



Preliminary Assessment

MILITARY ESCALATION IN THE MIDDLE EAST: ECONOMIC AND SOCIAL IMPLICATIONS FOR THE ARAB STATES REGION

31 MARCH 2026

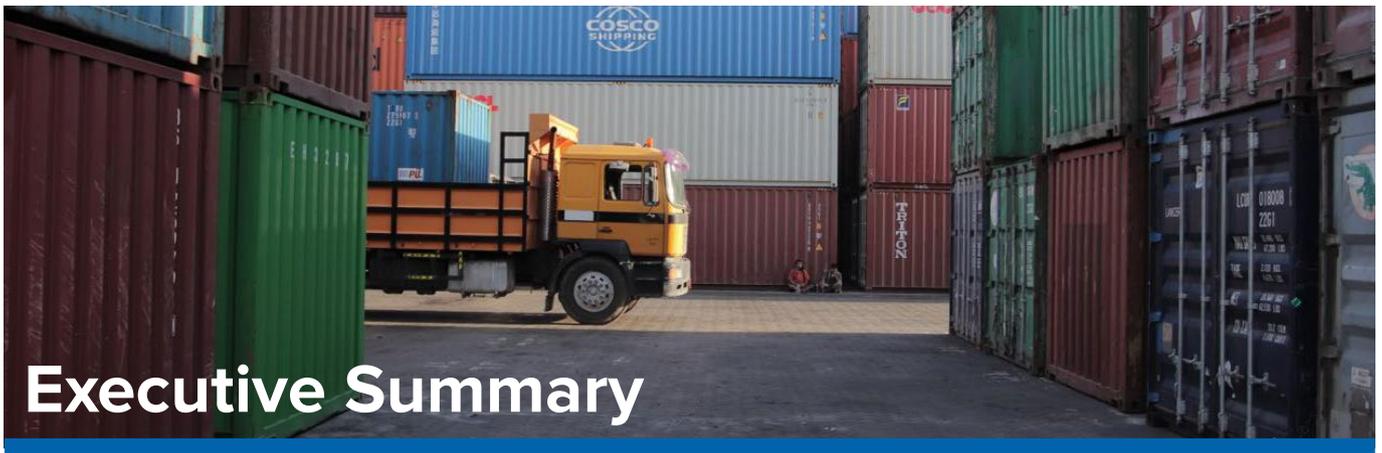
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Executive Summary

The recent military escalation in the Middle East is exposing the structural vulnerabilities of the Arab States region. The estimates highlight a stark reality. A short-lived military escalation in the Middle East could generate profound and widespread socio-economic impacts across the Arab States region.

The analyses presented in this brief provide scenario-based estimates of potential socio-economic and human development impacts of military escalation in the Middle East ongoing since 28 February 2026 on the Arab States region¹. *

The escalation has exposed structural vulnerabilities of the Arab States region and underscored a stark reality that even a short-lived shock can generate profound, widespread and persistent socio-economic impacts across the Arab States region. While the current military escalation remains geographically concentrated, its impacts are propagating through interconnected systems—trade corridors, energy markets, financial flows, and logistics networks—transforming a localized escalation into a systemic regional shock.

To capture the possible magnitude of regional disruptions, simulations in this brief assume a short but intense conflict lasting for four weeks and model its effects through key transmission channels, including increased trade costs, temporary productivity losses, and localized capital destruction. These results should be interpreted as illustrative estimates of potential outcomes under different shock intensities, rather than realized impacts.

Results also highlight that the impacts are not uniform, varying significantly across the region due to structural characteristics of its main subregions—the Gulf Coop-

eration Council (GCC), including Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates; the Levant, including Iraq, Jordan, Lebanon, the State of Palestine and Syria; North Africa, including Algeria, Egypt, Libya, Morocco and Tunisia; and Least developed Arab countries, including Sudan and Yemen.

Impacts are largely shaped by pre-existing structural vulnerabilities, particularly in contexts where resilience has been pushed to its limits. Such vulnerabilities include economic diversification, dependence on external markets, labour market composition, and fiscal capacity.

In Lebanon, ongoing airstrikes and evacuation orders are already causing widespread destruction of residential areas, transport infrastructure, and public services, alongside large-scale displacement. Across neighbouring countries, including Jordan, Iraq, Egypt, and the Gulf states, the conflict is generating spillover risks through disrupted airspace, rising security costs, and exposure to retaliatory strikes on critical infrastructure.

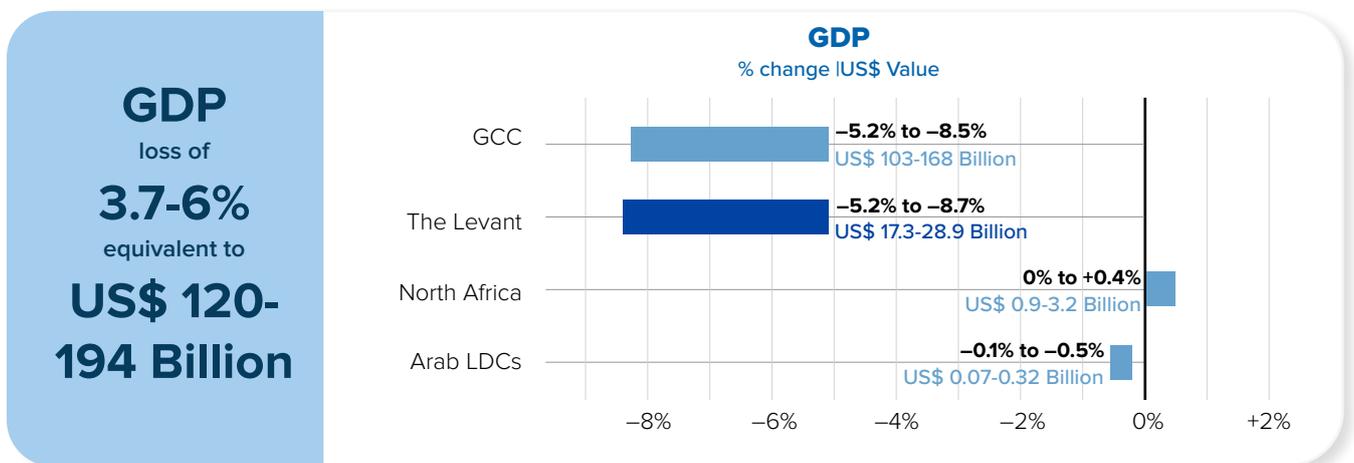
The economic transmission of the shock is driven primarily by disruptions to maritime trade and energy flows. Shipping activity through strategic corridors has declined during periods of heightened tension, while war-risk insurance premiums and transport costs have increased. These disruptions have contributed to volatility in global energy markets, with oil prices rising sharply before stabilizing at elevated levels. Under the simulated scenarios, these shocks translate into higher domestic prices, particularly in import-dependent economies, intensifying inflationary pressures and eroding real incomes.

¹ In UNDP's regional configuration, the Arab States region refers to all 22 Member States of the League of Arab States, excluding the Comoros and Mauritania, which are under the Regional Bureau for Africa. The economic modelling simulations only cover 18 Arab States, since the necessary data was not available for Djibouti and Somalia.

01 Macroeconomic impacts are substantial but uneven across subregions.

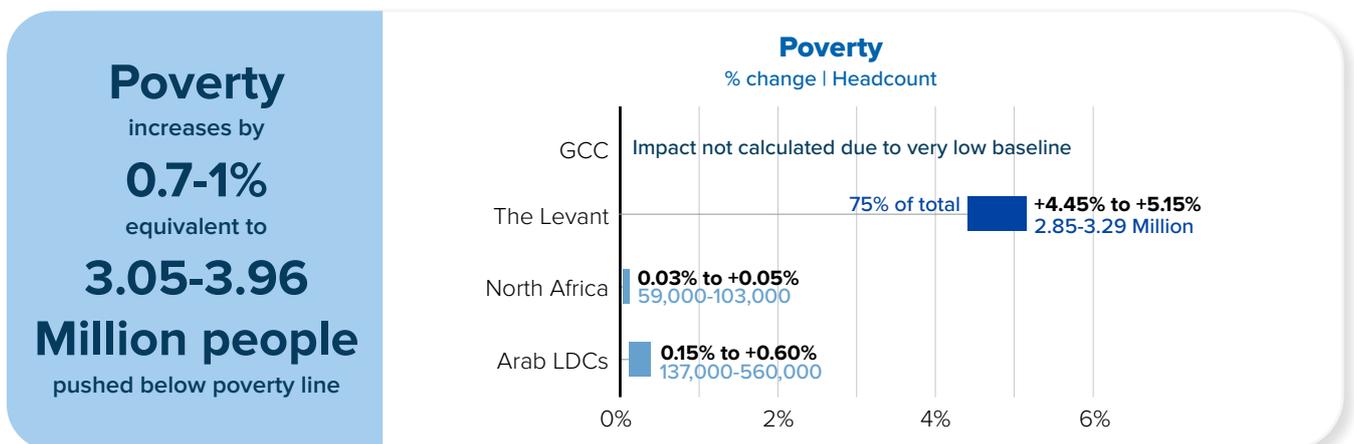
At the regional level, GDP is estimated to decline by approximately 3.7 to 6.0 percent, equivalent to a contraction of roughly \$120 billion to \$194 billion (in constant 2015 USD), with investment contracting more sharply, reflecting heightened uncertainty and reduced capital formation. Trade flows also deteriorate significantly, with exports and imports declining across scenarios.

