurds from their lands and punishing them as a group for presumed lack of loyalty to the Ba'ath regime.**

### **Source of Law**

**The principal source of international law rules governing the use of land mines and comparable explosive devices is the Land Mines Protocol,<sup>92</sup> annexed to the 1981 United Nations Conference on Prohibitions or Restrictions of Use of Certain Conventional Weapons Which May be Deemed to be Excessively Injurious and to Have Indiscriminate Effects (United Nations Convention).<sup>93</sup>**

**The Land Mines Protocol is applicable to international armed conflicts and certain anti-colonial wars. Many of its provisions are already a part of customary international humanitarian law and are thus binding on parties which have not acceded to it as well as parties to internal conflicts.**

**The Land Mines Protocol seeks to protect civilians from the dangers of land mine warfare.<sup>94</sup> It does not protect military personnel from the use of these and related devices and, furthermore, permits**

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<sup>92</sup> Protocol on Prohibitions or Restrictions on the Use of Mines, Booby Traps and Other Devices (Protocol II), annexed to the 1981 UN Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May be Deemed to be Excessively Injurious and to Have Indiscriminate Effects: Final Act, app. C, opened for signature Apr. 10, 1981, U.N. Doc.A/CONF.95/15 (1980), reprinted in 19 I.L.M. 1523, 1529 (1980).

<sup>93</sup> United Nations Conference on Prohibitions or Restriction of Use of Certain Conventional Weapons: Final Act, opened for signature Apr. 10, 1981, U.N. Doc.A/CONF.95/15 (1980), reprinted in 19 I.L.M. 1523 (1980) [hereinafter U.N. Convention]. The Convention and its three Protocols entered into force on December 2, 1983. The Convention is an "umbrella" treaty to which are attached three optional protocol agreements, each containing specific limitations on the use of particular conventional weapons.

<sup>94</sup> Carnahan, "The Law of Mine Warfare: Protocol II to the United Nations Convention on Certain Conventional Weapons," 105 *Military L. Rev.* 73, 75 (1984).

**the use of land mines to achieve military objectives.<sup>95</sup>**

**Certain peculiarities specific to land mines differentiate their use from other conventional weapons. An expert on the laws of war notes:**

**Unlike ordinary munitions, land mines and booby-traps are not designed to explode when they approach the target. They are, instead, designed to lie dormant until enemy vehicles or personnel approach them. While most munitions are intended primarily to destroy enemy property or personnel, land mines are, in contrast, used primarily to impede enemy access to certain areas of land by requiring mine clearance before those areas are used. Militarily, minefields are similar to ditches, tank traps, and concertina barbed wire in that they are obstacles to enemy movement.<sup>96</sup>**

**Thus, it is the particular area of land, rather than the vehicles or persons entering it, that is the object of attack by mines. If an area of land where mines are placed meets the test of a legitimate military objective, the deaths or injuries suffered by civilians as well as combatants who enter that minefield are collateral or secondary to the primary military purpose for the placement of the mines, under customary law. However, conditions change, and what was a legitimate military objective will not be so forever, especially not after the end of hostilities.**

**Land mines pose two significant dangers to civilians. First, they might be placed in areas populated by civilians. Second, they are a continuing threat if they do not self-destruct, but remain active and in place after their military purpose has ceased. It is this second danger that prevails today in Iraqi Kurdistan.**

**The chief purpose of the Land Mines Protocol is to shield civilians from these and other dangerous effects of land mine warfare, even when the mines are directed against legitimate military targets.<sup>97</sup> Thus the Land Mines Protocol imposes customary law legal restraints, namely a prohibition of indiscriminate use and the rule of proportionality, on legitimate land mine attacks. It requires parties to take precautionary measures to avoid or minimize civilian casualties or damage to civilian objects collateral to attacks against military objectives.**

### **The Basic Rule: The Immunity of Civilians and Civilian Objects**

**Under customary law, civilians and civilian objects may not be attacked.**

**U.N. General Assembly Resolution 2444, *Respect for Human Rights in Armed Conflict*,<sup>98</sup> adopted by unanimous vote on December 18, 1969, recognizes several principles of customary law protecting**

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<sup>95</sup> "Central American Armed Conflicts," 2 *Am. U.J. Int'l L. & Pol'y*, 539, 559-60 (1987).

<sup>96</sup> Carnahan, "The Law of Mine Warfare: Protocol II to the United Nations Convention on Certain Conventional Weapons," 105 *Military L. Rev.* at 75.

