GAZA WAR: PRELIMINARY FINDINGS ON THE SOCIO-ECONOMIC AND ENVIRONMENTAL IMPACT ON LEBANON

December 2023
This report presents a snapshot of the impact of the war in Gaza on Lebanon and on the southern Lebanese border as of the report’s cover date and based on the latest available data. Data presented in the report may change as the situation evolves.
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List of Acronyms

AFDC  Association for Forests, Development and Conseration
ATSDR  Agency for Toxic Substances and Disease Registry
AWRIS  Arab War Risk Insurance Syndicate
BDL  Banque du Liban/The Central Bank
CARS  Current Account Receipts
CAS  Central Administration of statistics
CBNRM  Community Based Natural Resources Management
CDR  Council for Development and Reconstruction
CEO  Conflict and Environment Observatory
CNRS  National Center for Scientific Research
EPA  Environmental Protection Agency
ESCWA  Economic and Social Commission for Western Asia
FAO  Food and Agriculture Organization
GDP  Gross Domestic Product
IBA  Important Bird Area
IDAL  Investment Development Authority of Lebanon
IDP  Internally displaced people
IIF  Institute of International Finance
IMF  International Monetary Fund
IOM  International Organization for Migration
IPAs  Important Plant Areas
KBAs  Key Biodiversity Areas
Km  Kilometer
LAF  Lebanese Armed Forces
LEM  Lebanon Economic Monitor
MEA  Middle East Airlines
MENA  Middle East and North Africa
MoA  Ministry of Agriculture
MoE  Ministry of Environment
MOPH  Ministry of Public Health
MPO  Macro and Poverty Outlook
NA  National Accounts
NLR  North Littoral Region
NNA  National News agency
OCHA  Office for the Coordination of Humanitarian Affairs
P4  white phosphorus
PA  Protected Areas
PBX  Plastic-Bonded Explosives
PFAs  Polyfluoroalkyl Substances
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<tr>
<td>PH3</td>
<td>Phosphine</td>
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<td>PHCCs</td>
<td>Primary Health Care Centers</td>
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<td>PMI</td>
<td>Purchasing Manager Index</td>
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<td>Standard &amp; Poor's</td>
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<td>SLA</td>
<td>Staff Level Agreement</td>
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<td>SLR</td>
<td>South Litani Region</td>
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<td>TNT</td>
<td>Trinitrotoluene-2,4,6</td>
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<td>UNDP</td>
<td>United Nations Development Programme</td>
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<td>United Nations High Commissioner for Refugees</td>
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<td>Unexploded Ordnances</td>
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<td>VAT</td>
<td>Value-added tax</td>
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<td>WB</td>
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Gaza war: Preliminary findings on the socio-economic and environmental impact on Lebanon

Executive Summary

The current Gaza war has resulted in an additional layer of complexity to the already profound and multifaceted crisis that Lebanon has been struggling with for the past few years. The impact from the Gaza war has started to be felt across sectors, and through a variety of transmission channels. The ongoing conflict around the Southern Lebanon border has been triggered by the Gaza war and is expected to have significant impact on key economic sectors in Lebanon, particularly tourism and services. The economy of South Lebanon has been and will be affected, given the direct military attacks targeting a high number of southern sectors, and through a variety of transmission channels, as well as on the tourism and services. The economy of South Lebanon has been and will be affected, given the direct military attacks targeting a high number of southern sectors, and through a variety of transmission channels.

To better understand the magnitude of the conflict’s implications, UNDP has assessed the actual and potential impact of the ongoing conflict on the economy and transmission channels, as well as on the environment. The assessment is based on a desk-based review of available data, complemented with informal interviews with key stakeholders, and with preliminary data gathered by the UNDP team. That means impact analysis has been done so far, this analysis is based on available official data and the latest data released by a variety of sources as of the report’s cover date.

The main findings of the assessment can be summarized as follows:

1. On the national level:
   - Should the war continue, or expand beyond the borders’ area to reach other locations in Lebanon, the domestic economy will resume its contractionary trend, although it was forecasted that the economy may start to slowly grow in 2023. The magnitude of contraction depends on different scenarios relating to the extent and duration of the conflict (status quo versus full expansion of the war to other parts in Lebanon).
   - The tourism and hospitality sectors are heavily impacted by the conflict. This is evidenced by the reduced flow of travelers, low hotel occupancy rates, and the diminished clientele at restaurants.
   - International trade was affected and may be subject to further repercussions should the conflict continue, mainly in the remaining trade deficit and the disruption of supply chains. Imports and exports are both key to Lebanon’s economy, and the ongoing disruption may jeopardize the country’s ability to maintain its exports.
2. On the level of South Lebanon and Nabatiyeh Governorates:
   - Since 7 October 2023, around 91 villages in the Governorates of Nabatiyeh and South Lebanon have been subject to 1,768 attacks, including shelling, airstrikes, fire and incendiary bombs, phosphorous shells, and other forms of assailment. The fighting on the borders has resulted in a number of casualties, internationally Displaced People (IDPs), the destruction of assets (such as cars, production tools, houses, shops, etc.) and infrastructure, and disruption to economic and social services:
     - Since the start of the conflict (as of 14 December 2023), a massive displacement was recorded from villages and towns located on the border, reaching 64,053 individuals, of whom 32 percent are female and 37 percent are children.1
     - Tens of buildings and dwellings have been completely destroyed; hundreds of housing units were partially or totally damaged; hundreds of commercial entities were affected and/or shut down; and assets were lost or damaged.
     - The most significant losses are reported in the agriculture sector, a main source of livelihood and income in the area. The conflict is taking place during a critical period (harvesting and land preparation for the next season). Agricultural lands have suffered significant damage, including physical degradation, chemical pollution, and contamination from explosive remnants, resulting in a loss of soil fertility. The use of phosphorus shellings has led to the contamination of crops, surface and ground waters, posing health risks to livestock and human health. Additionally, fires have impacted various agricultural areas, affecting olive groves, citrus farms, banana farms, and pasture lands.
     - The main crops that are affected are: olives (and consequently olive oil production), carob, grains and vegetables. In addition to the losses in production, thousands of trees were burned (for instance 47,000 olive trees were reported to have been burned by phosphorous bombs). The conflict also causes major losses in the livestock, poultry and aquaculture sectors.
     - Forest fires significantly impact natural ecosystems, hindering recovery due to disrupted ecological processes. White phosphorus is extremely poisonous to various organisms, leading to documented incidents of death among mammals, birds, and fish, with long-lasting environmental harm and a classification as very toxic to aquatic life. The use of white phosphorus extends beyond immediate destruction, posing ongoing and unpredictable hazards due to its prolonged and difficult-to-control burning, creating serious risks to human health, safety, and the environment.
     - Water infrastructure has been damaged, risking the spread of water-borne diseases and environmental degradation, highlighting the critical need for access to clean water for public health and community wellbeing.
     - Soil quality in the conflict area has been affected by physical destruction and pollution due to the spread of heavy metals and toxic compounds from exploitable sources (such as production activities), resulting further reducing fertility and increasing soil acidity. The conflict will impact solid waste, as waste management disruption leads to unsafe landfiling and burning, negatively impacting ecosystems.