The largest macroeconomic losses are concentrated in the GCC and the Levant subregions, where strong exposure to trade disruptions and energy market volatility drives significant declines in output, investment, and trade. By contrast, North Africa experiences more limited and heterogeneous impacts, with some hydrocarbon-exporting economies partially offsetting losses through gains linked to higher energy prices. In Sudan and Yemen, macroeconomic impacts are smaller in percentage terms but remain significant given already constrained economic conditions.



02 Poverty implications are the most severe and socially consequential.

The simulations suggest that nearly 4 million additional people could be pushed into poverty under high-intensity scenarios. Increases in poverty rates are concentrated in the Levant and fragile countries (Sudan and Yemen), where baseline vulnerability is highest and shocks translate more strongly into welfare losses. In North Africa, impacts remain moderate but still significant in absolute terms.



03

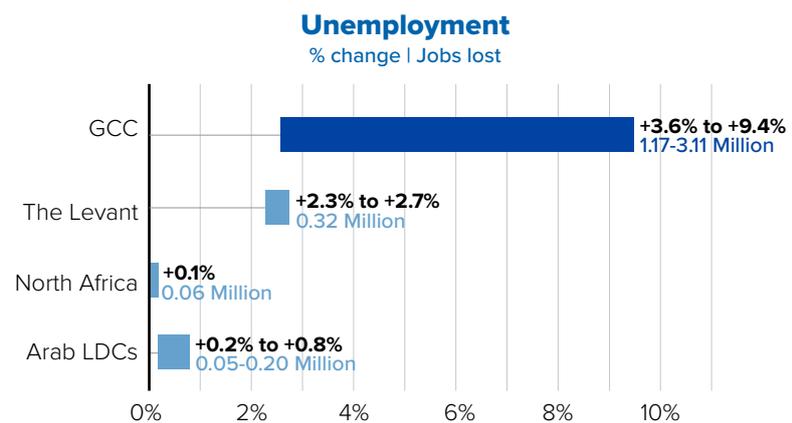
Labour market impacts are widespread and unequal.

Across the region, unemployment increases for both skilled and unskilled workers but disproportionately affects lower-skilled labour. Under high-intensity scenarios, unskilled unemployment rises by approximately +3 to +4.5 percentage points, compared to +2.5 to +3.5 percentage points for skilled workers. In absolute terms, this corresponds to approximately 2.5 to 3.5 million additional unemployed individuals, with unskilled workers accounting for the majority of job losses.

These impacts are most pronounced in the GCC, where large labour markets and strong exposure to external shocks translate into the largest increases in unemployment, and in the Levant, where persistent labour market pressures reflect structural vulnerabilities. In North Africa, changes in unemployment rates remain more limited but still translate into significant numbers of affected individuals due to large population sizes. In Sudan and Yemen, even modest increases in unemployment represent meaningful setbacks given already high levels of vulnerability.

These impacts are substantial in a context where labour markets already struggle to absorb new entrants. With roughly 2.8 million people entering the labour force each year and only about 2.5 million typically finding employment, the projected increase in unemployment is equivalent to more than a full year of job creation capacity.

Unemployment
increases by
1.8-4%
equivalent to
1.61-3.64
Million jobs lost

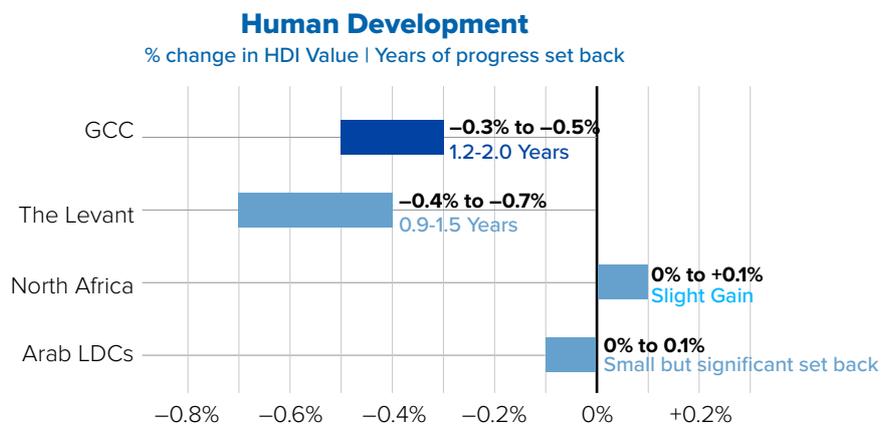


04

Human development impacts are moderate but translate into meaningful setback

Regionally, the HDI declines by approximately -0.2 to -0.4 percent, corresponding to a loss of roughly half a year to nearly one year of human development progress. These impacts are most pronounced in the Levant, where losses translate into setbacks of around one to one and a half years, and are also evident across the GCC, where delays range from approximately one to two years under more severe scenarios. By contrast, impacts remain limited in North Africa, where changes are close to zero at the aggregate level. In fragile countries (Sudan and Yemen), even small declines—equivalent to a fraction of a year, represent significant welfare losses given already low levels of human development and limited resilience.

Human Development
decreases by
0.2-0.4%
equivalent to
0.5-1
Year of progress set back



05

Fiscal effects further constrain the capacity of governments to respond

Government revenues decline across most subregions, particularly in the GCC, where revenues fall sharply due to disruptions in trade and hydrocarbon flows, and in the Levant, where weaker economic activity compounds already limited fiscal space. By contrast, North Africa records modest fiscal gains in some scenarios, driven by improved terms of trade in hydrocarbon-exporting economies. At the regional level, fiscal balances deteriorate overall, limiting the scope for counter-cyclical policy responses.



1 Regional Context and Conflict Overview

The evolving military escalation in the Middle East has widening security, economic, and human development implications for the Arab States region as well as the global economy. Across the region, the escalation is placing growing pressure on infrastructure, public services, and humanitarian systems.

In Lebanon, ongoing airstrikes and evacuation orders are causing widespread destruction and displacement, damaging residential areas, transport infrastructure, health facilities, and schools, and further straining already fragile service delivery systems and local community resilience. At the same time, several countries, including Jordan, Iraq, Egypt, and the Gulf states, are facing increasing spillover risks as missiles and drones transit regional airspace, forcing costly air-defence interceptions that have generated collateral damage from falling debris, while retaliatory strikes on military installations hosted in Bahrain, Kuwait, and the United Arab Emirates (UAE) have at times affected nearby civilian infrastructure. The conflict is also increasingly targeting critical infrastructure, including strikes on energy installations such as oil fields in Saudi Arabia and desalination plants in Bahrain, threatening both energy production and water security.

Beyond kinetic impacts, the conflict is expanding into economic and technological domains through cyberattacks on critical infrastructure, risks to regional communications networks such as undersea data cables, and disruptions to shipping through the Strait of Hormuz, all of which are amplifying pressures on food and fertilizer supply chains across import-dependent economies. In fragile and conflict-affected settings such as Syria, Sudan and Yemen, humanitarian operations are also facing additional constraints, as airspace restrictions, supply chain disruptions, and logistical bottlenecks complicate the delivery of aid and essential services.

In addition these immediate humanitarian and logistical impacts, the escalation is generating broader socio-economic spillovers across the region. Heightened risks in strategic maritime corridors are increasing shipping costs and contributing to volatility in energy and fertilizer markets, with knock-on effects on inflation, trade flows, and global supply chains. Together, these dynamics risk slowing economic activity, increasing cost-of-living pressures, and undermining livelihoods across interconnected economies in the Arab States region.

The region is already characterized by significant structural vulnerabilities, including high youth unemployment, heavy dependence on imported food and energy, protracted displacement, and fragile service delivery systems in several countries. Against this backdrop, the current escalation risks amplifying existing development challenges and reversing recent gains in poverty reduction, education, and health outcomes. At the same time, tightened restrictions on sharing conflict-related information, alongside the rapid spread of manipulated images, recycled footage, and AI-generated narratives across social media, are complicating access to reliable data on security conditions and humanitarian needs across several Arab countries. By simulating these transmission channels, the analysis helps anticipate the scale and distribution of potential impacts in real time, providing an evidence-based foundation for early policy responses even before full data on realized effects becomes available.

This report examines how the conflict may affect socio-economic conditions and human development across the Arab States region. To provide an initial assessment of the potential scale of regional impacts, the analysis assumes a short but intense conflict lasting approximately four weeks. This assumption is broadly consistent with public statements from U.S. officials suggesting that the initial military campaign could last roughly four to six weeks, depending on operational developments.

While the duration and trajectory of the conflict remain uncertain, adopting a four-week horizon provides a practical benchmark for evaluating the potential magnitude of regional disruptions that are still unfolding. It allows the report to assess how short-term shocks to trade, logistics networks, energy markets, and economic activity could translate into wider socio-economic pressures and human development impacts across the region.

The report adopts a three-step analytical approach. First, it examines the economic disruptions and regional spillovers generated by the escalation, including impacts on maritime transport, aviation corridors, energy markets, and financial systems. Second, it analyses how these macroeconomic disruptions translate into pressures on social systems, including food security risks, disruptions to health and education services, displacement dynamics, and strains on humanitarian logistics. Finally, the report quantifies the potential economic and human development implications of these shocks using a global computable general equilibrium (CGE) model, translating macroeconomic disruptions into impacts on output, employment, poverty, and human development indicators across Arab subregions².