<sup>97</sup> Carnahan, "The Law of Mine Warfare: Protocol II to the United Nations Convention on Certain Conventional Weapons," 105 *Military L. Rev.* at 76.

<sup>98</sup> G.A. Res. 2444, 23 U.N. GAOR Supp. (Wo. 18) at 164, U.N. Doc. A/7433 (1968). UN Convention at para. 2, 3.

**civilians. It states in part:**

**a) that the right of the parties to a conflict to adopt means of injuring the enemy is not unlimited;**

**b) that it is prohibited to launch attacks against the civilian population as such;**

**c) that a distinction must be made at all times between persons taking part in the hostilities and members of the civilian population to the effect that the latter be spared as much as possible. . . .**

**The Convention's preambulatory paragraphs two and three reflect these rules.**

**The Land Mines Protocol tailors the general prohibition on attacks against civilians<sup>99</sup> by prohibiting "in all circumstances" directing mines "either in offence, defence or by way of reprisals, against the civilian population as such or against individual civilians."<sup>100</sup>**

**It also prohibits the use of land mines "in any city, town, village or other area" where civilians are concentrated. There is an exception, however. Mines are permitted in populated areas in which combat between ground forces is taking place or is imminent, if the mines are placed in or close to a military objective belonging to an adverse party.<sup>101</sup> Military objects are defined in the Land Mines Protocol and Protocol I of 1977 additional to the 1949 Geneva Conventions according to the standard accepted definition:**

**any object, which by its nature, location, purpose or use makes an effective contribution to military action and whose total or partial destruction, capture or neutralization, in the circumstances ruling at the time, offers a definite military advantage.<sup>102</sup>**

**Civilian objects are all objects which are not military objects.<sup>103</sup> The Land Mines Protocol thus anticipates that a civilian object such as a path or a cornfield may become a military objective for the limited period of time that it is used by the military to retreat or advance, for instance.**

**What is forbidden under the Land Mines Protocol as under customary law is the designation of civilians and civilian objects as military targets. Thus, mining an area for the sole purpose of preventing civilians from living and farming there is a blatant violation of international law.**

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<sup>99</sup> **Civilians and the civilian population comprise all persons who are not members of the armed forces or of an organized armed group of a party to the conflict or do not directly participate in hostilities. See Protocol I of 1977 to the 1949 Geneva Conventions, arts. 50 (1) and 43.**

<sup>100</sup> **Land Mines Protocol, art. 3 (2).**

<sup>101</sup> **Land Mines Protocol, art. 4 (2) (a).**

<sup>102</sup> **Land Mines Protocol, art. 2 (4).**

<sup>103</sup> **Land Mines Protocol, art. 2 (5).**

**There is no prohibition on the use of mines in populated areas for a legitimate military purpose such as to protect military posts from enemy attack. In these circumstances, however, measures must be taken "to protect civilians from their effects," such as the posting of warning signs, posting of sentries, issuance of warnings, or use of fences.<sup>104</sup> Posting of warnings for civilians is consistent with this purpose: it also lets the enemy know that the area is protected.**

### **Indiscriminate Use**

**Article 3(3) of the Land Mines Protocol prohibits the "indiscriminate" use of mines which it defines as any placement of such weapons**

**(a) which is not on, or directed at, a military objective; or**

**(b) which employs a method or means of delivery which cannot be directed at a specific military objective; or**

**(c) which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated.<sup>105</sup>**

### **Indiscriminate Methods of Delivery**

**"Blind" weapons are forbidden. These are weapons that "cannot, with any reasonable assurance, be directed against a military objective."<sup>106</sup> A contact land mine is such a blind weapon because, if left in an area transited by civilians, it can be detonated by a civilian as well as by a soldier.**

**Legal authorities also state that "lLand mines, laid without customary precautions, and which are unrecorded, unmarked, or which are not designated to destroy themselves within a reasonable time, may also be blind weapons in relation to time."<sup>107</sup> A land mine not removed after the reversion of the object to civilian status is blind in relation to time as it can be detonated, if not clearly marked, days, weeks or years later.**

**Under this customary law test alone, the practice of leaving land mines, unrecorded, unmarked and which do not self-destruct within a reasonable time, is per se indiscriminate.**

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<sup>104</sup> Land Mines Protocol, art. 4 (2)(b).

<sup>105</sup> Land Mines Protocol, art.3 (3). This definition, which adopts the prohibition against indiscriminate attacks found in article 51(4) and (5) of Protocol I of 1977 additional to the 1949 Geneva Conventions, is generally accepted customary law.

