

## TABLE OF CONTENTS

Introduction .....	1
Deliberate destruction or ‘collateral damage’? .....	2
International humanitarian law and war crimes .....	4
The damage to the infrastructure.....	6
Civilian homes.....	7
Water facilities .....	8
Electricity and fuel supply .....	9
Environmental damage .....	10
Roads and bridges.....	11
Airports .....	13
Ports .....	13
Hospitals.....	14
Communications.....	15
Economic infrastructure.....	16
Blockades .....	18
The need for an international investigation .....	20



# Israel/Lebanon

## Deliberate destruction or “collateral damage”? Israeli attacks on civilian infrastructure

*“The civilian population in Lebanon and in northern Israel have been the biggest losers in this senseless cycle of violence that is now exactly one month old... Civilians were supposed to be spared and in this conflict they are not.”*

Jan Egeland, UN Under Secretary-General for Humanitarian Affairs, 10 August 2006

### Introduction

Between 12 July and 14 August, a major military confrontation took place between Hizbullah and Israel, following the capture of two Israeli soldiers, and the killing of others, by Hizbullah in a raid across the border between Israel and Lebanon. Israel conducted attacks throughout Lebanon from land, sea and air, killing some 1,000 civilians. Hizbullah launched thousands of rockets on northern Israel, killing some 40 civilians. Hundreds of thousands of civilians in Israel and Lebanon were displaced.

The briefing that follows summarizes Amnesty International’s initial assessment and concerns on the massive destruction of civilian infrastructure in Lebanon that has taken place during the conflict. It is based on first-hand information from a field mission which has visited Lebanon; interviews with dozens of victims of the attacks; official statements and press accounts; discussions with UN, Israeli military and Lebanese government officials; and talks with Israeli and Lebanese non-governmental groups.

The briefing does not cover in any detail the broader implications of the bombing campaign. It does not evaluate the extent of the human rights impact, including violations of the rights to life or economic, social and cultural rights such as the right to food, health and housing, and does not address longer-term economic impact and the massive internal and cross-border displacement. Nor does it address the attacks by Hizbullah into Israel and their impact on civilians – these are being addressed elsewhere. This briefing highlights one aspect of the conflict, but underlines the need for an urgent and comprehensive international inquiry into the conduct of the hostilities by both parties.

Since the conflict began, Amnesty International has sent delegates to both Israel and Lebanon and has publicly appealed to both the Israeli government and Hizbullah to abide by the principles of international humanitarian law. Amnesty International members and supporters around the world have campaigned for a ceasefire, have called for safe passage for trapped civilians and have urged Israel and

Lebanon to consent to an investigation by an independent and impartial body into the pattern of attacks by both Israel and Hizbullah.

## **Deliberate destruction or ‘collateral damage’?**

During more than four weeks of ground and aerial bombardment of Lebanon by the Israeli armed forces, the country’s infrastructure suffered destruction on a catastrophic scale. Israeli forces pounded buildings into the ground, reducing entire neighbourhoods to rubble and turning villages and towns into ghost towns, as their inhabitants fled the bombardments. Main roads, bridges and petrol stations were blown to bits. Entire families were killed in air strikes on their homes or in their vehicles while fleeing the aerial assaults on their villages. Scores lay buried beneath the rubble of their houses for weeks, as the Red Cross and other rescue workers were prevented from accessing the areas by continuing Israeli strikes. The hundreds of thousands of Lebanese who fled the bombardment now face the danger of unexploded munitions as they head home.

The Israeli Air Force launched more than 7,000 air attacks on about 7,000 targets in Lebanon between 12 July and 14 August, while the Navy conducted an additional 2,500 bombardments.<sup>1</sup> The attacks, though widespread, particularly concentrated on certain areas. In addition to the human toll – an estimated 1,183 fatalities, about one third of whom have been children<sup>2</sup>, 4,054 people injured and 970,000 Lebanese people displaced<sup>3</sup> – the civilian infrastructure was severely damaged. The Lebanese government estimates that 31 “vital points” (such as airports, ports, water and sewage treatment plants, electrical facilities) have been completely or partially destroyed, as have around 80 bridges and 94 roads.<sup>4</sup> More than 25 fuel stations<sup>5</sup> and around 900 commercial enterprises were hit. The number of residential properties, offices and shops completely destroyed exceeds 30,000.<sup>6</sup> Two government

---

<sup>1</sup> Israel Defence Force website,

<http://www1.idf.il/DOVER/site/mainpage.asp?sl=EN&id=7&docid=56765.EN>

<sup>2</sup> Middle East Crisis UNICEF Situation Report No. 26:

<http://www.reliefweb.int/rw/rwb.nsf/db900SID/HMYT-6SSLUF?OpenDocument&rc=3&emid=SODA-6RT2S7>

<sup>3</sup> Figures from Lebanese Higher Relief Council:

<http://www.reliefweb.int/rw/rwb.nsf/db900SID/EK0I-6ST5ZM?OpenDocument>. Within hours of the ceasefire, thousands of Lebanese began returning to their homes: according to UNHCR, as of the evening of 15 August, around 522,000 remained displaced.

<sup>4</sup> <http://www.reliefweb.int/rw/rwb.nsf/db900SID/EK0I-6ST5ZM?OpenDocument>

<sup>5</sup> Lebanese Higher Relief Council, 16 August 2006:

<http://www.reliefweb.int/rw/rwb.nsf/db900SID/EK0I-6ST5ZM?OpenDocument>

<sup>6</sup> Figures of the Engineers Syndicate, released in Lebanese media 17 August 2006. Also see:

<http://www.reliefweb.int/rw/rwb.nsf/db900SID/EK0I-6ST5ZM>

hospitals – in Bint Jbeil and in Meis al-Jebel – were completely destroyed in Israeli attacks and three others were seriously damaged.<sup>7</sup>

In a country of fewer than four million inhabitants, more than 25 per cent of them took to the roads as displaced persons. An estimated 500,000 people sought shelter in Beirut alone, many of them in parks and public spaces, without water or washing facilities.