In conclusion, irrespective of the war scenarios, the economy is likely to contract further. This contraction, along with the delay in implementing a comprehensive reform agenda, will inevitably impede the country’s economic recovery. This analysis serves as an early effort to take stock of the initial actual and potential losses resulting from the conflict. The report concludes with potential ways forward for a swift response post-war and outlines the immediate steps to be taken:

- Regularly updating the impact of the conflict and preparing for further in-depth assessments to feed into the design of a response and recovery plan that enables the implementation of the triple nexus, combining humanitarian assistance and peacebuilding with longer-term development.
- Reprogramming activities to address the implications of the crisis and to safeguard livelihood needs, should the conflict continue, prioritising community-based initiatives, establishment of linkages and value chains, and cash for work for IDPs.

1 The International Organization for Migration (IOM), the Lebanese Red Cross (LRC), the Disaster Risk Management (DRM) Unit, Displacement Tracking Matrix, Mobility Snapshot, Round 15, https://dtm.iom.int/reports/mobility-snapshot-round-15-14-12-2023?close=true.
1. Country context

For the past four years, Lebanon has been in the grip of an acute economic and financial crisis, classified as one of the worst in its modern history. In addition to the economic and financial collapse since 2019, the country has been hit by multiple shocks, including the COVID-19 pandemic and the devastating Beirut Port explosions in August 2020. Furthermore, Lebanon continues to host more than 1.5 million Syrian refugees, placing it in the world with the highest number of refugees per capita in the world.

The domestic economy contracted by around 40 percent between 2018 and 2022. The local currency has lost more than 98 percent of its value. Inflation has been recording triple digit figures for the past three years, cumulatively rising by more than 4,300 percent since the outbreak of the crisis in 2019, causing massive losses in the real value of income. The fiscal balance has been affected by the sharp decline in state revenues that drastically dropped from 131 percent of GDP in 2020 to 6 percent of GDP in 2022, one of the lowest rates globally. In parallel, public expenditures declined from 16.4 percent of GDP in 2020 to a critically low level of 5.7 percent of GDP in 2022, indicating the diminished role of the state in providing basic services and public goods. These economic challenges translated into intense deprivation, poverty, and unemployment across the country. They also led to a rise in inter and intra-communal tensions threatening social stability and cohesion. The most recent official poverty figures are based on 2011-2012 household survey, which estimate poverty headcount at 27.4 percent. The recent multidimensional poverty index estimates that around 82 percent of Lebanon's households experience multidimensional poverty. Also, unemployment hit a record of 29.6 percent in January 2022, with significant variations across regions. The Governorate of Baalbek-Hermel reported the highest unemployment rate of 40.7 percent, followed by South Lebanon with 36.5 percent.

Adding to this, Lebanon has been experiencing a political stalemate since the parliamentary elections in May 2022. In October 2022, the President concluded his mandate and the Government has assumed a caretaking role, which has slowed further the policy and decision-making processes. The political stalemate is accompanied by a lack of political will and consensus for the much-needed economic reforms, pushing institutions to the edge of collapse, and further complicating the way out of the economic and financial meltdown. The Government signed a Staff-Level Agreement (SLA) with the IMF in April 2022.

As part of this agreement, a set of prior actions were committed by the Lebanese Government and agreed as pre-requisites to reach a programme with the Fund. To date, no significant progress has been made on these prior actions, apart from the adoption of a budget law for 2022, the banking secrecy law, and the special audit of the Central Bank (BDL).

The war in Gaza and its expansion into southern Lebanon has resulted in an additional layer of complexity to the already profound and multifaceted crisis. On October 8, and along the ‘blue line’ (demarcation line between Lebanon and Israel), fighting was triggered by the Gaza war and has intensified since then. The impact is already felt across economic sectors and through a variety of transmission channels. And it is expected to have more impact on the key economic sectors in Lebanon if the conflict escalates immediately following the outbreak of the conflict, the tourism and service sectors, particularly trade, which had shown slight signs of improvements during the past summer, have been the most affected at the national level. In South Lebanon especially, the livelihood and local economy have been particularly affected, given direct military attacks targeting agricultural land, infrastructure, houses and economic facilities across towns and villages. Tens of thousands of people living along the border have been already displaced. Economic activity and local businesses are either disrupted or have had to shut down or relocate.
2. Main transmission channels for the impact of Gaza war

The impact of Gaza war on Lebanon is being felt across several sectors and transmission channels. The effects on the aggregate economy will most likely vary in the future depending on different war scenarios, including intensity of the war, its duration and possible geographic expansion. However, forecasting such an impact is beyond the scope of this report. Instead, the analysis focuses on the main transmission channels that are being affected by the ongoing war, considering they are likely to be further disrupted should the conflict escalate or expand further in time and space. These channels include tourism, trade, and financial inflows.

2.1 Impact on the tourism sector: signs of contraction

Tourism has been historically a major contributor to Lebanon’s economy and essential for job creation. In figures, the tourism sector’s contribution to GDP was estimated at 19.1 percent\(^{11}\) and 18.9 percent in 2018 and 2019, respectively\(^{12}\). Prior to the crisis, the sector’s share in total employment reached 20.8 percent\(^{13}\) in 2019.\(^{14}\)

Following the outbreak of COVID19, tourism was impacted across the globe and, as a result, a sharp decline in the flow of tourists and in tourism receipts was reported worldwide. Lebanon was no exception. The impact on Lebanon was even more profound, given the multi-layered crises. As of 2022, the sector started to rebound and to partially regain its role in the economy, despite the persistence of the economic and financial crisis.

Since the beginning of 2023, and despite the ongoing economic and financial turmoil, tourism has demonstrated promising signs of improvement. During 2023, Lebanon witnessed an exceptional and long-awaited increase of tourist activities. As shown in Figure 2 below, there has been an increase in the number of visitors coming to Lebanon in 2023 compared to 2022, reaching a peak during the summer season. Between January and September 2023, Lebanon received around 1.3 million visitors (excluding Lebanese, Syrian and Palestinian visitors). This marks a 10 percent increase compared to the same period of the previous year.

Figure 1. Total visitor arrivals (excluding Lebanese, Syrians, and Palestinians) during January 2022-September 2023

![Figure 1. Total visitor arrivals (excluding Lebanese, Syrians, and Palestinians) during January 2022-September 2023](image)

Source: BKEF, BLOMresearch\(^{15}\).

The outbreak of the conflict in October in the south severely impacted Lebanon’s tourism industry, resulting in a considerable decline in tourism-related activities, including hotels and restaurants. Local and rural tourism activities, including art festivals, hiking events, and others have been affected and were either cancelled or deferred to later dates.

Despite the scarcity of official figures, the declining trend in tourism activities following the war in Gaza can be captured through unofficial statistics, by anecdotal evidence, and by qualitative insights provided by relevant business associations. Given the lack of official figures and the uncertainty about how the conflict will eventually evolve, these trends are subject to continuous change. However, they reflect, to a certain extent, the situation in the period that immediately followed the outbreak of the war.

