Israel's Emergency Preparedness a Decade after the Second Lebanon War

Alex Altshuler, Shmuel Even, Meir Elran, and Yonatan Shaham

Many have called the Second Lebanon War a turning point for the Israel's emergency management system in general and missile and rocket defense in particular. In 2006, Israel was not adequately prepared for the attacks by Hezbollah rockets. It appears that more than a failure of command, the event revealed a conceptual and strategic failure, reflecting the insufficient weight given by the security and civilian leadership in Israel's national security doctrine to the missile and rocket threat against the population. Since 2006, the main thrust of efforts by the emergency management agencies in Israel has consisted of preparations for diverse scenarios of missile and rocket attacks. Thus occurred a significant improvement in Israel's emergency preparedness for these scenarios. In addition, Israel's emergency management system is making preparations for terror attacks, cyber attacks, and for natural disasters. The difficult and multi-dimensional emergency management mission requires ongoing cooperation between all the stakeholders involved, comprehensive strategic planning, structural flexibility, thorough drilling for various scenarios, and conceptual and operational comprehensive preparedness, given the unexpected and dynamic nature of emergencies and disasters.

The Nature of Security-Related Emergency Situations since the Second Lebanon War

Israel's civilian front has been challenged steadily in the decade since 2006, primarily by three rounds of warfare in the Gaza Strip (Operation Cast Lead in 2008-2009, Operation Pillar of Defense in 2012, and Operation Protective Edge in 2014). In all of these cases, as in the Second Lebanon War, barrages of rockets and missiles were launched against civilian population centers at a fairly steady rate of 100-130 rockets and mortar shells a day. These attacks caused low-to-medium levels of damage to people and property in comparison with previous wars.¹ The two latter rounds involved use of the Iron Dome system, which dramatically reduced the potential damage and enhanced the sense of security among the general public. At the same time, in terms of disruption of daily life, the intervals between rounds of warfare against Hamas have become shorter and the duration of the fighting has become longer, reaching a peak of 51 days – and 60 days for the areas bordering the Gaza Strip – in Operation Protective Edge.

Various types of terrorist attacks have continued intermittently over the past decade. Since 2015, Israel has been subjected to a new wave of terrorism, mainly – but not exclusively – in Jerusalem and the West Bank. These attacks have featured stabbings, car-rammings, and shootings by individuals or terrorists operating in pairs. This wave of violence, which was not predicted in advance, highlights the importance of simultaneous comprehensive multi-disciplinary planning for various possible scenarios, marked by flexibility and innovation, toward a broad range of scenarios by the agencies responsible for emergency management in Israel.²

Structural and Inter-Organizational Characteristics of Israel's Emergency Management System

Following the Second Lebanon War, it became clear, in part due to the State Comptroller's Report,³ that a substantive change in Israel's emergency management organizational structure was necessary. The lack of integration between all the stakeholders operating on the home front – government ministries, security agencies, local authorities, and civilian non-governmental organizations – was particularly glaring, and thus the National Emergency Management Authority (NEMA) was founded in 2007 within the Ministry of Defense. It was designed to be a coordinating and integrative government agency for emergency management matters. Two years later, the Emergency

Economy Authority, a veteran emergency management agency established in 1955, became part of NEMA, making the latter an executive agency, not merely a coordinating one. The entire measure involved a complex internal and long term organizational change. In 2011, however, primarily as a result of political considerations, a new government ministry was established – the Ministry of Home Front Defense, which swallowed up NEMA. A series of ongoing clashes ensued, peaking with the question of the command affiliation between the Ministry of Home Front Defense, the Ministry of Defense, and the IDF Home Front Command, and causing delays and disruptions in the performance of the agencies involved.

Frequent structural changes during these years that were not part of a defined strategic process were accompanied by an increase in the resources allocated to home front defense, but without the necessary systematic synchronization. One prominent indication for this was reflected in a series of discussions in the first quarter of 2014 in the Subcommittee for the Examination of Home Front Preparedness, a subcommittee of the Knesset Foreign Affairs and Defense Committee,⁴ when it emerged that the various government entities agreed about almost nothing, and there were fundamental disputes about the most basic questions of authority, responsibility, hierarchy, and priorities.