<sup>106</sup> Boethe, Michael, Karl Josef Partsch and Waldemer A. Solf, *New Rules for Victims of Armed Conflicts* (Martinus Nijhof, Boston: 1982) ("New Rules") at 305.

<sup>107</sup> *New Rules* at 305.

## **Prohibition of Disproportionate Attacks**

**The legitimacy of a military target does not provide unlimited license to attack it. The customary law principles of military necessity and humanity require that the attacking party always seek to avoid or minimize civilian casualties. These principles thus prohibit disproportionate attacks.**

**The Land Mines Protocol codifies the customary rule of proportionality; at article 3(3)(c) it prohibits as indiscriminate any placement of mines "which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated."<sup>108</sup>**

**This two-pronged test of proportionality requires an assessment of the "concrete and definite military advantage" expected: such an advantage should be "substantial and relatively close," according to the Commentary prepared for the International Committee of the Red Cross, and "advantages which are hardly perceptible and those which would only appear in the long term should be disregarded."<sup>109</sup> Under this test, the possibility that enemy troops may at some undefined time in the future move across a certain path may be too remote and unsubstantial to qualify as a "concrete and definite military advantage."**

**The second prong of this test is that the foreseeable injury to civilians not be disproportionate to the expected military advantage. Excessive damage is a relational concept which requires a good-faith balancing of disparate probabilities, but there is never a justification for excessive civilian casualties.<sup>110</sup>**

**These two factors must be weighed in good faith by the commanders responsible for mining.**

## **Recording Requirement**

**The Land Mines Protocol contains a recording requirement in article 7(1)(a). The provision states that "[t]he parties to a conflict shall record the location of . . . all pre-planned mine fields laid by them."<sup>111</sup> Although the Land Mines Protocol does not define the term "pre-planned," an authority notes:**

**Since 'preplanned' means more than 'planned,' a 'preplanned' minefield is, by its nature, one for which a detailed military plan exists considerably in advance of the proposed date of execution. Naturally, such a detailed military plan could not exist for the vast majority of minefields placed**

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<sup>108</sup> This tracks the language of Protocol I of 1977, arts. 51(5)(b) and 57(2)(iii).

<sup>109</sup> International Committee of the Red Cross, *Commentary on the Additional Protocols of 8 June 1977 to the Geneva Conventions of 12 August 1949* (Martinus Nijhoff, Geneva: 1987) ("*ICRC Commentary*") at 684 (regarding Protocol I, art. 57 (2) (iii)).

<sup>110</sup> *ICRC Commentary* at 625-26.

<sup>111</sup> Land Mines Protocol, art. 7(1)(a).

during wartime. In the heat of combat many minefields will be created to meet immediate battlefield contingencies with little 'planning' or 'preplanning.'<sup>112</sup>

The Iraqi mine fields surveyed by Middle East Watch were all preplanned.

The provision for recording is designed to facilitate removal at the end of the conflict, primarily for the benefit of civilians. Thus, at the cessation of active hostilities, the parties are to "take all necessary and appropriate measures, including the use of such records, to protect civilians from the effects of minefields, mines, and booby traps."<sup>113</sup>

### **Feasible Precautions**

Article 3(4) of the Land Mines Protocol requires that parties to a conflict take all feasible precautions to protect civilians from the effects of weapons. These precautions are in addition to the outright prohibitions on the use of land mines and booby traps. Article 3 (4) defines such precautions as those "which are practicable or practically possible taking into account all circumstances ruling at the time, including humanitarian and military considerations."<sup>114</sup>

As described in article 4(2)(b) parties can deploy these weapons in peaceable civilian locales if "measures are taken to protect civilians from their effects, for example, the posting of warnings or the provision of fences."<sup>115</sup> One authority cautions that this language "requires that *some* measures be taken to protect civilians, but does not guarantee the 'effectiveness' of the measures."<sup>116</sup>

### **Prohibition Against Starvation of the Civilian Population**

By prohibiting starvation of the civilian population as a method of warfare, article 54 of Protocol I of 1977 to the 1949 Geneva Convention establishes a substantially new rule which has been accepted by many governments as customary law and which limits the use of land mines. This article provides in part:

1. Starvation of civilians as a method of warfare is prohibited.
2. It is prohibited to attack, destroy, remove or render useless objects indispensable to

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<sup>112</sup> Carnahan, 105 *Military L. Rev.* at 84. The recording requirement applies only to the location of preplanned minefields, not to the location of individual mines therein, or to the composition or configuration of the mines within the field. // The same authority suggests that "among the 'circumstances' which might not permit prior warning would be the necessity for tactical surprise . . ." // at 80.