1. Passenger flow (including all nationalities)\(^{16}\). In October 2023, following the outbreak of the war, the influx of travellers to Lebanon has seen a 15 percent decline, with a recorded count of 208,706 passengers in October 2023, compared to 245,977 passengers in October 2022. Conversely, the number of departing passengers increased by 15.5 percent, reaching 307,879 passengers, as opposed to 266,680 passengers in the same period of 2022. The trend continued during the first week of November, compared to the same period of last year, mainly for arrivals, which continued a declining trend. The number of arrivals decreased by 41.75 percent, recording 34,163 passengers. Meanwhile, the number of departures dropped by 35.46 percent to reach 41,627 passengers, indicating that most of the departure took place during October, immediately after the outbreak of the conflict. In parallel, several airlines suspended their services to Lebanon, such as Lufthansa\(^{17}\). Also, the Middle East Airlines halted flights amid the fears of war expansion to other parts of the country beyond the south. During November and early December, however, an improvement in the passenger inflow is expected, given that the conflict did not escalate beyond the border areas. As an indicator for this potential improvement, the Middle East Airline announced that it will schedule additional 151 flights during the festive season, i.e., between 14 December 2023 and 10 January, 2024\(^{18}\).

Figure 2. Flow of passengers: higher departure and lower arrival in October 2023

![Figure 2. Flow of passengers: higher departure and lower arrival in October 2023](image)

Source: National News Agency (NNA).

2. Hotel Occupancy: Hotel occupancy rates in Lebanon plummeted to below 10 percent in October 2023 due to premature departures of visitors and trip cancellations\(^{19}\). Some hotels became completely vacant. Most European tourists, that usually visit Lebanon in groups in the fall, have cancelled their travel to Lebanon due to travel warnings issued by most European countries.

3. Restaurants: Since the conflict began, restaurant activity in Lebanon has seen a significant decline, with a 70-80 percent reduction in business during the weekdays and a 30-50 percent decrease on weekends, compared to the first week of October. These figures were reported by the President of the Syndicate of Restaurant, Nightlife, and Cafe Owners in Lebanon. They came after a significant improvement in restaurant activity during earlier months, with expectations of the potential opening of tens of new restaurants by December. These expectations have now faded. These expectations have now faded, even though the upcoming holiday season may give an indication on whether a positive trend can re-emerge despite the security situation.

The slowdown in tourism is likely to have a multiplier effect on other economic activities, notably on agriculture and manufacturing, given the intersectoral linkages between tourism and these sectors. For instance, rural and eco-tourism depends on local agriculture as essential input. Also, the decline in restaurant and hotel activities is likely to affect the agriculture sector, as they heavily rely on local produce.

2.2 International trade: Potential disruption in imports and exports

International trade is central to Lebanon’s economy. In 2022, exports of goods accounted for 21.4 percent of GDP, while imports of goods constituted 79.2 percent of GDP\(^{20}\). The country relies on imports to meet its basic necessities, mainly for food and convenient goods. At the same time, export of goods is a major source of foreign currency-income, which is critical as the country struggles to build up its foreign currency reserves. Any disruption in trade will jeopardize Lebanon’s efforts to recover from its long-lasting economic crisis and will impose a real threat on the country’s food security.

The trade deficit, and consequently in the current account balance, was a key trigger of the financial and economic crisis. In 2018, the trade deficit reached around USD 17 billion, equivalent to around 31 percent of GDP. During the peak years of the crisis, notably in 2020, the trade deficit of goods was significantly reduced to USD 7.7 billion (24 percent of GDP). This reduction in imports, which was almost halved compared to the level of 2018. Imports declined from USD 20 billion in 2018 to USD 11.3 billion in 2020.

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\(^{11}\) IDAL, Tourism Sector in Lebanon, 2019 Factbook. IDAL-Tourism_factbook_2019.pdf (opendatalibanon.org)
\(^{12}\) World Travel and Tourism Council, Lebanon Annual Research: Key Highlights
\(^{13}\) World Travel and Tourism Council, Lebanon Annual Research: Key Highlights
\(^{14}\) World Travel and Tourism Council, Lebanon Annual Research: Key Highlights
\(^{15}\) https://britishinvestbank.com/series/Total-Visitor-Arrivals-to-Lebanon-4401/
\(^{16}\) These figures were published by the National News Agency on November 8, 2023 (https://it/ry/gbc0d/)
\(^{17}\) Lufthansa extended its flight suspension to Lebanon until December 14, 2023 (inclusive) https://www.lufthansa.com/ke/en/flights-information
\(^{19}\) Lebanese ‘apathies’ warning as fears of wider conflict grow Arab News
However, the control of the trade deficit did not last for long, as it showed an increasing trend as of 2021, to almost resume its pre-crisis level of USD 15 billion, which is very close to 2019 levels.

**Figure 3.** Imports, Exports and Trade balance in USD Billion (2018-2023 until August)

The growing trade deficit between 2021 and 2022 is owed to the increase in imports, coupled with a relative decline in exports. The latter were expected to demonstrate a different behaviour, capitalizing on the depreciation of the local currency, which should, in theory give a competitive edge for exports. However practically, exports remain lower than expected at aggregate level- with some exceptions, mainly in agricultural and agro-food products whose exports significantly grew compared to pre-crisis level.

The ongoing war on Gaza has a direct impact on Lebanon’s trade activity, and the possible widening of the trade deficit. It is likely that imports will increase to overstock essential goods such as wheat, medicines, and other essential food. For instance, in anticipation of any escalation, and in order to ensure that the country has an optimal stock of wheat, the Ministry of Economy and Trade ordered 30,000-ton shipment of wheat. Exports on the other hand, will tend to drop mainly for agricultural products. While specific quantitative data on the exact extent of this impact is not available yet, the disruption in the agriculture sector, mainly in southern region, is likely to have direct implications on the level of exports, specifically on the export of olive oil, animal productions, vegetables, and fruits.

Immediately after the outbreak of the war, the maritime transport sector through the Port of Beirut witnessed a decrease in bookings for new non-oil import goods, and some export contracts were suspended due to importers’ security concerns. These concerns are primarily driven by war risk insurance policies, premiums, and risk classifications. For instance, as a result of the growing instability, the Arab War Risk Insurance Syndicate (AWRIS) placed Lebanon under "Hold Over" since October 13. Under this measure, "AWRIS will continue to act as a reinsurer for contracts underwritten before 13 October. As of that date, the fund will apply a selection of risks covered for marine insurance policies covering ships heading for Lebanon.”

The disruption in international trade, especially imports, is likely to affect Government revenues, as levies on trade, including customs and Valued-Added Tax, which currently constitute the major source of Government revenues. Tax on international trade (including taxes and excises) and VAT are expected to reach 4.1 percent of GDP in 2023, which represents 63 percent of total tax revenues. These taxes represented 33 percent of total tax revenues in 2018, prior to the outbreak of the economic crisis. Potential decline in Government revenues will jeopardize the Government’s efforts to restore fiscal balance and delay the economic recovery of Lebanon.