On June 1, 2014, the Israeli government eliminated the Ministry of Home Front Defense, and made the Minister of Defense responsible for all preparations for emergencies. The Ministries of Defense and Internal Security were instructed to engage in discussions on the division of authority and responsibility between them.⁵ Until 2017, this critical process was not fully completed. In particular, no detailed arrangement of overlapping and complementary areas between the Home Front Command and the Israel Police was reached. Important progress was achieved, however, in the form of an arrangement of this type between NEMA and the Home Front Command.

Economic and Infrastructure Aspects

The Second Lebanon War came as a significant surprise for the Israeli economy and Israeli society. The report by the Winograd Commission of Inquiry into the Events of Military Engagement in Lebanon 2006 gives the impression that the policymakers were dragged into a war by the kidnapping event without taking into account the poor state of preparedness for war in the civilian front and the army. The report stated, "A protracted war that Israel initiated ended without Israel achieving a military victory... rocket fire against the home front continued all through the war until the very last moment, and ended only due to the ceasefire. The fabric of life in the area under the rocket threat was severely disrupted, and a large number of residents – including a small, but significant, number of local authorities personnel, whose job it was to step in and deal with the situation – abandoned their homes."⁶

Despite this harsh assessment and the great damage caused in northern Israel, the Second Lebanon War did not have a major effect on the Israeli economy as a whole, as highlighted by the capital market indices and GDP figures, for example. The capital market indices dropped precipitously during the first two days after the outbreak of war, but the decline quickly came to a halt, and the indices even rose (figure 1). It appears that in the Israeli economy and among the global business community, the prevailing opinion was that the event would be limited in time and scope, due to the IDF's advantage over Hezbollah in the balance of forces, and that the event would not affect the future of the economy.

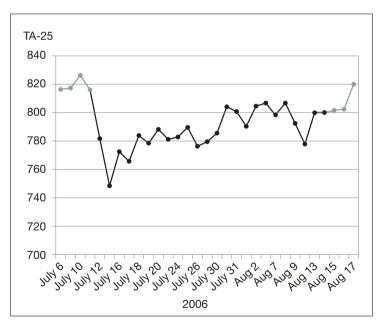


Figure 1. Tel Aviv 25 Index during the Second Lebanon War (July 12-August 14, 2006)

Source: Tel Aviv Stock Exchange website7

In retrospect, Israel's GDP figures show that other than a slowdown in the growth rate during the period of the war (the third quarter of 2006), the war had no great macroeconomic effect (figure 2), although it is clear that certain sectors (notably tourism) were hit hard. A similar picture emerges in the conflicts in the Gaza Strip.

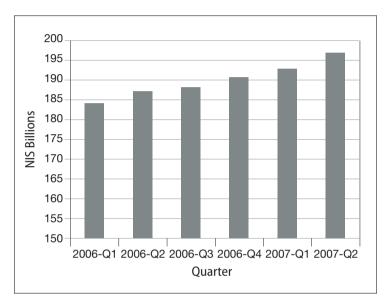


Figure 2. Quarterly Gross Domestic Product from late 2005 until mid-2007 (fixed prices – 2010)

Source: Central Bureau of Statistics database (February 2016)

With respect to defense spending, the budget supplement granted to the Ministry of Defense to pay for the expenses incurred in the Second Lebanon War totaled NIS 8.2 billion, compared with NIS 2.45 billion in Operation Pillar of Defense and NIS 7 billion in Operation Protective Edge.⁸ These sums are considerable, but it appears that the Israeli economy met these expenses relatively easily.

There are a number of reasons for the limited damage experienced by the Israeli economy in the Second Lebanon War and the subsequent campaigns in the south (mainly Operation Protective Edge): (a) The threat was limited in force and confined to a given area. The events were focused in either the northern or southern part of the country, with most of the population in Israel successfully maintaining a daily routine. Note that at the outset of the Second Lebanon War, the IDF destroyed Hezbollah's long range surface-to-surface

missiles, so that activity in central and southern Israel was not exposed to rocket fire. The situation in Operation Protective Edge was similar, with no serious disruption of daily routine in central Israel. (b) The resources allocated to these campaigns and the direct and indirect damages were not great, compared with past wars. For example, mobilizations of reservists were gradual and limited in scope, and did not cause major personnel shortages in the economy. Some economic activity that did not take place during the fighting was merely postponed until after it ended. (c) Critical infrastructure was not damaged during these campaigns.