<sup>113</sup> Land Mines Protocol, art. 7 (3) (a).

<sup>114</sup> Land Mines Protocol, art. 3(4).

<sup>115</sup> Land Mines Protocol, art. 4(2).

<sup>116</sup> Carnahan, "The Law of Mine Warfare: Protocol II to the United Nations Convention on Certain Conventional Weapons," 105 *Military L. Rev.* at 81.

**the survival of the civilian population, such as foodstuffs, agricultural areas for the production of foodstuffs, crops, livestock, drinking water installations and supplies and irrigation works, for the specific purpose of denying them for their sustenance value to the civilian population or the adverse Party, whatever the motive, whether in order to starve out civilians, to cause them to move away, or for any other motive.**

**Paragraph 1 of Article 54 prohibits starvation as a method of warfare, "i.e., a weapon to annihilate or weaken the population."<sup>117</sup> The *ICRC Commentary* states:**

**To use it as a weapon of warfare would be to provoke it deliberately, causing the population to suffer hunger, particularly by depriving it of its sources of food or of supplies. It is clear that activities conducted for this purpose would be incompatible with the general principle of protecting the population, which the Diplomatic Conference was concerned to confirm and reinforce.<sup>118</sup>**

**The rule in paragraph 2 above, which prohibits attacks, destruction, removal or rendering useless specified objects, applies only when such action is taken for the specific purpose of denying these items for their sustenance value to the civilian population of either party, or to a combination of the enemy's forces and the civilian population, but not when damage is the collateral effect of an attack on a military target. The *New Rules* states:**

**This paragraph does not prohibit the incidental distress of civilians resulting from otherwise lawful military operations. It would not, for example, be unlawful to attack or destroy a railroad line simply because the railroad was used to transport food needed to supply the population of a city, if the railroad was otherwise a military objective under Art. 52.<sup>119</sup>**

**It is also permitted by article 54 to target enemy armed forces' foodstuffs, usually interpreted to mean foodstuffs actually in the hands of the enemy armed forces and not crops prior to harvest or planting.<sup>120</sup>**

**Agricultural fields may be attacked when used "in direct support of military action," again not referring to the support derived from food production. The *ICRC Commentary* provides examples of permitted attacks: "bombarding a food-producing area to prevent the army from advancing through it, or attacking a food-storage barn which is being used by the enemy for cover or as an arms depot etc."<sup>121</sup>**

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<sup>117</sup> *ICRC Commentary* at 653.

<sup>118</sup> *Id.*

<sup>119</sup> *New Rules* at 339.

<sup>120</sup> *New Rules* at 340.

<sup>121</sup> *ICRC Commentary* at 657. The *New Rules* gives the following examples of direct support: "an irrigation canal used as part of a defensive position, a water tower used as an observation post, or a cornfield used as cover for the infiltration of an attacking force." *New Rules* at 341.

The *New Rules* suggests that this exception "is an extremely narrow one" not likely to be invoked frequently.<sup>122</sup>

Even a food-producing area through which an army is advancing, however, may not be attacked under article 54 (3) (b) if that attack would be expected to leave the civilian population with such inadequate food or water as to cause its starvation or movement.<sup>123</sup>

This refers not to civilians in the entire country but to the population of "an immediate area," although the size of the area was not defined by the Diplomatic Conference.<sup>124</sup>

Thus fields may not be mined if this mining could be expected to result in leaving civilians in the area with so little food as to starve them or force them to move.

### **Particular Restrictions on Booby-Traps**

Booby-traps are defined in article 2(2) of the Land Mines Protocol as "any device or material which is designed, constructed or adapted to kill or injure and which functions unexpectedly when a person disturbs or approaches an apparently harmless object or performs an apparently safe act." In addition to the general restrictions on their use in articles 3 and 4 of the Protocol, article 6 places specific prohibitions on the use of certain booby-traps.

For example, article 6(1)(a) proscribes in all circumstances the use of "any booby-trap in the form of an apparently harmless portable object which is specifically designed and constructed to contain explosive material and to detonate when it is disturbed or approached." This rule would thus forbid the use of mass-produced "pre-fabricated" booby-traps, as well as remotely delivered booby-traps dropped *en masse* from aircraft.