Amnesty International delegates in south Lebanon reported that in village after village the pattern was similar: the streets, especially main streets, were scarred with artillery craters along their length. In some cases cluster bomb impacts were identified. Houses were singled out for precision-guided missile attack and were destroyed, totally or partially, as a result. Business premises such as supermarkets or food stores and auto service stations and petrol stations were targeted, often with precision-guided munitions and artillery that started fires and destroyed their contents. With the electricity cut off and food and other supplies not coming into the villages, the destruction of supermarkets and petrol stations played a crucial role in forcing local residents to leave. The lack of fuel also stopped residents from getting water, as water pumps require electricity or fuel-fed generators.

Israeli government spokespeople have insisted that they were targeting Hizbullah positions and support facilities, and that damage to civilian infrastructure was incidental or resulted from Hizbullah using the civilian population as a “human shield”. However, the pattern and scope of the attacks, as well as the number of civilian casualties and the amount of damage sustained, makes the justification ring hollow. The evidence strongly suggests that the extensive destruction of public works, power systems, civilian homes and industry was deliberate and an integral part of the military strategy, rather than “collateral damage” – incidental damage to civilians or civilian property resulting from targeting military objectives.

Statements by Israeli military officials seem to confirm that the destruction of the infrastructure was indeed a goal of the military campaign. On 13 July, shortly after the air strikes began, the Israel Defence Force (IDF) Chief of Staff Lt-Gen Dan Halutz noted that all Beirut could be included among the targets if Hizbullah rockets continued to hit northern Israel: “Nothing is safe [in Lebanon], as simple as that,”<sup>8</sup> he said. Three days later, according to the *Jerusalem Post* newspaper, a high ranking IDF officer threatened that Israel would destroy Lebanese power plants if Hizbullah fired long-range missiles at strategic installations in northern Israel.<sup>9</sup> On 24 July, at a briefing by a high-ranking Israeli Air Force officer, reporters were told that the IDF

---

<sup>7</sup> Report of the Council for Development and Reconstruction.

<sup>8</sup> *The Times*, “Our aim is to win – nothing is safe, Israeli chiefs declare”, Stephen Farrell, 14 July 2006.

<sup>9</sup> *Jerusalem Post*, “IAF continues attack on Lebanon”, 17 July 2006

Chief of Staff had ordered the military to destroy 10 buildings in Beirut for every Katyusha rocket strike on Haifa.<sup>10</sup> His comments were later condemned by the Association for Civil Rights in Israel.<sup>11</sup> According to the *New York Times*, the IDF Chief of Staff said the air strikes were aimed at keeping pressure on Lebanese officials, and delivering a message to the Lebanese government that they must take responsibility for Hizbullah's actions. He called Hizbullah "a cancer" that Lebanon must get rid of, "because if they don't their country will pay a very high price."<sup>12</sup>

The widespread destruction of apartments, houses, electricity and water services, roads, bridges, factories and ports, in addition to several statements by Israeli officials, suggests a policy of punishing both the Lebanese government and the civilian population in an effort to get them to turn against Hizbullah. Israeli attacks did not diminish, nor did their pattern appear to change, even when it became clear that the victims of the bombardment were predominantly civilians, which was the case from the first days of the conflict.

## **International humanitarian law and war crimes**

International humanitarian law governs the conduct of war, and seeks to protect civilians, others not participating in the hostilities, and civilian objects. In an armed conflict, military forces must distinguish between civilian objects, which may not be attacked, and military objectives, which, subject to certain conditions, may be. The principle of distinction is a cornerstone of the laws of war.

Military objectives are those that: "by their nature, location, purpose or use make 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." Civilian objects are "all objects which are not military objectives". Objects which are normally considered "civilian objects" may, under certain circumstances, become legitimate military objectives if they are "being used to make an effective contribution to military action". However, in case of doubt about such use, the object must be presumed to be civilian.

Direct attacks against civilian objects are prohibited, as are indiscriminate attacks. Indiscriminate attacks are those which strike military objectives and civilian objects without distinction. One form of indiscriminate attack is treating clearly separate and distinct military objects located in a city, town, village or concentration of civilians, as a single military objective. If two buildings in a residential area are identified as containing fighters, bombardment of the entire area would be unlawful.

---

<sup>10</sup> *Jerusalem Post*, "High-ranking officer: Halutz ordered retaliation policy", 24 July 2006.

<sup>11</sup> <http://www.acri.org.il/english-acri/engine/story.asp?id=324>

<sup>12</sup> *New York Times*, "Israel Vowing to Rout Hezbollah", 15 July 2006.

Disproportionate attacks, also prohibited, are those in which the “collateral damage” would be regarded as excessive in relation to the direct military advantage to be gained. Israel maintains that the military advantage in this context “is not of that specific attack but of the military operation as a whole”.<sup>13</sup>

This interpretation is too wide. Overbroad interpretations of what constitutes a military objective or military advantage are often used to justify attacks aimed at harming the economy of a state or demoralizing the civilian population. Such interpretations undermine civilian immunity. A legitimate military advantage cannot be one that is merely “a potential or indeterminate advantage”. If weakening the enemy population’s resolve to fight were considered a legitimate objective of armed forces, there would be no limit to war.

Israel has launched widespread attacks against public civilian infrastructure, including power plants, bridges, main roads, seaports and Beirut’s international airport. Such objects are presumed to be civilian. Israeli officials told Amnesty International that the potential military use of certain items, such as electricity and fuel, renders them legitimate military targets. However, even if it could be argued that some of these objects could qualify as military objectives (because they serve a dual purpose), Israel is obligated to ensure that attacking these objects would not violate the principle of proportionality. For example, a road that can be used for military transport is still primarily civilian in nature. The military advantage anticipated from destroying the road must be measured against the likely effect on civilians, especially the most vulnerable, such as those requiring urgent medical attention. The same considerations apply to electricity and fuel, among other items.