² Subregional groupings are defined as follows: the Gulf includes the Gulf Cooperation Council (GCC) countries (Saudi Arabia, Bahrain, United Arab Emirates, Oman, Kuwait, and Qatar); the Levant includes Jordan, Lebanon, Syria, the State of Palestine, and Iraq; North Africa includes Egypt, Tunisia, Algeria, Morocco, and Libya; and fragile and conflict-affected contexts refer to Sudan and Yemen, which are presented separately given their distinct structural vulnerabilities and pre-existing humanitarian conditions.

2 Regional Economic Disruptions and Spillover Effects

The first step of the analysis examines the economic transmission channels through which the escalation is affecting the region, focusing on disruptions to maritime trade routes, aviation networks, energy markets, and financial systems.

2.1 Maritime and Energy Supply Disruptions

The recent escalation has demonstrated how quickly maritime activity can be affected. Major global shipping operators have suspended or rerouted traffic to avoid heightened risk, leading to sharp declines in tanker movements during peak tensions. War-risk insurance premiums have risen significantly, increasing transportation costs per voyage. Since the escalation began, maritime security risks and attacks on tankers have sharply curtailed shipping activity through the Strait of Hormuz. Estimates suggest that overall shipping volumes through the corridor have declined by more than 70 percent, significantly constraining the energy flows and fertilizer exports from the Persian Gulf.³ These disruptions also create wider trade bottlenecks, amplifying uncertainty in global commodity and financial markets.

The repercussions are already visible in global energy markets. Following the escalation, Brent crude prices surged from roughly \$72 per barrel to nearly \$120 before easing slightly but remaining elevated at around \$110 as of March 23rd amid continued volatility and heightened risk premiums linked to supply disruptions, reflecting extreme market volatility and heightened risk premiums in energy supply chains. These shocks are rapidly transmitting into domestic energy prices across import-dependent economies. For example, Egypt recently raised

gasoline, diesel, and compressed natural gas prices by 14–30 percent in response to rising global costs and shipping disruptions affecting fuel imports.⁴

The Strait of Hormuz remains the world's most critical maritime energy chokepoint, carrying roughly one-fifth of the world's petroleum liquids consumption and a substantial share of the seaborne crude oil and liquefied natural gas (LNG) trade. Extremely narrow shipping lanes in the Strait, with a width varying from about 60 miles to 24 miles, are highly vulnerable to disruption. Oil flows through the Strait are also highly concentrated among a small group of Gulf exporters, Saudi Arabia, Iraq, the UAE, Iran, and Kuwait, which together account for more than 90 percent of crude and condensate volumes transiting the passage.⁵ As a result, even limited military escalation or accidental incidents affecting the Strait can rapidly destabilize global energy markets and trigger sharp price movements.

Figure 1: Share of National Crude Oil Exports Transiting the Strait of Hormuz (%)



Source: U.S. Energy Information Administration (EIA), World Oil Transit Chokepoints

³ <https://www.ifpri.org/blog/the-iran-war-potential-food-security-impacts/>

⁴ <https://english.aawsat.com/arab-world/5250753-iran-war-raises-concerns-over-impact-suez-canal-traffic>

⁵ U.S. Energy Information Administration (EIA), World Oil Transit Chokepoints, latest available data (2024–2025); authors' calculations.

Beyond oil, the Strait of Hormuz is also vital for the global natural gas trade, carrying about 27 percent of global oil exports⁶ and roughly 20 percent of global liquefied natural gas (LNG) shipments.⁷ Qatar alone accounts for about 20 percent of global LNG exports,⁸ and more than 90 percent of its LNG shipments, as well as around 96 percent of those from the UAE, must transit the Strait to reach international markets.⁹ Because alternative export routes can handle only a limited share of these volumes, any sustained disruption would quickly translate into global supply imbalances, higher gas prices, and broader macroeconomic instability. Recent tensions have already demonstrated this sensitivity, with European natural gas prices rising by more than 50 percent compared to pre-conflict levels.¹⁰

The escalation is also creating ripple effects across adjacent maritime corridors¹¹. Heightened security risks in the Gulf are contributing to wider disruptions in regional shipping routes, including through the Suez Canal, one of the world's most important trade arteries linking Asia and Europe. Reports indicate that several major global shipping companies have already suspended or diverted vessel traffic, while canal traffic itself has declined by around 50 percent since the escalation began due to rising insurance costs and security risks.¹² These disruptions are increasing transport distances and freight costs, reinforcing pressures on global supply chains.

The Strait also plays a critical role in global agricultural supply chains. Approximately 20–30 percent of globally traded fertilizers,¹³ including urea, ammonia, and phosphates, transit through the Strait of Hormuz, much of it originating from Gulf producers such as Qatar, Saudi Arabia, the UAE, and Iran. Countries exposed to disruptions in the Persian Gulf account for nearly half of globally traded urea exports and roughly 30 percent of ammonia exports, making the corridor central to global crop nutrient markets.¹⁴ Disruptions to maritime traffic therefore risk constraining fertilizer exports, raising input costs for farmers, and amplifying food price pressures globally.

2.2 Aviation, Mobility, and Supply Chain Disruptions

Heightened regional risks have also disrupted aviation corridors, with airlines rerouting passenger and cargo flights to avoid conflict zones. These detours lengthen travel times, increase fuel consumption, and raise operational costs for airlines and logistics providers. Since the escalation at end February 2026, the regional aviation network has shifted from an integrated commercial system to a set of restricted corridors, with several countries implementing partial or full airspace closures. As a result, global air cargo capacity on routes linking Asia, the Middle East, and Europe declined by nearly 40 percent between February 28 and March 3,¹⁵ while freight rates for time-sensitive cargo have already begun to rise. Given the Gulf's central role in intercontinental air connectivity, particularly between Europe and Asia, prolonged disruption would add strain to global logistics networks and reinforce supply-chain fragility.

For several Arab economies, these disruptions carry direct economic implications.¹⁶ Egypt and Jordan, both highly dependent on tourism and air travel, have already experienced significant cancellations in the peak travel season. These disruptions threaten tourism revenues and weaken passenger connectivity across the region.

In Iraq, which implemented significant airspace closures during the first days of the escalation, disruptions to air cargo routes have delayed shipments of high-value goods and reconstruction inputs, increasing logistics costs and slowing commercial activity.¹⁷ In Syria, where humanitarian operations depend heavily on international air corridors, aviation restrictions have further constrained already fragile aid supply chains. The United Nations Office for the Coordination of Humanitarian Affairs (OCHA)¹⁸ reported in early March that regional airspace closures were actively disrupting humanitarian rotations and relief logistics.

6 <https://www.ifpri.org/blog/the-iran-war-potential-food-security-impacts/>

7 <https://www.middleeastbriefing.com/news/strait-of-hormuz-crisis-iran-conflic-energy-business>

8 <https://www.reuters.com/business/energy/qatars-role-global-gas-market-2026-03-02>

9 <https://globalnews.ca/news>

10 <https://www.livemint.com/market/commodities/global-energy-security-at-risk-gas-prices-jump-50-as-qatar-shuts-worlds-largest-lng-export-plant-amid-us-iran-war-11772460530215.html>

11 Which could be further exacerbated if the conflict expands and results in the total or partial closure of the Bab el-Mandeb Strait

12 <https://egyptoil-gas.com/news/egypt-raises-gasoline-cng-butane-prices/>

13 <https://www.ifpri.org/blog/the-iran-war-potential-food-security-impacts>

14 <https://www.fb.org/market-intel/middle-east-tensions-raise-spring-planting-concerns>

15 [Air Cargo Capacity Drops Amid Conflict](#) - Reuters/Aevean (March 5, 2026).

16 [Travel Alerts: Egypt and Jordan Suspensions - Intrepid Travel](#) (March 3, 2026)

17 [Middle East Airfreight Update - NNR Global Logistics](#) (March 3, 2026).

18 [OCHA: Regional hostilities affect aid delivery - UN OCHA](#) (March 5, 2026).

More broadly, reduced air connectivity and rising aviation fuel costs, which in early March reached their highest level since the start of the war in Ukraine, are increasing transportation costs across regional supply chains, contributing to higher import prices and reinforcing inflationary pressures in several Arab economies.

2.3 Market Reactions and Economic Spillovers

Global markets reacted swiftly to the escalation risks, with oil and gas prices surging sharply amid fears of tanker attacks and prolonged disruption in the Strait of Hormuz.¹⁹ Investor risk appetite has weakened; equity markets have shown increased volatility; and freight and insurance costs have climbed. Higher energy and transport costs feed directly into inflationary pressures, while sustained uncertainty could dampen investment flows and slow growth in energy-importing economies. Increases in fertilizer prices will also feed into higher food costs, reinforcing pressures on food security.

The conflict also poses significant risks to capital flows across the region. Higher perceived risk and tightening global financial conditions could trigger capital outflows and a rise in sovereign borrowing costs, with particularly acute pressures in countries with weaker external positions. Global investors have already shifted funds toward safer assets such as money-market funds amid fears of an oil shock and rising inflation risks.²⁰

Countries with large external financing needs are particularly exposed. In Egypt, the escalation has already triggered portfolio outflows of roughly \$5–8 billion from local debt markets, contributing to a depreciation of the Egyptian pound to over 52 per U.S. dollar (from a pre-war level of 47) and increasing financing pressures on an economy that relies heavily on foreign investment to finance imports and fiscal deficits. Foreign investors previously held about \$45.7 billion in Egyptian treasury bills, highlighting the country's vulnerability to sudden capital reversals.²¹

Financial markets across the Gulf have also reacted to heightened geopolitical risk. Rising regional tensions have contributed to volatility in equity markets and reassess-

ments of risk exposure by international investors, while multinational firms and financial institutions have begun reviewing regional operations and investment plans amid disruptions to airspace, logistics networks, and critical infrastructure across Gulf economies.²²

The conflict may also affect remittance flows, which represent a critical source of foreign exchange for several Arab economies. Countries such as Egypt, Jordan, Lebanon, and Morocco depend heavily on remittances from migrant workers in Gulf economies. According to World Bank estimates, remittances account for roughly 33 percent of GDP in Lebanon, about 8–9 percent in Jordan, around 6–8 percent in Egypt, and roughly 6 percent in Morocco, making them a key source of external financing and household income in these economies.²³ Any disruption to employment opportunities for these workers could therefore weaken remittance inflows and amplify pressures on consumption, exchange rates, and poverty levels.