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21- Lebanon expects 30,000-ton wheat shipment in two weeks - minister | Reuters
22- https://rb.gy/j0urcf
24- IMF, Article IV mission report, June 2023
2.3 Possible disruption in remittances and other financial flows

Amidst the ongoing economic and financial crisis, Lebanon has managed to sustain a consistent and substantial inflow of remittances, ranging from $6 to $7 billion per year.25 According to a comprehensive study released by UNDP in 2023, these funds, once primarily dedicated to investing in building the human capital such as health and education, have now evolved into a crucial social safety net for a considerable number of Lebanese families. This safety net plays a pivotal role in shielding them from the adverse effects of currency depreciation and inflation on their purchasing power and overall income. Lebanon recorded the highest remittances-to-GDP ratio in the MENA region, reaching 37.8 percent in 2022.

The high cost of transferring remittances and the lack of trust in the banking system pushed a large segment of migrant Lebanese to send money home through informal channels, shifting away from using commercial banks. In 2021, it is estimated that around 70 percent of remitters use such channels—sending money with individuals traveling back to Lebanon.26 The situation remains unchanged till now, as no resolution was put in place to reform the financial sector in Lebanon, an essential step to restore confidence. It is worth underscoring that financial sector reform is a core component of the IMF SLA reached in April 2022. Proposed reforms include the adoption of a bank restructuring strategy and bank resolution framework, reform to the bank secrecy law, special audit of the Central Bank and audit of the 14 largest banks. However, most of these reforms are still pending, which delays restoring confidence in the banking sector. As such, disruption in incoming flights to Lebanon, and consequently in the flow of Lebanese expats coming from abroad, is expected to affect the flow of remittances.

In conclusion, disruption to tourism, trade and financial inflows will have repercussions on the already fragile economy, and is likely to affect growth. Prior to the outbreak of the war, Lebanon was expected to report a mild growth of 0.2 percent in 2023, following four consecutive years of contraction, as per the latest World bank forecasts.27 At this level of modest growth, the likelihood of resuming a contractionary trend is high, given the significant reliance of the economy on sectors that are susceptible to security shocks, namely tourism, trade and financial inflows. At the onset of Gaza war, several international agencies attempted to simulate its impact on Lebanon and other countries of the region, using several scenarios concerning the intensity and duration of the ongoing conflict (BOX 1). These scenarios give an indication of the potential impact of the ongoing conflict in view of the uncertainty regarding its evolution and likely impact on neighbouring economies.

25-UNDP, the Increasing Role and Importance of Remittances in Lebanon: The Increasing Role and Importance of Remittances in Lebanon, MAY 24, 2023.
26-UNDP, 2023
27-World Bank, Lebanon Macro and Poverty Outlook, October 2023

Box 1. Potential Impact of Gaza war on Lebanon Economy based on simulations by selected international financial institutions

International Institute of Finance (IIF): Two scenarios are assumed by IIF, scenario 1 assumes that the fighting remains confined to Gaza, while scenario 2 assumes a higher likelihood of regional conflict dragging Lebanon into the war. Under scenario 1, the economy will resume the downward path that started in 2019, and contract by 0.5 percent in 2023 and 1 percent in 2024, according to IIF. Meanwhile, scenario 2, which is more pessimistic, considers Lebanon being fully dragged into the ongoing conflict, which will have more severe implications on the economy and would result in a contraction of 15 percent during the first quarter of 2023 (averaging to a contraction of 4 percent for the whole year 2023). Under this scenario, Lebanon would continue to suffer a staggering 26.2 percent contraction in 2024.

Standard & Poor’s: Given the vital role that tourism plays in the economy, notably as a source of foreign currency, any deterioration in this sector is likely to have a significant impact on Lebanon’s economic performance. To better understand the extent of this impact, Standard and Poor’s (S&P) ran several scenarios to estimate the impact of the war on tourism in Lebanon and other countries in the region, and consequently on the national output and on foreign currency reserves. The study assumed, as a baseline, that tourism receipts contribution to the Current Account Deficits (CAD) is 25.8 percent in 2022. To calculate the impact on the economy, S&P ran three scenarios assuming a drop in the tourism receipt of 10 percent, 30 percent, and 70 percent respectively.

Fitch Solutions: To estimate the impact of the conflict on Lebanon, Fitch Solution has two assumptions regarding the war scenarios. The baseline scenario considers that the conflict is largely contained in Gaza and there is no escalation beyond the South of Lebanon. Under this scenario, Fitch Solutions expected a limited economic growth in 2023 of 0.1 percent, down from its earlier estimate of 1.7 percent. In a more pessimistic scenario assuming a larger scale war on the Lebanese border, a more profound impact on the economy is expected. Under this scenario, it is expected, by Fitch, that all airfare activities will be suspended, the currency will depreciate to LB150,000/USD, import cost will increase, and the country will suffer shortages in basic goods.
3. Impact of the conflict on south Lebanon

The repercussions of the conflict on the broader economy are starkly obvious, in terms of economic contraction and further economic and fiscal uncertainties. Yet, the impact on the conflict-affected area in South Lebanon and Nabatiyeh Governorates, in terms of exact losses, is yet to be comprehensively assessed. Given that the conflict is still ongoing, it is hard to provide a definitive assessment. This report provides a snapshot of the situation as of mid-December based on available data. Given the dynamic context, this is a start that attempts to quantify losses and set a baseline for recovery and response planning.

Available figures reveal that the ongoing conflict has already resulted in a number of causalities, Internally Displaced People (IDPs), destruction of assets and infrastructure, and disruption in economic and social services. The economy of South Lebanon and Nabatiyeh, notably the South Litany Region (SLR), relies heavily on agriculture, services and (eco-) tourism, all of which are volatile and highly susceptible to security shocks.

Since 7 October, around 91 villages in the Governorate of Nabatiyeh and South Lebanon have been attacked during the conflict. Until 6 December, around 1768 attacks were documented by the National Centre for Scientific Research (CNRS) including shelling and airstrikes, flare and incendiary bombs, phosphorous shells, in addition to other types of attacks, as presented in Figure 4 below.

Figure 5. Attacks on the southern areas of Lebanon by type

Despite being relatively confined to the border region (within 15 to 20 Km from the borders)\(^2\), the conflict has already taken a toll on the local economy of villages and towns beyond the direct conflict zones.

3.1 Human losses and displacement

The conflict has caused massive displacement from the border towns and villages. On December 14, 2023, the number of Internally Displaced Persons (IDPs) reached 64,053 persons, of whom 52 percent are female and 37 percent are children.\(^2\) These IDPs are distributed across 15 districts (around 305 cadaster) of Lebanon, notably in Tyre, Saida, Southern Suburbs of Beirut, Baalbek, Nahr el-Kharrub, Smar, Bhamdoun and Jbeil. Of these, around 48 percent are still in the districts of Tyre and Nabatiyeh, and 1,023 are living in collective shelters (such as schools). It is estimated that around 12 collective shelters are currently providing accommodation for IDPs, with four located in Tyre, seven in Hasbaya and one in Beka'a.\(^2\) It is also estimated that at least 90 percent of residents in the villages that are directly located on the border line (one km from the border) left to safer places. Meanwhile, villages located within a 2 to 5 km perimeter from the ‘Blue Line’ report a displacement rate of 50-60 percent. The directly affected areas by bombing and displacement are all the border villages from Naqora toward Shebaa farms (100 Km wide and 5 Km depth). More than 50 villages were directly affected across four districts (Tyre, Bint Jbeil, Marjeiyoun and Hasbaya districts).