Similarly critical is the obligation that Israel take “constant care to spare civilians, the civilian population, civilian objects, from attack”. This requirement to take precautionary measures in launching attacks includes choosing only means and methods of attack “with a view to avoiding, and in any event to minimizing, incidental loss of civilian life, injury to civilians and damage to civilian objects”.

It is also forbidden to use starvation as a method of warfare, or to attack, destroy, remove or render useless objects indispensable to the survival of the civilian population. Some of the targets chosen – water pumping stations and supermarkets, for example – raise the possibility that Israel may have violated the prohibition against targeting objects indispensable to the survival of the civilian population.

---

<sup>13</sup> Israel Ministry of Foreign Affairs, Responding to Hizbullah attacks from Lebanon: Issues of proportionality, 25 July 2006, <http://www.mfa.gov.il/MFA/Government/Law/Legal+Issues+and+Rulings/Responding+to+Hizbullah+attacks+from+Lebanon-Issues+of+proportionality+July+2006.htm>

Israel has asserted that Hizbullah fighters have enmeshed themselves in the civilian population for the purpose of creating "human shields". While the use of civilians to shield a combatant from attack is a war crime, under international humanitarian law such use does not release the opposing party from its obligations towards the protection of the civilian population.

Many of the violations examined in this report are war crimes that give rise to individual criminal responsibility. They include directly attacking civilian objects and carrying out indiscriminate or disproportionate attacks. People against whom there is prima facie evidence of responsibility for the commission of these crimes are subject to criminal accountability anywhere in the world through the exercise of universal jurisdiction.

## **The damage to the infrastructure**

The long-term impact of the destruction of Lebanon's infrastructure on the lives of the country's men, women and children is incalculable. Many have lost their homes while having to cope with the deaths of loved ones or struggling to overcome severe injuries. Many more have lost their livelihoods. Records showing home and property ownership have been destroyed, adding to the difficulties of rebuilding lives.

The head of the country's Council for Development and Reconstruction, Fadl Shalak, said on 16 August that the damage incurred amounted to US \$3.5 billion: US \$2 billion for buildings and US \$1.5 billion for infrastructure such as bridges, roads, and power plants.<sup>14</sup> A survey compiled by the Council, based on on-site inspections in central and northern Lebanon and telephone calls to engineers and municipal officials in the south, showed the worst damage to the road network, with more than 120 bridges destroyed (a significantly higher figure than that reported by the government). Fadl Shalak said that replacing the bridge connecting Mount Lebanon to the Bekaa Valley above the Sulfi River on the road to Damascus would cost an estimated US \$65 million. "A beautiful bridge, its columns 70 meters, it's one of a kind in the whole Middle East. Why would they destroy such a bridge?" he asked. "They could have bombed the beginning and the end and stopped the traffic. But they made a point to bomb this bridge several times."<sup>15</sup> Another observer said, "This bridge is not used by Hizbullah since it lies in a mountain resort area of Mount Lebanon, far away from the south of Lebanon. Hence it has no strategic value for the Israeli fight against Hizbullah. But it was a beautiful bridge and was the symbol of the reconstruction of Lebanon after the civil war."<sup>16</sup>

---

<sup>14</sup> Relief Web: Source: Radio Free Europe / Radio Liberty (RFE/RL), 16/08/06.

<sup>15</sup> *Los Angeles Times*, 13 August 2006.

<sup>16</sup> [http://yalibnan.com/site/archives/2006/07/israel\\_destroys.php](http://yalibnan.com/site/archives/2006/07/israel_destroys.php)



## Civilian homes

*“It was a modest house but it was the house in which I was born and brought up [some 70 years ago]; it was where all my childhood memories were. I am very saddened to think that it has been destroyed”.*

Nehmeh Joumaa, a well-known human rights defender, talking to Amnesty International soon after learning of the destruction of his family home in Bint Jbeil.

Thousands of civilian houses were destroyed in the Israeli bombardment in various parts of Lebanon – notably in villages and towns south of the Litani river, in the suburbs of the capital Beirut and in the town of Baalbak and its surroundings.

According to the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) fact sheet of 16 August, 15,000 civilian homes – houses and apartments – were destroyed. This figure is almost certainly an underestimate. The same document reports: “An inter-agency assessment mission to the southern suburbs of Beirut also observed extensive destruction although the full extent is still being assessed. 2,500 housing units have reportedly been destroyed in Haret Hreik and a further 5,000 damaged.”<sup>17</sup>

Amnesty International delegates visiting towns and villages in south Lebanon found that in village after village houses had been subject to heavy artillery shelling as well as having been destroyed by precision-guided, air-delivered munitions. The accuracy of these munitions and their trajectory were such that they struck one or more of the main support systems causing the building to collapse or partially collapse under its own weight. In Beirut a vast area of densely populated high-rise buildings, which were home to tens of thousands of people most of whom left apparently encouraged by Hizbullah for their own safety, was reduced to rubble by repeated air strikes.

According to the United Nations Interim Forces in Lebanon (UNIFIL), on 15 August, 80 per cent of the civilian houses had been destroyed in the village of Tayyabah, 50 per cent in the villages of Markaba and Qantarah, 30 per cent in Mais al-Jebel, 20 per cent in Hula, and 15 per cent in Talusha.<sup>18</sup> The following day, UNIFIL reported that in the village of Ghanduriyah 80 per cent of the civilian houses had been destroyed, 60 per cent in the village of Zibqin, 50 per cent in Jabal al-Butm and Bayyadah, 30 per cent in Bayt Leif, and 25 per cent in Kafra.<sup>19</sup>

When Amnesty International delegates visited the town of Bint Jbeil, in the far south of the country, the centre of the city, where there had been a market and busy

---

<sup>17</sup> <http://ochaonline.un.org/DocView.asp?DocID=4820>

<sup>18</sup> <http://www.reliefweb.int/rw/rwb.nsf/db900SID/EVOD-6SPHZY>

<sup>19</sup> <http://www.reliefweb.int/rw/rwb.nsf/db900SID/EGUA-6SQMXZ>

commercial streets leading from it, was devastated. Every building on the streets was destroyed, extensively damaged or beyond repair. The streets were strewn with the rubble and in that rubble was clear evidence of the cause of the damage, unexploded munitions, shrapnel and craters. The Israeli army seemed to have used every type of munition in its arsenal, with air-delivered munitions, artillery shelling and cluster bomb damage in evidence.