2.4 Monetary and Financial Impact

The conflict could have significant implications for the region's monetary, fiscal and financial conditions. Since the primary budget revenues of the Gulf countries are based on oil products, a reduction in their exports could significantly increase budget deficits and government debt stocks. The region is likely to experience significant inflationary pressures, especially higher energy and food prices. At the same time, monetary conditions could also become more difficult if there is a decline in net capital inflows. The Gulf Cooperation Council (GCC) countries may experience a durable hike in risk premia, raising their borrowing costs and lowering foreign direct investment.

The region's central banks may therefore need to raise interest rates and intervene in foreign currency markets to contain foreign exchange and inflationary pressures and to provide liquidity support to banks. The GCC countries can use their sizable foreign assets for these purposes, in particular as their banks may see deposit withdrawals and difficulties with their loan portfolios on account of their exposure to the real estate sector, which may experience price pressures. Such interventions will be more difficult for other Arab countries, given their more limited foreign assets.

19 <https://www.reuters.com/business/energy/oil-jumps-us-iran-conflict-escalates-disrupts-shipping-2026-03-01>

20 <https://www.reuters.com/business/energy/oil-jumps-us-iran-conflict-escalates-disrupts-shipping-2026-03-01>

21 <https://www.reuters.com/world/middle-east/iran-war-tests-egypts-unsteady-economy-2026-03-10/>

22 <https://www.middleeastbriefing.com/news/what-the-iran-war-means-for-multinationals-in-the-gcc/>

23 <https://data.worldbank.org/indicator/BX.TRF.PWKR.DT.GD.ZS>

Banks, including central banks, may also have to expand lending to governments to support higher defence and reconstruction costs. Iraq may face balance of payments pressures because of cuts in trade with Iran, especially of energy. Egypt and Lebanon are also vulnerable to exchange rate pressures and price pressures; they may have to raise consumer subsidies to contain the social impact of inflation.

Exchange rate dynamics deserve particular attention. For GCC countries with pegged currencies, the primary channel of adjustment runs through reserves and fiscal positions rather than the exchange rate itself; however, sustained conflict could test the credibility of those pegs if reserve drawdowns accelerate. For Egypt, which operates a managed float, the risk is more direct: a combination of higher import costs for food and energy, reduced Suez Canal revenues, and capital outflows could put significant downward pressure on the pound, reigniting the inflation-depreciation spiral that the country experienced in 2022–2023. Jordan and Lebanon face analogous exchange rate vulnerabilities, compounded by their high import dependence and, in Lebanon’s case, an already-fragile monetary framework. Central banks in these countries may be forced into a difficult trade-off between defending the exchange rate and preserving reserves for essential imports.

2.5 Fiscal Impact

The conflict is likely to have significant fiscal repercussions across the region, which the report does not yet adequately address. In the GCC countries and Iraq, hydrocarbon revenues remain the dominant source of government income; any disruption to oil and gas exports – whether through maritime route closures, reduced investor confidence, or lower production – would translate directly into widening fiscal deficits and potential cuts to public expenditure. This exposure is further underscored by IMF estimates of fiscal breakeven oil prices, which vary widely across regional exporters, from around \$45 per barrel in Qatar and about \$50 in the UAE to more than \$90 in Saudi Arabia and over \$130 in Bahrain, highlighting the differing levels of fiscal vulnerability to oil price fluctuations. Iraq is especially exposed, given its near-total dependence on oil revenues and its very limited non-oil fiscal base. IMF estimates suggest that Iraq’s fiscal breakeven oil price was around \$79 per barrel in 2025, meaning that any sustained disruption to exports or decline in global oil prices would rapidly translate into

fiscal pressures and widening budget deficits.

On the expenditure side, the conflict is already compelling the region’s governments to raise defence budgets, accelerating the procurement and deployment of additional air defence and security capabilities. These higher defence outlays will crowd out spending on social services and development programmes, unless they are offset by external financing or reserve drawdowns. Reconstruction costs represent a further fiscal burden, particularly for Lebanon, which faces massive and mounting rebuilding needs against a backdrop of a collapsed fiscal framework and an ongoing debt restructuring. Looking further ahead, the conflict could produce a durable increase in the GCC risk premium. Even after hostilities cease, investors are likely to require higher returns to compensate for elevated geopolitical risk, raising long-run borrowing costs and reducing the region’s attractiveness as a destination for foreign direct investment. This structural shift in risk perception could persist for years, complicating the GCC countries’ ambitions to diversify their economies and finance major development programmes.



3 Pressures on Social and Humanitarian Systems Across the Arab States region

While many of the disruptions described above initially appear as macroeconomic or logistical shocks, they ultimately translate into pressures on households, communities, and essential services systems. Rising transport costs, energy price volatility, and trade disruptions affect food prices, employment opportunities, demand for social services and fiscal space for governments, creating broader social and humanitarian pressures across the region.

3.1 Health Systems and Humanitarian Supply Chains

The military escalation is placing growing pressure on health systems and humanitarian logistics across the Arab States region. Disruptions to aviation routes and maritime corridors have slowed the movement of medical personnel, medicines, and emergency health equipment, affecting already fragile healthcare systems.

A major concern is the disruption of the World Health Organization's Global Health Emergencies Logistics Hub in Dubai, one of the largest humanitarian medical supply centres serving the Middle East. The temporary suspension of operations has blocked access to approximately \$18 million in medical supplies, while an additional \$8 million in incoming shipments cannot reach the facility due to insecurity and maritime disruptions linked to the Strait of Hormuz. Among the delayed supplies are \$6 million in medicines intended for Gaza, as well as treatments for chronic conditions such as diabetes and hypertension.²⁴

Healthcare infrastructure is also being directly affected in parts of the region. In Lebanon, evacuation orders and ongoing hostilities have forced the closure of 43 primary healthcare centres and two hospitals, limiting access to basic medical services for communities already affected by displacement and economic crisis.²⁵

²⁴ [https://www.who.int/news-room/feature-stories/detail/health-impact-of-the-escalation-of-conflict-in-the-middle-east?](https://www.who.int/news-room/feature-stories/detail/health-impact-of-the-escalation-of-conflict-in-the-middle-east?text=In%20Lebanon%2C%20evacuation%20orders%20have,be%20protected%E2%80%94even%20in%20war)

²⁵ [https://www.who.int/news-room/feature-stories/detail/health-impact-of-the-escalation-of-conflict-in-the-middle-east#:~:text=In%20Lebanon%2C%20evacuation%20orders%20have,be%20protected%E2%80%94even%20in%20war.](https://www.who.int/news-room/feature-stories/detail/health-impact-of-the-escalation-of-conflict-in-the-middle-east#:~:text=In%20Lebanon%2C%20evacuation%20orders%20have,be%20protected%E2%80%94even%20in%20war)

3.2 Environmental and Water Impacts Across Arab Countries

The conflict is generating environmental impacts across several Arab countries. In the Gulf region, attacks on critical infrastructure have exposed the vulnerability of desalination systems after strikes damaged a desalination facility in Bahrain and landed near a large desalination complex in Saudi Arabia. This risk is particularly acute because the Gulf relies heavily on desalination: roughly 400 desalination plants across GCC countries produce about 40 percent of global desalinated water, supplying most drinking water in countries such as Kuwait (around 90 percent), Oman (86 percent), and Saudi Arabia (about 70 percent). Nearly 100 million people in the region depend on these systems, making water infrastructure a critical vulnerability in the conflict.²⁶

In Lebanon, ongoing bombardment has significantly deteriorated air quality as strikes and fires release a mixture of pollutants, including fine particulate matter, hydrocarbons, dioxins, and other combustion by-products, from destroyed buildings, fuels, and industrial materials. These pollutants can remain suspended in the air and accumulate in human lungs, posing long-term health risks.²⁷

Environmental effects may also extend beyond immediate conflict zones. Pollution from burning petroleum infrastructure can travel hundreds of kilometres within a day, potentially affecting air quality across the wider Middle East. At the same time, disruptions to natural gas supplies and agricultural input markets in Gulf countries are reinforcing wider pressures on regional food systems.²⁸

3.3 Pressures on Regional Food Security

The escalation is also generating significant risks for food security across the Arab States region through disruptions

to fertilizer trade and shipping routes and higher transport costs. Building on the maritime disruptions described above, constraints on shipping through the Strait of Hormuz are already affecting fertilizer markets and global agricultural input prices.