3.2 Damage to buildings, housings, other assets and infrastructure

The armed conflict resulted in considerable physical losses, mainly on buildings, houses, commercial entities, infrastructure, services, and utilities, in villages situated on the borders, and that were subject to direct attacks. The Council of the South\(^3\) is currently in the process of finalising an extensive assessment account for damages and human losses including deaths, injuries, properties, fixed assets, displacement, and other losses. The assessment is being closely coordinated with the municipalities located in the South Litany River (SLR) area and is being updated on a daily basis.

Box 2: Economic and social facilities affected by the war (destroyed, damaged or closed)

Several economic facilities were reportedly to be partially or completely destroyed.

- An aluminum factory in Kfour (Nabatiyeh district) was completely destroyed
- A renewable energy system used for water pumping (well) in Tayr Harfa (Tyre district) was completely destroyed
- Electricity public network were partially or completely damaged in several villages and towns: Yaroun and Rmeish (Bint Jbeil district), Marwahan, Dhaya and Ain al-Shaab (Tyre district)
- Around 52 schools were closed leaving more than 6,000 children without proper access to education. One public school was partially damaged
- Five Primary Health Care Centers (PHCC’s) in Bint Jbeil and Marjayoun districts were closed because of security threats
- Three water Reservoirs (in Ain al-Shaab, Tayr Harfa and Yarine) were damaged.

\(^2\) National Center for Scientific Research (CNRS), December 6, 2023
\(^3\) The Council of the South is a public institution operating under the direct authority of the Prime Minister. The Council is assigned to handle developmental projects in the southern areas of Lebanon.
\(^3\) OCHA: Lebanon: Flash Update #2: Escalation of hostilities in South Lebanon, 26 November 2023
3.3 Olive and Olive Oil

According to the Ministry of Agriculture (MoA), the total area covered by olive orchards in 2010 is approximately 62,000 hectares. This area represents about 23 percent of the total Utilized Agriculture Area of Lebanon and 45 percent of the total area cultivated with permanent crops. This crop provides income for around 110,000 households. The generated income from olive plantation is estimated at around 7 percent of total agriculture output in Lebanon. Olive plantation is particularly important for South Lebanon and Nabatieh as it is one of the main value chains in this area. Also, given the high-quality olive oil produced, Lebanese producers have started to increasingly penetrate international markets. The olive harvest season usually starts at the end of September and lasts until the beginning of November (depending on the altitude of each village). The ongoing conflict has limited the ability of farmers and households to harvest olives, on the border as well as in villages situated further away from the border, fearing any sudden expansion of shelling. The attack More importantly, the ongoing war caused the loss of a massive number of olive trees as they were directly destroyed by internationally banned white phosphorus bombs and other explosives that burned them down. The Ministry of Agriculture reports the loss of around 47,000 olive trees in the conflict area which represents around 9 percent of the total number of olive trees in the country (considering a moderate average of 200 trees per hectare). Accordingly, the production of olive oil was severely impacted, and it is reported by some oil press factories that their production declined by 78-80 percent compared to last year. The drop in production is also attributed to the lower olive yield this year, due to the alternate bearing phenomenon of olive trees. As a result, prices of olive oil started to increase in the local market, amid declining likelihood of exporting to international markets. It is worth noting that this important economic sector was struggling, even before the war. Full production happens every other year, and farmers lack adequate investment and technical capacity to improve the produce, in quantity and quality.

3.3.2 Carob

Available data indicates that Lebanon produced approximately 4.400 Tons of carob in 2021, placing Lebanon as the third-highest producer of carob globally, following Turkey and Morocco. This crop is one of the promising and emerging value chains within the border areas. Carob cultivation is known for being relatively low-cost and requiring minimal irrigation, making it a suitable crop for areas similar to southern Lebanon, where water scarcity is a concern. The process of harvesting carob and producing carob molasses typically occurs around November each year. These activities were affected, and in some areas completely halted, as a result of the ongoing conflict.

3.3.3 Grain and winter farming

During the October and November season, farmers typically begin preparing their lands for winter agricultural activities, focusing primarily on planting grains and various vegetables. In November, the sowing of grain seeds, including wheat, barley, and beans, commences. These grains are cultivated for multiple purposes, such as producing fodder and filé, and are harvested in the spring and summer. However, most farmers were unable to plough their lands in November with only a few managing to do so during the brief period of truce (October 27-November 4). The shift to grain farming is noteworthy, especially among former tobacco farmers, as these crops demand lower inputs and can yield higher incomes. This transition is particularly significant in agricultural practices and economic strategies for these farmers.

3.3.4 Animal production

Animal production is a vital source of livelihood and income for households and farmers in the border area. However, the ongoing conflict has severely impacted this sector. Farmers living at border, who are directly affected by the bombings, have struggled to maintain their animal production businesses. This has led many to sell their livestock. Since the conflict began, it has been reported that nearly 300,000 farm animals have been lost, underscoring the significant toll that the conflict has taken on agricultural livelihoods in these areas.

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35- Food and Agriculture Organization (FAO), lebanon at a glance rice in Lebanon:lebanon.statisticafricaint.
36- Food and Agriculture Organization (FAO).
37- Most of these problems are related to land ownership over non-cultivated areas, high fragmentation of ownership due to inheritance issues, and the illegal control of private or state land. These problems are mostly relevant in Bekaa and Hermel districts and to a lesser extent in other regions of Lebanon.
38- These include poor quality standards and safety issues, in addition to limited availability of wholesale markets, storage facilities and infrastructure especially for small farmers and the influence of middlemen, discrepancies in the supply chain and lack of market information. All these challenges lead to market operation problems.
40- L’Orient Le Jour, Lebanon border fighting dashes hopes for independent sustainable farmers, 1/12/2023.
42- Mek. (2023), Mobilisation. In an interview with the Kuwaiti newspaper Al-Rai. The Minister of Agriculture talks about the fires and the emergency plan. This is why Israel is burning the green and dry land of southern Lebanon. Available at: https://rbq.ly/34zsl.
To adapt to the challenging circumstances caused by the ongoing conflict, some animal farms have been relocated to safer areas, predominantly towards Tyre and Zahra. However, these farmers continue to face significant challenges, notably the high cost of fodder. The increased prices are partly due to the difficulty suppliers face in accessing these areas, a direct consequence of the precarious security situation. Additionally, the use of alternative natural pastures presents its own set of risks, as these areas could potentially expose both farmers and their animals to direct bombing, further complicating the situation for agricultural livelihoods in these conflict-affected regions.47

3.3.5 Dairy production
Dairy production is closely tied to the livestock sector, where livestock farmers are involved either in producing dairy products themselves or in supplying raw materials to local dairy factories. In the South Litani Region, there are four dairy production factories, which are located in the village of Aitaroun and the town of Khiam, (in the districts of Byblos and Marjayoun respectively). However, this sector has been severely affected by the ongoing conflict. The existing dairy factories in these areas are struggling, with their production capabilities reduced. The effects of the ongoing conflict have led to a decrease in the number of animals and a reduction in milk production. As a result, the dairy sector is unable to meet the local demand, and imports of dairy products have increased.