In nearby Ainata, the scene was no different: extensive destruction of civilian houses. The bodies of some of those who had been killed when their homes were destroyed in the second and third week of July, remained under the rubble when Amnesty International delegates visited on 1 August. Their bodies could not be recovered until 14-15 August, after the ceasefire came into effect.

Yousef Wehbe, an entrepreneur who lived for years in Latin America, told Amnesty International<sup>20</sup> about the destruction of his family's house on 21 July: "Twenty three neighbours were sheltering in my father's house, as it was a more solid house than others in the area. I had spoken to my father on the phone earlier that day and he had said: 'I am 85 and have lived through all the wars but none were ever like this one; I don't know where all these bombs come from; it is like hell'.

"A few hours later, the house was shelled by the Israeli army and he was killed and my sister's husband was injured; luckily he survived. But a neighbour who went over to the corner of the room where my father was struck was also hit and killed. Until now I don't know if my own house, which is in a different part of the village from my father's house, is still standing; some people said it was destroyed and others said it is still there. I don't know; and I can't go to the village because of the Israeli bombardments. I put a lot of effort and work into my house and the garden. I have been building it since 2000 and I was still adding and improving. And the garden is beautiful, I spend much of my time in the garden when I go back to the village. If the house is destroyed I will have to rebuild it. Our family home had been destroyed once before in 1970 and we rebuilt it. Now it has again been destroyed. And if my own house has also been destroyed I'll have to rebuild it."

## **Water facilities**

Wells, water mains, storage tanks, pumping stations and water treatment works have been destroyed throughout south Lebanon. The water service in the entire country has also been disrupted, as water pipes running beneath roads have been extensively damaged when the roads above have been bombed. The cost of the damage to water facilities was estimated by the Lebanese government to be more than US \$70 million, as of 8 August.

---

<sup>20</sup> Interview on 9 August 2006.

The damaged and destroyed water facilities include four wells at Fakr al-Din, as well as the pipes between the Fakr al-Din station and Wadi al-Rashid. Storage tanks in Sidon district, Bint Jbeil and al-Wazani were damaged or destroyed. Two pumping stations were destroyed in the Baalbak-al-Asseera region, as well as the water line between Sebaat and al-Dulbi. In the al-Litani area, the al-Qasimiyya channel, Channel 900 and the line from Joun to al-Awwali were hit.

Such extensive damage to water facilities carries a grave risk of disease. Daniel Toole of the United Nations Children’s Fund, noted that the lack of clean water was becoming life-threatening in south Lebanon during the fighting, where Israel’s bombardment of roads and bridges has also cut off outside water supplies. “Sanitation is a big issue,” he said. “Without proper sanitation children will get diarrhoea, they will get sick and they will die.”

The International Committee of the Red Cross (ICRC) also noted that lack of access to villages in the south meant remaining inhabitants had been largely without clean water. Some who had fled the border village of Rmeish told ICRC delegates that local people were drinking foul water from an irrigation ditch.

As noted above, international humanitarian law seeks to protect objects indispensable to the survival of the civilian population. While water pipes might sustain collateral damage, it appears that storage tanks, pumping stations and water treatment plants have been directly targeted by Israeli forces, and it is difficult to understand how they could have been regarded as military objectives. Moreover, even if some objective were military, there is little evidence to suggest that Israel exercised the requisite level of precaution to take constant care to avoid the loss of civilian life, injury to civilians and damage to civilian objects.

## **Electricity and fuel supply**

Electrical facilities, power plants and fuel stations have suffered extensive damage. At least 20 fuel depots have been completely destroyed in bombing raids and 25 petrol stations have been destroyed or severely damaged. A statement of 14 July noted: “IDF air and naval forces attacked three gasoline stations in southern Lebanon as part of the effort to damage the Lebanese infrastructure that works to support terror activity.”<sup>21</sup>

The south of the country was completely without power by the time the ceasefire was announced. Electrical lines and cables across the country have been cut,

---

<sup>21</sup> Israel Ministry of Foreign Affairs, Summary of IDF operations against Hizbullah in Lebanon, 14 July 2006: <http://www.mfa.gov.il/MFA/Terrorism-+Obstacle+to+Peace/Terrorism+from+Lebanon-+Hizbullah/IDF+operations+against+Hizbullah+in+Lebanon+14-Jul-2006.htm>

and the destruction of the roads and bridges, as well as access restrictions imposed by the Israeli military, have prevented repair and assessment crews from working. Electrical supply in Beirut remains intermittent, and averaged about 12 hours a day at the close of the conflict. Israeli air strikes on the weekend of 12 and 13 August, immediately before the ceasefire came into effect, left the cities of Sidon and Tyre without electricity. The cost of the damage to the electricity sector is estimated at about US \$208 million.

## **Environmental damage**

The attack on Lebanon's largest power station at Jiyeh had both an immediate adverse impact on the population, and long-term implications for the environment and the economy. Israeli forces bombed the Jiyeh power station, about 25km south of Beirut, and its fuel tanks on 13 July and again on 15 July. The resulting fire, which burned for three weeks, coated the surrounding areas with a fine white dust of pulverized concrete and filled the air with black soot. In addition, that attack caused 15,000 tonnes of heavy fuel oil to leak into the sea. The oil slick has contaminated more than 150km of the Lebanese coastline, and has spread north into Syrian waters. The United Nations Environmental Program (UNEP) has characterized it as one of the worst environmental disasters seen in the region. The cost of a comprehensive clean-up was estimated to be US \$150 million, with work taking up to a year.