This will not necessarily be the case in the future, however. According to the revised scenarios, the economic damage that Israel may suffer in a large scale war is liable to be far greater than the damage in the Second Lebanon War and Operation Protective Edge. If so, the economic damage in a future conflict could persist for years.

In addition to IDF bases (home to the air force's airfields), strategically important national infrastructure facilities are expected to constitute a target for enemy weapons. Sensitive sites include Ben Gurion Airport (where operations were temporarily disrupted during Operation Protective Edge); Haifa, Ashdod, and Eilat ports; electricity production and distribution facilities; the natural gas system; oil refineries and storage facilities for hazardous materials in Haifa Bay; and others. What is common to all of these is that severe damage to them could severely disrupt the supply of essential services, and repairing them and restoring them to regular performance is liable to take a long time. For example, the IDF and the Ministry of Defense are taking steps to protect the natural gas facilities against threats of terrorism and enemy fire; enemy fire was already directed against these facilities in the past.⁹ Because the majority of electricity is currently produced from gas, which is projected to account for 70 percent of electricity production in the future, the significance of damage to the flow of natural gas is obvious, as is the need to retain the capability to produce electricity from other energy sources in case gas supplies are disrupted. It is essential to diversify sources, plan for redundancy in sources and elements of the system, and maintain dual capacities at least in the power stations. At the same time, the plans to lay an additional gas pipeline should be expedited.¹⁰

In view of these threats, a home front defense concept that treats all national infrastructure in an integrative manner, based on an analysis of priorities, is needed.

The Current Threat and Military and Civilian Preparedness

Given the changes in the nature of the threat since the Second Lebanon War, in 2015 the IDF and the Ministry of Defense drafted a revised reference scenario for the home front. The revised scenario is fully compatible with the *IDF Strategy* document from August 2015, and was approved by a ministerial committee for home front affairs headed by the Prime Minister and the national security cabinet.¹¹ This scenario focuses on missile and rocket fire aimed at population centers in Israel, with the northern area considered the most threatened. Beyond this scenario and the various terrorist threats, Israel is preparing for additional threats, such as a cyber attack and penetration on land or underground.

The main implications of the revised scenario for the civilian front are the following:

- a. In the complete scenario, the Home Front Command will call up 50,000 reservists in order to provide varied and appropriate services to civilians in the areas under attack.
- b. In view of the threat, it will be necessary to have priorities when operating the active defense system. For example, operation of the Iron Dome system will give priority to the most critical sites for the functioning of the Israeli economy in order to shorten the duration of the fighting and reduce the economic damage. The working assumption is that in times of conflict, the correct course is to create an optimal emergency routine that will make it possible to reduce the afflicted areas and limit the closure of systems to the greatest possible extent.
- c. In the area of civil defense, as of 2016, 27 percent of Israelis had no available solutions for shelter, which highlights the dependence on active defense systems. At the same time, the working assumption continues to be that for most of the imminent threats, even partially reinforced shelters (such as stairwells and temporary shelters) provide reasonable minimum protection.
- d. NEMA and the IDF have drawn up plans for the orderly evacuation of civilians, but these were not carried out even during Operation Protective Edge, despite the need, as reflected in self-evacuation by a large proportion of the families in the frontline communities bordering the Gaza Strip. Until now, the government has decided not to order a large scale evacuation of civilians under threat, probably for political, psychological, and budgetary reasons. Following Operation Protective Edge, senior sources in the

Northern and Southern Commands stated that in the next war, it will be necessary to evacuate civilians, to distance them from the line of fire.¹² The impression is that the approach of the professional echelons in the Ministry of Defense to the evacuation of civilians in wartime changed following Operation Protective Edge, and that the Home Front Command and NEMA are preparing for the orderly evacuation of civilians under special circumstances in those areas where it is impossible to maintain an emergency routine and functional continuity in an emergency.