Figure 7. Number of hectares affected by fires by type of vegetation cover

Approximately 60 greenhouses, which were reported as UK-based, have been destroyed. The destruction of greenhouses represents a significant setback for local agriculture, particularly for the cultivation of vegetables, as greenhouses play a crucial role in protecting plants from adverse weather and extend growing seasons.

3.4 Environmental impact
The magnitude of the environmental impact is hard to quantify while the conflict is ongoing. A comprehensive assessment should include extensive surveys of flora and fauna, an assessment of cultural heritage sites, and a determination of the extent of damage to agricultural lands, rangelands, and forests. Such an assessment would provide a clearer picture of the environmental degradation and help in formulating targeted strategies for restoration.

In the meantime, the sections below provide a general overview on the impact of the conflict on the agricultural sector, highlighting the extent of environmental damage and the need for immediate action. The impact of white phosphorus on wildlife encompasses various environmental and ecological aspects. It is known for its toxicity, causing severe health issues in animals, including burns and organ failure, as noted by the Agency for Toxic Substances and Disease Registry (ATSDR). Environmental contamination is another significant concern, with white phosphorus contaminating soil and water bodies, leading to long-term detrimental effects on ecosystems. This contamination can result in bio-accumulation in aquatic animals, as mentioned by the ATSDR, potentially increasing toxicity up the food chain. Habitat destruction due to fires caused by white phosphorus is another critical issue, displacing wildlife and reducing biodiversity, a concern highlighted in reports such as those by Amnesty International regarding its use in conflict zones like southern Lebanon. Furthermore, the long-term ecological impact of white phosphorus is substantial, especially in areas where its presence persists in the environment, affecting the local ecosystems and wildlife over extended periods. These combined effects underscore the need for careful consideration and management of white phosphorus in natural environments to protect wildlife and maintain ecological balance.

Agricultural land suffered significant damage, including physical degradation, chemical pollution, and contamination from explosive remnants, resulting in a loss of soil fertility. The process to reclaim agricultural land fertility and its normal properties could take many years, as one inch of topsoil that includes organic materials and microorganisms can take up to 500 to 1,000 years to form.

The existing crops in the southern agricultural lands could be contaminated by toxic agents and heavy metals even though they were not directly struck by phosphorus shelling and bombardment. This applies to surface and ground water that could be contaminated, hence, affecting animal and human health by consuming water or consuming fruits and vegetables already grown on the plants that were irrigated using this water. Livestock could be affected by these toxic substances after grazing in the nearby contaminated rangelands.

In the south of Lebanon, farmers have reported that they felt unwell after consuming some cabbages which they thought to be unharmed near the phosphorus bombing locations. It has been recommended not to consume any agricultural produce grown near combat activities as heavy metals could poison the soil, and hence, could be easily absorbed by plants.

The use of white phosphorus shells in natural areas carries several environmental risks beyond the immediate and devastating fires they cause. One significant long-term impact is the potential conversion of land use, particularly in forested areas. This conversion often involves changing from...
natural landscapes to artificialized surfaces, such as construction. Such transformations are considered a type of irreversible degradation, as they permanently alter the ecological and functional characteristics of the land.

Moreover, fires in sloped areas or regions where the vegetation cover is already weakened can lead to increased soil erosion or even landslides. The lack of vegetation leaves the soil exposed and more susceptible to being washed away by rain. This not only takes away the significance of forest fire but also triggers dangerous landslides, particularly in hilly or mountainous regions.

In addition, areas downstream of these affected zones are at risk of flooding. When vegetation cover that normally absorbs rainfall is reduced or completely eliminated, water runoff increases significantly, potentially leading to floods in lower areas. This change in the hydrological dynamics of the region can have serious consequences for both the environment and human settlements.

3.4.1 Protected areas, natural areas and nature reserves

The South Litany River area in Lebanon is well-known for its wealth of natural reserves and protected areas, indicating the region's ecological significance. In the South Lebanon Governorate, the Tyre Coast Nature Reserve and Abbasiyeh Coast Nature Reserve are among the most prominent, highlighting the region's biodiversity. The Abbasiyeh Governorate boasts five reserves: Wadi Al Houjier, Kafr, Rimel, Debel, and Beit Liel. Additionally, the Ministry of Agriculture (MoA) oversees the protected Kherbet Slem Forest. The region also features four community-managed Hmas149, namely Mansouri, Qoleiheh, Ebel es-Saqi, and Amoun, declared by their respective municipalities as protected areas. While there are currently no new nature sites declared by the Ministry of Environment (MoE), Yaron is in the pipeline. Plans are also in place to establish additional reserves such as Jebel Rhan, Zabquine, and Naquara in South Lebanon, along with Sarada in Marjaayoun/Nabatyeh. These protected areas are crucial for the preservation of Lebanon’s natural heritage, biodiversity, and for maintaining ecological balance in the region. (Annex 2 provides detailed definitions for each type of protected areas. Annex 3 provides a map of these areas in the SLR).

The southern region of Lebanon is home to several forests and nature reserves that are internationally recognized for their ecological significance. Notably, Rihane and the Tyre/Nabatyeh areas are classified as Important Plant Areas (IPAs), which confirms their significance in terms of plant conservation.

Additionally, these regions, along with Sarada, are designated as Key Biodiversity Areas (KBAs)+, highlighting their critical role in maintaining global biodiversity. These designations for Jebel Rihane, Tyre-Nabatyeh Coast, and Sarada reflect the high value of these areas for conservation efforts, particularly in preserving unique plant species and supporting diverse ecosystems. These areas are essential not only for their natural beauty but also for the vital ecological functions they perform. Forest fires significantly impact the structures and functions of natural ecosystems9. The direct and indirect effects of armed conflict exacerbate this issue by increasing the vulnerability of vegetation cover to fire. This heightened risk often results from the accumulation of thick biomass coupled with a lack of regular maintenance, especially in rangelands. Additionally, the regeneration rate and recovery process of areas affected by these fires tend to be considerably slow, posing long-term challenges for the restoration of these ecosystems. The recovery is often hindered not only by the immediate damage caused by the fires but also by the disrupted ecological processes and altered habitat conditions resulting from the conflict.

Plant exposure to white phosphorus in nature, specifically in the Protected Areas results in a variety of deleterious effects depending on the species of plant, smoke concentration, duration of exposure, relative humidity, and wind speed. These effects can include leaf tip burn, leaf curl, leaf abscission and drop, floral abortion, chlorosis, necrotic spotting, wilting, desiccation, and dieback9.

A consequence of direct shelling on any natural area, ecosystems are disrupted, and faunal and floral habitats are destroyed leading to species deaths. In addition, migration of wild animals from these territories to safer places will occur9.