"The recent oil spill off the coast of Lebanon is an environmental disaster, and may affect the livelihood, health and future prospect of Lebanon and the surrounding countries," said Stavros Dimas, the European Commissioner in charge of efforts to contain the damage.<sup>22</sup>

According to the Lebanese environmental NGO Greenline: "The fuel tanks released a cloud of polyaromatic hydrocarbons, dioxins and particulate matter, and all of these could cause cancer, respiratory problems and hormonal problems."

Achim Steiner, Under Secretary General of the United Nations and Executive Director of UNEP said: "It is ... a sad fact that the environment - so vividly underlined by the oil slick and the blackened, damaged coastline - is also a victim with all the repercussions for livelihoods, human health, economic development, ecosystems, fisheries, tourism and rare and endangered wildlife."<sup>23</sup> The damage to two of the emerging sectors of the Lebanese economy - tourism, which was projected before the conflict to generate 12 per cent of the nation's gross domestic product this year, and commercial fishing - has not yet been assessed.

---

<sup>22</sup> European Commission, 17 August 2006, Reference: IP/06/1106.

<sup>23</sup> UNEP, 17 August 2006:

<http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=484&ArticleID=5334&l=en>

The bombing of electricity transformers such as the one that was hit in Sidon on 12 August released polychlorinated biphenyls (PCBs) into the atmosphere. Lebanon still uses transformers that contain parts that were made with PCBs, despite an international ban on the substance. Greenpeace has warned that PCBs “are chemicals that are bio-accumulative and persistent so when you inhale them they stay in your body, and they cause cancer”.

The bombing of factories that made products such as glass, foodstuffs and plastics also released these chemicals and chlorine into the atmosphere in central areas of Lebanon, potentially affecting up to two million people.<sup>24</sup>

Under international humanitarian law, care must be taken to protect the environment against widespread, long-term and severe damage. Methods or means of warfare which are intended or may be expected to cause such damage are forbidden.

## **Roads and bridges**

Roads and bridges, despite their use primarily by civilians, have been declared a target by the Israeli military. The extensive damage to the land transportation network during the first three weeks of bombing alone has been estimated by the Lebanese government at more than US \$300 million. The Israeli government stated on 14 July that: “The roads in Lebanon are used to transport terrorists and weapons to the terror organizations operating from Lebanese territory against civilians in Israel.”<sup>25</sup> The Lebanese government’s list of roads damaged to 31 July indicates that repeated Israeli shelling had put nearly 100 roads largely out of commission, with some 200,000 square metres of road completely destroyed.

Amnesty International’s delegates in Lebanon saw many roads hit by precision-guided munitions whose warheads created craters 4m – 5m deep and about 7m wide. This cratering has generally been justified as necessary to impede the movement of Hizbullah fighters, but more often than not the craters did not close the road, as they were to the side rather than in the middle of the road. Travel by car remained possible by simply driving around the craters, although it impeded trucks carrying supplies and aid.

---

<sup>24</sup> United Nations Office for the Coordination of Humanitarian Affairs (OCHA), Integrated Regional Information Network (IRIN), 16 August 2006.

<sup>25</sup> Israel Ministry of Foreign Affairs, Summary of IDF operations against Hizbullah in Lebanon, 14 July 2006: <http://www.mfa.gov.il/MFA/Terrorism-+Obstacle+to+Peace/Terrorism+from+Lebanon-+Hizbullah/IDF+operations+against+Hizbullah+in+Lebanon+14-Jul-2006.htm>

The UN’s Food and Agriculture Organization warned that damage to roads and bridges interrupted the food supply chain in Lebanon, providing the recipe for “a major food crisis”. When the Israeli air force severed Lebanon’s last significant road link to Syria on 4 August, it stopped a convoy carrying 150 tonnes of relief and cut what the UN called its “umbilical cord” for aid supplies. Israel said it had destroyed the bridges along Lebanon’s main north-south coastal road to prevent Syria from rearming Hizbullah.

The number of bridges destroyed has been put at about 80 by the Lebanese government, and 120 by the Council for Development and Reconstruction. Some bridges were repaired, only to be bombed again. On 7 August OCHA reported that Israeli forces had again bombed a temporary bridge over the Litani River, cutting off road access between Tyre, Sidon and Beirut. The original bridge had already been destroyed by Israeli strikes. As a result, Tyre, Lebanon’s fourth largest city with a population of more than 100,000 and sheltering additional tens of thousands more displaced people, was cut off from relief supplies.

On 6 August, officials of UNIFIL again attempted to secure a go-ahead from the Israeli authorities to build a new temporary bridge over the Litani river to facilitate the transport of vital humanitarian supplies to the beleaguered residents of the south. Israel denied permission, warning that any new bridge would also be blown up. According to UN officials, the Israeli military said that UNIFIL engineers would themselves become a target if they attempted any repairs to the bridge. The Israeli military also warned that any movement south of the Litani River would be prohibited, with the exception of UNIFIL and Red Cross vehicles, and that any other moving object would be attacked. A Médecins sans Frontières (MSF) convoy transporting emergency medical supplies and fuel was stuck north of the Litani on 7 August, and had to pass four tonnes of supplies via a human chain over a distance of 500m. A tree trunk was used as a makeshift bridge.

“Because the crossing is out, we had to transfer by hand, which left us very exposed,” said Christopher Stokes, MSF Coordinator in Lebanon. “Although we had not received any security guarantees, the decision was taken to go ahead because the convoy contained very urgently needed medical and surgical supplies, especially if fighting near Sour [Tyre] keeps increasing... And our convoy travelling from Sour [Tyre] had a close escape when two explosions occurred just 100m away from them. [Surveillance] drones and jets could be heard all along the trip.”