Article 6(1)(b) also prohibits "in all circumstances" the use of booby-traps "in any way attached to or associated with;"

(i) internationally recognized protective emblems, signs or signals;

(ii) sick, wounded or dead persons;

(iii) burial or cremation sites or graves;

(iv) medical facilities, medical equipment, medical supplies or medical transportation;

(v) children's toys or other portable objects or products specially designed for the feeding, health, hygiene, clothing or education of children;

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<sup>122</sup> *New Rules* at 341.

<sup>123</sup> *Id.*

<sup>124</sup> See *New Rules* at 341; *ICRC Commentary* at 656, n. 16.



**(vi) food or drink;**

**(vii) kitchen utensils or appliances except in military establishments, military locations or military supply depots;**

**(viii) objects clearly of a religious nature;**

**(ix) historic monuments, works of art or places of worship which constitute the cultural or spiritual heritage of peoples;**

**(x) animals or their carcasses.**

**While these provisions may appear unrelated, they, in fact, share "a common policy of reinforcing the respect and protection which international law already accords to civilians, cultural property and the sick and wounded."<sup>125</sup> For example, the care and protection guaranteed to the wounded and sick by the Geneva Conventions and its two 1977 Protocols would be clearly violated by attaching these devices to such persons.**

**The prohibitions against booby-trapping articles ordinarily used by civilians in clauses (v), (vi), (vii), and (x) strengthen existing legal restraints on means and methods of warfare which are designed to protect civilians in all armed conflicts. For instance, the forbidden use of these devices on "food or drink," or "animals" implements the policy underlying article 54 of Protocol I which prohibit attacking or destroying "foodstuffs" and "other objects indispensable to the survival of the civilian population" for the specific purpose of denial for its sustenance value.**

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<sup>125</sup> Carnahan, "The Law of Mine Warfare: Protocol II to the United Nations Convention on Certain Conventional Weapons," 105 *Military L. Rev.* at 91.

## **10. RECOMMENDATIONS**

### **1. EDUCATION**

**There is an urgent need to educate Kurdish refugees and returnees so that they have a full understanding of the land mine hazard. This can best be achieved through the use of both posters and radio.**

### **2. MINEFIELD MARKING**

**In those areas where there is perimeter fencing around minefields, or where the boundaries are well known to some local people, a program of affixing minefield warning signs should be initiated immediately. The following key points should be noted:**

**a) Each team involved in erecting warning signs should be led by the local resident with the best knowledge of the minefields to be marked.**

**b) Marking signs should be of a standard pattern. The internationally accepted pattern consists of a red triangle with the word "MINES" or the words "DANGER -- MINES" in white lettering in the center. The lettering should be in the local language(s).<sup>126</sup>**

### **3. LAND MINE ERADICATION**

**The need for organized clearance of land mines from Iraqi Kurdistan is a humanitarian imperative. Middle East Watch calls on the Italian government to become a major donor to such an initiative because such a large majority of the devices in Kurdistan are either of Italian design or manufacture, and thus the Italian authorities have a moral responsibility for their removal.**

**This recommendation should not be seen as in any way diminishing the culpability of other countries involved in the supply of anti-personnel devices now in Kurdistan. Those countries, particularly Iraq, should also be held responsible for funding eradication initiatives.**

### **4. MEDICAL SUPPORT**

**Middle East Watch recommendeds that maximum technical and financial support should be made available to Kurdish-run medical facilities, especially Suleimaniya Hospital. Though emergency facilities established by international humanitarian agencies are essential in the short term, the land mines hazard, like many other issues facing the Kurdish people, is a long-term problem for which the answer lies in an effective indigenous medical service.**

### **5. SUPPLY AND DISSEMINATION OF MINES**

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<sup>126</sup> These signs can be made from scrap materials and their manufacture could be a small cottage industry.

**a) Middle East Watch urges the United Nations and the International Committee of the Red Cross (ICRC) to re-evaluate the effectiveness of Protocols I and II of the 1981 Convention based on the effects of land mines on civilian populations as illustrated by this report.**

**b) Middle East watch urges that the United Nations and the International Committee of the Red Cross (ICRC) should urgently consider an unconditional ban on the manufacture, possession, transfer, sale and use of anti-personnel land mines in all international and internal conflicts. While such a prohibition may not entirely eliminate the use of mines it would stigmatize them in much the same way that chemical and biological weapons are now vilified.**

**c) Middle East Watch urges the Italian Government and the European Community to investigate the massive exports of land mines and land mine technology by Italian companies. We call on the European Community to take a moral lead by considering an unconditional ban on the manufacture, possession, transfer, sale and use of anti-personnel mines by its members.**