White phosphorus can cause severe and long-lasting environmental harm. When deployed, it can ignite and burn at extremely high temperatures, often leading to explosions. Fires reflect the immediate physical destruction of vegetation, including in rangelands and forested areas. This destruction can alter the ecological balance, affecting soil quality, increasing the risk of erosion, and damaging habitats for a range of species. White phosphorus is extremely poisonous to many organisms and when ingested, cases of death among mammals, birds, and fish have been documented9. In fact, after many investigations, white phosphorus was identified as the cause of the annual die-off of thousands of waterfowl in an Alaskan salt marsh, who were found to be poisoned by the substance9. Forests and nature reserves in the South are habitats to various faunal species such as the golden jackal, mainly controlled in the region by rock hyraxes, small rodents and badgers. In addition, migratory birds are threatened during this period when their migration is at its peak. The Hima Ebel Es-Saqi is an Important Bird Area (IBA) for globally and nationally scarce breeding birds9. If white phosphorus poses a threat to these birds9. White phosphorus has been classified as hazardous to the aquatic environment with an acute hazard over a short term (Category 1). The Hazard Statement is Hazardous to aquatic life9. In moderate levels, white phosphorus concentrates in aquatic organisms. However, bioconcentration factors are much lower than those for other toxic organic chemicals9, which means that phosphorus will not be absorbed and accumulated in aquatic organisms in its high concentration as other substances.

3.4.2 Air pollution

The main sources that could affect air quality and lead to air pollution are mainly from the ongoing shelling and the use of ammunition including white phosphorus. Fires as a result of phosphorus bombs, rise in the number of vehicles due to the resettlement of the people living in conflict areas, possible emissions of harmful substances into the air if any chemical or food facilities were shelled and burnt9.

The use of white phosphorus (WP) in armed conflicts poses significant hazards beyond the immediate physical destruction from shelling. White phosphorus is notorious for its ability to cause fires that are unpredictable and difficult to control. One of the critical characteristics of white phosphorus is that it can continue to burn harmlessly, waiting to potentially become a few days following its initial dispersal. This prolonged burning makes white phosphorus particularly dangerous, posing ongoing threats of injury not only to civilians but also to clearance personnel working in the affected areas. The persistent nature of these fires can lead to extensive damage to the environment and property, as well as posing serious risks to human health and safety9.

3.4.3 Ground and surface water

The southern region of Lebanon is rich in water resources, featuring an array of rivers, springs, and groundwater reserves. A significant part of the Litani River, the most abundant river in Lebanon with the largest catchment area in the country, covering 2,180 km², flows through this region. This area is also home to numerous springs, including Aalain, Ain at Tawe, Ain Rkiez, Ghalle, Hasbani, Obeh, Rechidy, Ras al Ain, and Tasseh springs. The South Lebanon Water Establishment, serving as the primary water provider in the region, relies heavily on groundwater sources. In fact, their annual groundwater extraction accounts for 45 percent of the total annual national groundwater volume, indicating the crucial role of these underground reserves in the region’s water supply. Additionally, there are three operational wastewater treatment plants in the South, located in Nabatyeh, Shariqiyeh, Sidiou, and Tyre Shabraa. These facilities

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149: Hima which is defined as a Community Based Natural Resources Management (CBNRM) System that promotes Sustainable Livelihood, Resources Conservation, and Environmental Protection for the human wellbeing (UNU-IHD). A Hima is under the supervision of the municipality, the union of municipalities or the Governorate.---


151: An Important Plant Area (IPA) is a natural or semi-natural site exhibiting exceptional botanical richness and/or supporting an outstanding assemblage of rare, threatened and/or endemic plant species and/or vegetation of high botanical value, Convention on Biodiversity.

152: Key Biodiversity Areas (KBAs) are sites contributing significantly to the global persistence of biodiversity, in terrestrial, freshwater and marine ecosystems (International Union for the Conservation of Nature, 2016).

153: UN-EPF.
play a vital role in managing wastewater and maintaining the water quality in the region, ensuring that both environmental standards and the water needs of the population are met. Many hydraulic, agricultural, and electric projects in the South have been developed on the banks of the Litani River to provide potable water for Marjayoun and Bint Jbeil districts.

The ongoing conflict in the South could lead to toxic contamination of the surface and underground water resources. War remnants containing metals and toxic energetic materials can pollute surface water sources and groundwater. If these remnants are near the shore, they can pollute the marine environment as well. In addition, coastal waters in conflict areas are subject to pollution if the region witnesses attacks on ports, fuel storage sites, warehouses and the present ships on the seaside carrying fuel and chemicals. Polluted coastlines and oil spills could affect sea birds, sea turtles and egg laying regimes. Tyre Coast Nature Reserve is home to two endangered species of sea turtles.

The bombardment in Lebanon has reportedly caused substantial damage to water infrastructure, including water supply systems and wastewater management facilities. This destruction poses significant environmental health risks. One major concern is the increased potential for the spread of waterborne diseases, stemming from reduced access to clean water. Furthermore, the contamination of water sources due to broken sewage pipelines exacerbates these health risks. The compromised state of water infrastructure can have far-reaching impacts, affecting not only immediate public health but also long-term environmental sustainability and the wellbeing of the affected communities. Access to clean water is crucial for maintaining public health, and any disruption to this can lead to a cascade of health and environmental issues.

White phosphorus use could contaminate both surface and underground water (water sources and streams). White phosphorus (P) does not dissolve readily and solid P4 persists indefinitely in water. Most phosphorus compounds released in the air will be deposited as phosphoric acid or phosphate on land and water. However, the presence of high phosphorus concentrations in aquatic ecosystems can cause increased growth of algae and large aquatic plants, which can result in decreased levels of dissolved oxygen. High levels of phosphorus can also lead to algae blooms that produce algal toxins which can be harmful to human and animal health. Furthermore, phosphoric acid formed in water could leach into the ground and contaminate water supplies and underground water and its effects could remain for many years. One of the most susceptible aquifers in Lebanon to conflict-related pollution is the Mleeta Crataegus Western basin in South Lebanon, which is the largest aquifer in the country. As such, Lebanon is the Lebanese region that most heavily relies on groundwater. Contamination of these resources will pose a serious problem to public health, animal health and agriculture.

As mentioned above, the Ministry of Agriculture has reported the death of birds, chicken and livestock in the South. Animal waste contains toxic and pathogenic substances such as nitrites, nitrates, ammonium and pathogenic microorganisms that could also contaminate the soil, surface and groundwater.

3.4.4 Soil quality and land

The impact of the conflict on soil quality and land is a physical destruction of the upper fertile layer of the soil by explosions and loss of agricultural lands, woodlands and wetlands, and soil pollution by toxic compounds including heavy metals from explosive weapons, unexploded ordinances (UXO) and explosive remnants of war. Heavy metals include chromium, cobalt, nickel, copper, zinc, cadmium, mercury, lead etc. Toxic munitions constituents such as per- and polyfluoroalkyl substances (PFAS), RDX, PBX, TNT and missile propellant and rockets are ejected into the soil.

White phosphorus usage can have a detrimental effect on soil quality as its incendiary nature severely burns the land and affects its fertility, hence, reducing its use for agricultural purposes. Phosphorus aerosols, once in contact with the soil, affect its pH rendering it more acidic. In addition, the metals present in the soil could react with the phosphorus compounds, increasing leachability and possible trace metal migration from the soil. At low temperatures, solid white phosphorus will persist indefinitely in water-saturated sediment.