These disruptions have already pushed fertilizer prices higher.²⁹ Following the escalation in early March, urea prices rose by roughly \$60–\$90 per ton,³⁰ with benchmark prices in Egypt increasing by about 25 percent, raising concerns about higher production costs and reduced agricultural yields in upcoming planting cycles. Higher fertilizer costs may also lead farmers to reduce fertilizer application rates, which could further depress agricultural yields in subsequent harvest cycles.³¹ Disruptions in the Strait to shipments of sulphur, an important input in phosphate fertilizer production, could further amplify these pressures

The energy market disruptions are reinforcing these pressures on food security. Since the conflict began, tanker traffic in the region has slowed significantly, and crude oil futures have increased by more than \$10 per barrel (around 15 percent), while European natural gas prices have risen by over 50 percent compared to pre-conflict levels. Because energy costs represent a major share of spending on agricultural production and food supply chains, including irrigation, processing, refrigeration, and transport, these increases are likely to feed into higher global food prices.³²

For Arab countries that depend heavily on imported food, these disruptions are likely to translate quickly into higher domestic food prices. Shipping costs have risen sharply as war-risk insurance premiums for vessels transiting the region surged from roughly 0.01–0.02 percent to about 1–1.5 percent of vessel value,³³ while dry-bulk traffic through the Strait reportedly declined by more than 90 percent in early March, tightening global freight capacity.³⁴ These pressures are compounded by disruptions across the Red Sea and Eastern Mediterranean shipping corridors, which serve as key routes for grain imports into many Arab economies.

26 <https://www.aljazeera.com/news/2026/3/12/how-much-of-the-gulfs-water-comes-from-desalination-plants#:~:text=Gulf%20states%20produce%2040%20percent,Mar%20202612%20Mar%202026>

27 <https://today.lorientlejour.com/article/1498917/burning-smell-what-are-we-breathing-in-lebanon-after-israeli-strikes.html>

28 <https://www.who.int/news/item/11-03-2026-conflict-deepens-health-crisis-across-middle-east--who-says>

29 <https://www.ifpri.org/blog/the-iran-war-potential-food-security-impacts/>

30 <https://www.farmprogress.com/marketing/fertilizer-prices-set-to-spike-what-the-iran-conflict-means-for-your-farm>

31 <https://www.theguardian.com/business/2026/mar/05/big-burden-for-farmers-gulf-shipping-crisis-threatens-food-price-shock#:~:text=Passage%20through%20the%20waterway%2C%20located,seaborne%20crude%20oil%20and%20gas.>

32 <https://www.ifpri.org/blog/the-iran-war-potential-food-security-impacts/>

33 <https://modern diplomacy.eu/2026/03/06/how-maritime-insurance-rates-reflect-a-widening-middle-east-war/#:~:text=Angus%20Blayney%20from%20Gallagher%20highlighted,varied%20by%20specific%20risk%20factors.>

34 <https://www.kpler.com/blog/how-the-strait-of-hormuz-shutdown-is-disrupting-dry-bulk-Ing-freight-and-trade-compliance#:~:text=Dry%20bulk%20transits%20through%20the,day%20in%20a%20single%20session>

These dynamics are particularly concerning in countries where food costs represent a large share of household expenditure. In several Arab economies, food accounts for roughly 30–50 percent of household spending,³⁵ meaning that even moderate increases in staple prices can significantly erode purchasing power. Egypt, the world's largest wheat importer, remains highly exposed to global grain price fluctuations, which can quickly translate into rising poverty risks. Jordan, which imports most of its food and energy, may face intensified fiscal pressure if it attempts to shield households through subsidies³⁶. Lebanon, already experiencing a severe economic contraction and rising food insecurity, with around 17 percent of the population facing crisis-level hunger,³⁷ could see further deterioration as agricultural production and import supply chains come under additional strain.

3.4 Social and Economic Pressures in the Gulf

Within the Gulf countries, the escalation is producing early social and economic effects despite their stronger fiscal buffers. Tourism and hospitality sectors in major regional hubs such as Dubai, Doha, and Riyadh are beginning to experience pressure as rising instability and aviation disruptions affect travel flows. These sectors represent key pillars of economic diversification strategies across the Gulf and are particularly sensitive to regional security perceptions.³⁸

The crisis is also affecting the behaviour of expatriate communities and multinational firms. Companies are expanding contingency planning and reviewing business continuity strategies, while some expatriate workers are assessing relocation options in response to heightened uncertainty. Particular concerns are emerging for the region's large migrant workforce, estimated at over 40% of the region's labour force across the Gulf, i.e. over 30 million workers, many of whom face limited mobility under sponsorship systems and may have restricted access to evacuation channels or emergency protection measures. Economic disruptions could also affect wage stability and

remittance flows to major labour-sending countries such as India, Pakistan, Bangladesh, and Egypt, creating potential spillover effects beyond the region.³⁹

At the same time, governments are emphasizing national unity messaging and deploying rapid-response mechanisms to deter unrest and maintain public confidence. The escalation is also generating heightened societal anxiety and vigilance across Gulf societies, prompting governments to emphasize social cohesion and collective resilience around the protection of national stability and economic development gains.⁴⁰

3.5 Impacts on Education

The escalation is also generating widespread disruptions across education systems in several parts of the Arab States region. Authorities in the UAE, Qatar, Bahrain, and Oman ordered schools to transition to online instruction following the surge in regional tensions and missile interception risks over urban areas in early March.⁴¹ While these measures help maintain educational continuity, they also disrupt routine learning environments and contribute to heightened anxiety among students and families.

In the Levant, the impacts have been far more severe. In Lebanon, the Ministry of Education suspended the academic year indefinitely on 4 March, following intensified airstrikes that resulted in significant civilian casualties, including children. At the same time, educational infrastructure has increasingly been repurposed for humanitarian use. More than 325 public schools have been converted into collective shelters hosting over 12,000 displaced families, while hundreds of additional facilities are operating at or near capacity.⁴² The conversion of schools into shelters has effectively halted formal education nationwide and disrupted access to safe learning environments for students.

Education services have also been affected in the occupied Palestinian territory, where the United Nations Relief and Works Agency (UNRWA) reported the suspension

35 <https://thedocs.worldbank.org/en/doc/74e8be41ceb20fa0da750cda2f6b9e4e-0050012026/related/CMO-Pink-Sheet-March-2026.pdf>

36 https://greenfiscalpolicy.org/policy_briefs/jordan-country-profile

37 <https://www.developmentaid.org/news-stream/post/203777/lebanon-food-insecurity-2026-wfp-fao-hunger-crisis-farming>

38 <https://www.middleeastbriefing.com/news/what-the-iran-war-means-for-multinationals-in-the-gcc/>

39 <https://www.bloomberg.com/news/articles/2026-03-02/millions-of-migrant-workers-in-gulf-at-risk-as-iran-retaliates?embedded-checkout=true>

40 [How the War in Iran Is Shaping Gulf Collective Consciousness - Middle East Council on Global Affairs](#)

41 Gulf News, "Iran conflict: UAE extends distance learning until March 6," March 3, 2026.

42 UNICEF News

of in-person education services across the West Bank, including East Jerusalem, due to movement restrictions and heightened security risks linked to regional escalation.⁴³

Beyond the immediate disruption to schooling, humanitarian organizations warn of growing psychosocial impacts on children and youth across the region. Reports from Save the Children indicate that millions of children across the region, including in the Gulf countries, are currently living under conditions of heightened fear and uncertainty associated with the escalation.⁴⁴ In Lebanon, where large numbers of displaced families are currently sheltering in school buildings and other public facilities, humanitarian agencies have prioritized psychosocial support services for children affected by displacement and exposure to violence. UNICEF has warned that prolonged disruptions to education and repeated exposure to conflict may leave long-lasting psychological and developmental effects, particularly for children already living through multiple crises in recent years.⁴⁵

More broadly, education experts emphasize that the loss of a stable school routine can significantly affect children's cognitive development, socialization, and emotional well-being. The erosion of the school environment as a predictable and protective space therefore represents a critical human development concern.

3.6 Displacement and Humanitarian Pressures

The humanitarian consequences of the escalation are already severe in countries directly exposed to the conflict. Large-scale internal displacement and cross-border movements are unfolding alongside rising civilian casualties, attacks on health care, school closures, overcrowded shelters, and growing protection risks for children and

other vulnerable groups. Humanitarian access is increasingly constrained by insecurity, border closures, and airspace restrictions, delaying the delivery of relief supplies, medicines, and humanitarian personnel. In Gaza, the closure of key crossings and restrictions on humanitarian coordination have disrupted the entry of food, fuel, and medical supplies, while limiting medical evacuations and the rotation of humanitarian staff.⁴⁶

The widening regional escalation is also affecting humanitarian logistics beyond immediate conflict zones. Disruptions to aviation routes, maritime shipping, and regional transit corridors are slowing aid deliveries and increasing operational costs for humanitarian agencies already facing significant funding constraints. These disruptions are delaying the movement of relief supplies across multiple humanitarian responses in the region.⁴⁷

Lebanon has experienced particularly large-scale displacement. On 6 March 2026, the United Nations High Commissioner for Refugees (UNHCR) declared the situation a major humanitarian emergency, with nearly 900,000 people internally displaced following evacuation orders affecting approximately 14 percent of the country's total land area.⁴⁸ Many displaced families are currently sheltering in collective sites, often repurposed public buildings such as schools, while others are staying with relatives or host communities.⁴⁹ However, the true scale of displacement is likely higher, with estimates suggesting that more than one million people may have been displaced since the start of the escalation.

Conditions in shelters and displacement sites are placing additional strain on humanitarian systems.⁵⁰ Fuel shortages and movement restrictions are disrupting water supply, sanitation services, health care provision, and waste collection. Overcrowding, limited lighting, and inadequate sanitation infrastructure are also increasing public health risks and protection concerns, particularly for women and children.⁵¹

43 UNRWA Situation Report #211

44 [Save the Children Press Release](#)

45 DevelopmentAid/UNICEF Article

46 <https://www.ochaopt.org/content/humanitarian-situation-report-6-march-2026>

47 [UN warns global aid at risk as Middle East war spreads | Reuters](#).