Under international humanitarian law, the parties to a conflict must allow and facilitate rapid and unimpeded passage of all relief consignments, equipment and personnel, protect relief consignments and facilitate their rapid distribution. In

addition, the personnel participating in humanitarian relief actions, as well as the objects used for humanitarian relief operations, must be respected and protected.

## **Airports**

All of Lebanon's airports have been attacked, some repeatedly, including Beirut's international airport. The Beirut airport was one of the first targets to be struck; a first aerial attack turned the airport's fuel tanks into fireballs, while a second wave left craters in the three main runways. While the central facilities, including the control tower, were spared, the airport was rendered inoperative. Two days later, according to CNN: "In an unusual deal that the United States helped broker, a runway at the Beirut airport was repaired long enough to enable six planes – one carrying former Lebanese Prime Minister Najib Miqati – to take off. Israeli forces soon after bombed the runway again." The damage as of 31 July was estimated at US \$55 million by the Lebanese government.

An IDF statement issued on 14 July noted that the airport and its fuel tanks had been targeted because it "is used as a central hub for the transfer of weapons and supplies to Hizbullah". However, the statement suggested that the attacks were also intended as part of the policy of making the Lebanese government "pay a high price" for hosting Hizbullah: "The Lebanese government is blatantly violating the resolution of the UN Security Council which calls, among other things, for the removal of the Hizbullah terrorist organization from the Lebanese border, and is therefore fully responsible for the current situation."

## **Ports**

Israeli forces attacked seaports along the coast, including three of the country's main ones – in Beirut, Tripoli and Sidon. A missile from an Israeli combat helicopter put out of use Beirut's modern lighthouse on 15 July, and an antenna vital for maritime operations was hit in Tripoli on 18 July. The old lighthouse was also hit. It is difficult to see what legitimate purpose these attacks could have had, given that the Israeli Navy was blockading the port anyway.

On 17 July, the Israeli Air Force launched a pre-dawn attack on the port of Beirut, striking a fuel tank, which exploded, killing two workers. The port of Beirut, which had been badly damaged in previous conflicts, had recently undergone an extensive reconstruction programme.

The Israeli Air Force also struck at the seaport in Tripoli, Lebanon's second-largest city, also in the north of the country.



## Hospitals

Hospitals in many parts of the country have sustained shelling damage, particularly in the south, but the main threat to their continued operation came from fuel shortages, road destruction and the ongoing blockade. Two government hospitals – in Bint Jbeil and in Meis al-Jebel – were completely destroyed in Israeli attacks and three others were seriously damaged.<sup>26</sup>

The Lebanese Ministry of Public Health estimated that around 60 per cent of the country's hospitals had ceased to function as of 12 August due to fuel shortages. Eight hospitals, including three in the southern suburbs of Beirut, were forced to close because bombs were falling around them daily.<sup>27</sup>

One hospital, alleged by Israel to be a Hizbullah headquarters, was directly attacked. On 2 August, Israeli commandos in helicopters, supported by fighter planes and drones, raided al-Hikmah hospital in Baalbak in the eastern Bekaa valley. The Israeli army said they captured five Hizbullah members there. However, according to local residents, the five were not captured at the hospital but in the home of one of them.<sup>28</sup> They added that one of those seized local merchant Hassan Nasrallah, had been confused with the Hizbullah leader who has the same name. Reuters reported that the supporting air strikes killed 19 people, including four children. A statement from the IDF said that "Hezbollah weapons, computers, computer storage media, and a large amount of vital intelligence materials were seized. Ten terrorists were killed during the operation and five others were captured by Israeli forces. There were no IDF or civilian casualties."

There were reports that al-Hikmah hospital was subsequently razed in an air strike, but journalists who visited five days later found the building still standing, although they noted that "there is no question there was a fight. The rear of the hospital showed heavy damage, and much of it is pockmarked with bullets and small

---

<sup>26</sup> Report of the Council for Development and Reconstruction.

<sup>27</sup> *Los Angeles Times*, 13 August 2006.

<sup>28</sup> The five are Hassan Nasrallah, his son Bilal, his daughter's husband Hassan al-Buraji, his sister's husband Hassan al-'Outa, and his neighbour Mohammad Ali Dhiab. Amnesty International delegates interviewed Hassan Nasrallah's family, who testified that the five were taken from the home of Hassan al 'Outa, where they were sheltering as they thought it was in a safer part of town. A sixth member of the family, 14-year-old Mohammad Nasrallah, the son of Hassan Nasrallah, was also captured at the same time but was released after a few hours, seemingly because of his young age. Amnesty International delegate visited the house where the five were captured, in the al-'Ousaira suburb of Baalbak. It had been ransacked and virtually every item of furniture smashed. Several neighbouring houses had also been completely or partially destroyed.



mortars. There are burned-out cars in the hospital parking lot, and a field just beyond is burned down to scorched grasses.”<sup>29</sup>

The hospital was reportedly financed by an Iranian charity with links to Hizbullah. A Hizbullah official in Beirut was cited as saying the hospital had been evacuated several days earlier as a precaution after Israeli forces attempted an earlier, similar operation.

In the village of Tebnine, in South Lebanon, only hours before the ceasefire came into effect on 14 August, Israeli forces fired cluster bombs all around the government hospital, where hundreds of civilians were sheltering, damaging its outer walls. Residents of nearby villages, including elderly and disabled people who had not been able to reach the next main town of Tyre, had sought shelter there. The Israeli army had been shelling the surrounding of the hospital since the end of July and those sheltering in the hospital were afraid to leave.

Hospitals are by nature “civilian objects” and may not be attacked unless they are being used for military purposes. If Hizbullah was indeed using the al-Hikmah hospital as a headquarters or base, then they rendered it subject to attack, although Israel would still have been under an obligation to take precautions to protect civilians and avoid the loss of life or injury to civilians.