3.4.5 Solid waste

Each shelling activity causes the generation of waste on land; this includes building rubble and equipment debris, components or parts of goods and their packaging, spillage of liquid components, in addition to the shell itself. Rubble and debris generated from destructive shelling are likely to be contaminated by asbestos.

In conflict periods, solid waste management will be disrupted, therefore, solid waste will undergo unsafe landfilling and open air burning. Ecosystems will be negatively affected and last due to contaminated areas with UXO.

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84- Zwijnenburg, w. & Nikolaeva, J. (2023). Attacks on Agro-Industrial Sites in Ukraine Environment and Conflict Alert Ukraine
85- Idem.
4. Conclusions and way forward

It is evident that the conflict will likely have an impact on Lebanon’s economy, given the ongoing protracted and multifaceted crisis. The conflict presents a direct and serious threat to the sectors that have lately showed signs of improvement - namely tourism, trade and financial flows. Most forecasts converge on the conclusion that the economy is likely to further contract - regardless of which conflict scenario materialises - which will almost certainly delay the country’s economic recovery. The direct losses in livelihood opportunities are likely to increase vulnerabilities and push more people into unemployment and poverty, given the absence of appropriate social protection schemes, notably social assistance and social safety nets.

This analysis is an early attempt to take account of the initial actual and potential losses caused by the conflict and is meant to guide post-conflict efforts for a speedy recovery, and to set the stage for the immediate way forward. Till now, there is no official comprehensive assessment of the physical damages inflicted by the armed conflict, except for the assessment being done and regularly updated by the Council of the South. That assessment primarily guides the government-approved compensation plan to support physical damages and war causalities.

Although the fighting on the southern borders is ongoing, it is essential to be proactive and to stand ready for the period that will follow the end of the conflict, as well as to explore opportunities to extend immediate support while the conflict continues.

Key actions that should be taken include:

1. The analysis presented in this report is a snapshot of the situation in Lebanon and in the conflict-affected region as of mid-December 2023. The situation will keep evolving as long as the conflict extends in time and increases in magnitude. It is essential to consider this a living document and to regularly update it to reflect the latest developments. Further assessments are needed, during and after the end of the conflict. These assessments should be geared to better understand the long-term socio-economic implications of the war, and to feed into the design of a response plan that enables the implementation of the triple nexus, combining humanitarian assistance and peacebuilding with longer-term development.

2. In the immediate term and should the conflict persist, it is important to reprogramme activities to address the implications of the crisis and to safeguard livelihoods. This should include extending support to communities to coordinate crisis response and to proactively monitor losses and plan for recovery. It should also include fostering market connections for local producers through the establishment of linkages and value chains. Cash for work programmes should be designed to support the IDPs in coordination with host communities.

3. By delving into the current situation, this report lays the groundwork for well-informed programmatic activities post-conflict. This includes targeted programmes for job creation, business development, income support to farmers to restart their activities, access to finance and infrastructure investments to stimulate sustained economic recovery.

4. The preliminary results of the environmental assessment conducted by UNDP, underscore the significant impacts of the conflict on protected areas, forests, rangelands, water bodies, air quality, and land. To expand on these preliminary results, a comprehensive post-conflict environmental assessment is crucial. That detailed assessment should include extensive surveys of flora and fauna, an assessment of the cultural heritage sites, and a determination of the extent of damage to agricultural lands, rangelands and forests. Such an assessment would provide a clear picture of the environmental degradation and help in formulating targeted strategies for restoration.

5. Lebanon’s post-conflict recovery should focus on comprehensive environmental assessments. This includes restoring degraded rangelands, reforestation, and replanting crops for both environmental and livelihood, income-generation and economic recovery. Key elements include tailored management plans, monitoring for biodiversity, water clean-up, and integrated waste management. This multi-dimensional approach is crucial for sustainable recovery and long-term resilience.

6. It is imperative that environmental considerations remain a priority throughout the recovery process. This involves ensuring that the restoration efforts not only return the environment to its former state but, where possible, improve it. Sustainable practices and technologies should be employed to ensure that the recovery process contributes to long-term ecological resilience and sustainability.

7. Recognizing the significant role of livestock in the local economy and livelihoods, it’s essential to implement measures for their protection. This includes providing shelters, vaccinations, and emergency veterinary services to prevent disease outbreaks, along with introducing livestock insurance programs to compensate farmers for conflict-related losses.
Annex 1. Fire map caused by conflict on forests and tree groves along Lebanon’s southern borders

Annex 2 Definitions of Protected Areas (PA) in Lebanon

Based on the protected areas framework law number 130 dated 30/4/2019 which defines the criteria for the establishment of each category in addition to their management objectives and modality, PAs in Lebanon are divided into the following four categories with unique management objectives:

1. Nature Reserve, which is defined as a terrestrial or marine zone in which ecosystems, habitats and species of specific importance must be protected because they are either endemic, or rare or endangered. The conservation of those species and ecosystems may require maintenance or rehabilitation activities if needed, in a way that suits with the protection objectives, and that are described in a management plan in order to ensure the conservation of those habitats and the species that they harbour.

2. Natural Park, which is defined as a vast rural territory, partially inhabited, with exceptional natural and cultural heritage, recognized nationally and deserving protection on the long term. A Natural Park can include one or more PAs or areas that might eventually become protected.

3. Natural Site and Monument, which corresponds to an area containing one or more natural features of exceptional importance which deserve protection because of their rarity, representativeness or beauty.

4. Hima, which is defined as a Community Based Natural Resources Management (CBNRM) system that promotes sustainable livelihood, resources conservation, and environmental protection for human wellbeing (Saleh, 2011). A Hima is under the supervision of the municipality, the union of municipalities or the Quasam in the case of villages where there are no municipalities. Himas are known to be the oldest form of nature conservation and management. This practice appeared almost 5,000 years ago, during the time when the ancient Egyptians understood their environment and its requirements. The Hima practice became an existing management tool in the Arab region almost 1,500 years ago. Since 2004, SPNL worked relentlessly to revive this trend of traditional landscape management in collaboration with local authorities in many parts of the country such as Kfarzabad IBA; the goal is to combine traditional practices with latest conservation strategies in order to attain sustainable resource use, as well as conservation of biodiversity and avifauna, with education, research, recreation and expansion of economic opportunities (AFDC, 2018; AFDC et al., 2019).

In addition, Protected forests established by MoA decision before 1996 based on the Law of Protection of Forests Wealth (Law 85 dated 1991) and after 1996, protected directly by the Law of Protection of Forests (Law 558, dated 24/07/1996) and through MoA ministerial decisions issued based on this Law.
Annex 3. Protected areas under Litani river

A-Nature Reserve: 7 Sites

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B-Protected Forest: 1 site

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C-Himas: 4 sites

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D-Nature Site in pipeline: 1 site

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UNDP is the leading United Nations organization fighting to end the injustice of poverty, inequality, and climate change. Working with our broad network of experts and partners in 170 countries, we help nations to build integrated, lasting solutions for people and planet.