In general, Israel has come a long way, especially in the technological aspects of active defense and alerts for specific locations. The ongoing development and refinement of the Iron Dome system is a clear indication of this. This success has saved lives, contributed to the political echelon's flexibility in action, given the attacked public security, and prevented substantial economic damage. The investment in the Iron Dome system, proven worthwhile, should be judiciously expanded to provide a response to the range of needs. The incorporation of the David's Sling system in the air force's operational order of battle will add a significant new dimension to active defense, particularly with respect to long range rockets and those capable of precise strikes against critical civilian and military facilities.¹³ The Iron Beam system, designed to intercept mortar shells and short range rockets flying below the threshold of Iron Dome's interception capability, is also an important development.¹⁴ Completion of this system's development and operational deployment will be a great relief to residents of the Gaza Strip border communities, who have been suffering from short range tactical bombardments since 2000. The impressive advance in the technological and operational sphere of active defense has highlighted the need to develop a comprehensive and integrative concept of active defense that optimizes the coordination between the various defense systems. In this context, in 2015 IDF Aerial Defense Commander Brig. Gen. Zvi Haimovich proposed a comprehensive and important model.¹⁵ In his proposal, he asserted that there should be "a switch from a concept of multi-layer defense (based on the division of the skies into several distinct layers and several types of weapon systems) to a concept of integrative defense, in which all the threats from high trajectory weapons on all fronts are handled through a single interception management center, and the ballistic system is handled in integrated and concentrated fashion, thereby optimizing the use of detection and interception resources."

Another important aspect likely to help maintain performance continuity in emergency situations concerns the warning systems for missiles and rockets, which enable civilians to enter the reinforced security room in the short time available. The Home Front Command has made great efforts in recent years to make warnings more specific, and to increase the number of warning areas. Indeed, the number of warning areas in northern Israel has multiplied. All these measures are important. They are not costly, but their contribution to public resilience is significant.

In the civilian-social sphere, given the diverse threats that Israel regularly faces, the development of resilience (usually defined as the ability to prepare, cope with, and recover when faced with emergency situations) at the various levels - neighborhood, community, residential community, and national is extremely important. The meaning of resilience is reflected during and after an emergency, both in the initial response and in short term and long term recovery. The level of resilience is likely to affect how the situation is handled, the conceptual understanding of the situation, and the effectiveness with which it is met. In general, all the parties – the government, the third sector (mainly the Israel Trauma Coalition), and the local authorities - did, and are doing, valuable work in developing and preserving social resilience, especially in the communities bordering the Gaza Strip. In the other areas, however, plans for bolstering resilience and enhancing the ability to cope with emergencies are undertaken in haphazard and limited fashion. The number of regional resilience centers for all of Israel is no more than seven, with mostly of them currently in the western Negev.¹⁶ The Home Front held several courses for instructing volunteers in rescue and evacuation, as well as programs for developing resilience in various communities, including in the Bedouin society, but none of this was in the framework of a national strategic plan. As of the time of this writing, contacts were underway to develop a comprehensive plan for strengthening resilience at the national level, with priorities and a multi-year plan for bolstering social resilience. It is important that these plans be carried out – and sustained in the long term.

Conclusion and Policy Recommendations

Israel has advanced a great deal since the Second Lebanon War in its preparations for war-caused and other types of large scale disasters. This is reflected inter alia in impressive technological developments in missile defense, allocation of resources on a larger scale, greater public attention, and a more

receptive attitude toward programs for strengthening community resilience. The great strides required to close the gap in home front preparedness, however, have not yet taken place, both because the security threats to the home front have grown significantly in quality and quantity, and because the processes for organizing home front security are implemented too slowly. A substantial gap has thus emerged between the potential threats and the existing response to threats of security scenarios, and an even wider gap with respect to other scenarios, such as a major earthquake.

The main recommendations for bridging the gaps and the strategic advancement of emergency preparedness in Israel include:

- a. Essential measures to improve the situation, including formulation of a comprehensive concept and preparation of a budgeted integrative master plan for defending and running the home front, based on a variety of scenarios and risks (conventional and nonconventional weapons, mass terrorist attacks, natural disasters, epidemics, and so on).
- b. Completion of the development of an organizational emergency management apparatus in Israel, while establishing the authority and responsibility of all the parties involved in the state emergency set-up. This includes a solution for improving integration and inter-organizational coordination between the home front agencies and specifying the party responsible for integration. It is recommended that responsibility and authority frameworks be anchored in a revised home front defense law.
- c. Improved capability of every government ministry separately and collectively to do its part is an essential condition for resilience in emergency situations. An integrative perspective and the existence of a central mechanism will not fulfill this need unless every ministry assigns a high priority to planning for meeting its responsibility in emergency situations. For example, continued development of military capabilities for the defense of the home front and the population near the border and deep within Israel is taken for granted. The same is true about the need for the Ministry of Health to improve the health system's capabilities for dealing with mass casualties, and the need for the provision of services to civilians, while maintaining law and order, including difficult integrative tasks, such as large scale evacuation of civilians and care for them in other areas.