## **Communications**

Israeli air raids on 22 July hit several transmission stations used by Lebanese television and radio stations. These included Future TV, New TV, and the Lebanese Broadcasting Corporation (LBCI), none of which had any links with Hizbullah, as well as the Hizbullah-backed al-Manar TV. They were also used by mobile phone networks. One LBCI official, Suleyman Shidiac, Chief Engineer at the relay station at Fatqa in the Kesrwan mountains north-east of Beirut, was killed and two others were injured.

Israeli forces have repeatedly targeted Hizbullah’s al-Manar television station, for example with three strikes in as many days from 14 July. The transmitters and relay stations of several other Lebanese television stations have also been attacked. According to the IDF: “Al Manar has for many years served as the main tool for propaganda and incitement by Hezbollah, and has also helped the organization recruit people into its ranks. Hezbollah operates undisturbed from within Lebanon, and constitutes a severe terrorist threat to the people of Israel and to IDF soldiers.” An IDF official told Amnesty International delegates that al-Manar was being used for

---

<sup>29</sup> Betsy Pisik, “Mystery cloaks raid on ‘empty’ hospital”, *Washington Times*, 7 August 2006.

military communications, but failed to provide any evidence to support this claim when questioned.

The fact that al-Manar television broadcasts propaganda in support of Hizbullah's attacks against Israel does not render it a legitimate military objective. Only if the television station were being used to transmit orders to Hizbullah fighters or for other clearly military purposes could it be considered to be making "an effective contribution to military action". Even then, Israel would need to take required precautions in attacking it and choose a manner aimed to avoid harm to civilians. Amnesty International is not aware of claims by Israel that the other stations were performing military functions.

Dozens of mobile telephone masts have been struck, disabling many mobile telephone networks, and ordinary telephone lines and exchanges have suffered extensive damage, estimated at US \$99 million.

### **Economic infrastructure**

Privately owned factories and businesses across the country – economic entities whose destruction could not be seen to offer a military advantage outweighing the damage to civilians – have also been subjected to a series of debilitating air strikes, dealing a further crippling blow to the shattered economy. The Lebanese government estimated that unemployment in the country has now reached an approximate figure of 75 per cent.<sup>30</sup>

The production facilities of companies in key industrial sectors, including Liban Lait in Baalbak, the country's largest dairy farm; the Maliban glass works in Ta'neil, Zahleh; the Sada al-Din plastics factory in Tyre; the Fine tissue paper mill in Kafr Jara, Sidon; the Tabara pharmaceutical plant in Showeifat, Aaliyah; the Transmed shipping warehouse on the outskirts of Beirut; and the Snow lumbermill in Showeifat, Aaliyah, have been disabled or completely destroyed. Industry minister Pierre Gemayel said that nearly two thirds of the industrial sector had been damaged, and at least 23 large factories and dozens of small and medium-sized factories had been bombed.

Waji al-Bisri, acting head of the Association of Lebanese Industrialists, estimated that US \$200 million in direct damage was inflicted on the industrial sector, with dairy, cement, glass and prefab housing factories hit hardest.<sup>31</sup> Nearly all shops and small businesses close to the Israeli border have reportedly received direct hits from artillery and air strikes.

---

<sup>30</sup> <http://www.reliefweb.int/rw/RWB.NSF/db900SID/YAOI-6SR9Q5?OpenDocument>

<sup>31</sup> Daily Star, 18 August 2006.

Even before the latest attack, large-scale factories were a rarity in Lebanon. Maliban, the second largest glassworks in the Middle East, was an exception, with production reaching some 200 tonnes a day for sale around the region. It was one of five Bekaa factories destroyed. A journalist who visited the ruined factory floor said: “It’s impossible to discern what this space was used for. All that’s visible is churned-up soil with twisted metal, powdered glass and wrecked machinery. It is possible to discern the cause of the disruption, though: four distinct craters have been gouged out of the factory floor.”<sup>32</sup>

One of the plant managers said: “The planes came around 12:45 so most people were at lunch, fortunately. Two people were killed, both Indians, and two injured. If they had come an hour earlier or later it would have been a massacre... they even destroyed the workers’ residence.”<sup>33</sup>

The Liban Lait dairy farm and plant in the Bekaa valley, the leading producer of milk and dairy products in Lebanon, was completely destroyed in an aerial attack on 17 July. According to a local dairy farmer, the dairy factory was hit at 3am by a barrage of missiles, and the plant was completely destroyed. The dairy, whose products were distributed all over the country, employed about 400 local staff. At least 1,500 Bekaa residents have reportedly lost their source of livelihood.

According to the Catholic charity Caritas in Lebanon: “The Israeli Army is making the situation even worse for Lebanese civilians by targeting warehouses and factories. In fact, food storage houses in particular have become the target.”<sup>34</sup>

Amnesty International’s delegates noted numerous attacks on commercial outlets such as supermarkets and automotive repair outlets. They found that supermarkets were targeted almost certainly with the same type of munition as aimed at houses, but seemingly delivered via a higher trajectory in order to inflict most damage to their interiors and to the products stored in them. In some cases, supermarkets were set on fire. There were similar attacks on automotive repair outlets, leading to fires. There was no evidence that such fires were caused by stored munitions. Shrapnel, casings and assorted debris indicated a common pattern of destruction in all the places visited. The destruction of supermarkets, often the single initial attack on a town or village, seems to have been intended to hasten the departure of the residents. The reasons behind the destruction of auto/electro/mechanic outlets remain the subject of speculation.

---

<sup>32</sup> Jim Quilty, “Israel strikes major blow to Bekaa working class”, *Lebanon Daily Star*, 5 August 2006.

<sup>33</sup> Jim Quilty, “Israel strikes major blow to Bekaa working class”, *Lebanon Daily Star*, 5 August 2006.