48 UNHCR. [Document - Middle East Situation - as of 10 March 2026](#) 10 March 2026.

49 See: <https://www.unhcr.org/news/briefing-notes/unhcr-almost-700-000-displaced-week-across-lebanon-crisis-deepens>

50 <https://media.un.org/unifeed/en/asset/d354/d3543421#:~:text=Up%20to%20700%2C000%20people%20have,the%20potential%20for%20disease%20outbreaks>.

51 <https://www.unocha.org/publications/report/lebanon/lebanon-flash-update-2-escalation-hostilities-lebanon-6-march-2026#:~:text=According%20to%20UNICEF%2C%20at%20least,beyond%20officially%20recorded%20shelter%20populations>.

3.7 Displacement Dynamics Among Syrian Refugees in Lebanon

The military escalation in Lebanon in March 2026 has had immediate implications for Syrian refugees in the country, accelerating both internal displacement within Lebanon and cross-border return movements into Syria. While return movements from Lebanon had already begun to increase following political and economic changes in Syria in late 2024, the escalation of hostilities in Lebanon triggered a sharper and more rapid outflow, driven primarily by insecurity and deteriorating living conditions.

Between December 2024 and late February 2026, an estimated 511,000 Syrians returned from Lebanon to Syria.⁵² Following the onset of hostilities in Lebanon in early March 2026, return movements accelerated significantly, with more than 65,000 Syrians reported to have crossed back into Syria within roughly one week, bringing the cumulative number of returns from Lebanon to over 570,000.⁵³ These movements occurred alongside broader displacement dynamics in the region, including the movement of approximately 7,800 Lebanese nationals into Syria. These flows create complex patterns of recursive displacement, placing additional pressure on already fragile host communities and humanitarian systems in both countries.⁵⁴

The March wave of returns differs from earlier movements in both speed and underlying drivers. Whereas earlier returns were partly associated with perceptions of improved conditions in Syria and family reunification, recent movements appear more closely linked to coercive push factors in Lebanon, including bombardment, evacuation orders, economic disruption, and growing insecurity in areas hosting large refugee populations. Border crossings have experienced sharp increases in daily movements, with several thousand individuals crossing each day during the initial phase of the escalation.⁵⁵

The composition of returning populations also suggests rising vulnerability. Monitoring reports indicate that a significant share of returnees in the March 2026 wave belong to highly vulnerable groups, including women-headed households, unaccompanied or separated children, elderly persons without support, and households with persons with disabilities.⁵⁶ A notable feature of the current return wave is the emergence of “fragmented families,” whereby women and children return to Syria while working-age male breadwinners remain in Lebanon to maintain income sources and send remittances.

52 UNHCR, 2026, Syria Regional Refugee Response Portal – Returns from Lebanon to Syria. <https://data.unhcr.org/en/situations/syria>

53 International Organization for Migration (IOM) (2026). Displacement and Return Monitoring in Syria and Lebanon. <https://dtm.iom.int>

54 UNHCR, 2026, Syria Regional Refugee Response Portal – Returns from Lebanon to Syria. <https://data.unhcr.org/en/situations/syria>

55 Syrian General Authority for Land and Sea Ports; IOM, 2026.

56 UNHCR Protection Monitoring Reports, 2024–2026.



4 Quantification of Economic and Social Implications

The disruptions and social pressures described above operate through several macroeconomic transmission channels that affect economic activity across the region. To quantify the potential magnitude of these impacts, the report uses a global computable general equilibrium (CGE) model. Within this framework, the conflict is represented through a set of shocks that approximate the main channels identified in the qualitative analysis, namely disruptions to trade flows, reductions in productivity due to operational and security constraints, and destruction or impairment of productive capital in directly affected economies.

First, the trade channel. We introduce an increase in trade costs⁵⁷ affecting the set of countries directly exposed to the conflict. This is captured through higher trade margins, defined as the transport, insurance, and distribution costs required to move goods from exporters to importers, thereby raising the wedge between producer and consumer prices. The shock is calibrated to reflect a four-week disruption (28 days) and is annualized proportionally (DUR/365), thereby reflecting disruptions in transport, insurance, border procedures, and regional trade flows.

Second, the productivity channel. Total Factor Productivity (TFP) is temporarily reduced in the affected countries during the first simulation period. The decline is moderate across most sectors but significantly larger in hydrocarbon sectors. In the extreme scenario, this is modelled

as a near-complete temporary disruption of hydrocarbon production and export activity during the conflict period, reflecting the potential closure of key maritime routes (notably the Strait of Hormuz), operational constraints, and heightened security risks affecting extraction and transport. The magnitude of the shock is scaled to the 28-day duration of the conflict and therefore captures short-term disruption rather than permanent capacity loss.

Third, the capital destruction channel. We incorporate a direct reduction in the capital stock in the most severely affected countries, specifically, a 5% decline in Lebanon. This represents physical damage to infrastructure and productive assets, lower capacity utilization, and delayed or cancelled investment decisions resulting from heightened uncertainty.

To illustrate the relative magnitude and transmission strength of each channel, we conducted a set of five simulation scenarios representing different levels of conflict intensity. In these simulations, trade costs were progressively increased from 10 to 100 times their baseline values during the conflict period. In addition, we considered an extended scenario in which the energy sector is completely shut down in the countries affected by the conflict over the duration of the war. All results are reported as percentage deviations from a no-war baseline scenario for 2026.

⁵⁷ In The GTAP data base, Trade margins are estimated from input-output tables and trade statistics. They reflect the observed difference between the price received by producers (basic price) and the price paid by consumers (purchaser price), capturing the cost of getting goods to market. These costs are then distributed across different service sectors, such as transportation and trade services.

Table 1 Scenario definition

Name	Scenario	Meaning
Trade cost x10	Moderate disruption scenario	manageable but widespread frictions
Trade cost x20	Elevated disruption scenario	sustained disruptions, higher costs
Trade cost x50	Severe disruption scenario	major bottlenecks, strong spillovers
Trade cost x100	Extreme disruption scenario	near breakdown of trade routes
Trade cost x100 + TFP	Extreme disruption + energy shock scenario	Stop of hydrocarbon production during the war

4.1 Macroeconomic Impacts

Simulations suggest that the military escalation could generate substantial but uneven macroeconomic impacts across the Arab States region, with the direction and magnitude of effects varying across subregions depending on trade exposure, energy dependence, and economic structure. The results show how outcomes could change under different scenarios and should be interpreted as illustrative estimates rather than precise forecasts.

Simulations indicate that compared to the No-War scenario the Gulf Cooperation Council countries would experience the most pronounced macroeconomic impacts. GDP is projected to decline between 5.2 percent under the moderate disruption scenario (trade-cost-x10) scenario and 8.5 percent under the most severe scenario (trade-cost-x100 + TFP), in which hydrocarbon production sites face temporary closure. Investment contracts even more sharply, falling from 6.9 percent to 17.3 percent, underscoring the region's high sensitivity to geopolitical uncertainty, trade disruptions, and reduced export revenues. Trade losses are similarly substantial: exports decrease by 4.6 percent to 12.5 percent, while imports fall by 5.6 percent to 12.0 percent across scenarios.

The Levant region, which is directly involved in the conflict (notably Iraq and Lebanon) or has strong economic links with GCC countries such as Jordan, could experience significant macroeconomic losses across all scenarios.

Compared to the No-War scenario GDP is projected to decline between 5.2 percent and 8.7 percent, while investment falls sharply from 6.0 percent to 17.1 percent, indicating that the shock is transmitted not only through trade and price channels but also through heightened uncertainty and weaker domestic demand. Trade impacts are similarly severe: exports contract by 4.8 percent to 9.0

percent, and imports decline by 4.1 percent to 11.3 percent. These subregional outcomes are driven primarily by Iraq and Lebanon, with additional contributions from Jordan.

By contrast, North Africa could benefit from higher oil and fertilizer prices, resulting in limited but positive overall effects. GDP increases slightly—up to 0.4 percent in the most severe scenario—while investment records modest gains ranging from 0.3 percent to 2.3 percent. Trade impacts remain subdued: exports stay broadly stable at 0.4 percent, and imports range from 0.0 percent to 0.6 percent. These relatively muted aggregate outcomes reflect offsetting dynamics within the subregion, with Egypt experiencing losses as an import-dependent economy, while Algeria and Libya partially offset these through gains driven by higher energy prices.

In Least developed Arab countries, the escalation would further exacerbate already extremely difficult conditions. Compared to the No-War scenario, GDP is projected to decline by 0.1 percent to 0.5 percent, investment by 0.2 percent to 0.7 percent, exports by 1.3 percent to 2.8 percent, and imports by 0.9 percent to 1.4 percent across scenarios. While the numerical magnitudes appear modest, the consequences would be severe given the countries' already fragile macroeconomic environments, high vulnerability, and limited capacity to absorb additional shocks.

At the level of the Arab States region as a whole, the simulations point to broad-based deterioration across all macroeconomic indicators. Compared to the No-War scenario, GDP declines from 3.7 percent to 6.0 percent across scenarios, equivalent to a contraction of roughly \$120 billion to \$194 billion (in constant 2015 USD)— investment decline from 4.7 percent to 11.4 percent, exports decline from 3.9 percent to 9.9 percent, and imports decline from 4.0 percent to 8.9 percent.