- d. Enhanced integration of civilian non-governmental organizations in preparations and activity during and following the emergencies, and promotion of inter-sector cooperation between the governmental sector, the local authorities, the business sector, and civilian social organizations. The inclusion of non-governmental groups in coordination with the local authorities is likely to facilitate a significant increase in the outputs of the emergency systems at little added cost.
- e. Development and application of comprehensive concepts and up-todate multi-year strategic plans for cooperation between organizations and sectors, resilience, and the various social aspects of preparation for emergencies. These plans will ensure a multi-year comprehensive response for strengthening social resilience at a national, regional, and local level. It is recommended to increase gradually the number of resilience centers throughout Israel, and to ensure their standards and governmental budget in the long term.
- f. Development of a population evacuation option as one of the legitimate strategic tools in emergency situations. In pursuance of the activity at NEMA and the Home Front Command, concrete and budgeted decisions should be taken on plans for evacuating the population under the revised scenarios. This will ensure a solution for the residents in areas in which functional continuity cannot be maintained in an emergency, or for groups with special needs, and will reduce casualties in an emergency.

Notes

- 1 Ten soldiers and three civilians were killed in Operation Cast Lead, and 317 soldiers and 183 civilians were wounded. Two soldiers and four civilians were killed in Operation Pillar of Defense, and 240 were wounded. Seventy-two people, including 67 soldiers, were killed in Operation Protective Edge, and 2,271 wounded, including 837 civilians.
- 2 For example, see H. B. Leonard and A. M. Howitt, "Acting in Time against Disasters: A Comprehensive Risk Management Framework," in *Learning from Catastrophes: Strategies for Reaction and Response*, eds. H. Kunreuther & M. Useem (Upper Saddle River: Wharton School Publishing, 2009), pp. 18-41.
- 3 State Comptroller, "Deployment and Functioning of the Home Front in the Second Lebanon War," July 2017.
- 4 In-depth discussions with the participation of administrative personnel involved in the matter took place in the Subcommittee for the Examination of Home Front Readiness of the Foreign Affairs and Defense Committee on February 27, 2014

and March 13, 2014, http://main.knesset.gov.il/Activity/committees/ForeignAffairs/ News/Pages/pr_270214.aspx.

- 5 Government Decisions Nos. 1661 and 1662, dated June 1, 2014, http://www.pmo. gov.il/Secretary/GovDecisions/2014/Pages/dec1661.aspx, http://www.pmo.gov.il/ Secretary/GovDecisions/2014/Pages/dec1662.aspx.
- 6 Report by the Commission of Inquiry into the Events of Military Engagement in Lebanon 2006 (Winograd Commission), January 2008.
- 7 Tel Aviv Stock Exchange website, http://www.tase.co.il/Heb/Pages/Homepage. aspx.
- 8 Ministry of Finance, Main Points of the State Budget, October 2015, p. 112.
- 9 Heddy Cohen, "Netanyahu Revealed a Classified Document, Charging: 'Supply of Gas is an Existential Need," *Globes*, August 12, 2015, http://www.globes.co.il/ news/article.aspx?did=1001086689.
- 10 Dan Weinstock and Meir Elran, *Securing the Electrical System in Israel: Proposing a Grand Strategy*, Memorandum No. 165 (Tel Aviv: Institute for National Security Studies, June 2017).
- 11 Gili Cohen, "Home Front Command Scenario for a Future Conflict with Hezbollah: Hundreds or Thousands of Missiles Every Day," *Haaretz*, March 31, 2015, http:// www.haaretz.co.il/news/politics/1.2604451.
- 12 Yohai Ofer, "Missiles from Dan to Eilat: A Scenario for the Next War," *NRG*, March 31, 2015, http://www.nrg.co.il/online/1/ART2/686/842.html.
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- 14 Amir Buhbut, "Laser System for Intercepting Especially Short Range Rockets," *Walla! News*, January 19, 2014, http://news.walla.co.il/item/2713120.
- 15 Zvika Haimovich, "The Defensive Element Revolution From a Separatist Approach to an Integrative Concept," *Maarachot* 463 (2015):18-25, http://maarachot.idf.il/ PDF/FILES/9/113759.pdf.
- 16 For the resilience centers, see the Israel Trauma Coalition website, http://www.israeltraumacoalition.org/?CategoryID=196.