<sup>34</sup> <http://www.caritas.org/jumpNews.asp?idChannel=3&idLang=ENG&idUser=0&idNews=4264>

For example, in the village of Hanaway, where the pattern of damage was similar to other villages, major commercial outlets were destroyed, including supermarkets and also car and automotive repair workshops. Streets were cratered, the craters being of a size probably caused by air strikes rather than artillery. Other craters along streets indicated heavy artillery.

Lebanese agricultural production has likewise been badly hit, partly because the produce cannot be transported by road, and partly due to the danger of bombing and shelling for those working in the fields. On 4 August, for example, missiles from Israeli aircraft hit a fruit-packing warehouse near the Syrian border, killing at least 23 mainly Kurdish farm workers. Citrus crops on the coastal plains of southern Lebanon have been left to rot, while poultry farms have been unable to obtain chicken feed due to the blockade and as much as 80 per cent of the stock has died.

## **Blockades**

***“Any vehicle of any kind travelling south of the Litani River will be bombarded, on suspicion of transporting rockets, military equipment and terrorists.”***

leaflet addressed to “the Lebanese people”, signed the “State of Israel”, 7 August 2006<sup>35</sup>

Israel incapacitated Beirut’s airports, bombarded most of the country’s bridges and arterial roads, and imposed a naval and air blockade. Access to the south of the country even for humanitarian agencies, was severely disrupted. With land routes cut, the naval blockade made bringing aid shipments in by sea impossible without military approval, which proved extremely difficult to secure. An ICRC ship full of supplies destined for Tyre was “red-lighted” for several days before being allowed to dock on 12 August. Israel claims that the blockade was necessary to cut off weapons and supplies to Hizbullah.

“The time for improved access is long overdue,” insisted ICRC head Jakob Kellenberger on 11 August. “Even life-saving, emergency evacuations so desperately needed are, at best, delayed for days. We also face enormous obstacles to bringing in aid convoys loaded with essential foodstuffs, water and medicines for trapped civilians.”

During the conflict, around 100,000 civilians were trapped in southern Lebanon, afraid to flee following Israeli threats to target all moving vehicles, and in light of Israeli Justice Minister Haim Ramon’s widely reported remark: “All those

---

<sup>35</sup> Israel Ministry of Foreign Affairs, IDF warns Lebanese civilians to leave danger zones, 25 July 2006 <http://www.mfa.gov.il/MFA/Terrorism-+Obstacle+to+Peace/Terrorism+from+Lebanon-+Hizbullah/IDF+warns+Lebanese+civilians+to+leave+danger+zones+3-Aug-2006.htm>

now in south Lebanon are terrorists who are related in some way to Hezbollah." Some were unable to move because of their age or disability, or simply because they had no access to transport. Residents were rapidly running out of food, water and medicines, and the ICRC reported that those who had managed to escape the region were arriving at aid stations in increasingly desperate conditions.

By 13 August, according to the Associated Press: "Aid convoys were stuck in ports or at warehouses because Israel refused to guarantee their safety on the roads. Thousands of people trapped in southern villages were believed to have run out of food and medicine and were drinking unsafe water."

A few days earlier, the UN's Jan Egeland had warned that fuel supplies would run out within days, paralysing hospitals and shutting down electricity across the country. "The fuel situation is the single most worrying humanitarian crisis at the moment," he said. "If there's one thing that will be the most critical - even more critical than food - over the next days and weeks, it's fuel." At the time, two tankers with 87,000 tonnes of fuel oil and diesel were docked outside of Israel's naval blockade off Lebanon's Mediterranean coast, but they had refused to bring the supplies in without a written guarantee of safety.

Due to the incapacitation of electricity supply stations, hospitals and other health centres were relying on fuel to run generators. Power is essential to run operating theatres, life-saving equipment including incubators for newborns, and refrigeration for vaccines and treatments including insulin. It is also essential for safe water provision and hygiene.

Even north of the Litani river, provision of much-needed food and medical assistance was difficult to coordinate. Damage to roads and bridges by bombardment necessitated taking lengthy detours along minor roads or dirt tracks, through which big trucks can only pass with difficulty.

While blockades are not prohibited per se by international humanitarian law, they must not prevent foodstuffs and other essential supplies from reaching the civilian population. The parties to the conflict may not deny consent to relief operations on arbitrary grounds, and can only control the content and delivery of humanitarian aid to the extent necessary to ensure that aid convoys are not being used, for example, for military purposes.

Within days of the ceasefire, an estimated 200,000 Lebanese had returned home, according to the Lebanese Higher Relief Council on 16 August, including 40 per cent of people who had been sheltering in schools and public places.

## **The need for an international investigation**

Over the many years of the conflict between Hizbullah and Israel, both sides have repeatedly committed grave violations of international humanitarian law without any accountability. The Israeli authorities have investigated a few incidents, and have stated that they are still investigating some of the incidents in the latest outbreak of hostilities, but the methods and outcomes of these investigations have never been properly disclosed. They fall far short of the standards required. No investigation on violations of international humanitarian law by Hizbullah is known to have been conducted by the Lebanese authorities. If respect for rules of war is ever to be taken seriously, a proper investigation of their violation by both parties of the recent conflict is imperative.

Amnesty International calls for the immediate establishment of a comprehensive, independent and impartial inquiry into violations of international humanitarian law by both Hizbullah and Israel in the conflict. The inquiry should examine in particular the impact of this conflict on the civilian population. It should propose effective measures to hold accountable those responsible for crimes under international law, and to ensure that the victims receive full reparation.

Amnesty International has asked the UN Security Council and the UN Human Rights Council to request the UN Secretary General to establish a panel of independent experts to conduct this inquiry. They should include experts with proven expertise in investigating compliance with international humanitarian and human rights law, in military matters, as well as in forensics and ballistics. The experts should receive all necessary assistance and resources. The outcome of the inquiry should be made public and include recommendations aimed at ending and preventing further violations.