Table 2: Macroeconomic Impacts (%)
Relative variation vis-à-vis a no-war scenario

Subregion	GDP (VOL)					Total Investment				
	Trade Cost x10	Trade Cost x20	Trade cost x50	Trade cost x100	Trade cost x100 +TFP chock for Hydro	Trade Cost x10	Trade Cost x20	Trade cost x50	Trade cost x100	Trade cost x100 +TFP chock for Hydro
GCC	-5.2	-5.5	-6.2	-7.3	-8.5	-6.9	-8.1	-11.6	-16.4	-17.3
Levant	-5.2	-5.5	-6.2	-7.4	-8.7	-6.0	-7.1	-10.6	-16.1	-17.1
North Africa	0.0	0.0	0.0	0.3	0.4	0.3	0.4	0.6	2.1	2.3
Arab LDCs	-0.1	-0.2	-0.3	-0.5	-0.5	-0.2	-0.3	-0.5	-0.7	-0.7
Arab States	-3.7	-3.9	-4.4	-5.2	-6.0	-4.7	-5.5	-7.8	-10.9	-11.4

Source: UNDP simulations using the MIRAGE Global CGE Model.
Arab LDCs include Sudan and Yemen only. Insufficient data available for simulating impact on Djibouti and Somalia

Table 3: Trade Impacts (%)
Relative variation vis-à-vis a no-war scenario

Subregion	Total Exports					Total Imports				
	Trade Cost x10	Trade Cost x20	Trade cost x50	Trade cost x100	Trade cost x100 +TFP chock for Hydro	Trade Cost x10	Trade Cost x20	Trade cost x50	Trade cost x100	Trade cost x100 +TFP chock for Hydro
GCC	-4.6	-4.6	-5.1	-10.5	-12.5	-5.6	-7.0	-8.1	-11.2	-12.0
Levant	-4.8	-5.0	-5.0	-6.5	-9.0	-4.1	-5.0	-6.9	-10.8	-11.3
North Africa	-0.4	-0.5	-0.5	-0.4	-0.4	0.0	0.1	0.0	0.4	0.6
Arab LDC	-1.3	-1.5	-2.0	-2.7	-2.8	-0.9	-1.0	-1.0	-1.2	-1.4
Arab States	-3.9	-3.9	-4.2	-8.2	-9.9	-4.0	-5.0	-6.0	-8.4	-8.9

Source: UNDP simulations using the MIRAGE Global CGE Model.
Arab LDCs include Sudan and Yemen only. Insufficient data available for simulating impact on Djibouti and Somalia

4.2 Unemployment Impacts

The simulated labour market impacts indicate that unemployment increases across all subregions, with significant differences between skilled and unskilled workers. Combining percentage-point changes with headcount estimates highlights both the intensity of labour market shocks and their unequal distribution across worker groups.

The most pronounced impacts are observed in the Gulf (GCC). Among unskilled workers, unemployment rises sharply across scenarios, reaching approximately 4 to 10 percentage points, reflecting strong transmission from trade disruptions and reduced labour demand in highly integrated economies. These increases translate into over 1.3 to more than 2 million additional unskilled unemployed individuals.

By contrast, skilled unemployment in the Gulf increases more moderately, typically in the range of 2.5 to 7.5 per-

centage points, corresponding to approximately 350,000 to over 1 million additional skilled unemployed individuals. The gap between skilled and unskilled impacts reflects the higher vulnerability of lower-skilled workers to economic shocks and their concentration in sectors more exposed to trade and demand fluctuations. These outcomes are primarily driven by Saudi Arabia, the United Arab Emirates, and Kuwait, where large labour markets amplify even moderate percentage-point changes into substantial absolute impacts.

In the Levant, both skilled and unskilled unemployment increase more moderately. Unskilled unemployment rises by approximately 2.5 to 3 percentage points, while skilled unemployment increases by around 2 to 2.5 percentage points. In headcount terms, this translates into over 150,000 to 250,000 additional unemployed individuals, with unskilled workers accounting for the larger share. These results are driven mainly by Iraq and Jordan, with additional contributions from Lebanon.

In North Africa, changes in unemployment remain limited for both groups. Unskilled unemployment increases by less than 0.2 percentage points on average, while skilled unemployment shows similarly small variations. However, due to population size, these changes still translate into tens of thousands to over 100,000 additional unemployed individuals, driven largely by Egypt, while other countries show muted or offsetting effects.

Least developed Arab countries unskilled unemployment increases by up to approximately 0.8 to 1 percentage point, while skilled unemployment rises more modestly, generally below 0.6 percentage points. In headcount terms, this corresponds to tens to over 150,000 additional

unemployed individuals, reflecting the limited capacity of already fragile labour markets to absorb shocks. These results are driven by Yemen's large vulnerable population and Sudan's constrained economic structure.

At the level of the Arab States region overall, unemployment increases for both groups across all scenarios, but with a clear divergence between them. Unskilled unemployment rises by approximately 3 to 4.5 percentage points, corresponding to over 1.7 to 2.4 million additional unemployed individuals, while skilled unemployment increases by around 2.5 to 3.5 percentage points, corresponding to approximately 750,000 to 1.1 million additional unemployed individuals.

Table 4: Labour Market Impacts (pp)
Absolute variation vis-à-vis a no-war scenario

Subregion	Skilled Unemployment ⁵⁸ Absolute variation vis-à-vis the no-war scenario					Unskilled Unemployment Absolute variation vis-à-vis the no-war scenario ⁵⁹				
	Trade Cost x10	Trade Cost x20	Trade cost x50	Trade cost x100	Trade cost x100 +TFP chock for Hydro	Trade Cost x10	Trade Cost x20	Trade cost x50	Trade cost x100	Trade cost x100 +TFP chock for Hydro
GCC	2.52	3.11	4.74	7.14	7.51	4.25	4.96	6.99	9.84	10.67
Levant	2.02	2.03	2.21	2.31	2.47	2.45	2.55	2.58	2.51	2.85
North Africa	0.07	0.15	0.15	0.15	0.23	0.13	0.12	0.18	-0.03	0.04
Arab LDCs	0.15	0.24	0.38	0.54	0.59	0.29	0.34	0.6	0.86	0.97
Arab States	1.34	1.63	2.32	3.24	3.49	2.08	2.4	3.11	3.94	4.32

Source: UNDP simulations using the MIRAGE Global CGE Model.
Arab LDCs include Sudan and Yemen only. Insufficient data available for simulating impact on Djibouti and Somalia

Table 5: Labour Market Impacts (Headcount)
Absolute variation vis-à-vis a no-war scenario

Subregion	Skilled Unemployment Absolute variation vis-à-vis the no-war scenario					Unskilled Unemployment Absolute variation vis-à-vis the no-war scenario				
	Trade Cost x10	Trade Cost x20	Trade cost x50	Trade cost x100	Trade cost x100 +TFP chock for Hydro	Trade Cost x10	Trade Cost x20	Trade cost x50	Trade cost x100	Trade cost x100 +TFP chock for Hydro
GCC	355,616	442,377	680,879	1,023,620	1,073,322	818,101	954,156	1,337,342	1,882,935	2,042,886
Levant	54,563	55,107	58,025	57,728	62,874	263,007	267,245	247,508	179,063	245,123
North Africa	4,723	10,795	10,795	9,587	15,832	59,096	58,001	84,756	7,044	43,431
Arab LDCs	1,937	3,477	5,413	7,350	7,749	50,534	58,119	101,069	144,020	151,605
Arab States	416,839	511,756	755,112	1,098,285	1,159,777	1,190,738	1,337,521	1,770,675	2,213,062	2,483,045

Source: UNDP simulations using the MIRAGE Global CGE Model.
Arab LDCs include Sudan and Yemen only. Insufficient data available for simulating impact on Djibouti and Somalia

58 Skilled labor encompasses categories such as technical, administrative, and professional occupations, as well as office, managerial, and professional roles, all of which typically require higher levels of education, specialized training, and advanced competencies.

59 Unskilled labor includes clerical workers, service and sales workers, as well as agricultural and other low-skilled occupations, which typically involve routine tasks and require limited formal education or specialized training.

4.3 Fiscal Impact

Fiscal dynamics across the Arab States region reflect the underlying macroeconomic structure of each subregion, with revenue impacts varying significantly depending on hydrocarbon dependence, trade exposure, and the extent to which economies benefit from higher global energy prices.

The most pronounced fiscal deterioration is observed in the Gulf (GCC). Government revenues decline sharply across all scenarios, with losses deepening from approximately 4 percent under the lower shock scenario to nearly 10 percent under the most severe scenario, reflecting the combined effects of disrupted export flows, reduced trade volumes, and heightened uncertainty. The additional productivity shock in the hydrocarbon sector further amplifies these losses, pushing fiscal contractions to their highest levels.

In the Levant, fiscal revenues also decline consistently across scenarios, though more moderately, with reductions ranging from around 2 to 5 percent. These outcomes reflect weaker economic activity, declining imports (and thus trade-related revenues), and already constrained fiscal space.

By contrast, North Africa records modest fiscal gains, particularly under higher-intensity scenarios, with revenues increasing by up to 1 to 2 percent in aggregate. This reflects the positive terms-of-trade effects experienced by hydrocarbon-exporting economies such as Algeria and Libya, which more than offset losses in energy-importing countries.

In Least developed Arab countries, fiscal revenues decline steadily across scenarios, though at smaller magnitudes—generally in the range of 0.5 to 1.5 percent. While modest in percentage terms, these losses are significant in contexts where fiscal capacity is already limited, and governments face severe constraints in maintaining basic service provision.

At the level of the Arab States region overall, the simulations point to a net fiscal deterioration, with revenues declining by approximately 3 to 5 percent across scenarios, underscoring the broader fiscal stress induced by even a short but intense regional shock.

**Table 6: Impacts on Government Revenue (%)
Relative Variation vis-à-vis a no War Scenario**

Subregion	Trade costx10	Trade costx20	Trade costx50	Trade costx100	Trade costx100 +TFP shock for Hydro
GCC	-6.1	-7.6	-11.8	-16.8	-17.2
Levant	-4.4	-4.8	-6.2	-8.3	-8.8
North Africa	0.4	0.5	0.7	2.3	2.7
Arab LDCs	-2.6	-3.2	-4.9	-6.3	-6.3
Arab States	-0.2	-0.4	-0.8	-1.2	-1.3

Source: UNDP simulations using the MIRAGE Global CGE Model.
Arab LDCs include Sudan and Yemen only. Insufficient data available for simulating impact on Djibouti and Somalia

4.4 Human Development Impacts

These macroeconomic changes estimated by the CGE model ultimately translate into impacts on human development outcomes, particularly through changes in income, employment, and access to essential services. The procedure for how the simulated GDP shocks in the CGE modelling were used to calculate the impact on the Human Development Index are described in the Technical Appendix. The approach used captures the primary short-term transmission channel through which the conflict affects human development across most countries in the region, namely, the macroeconomic shock to income

levels resulting from disruptions to trade, energy markets, transport routes, tourism, and investment. These economic shocks translate relatively quickly into changes in national income per capita, which is reflected in the HDI income dimension.

For Lebanon, which is directly exposed to large-scale destruction, evacuation orders affecting approximately 14 percent of the country's total land area, and a death toll that has exceeded 700 within ten days, additional adjustments were incorporated beyond the income channel. In this context, the conflict is also expected to affect education and health outcomes through school closures,

displacement, conflict-related mortality, hospital closures, and increased pressure on healthcare systems. Supplementary shocks were therefore applied to expected years of schooling and life expectancy to capture these direct impacts on the education and health dimensions of human development.

It should be noted, however, that many of the social pressures described earlier in the report, including disruptions to education systems, humanitarian displacement, psychosocial stress among children and youth, rising food insecurity, and interruptions to health services, may not be immediately captured in HDI indicators. Several of these transmission channels affect human development more gradually, as they influence long-term learning outcomes, nutritional status, labour productivity, and health conditions that only become visible in HDI metrics over time. As a result, the estimated HDI impacts presented here should be interpreted as capturing short-term measurable effects primarily through income shocks, while the full human development consequences of the conflict will unfold over a longer horizon.

The estimated human development impacts suggest that the conflict could generate declines across most subregions of the Arab States region, although the magnitude varies according to economic structure, exposure to regional disruptions, and the resilience of domestic systems. While the changes in HDI remain relatively small in percentage terms, they correspond to meaningful setbacks when interpreted against historical development trajectories. In practical terms, these “years of setback” indicate how far countries could be pushed back in their development path—equivalent to losing the progress typically achieved over one or more years in areas such as income, education, and health outcomes.

The most pronounced declines are observed in the Levant. HDI reductions reach approximately 0.4 to 0.7 percent across scenarios, corresponding to delays of roughly one year of human development progress, and slightly more in higher-intensity scenarios. These impacts reflect the combined effects of income losses, labour market deterioration, and pre-existing structural vulnerabilities.

The Gulf (GCC) experiences moderate but consistent declines in HDI across scenarios. Reductions range from approximately 0.25 to 0.48 percent in most countries under the most severe scenario, translating into delays of roughly one to two years of human development progress.

In North Africa, HDI impacts are minimal and in some cases slightly positive. Changes remain close to zero across most scenarios, with small increases of up to approximately +0.1 percent observed in hydrocarbon-exporting economies such as Algeria and Libya, reflecting temporary gains linked to energy market dynamics.

Least developed Arab countries, HDI declines are very small in percentage terms—generally below 0.1 percent—but remain significant given already low levels of human development and limited resilience. In these contexts, even marginal declines can translate into meaningful welfare losses and further slow recovery trajectories.

At the level of the Arab States region overall, HDI declines remain moderate but persistent, reaching approximately 0.2 to 0.4 percent across scenarios, corresponding to a measurable slowdown in regional human development progress.

Table 7: Simulated impact of conflict scenarios on HDI (percentage change and years lost)

Subregion	Trade Cost x10		Trade Cost x20		Trade cost x50		Trade cost x100		Trade cost x100 +TFP check for Hydro	
	HDI % Δ	Years lost	HDI % Δ	Years lost	HDI % Δ	Years lost	HDI % Δ	Years lost	HDI % Δ	Years lost
GCC	-0.3	-1.2	-0.3	-1.3	-0.3	-1.5	-0.4	-1.7	-0.5	-2.0
Levant	-0.4	-0.9	-0.4	-0.9	-0.5	-1.0	-0.6	-1.2	-0.7	-1.5
North Africa	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Arab LDC	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1
Arab States	-0.2	-0.5	-0.3	-0.6	-0.3	-0.6	-0.3	-0.8	-0.4	-0.9

Source: UNDP estimations.

Arab LDCs include Sudan and Yemen only. Insufficient data available for simulating impact on Djibouti and Somalia

4.5 Poverty Impacts

Poverty impacts were estimated⁶⁰ using a growth–poverty elasticity approach, whereby simulated GDP shocks were translated into proportional changes in poverty headcount rates. Baseline poverty rates were based on national poverty lines for each country, reflecting nationally defined poverty thresholds and policy-relevant measures of deprivation. The estimated poverty change was then applied to these baseline poverty rates and projected population levels to calculate both the change in poverty rates and the number of people pushed into poverty under each scenario. Changes in poverty are expressed as relative percentage changes in the poverty rate, along with the corresponding number of additional people falling into poverty.

The poverty estimates should be interpreted as first-round approximations, reflecting the immediate impact of simulated income changes under a distribution-neutral assumption (i.e., no change in inequality). Overall, the simulations suggest that even a short but intense shock could generate meaningful increases in poverty across the Arab States region, with impacts highly uneven across subregions.

The largest increases are concentrated in the Levant, where poverty rises significantly across all scenarios, increasing by roughly 8 to 12 percent relative to baseline levels. At the subregional level, these translate into

between approximately 2.8 and 3.3 million additional people pushed into poverty. This reflects a combination of high baseline vulnerability and large population exposure. In particular, Syria accounts for a substantial share of the increase in absolute terms, reflecting already elevated poverty levels and limited resilience, while Iraq, Lebanon, and Jordan contribute through strong transmission from income and employment shocks.

In Least developed Arab countries, poverty increases are more moderate in percentage terms but remain significant in context, rising from about 0.3 percent to just over 1 percent across scenarios. These translate into roughly 130,000 to 560,000 additional people falling into poverty. The results are driven by Yemen’s large vulnerable population and Sudan’s constrained economic conditions, where even relatively small shocks generate sizeable welfare impacts.

In North Africa, poverty impacts remain modest and heterogeneous at the subregional level, with increases generally around 0.1 to 0.25 percent. However, due to population size, these still translate into approximately 60,000 to 120,000 additional people pushed into poverty, with slightly lower impacts under more extreme scenarios. These outcomes are primarily driven by Egypt, where price and income effects are strongest, while Morocco and Tunisia show limited changes and Algeria and Libya partially offset subregional increases through gains linked to higher energy prices.

60 Poverty is not reported for some Gulf countries (Bahrain, the United Arab Emirates, Oman, and Kuwait) due to very low baseline poverty levels, which limit the interpretability of elasticity-based estimates.

Table 8: Estimated poverty impacts (percentage change and headcount)

Subregion	Trade cost x10		Trade cost x20		Trade cost x50		Trade cost x100		Trade cost x100 + TFP shock	
	Δ (%)	Headcount	Δ (%)	Headcount	Δ (%)	Headcount	Δ (%)	Headcount	Δ (%)	Headcount
Levant	7.85%	2,849,256	8.24%	2,881,402	9.21%	2,919,960	10.71%	2,815,994	12.18%	3,294,574
North Africa	0.12%	59,327	0.12%	59,327	0.25%	121,614	0.24%	115,237	0.22%	103,412
Arab LDCs	0.30%	136,718	0.45%	232,234	0.60%	327,754	0.90%	464,474	1.05%	559,990
Arab States		3,045,301		3,172,963		3,369,328		3,395,705		3,957,976

Source: UNDP estimation
Arab LDCs include Sudan and Yemen only. Insufficient data available for simulating impact on Djibouti and Somalia



5 Conclusion

The unfolding crisis resulting from current military escalations in the Middle East has underscored that the Arab States region, particularly oil-producing economies, has historically exhibited one of the most volatile growth performances globally. This volatility is largely driven by a lack of economic diversification and a continued concentration on hydrocarbons, which exposes countries to fluctuations in global energy markets and disruptions in production and trade routes.

As a result, even temporary disturbances can produce disproportionate effects on growth, employment, poverty, and ultimately human development outcomes (HDI). The most striking finding is the scale of the poverty effect—nearly 4 million additional people could fall into poverty. Simulations also indicate a regional GDP loss of 3.7 to 6 percent, reflecting disruptions transmitted through trade, energy, and financial channels. The analysis demonstrates that structural vulnerabilities significantly amplify the transmission of shocks, increasing both their intensity and their persistence.

A prolonged escalation could trigger structural disruptions, particularly in non-GCC countries, including the de-

parture of foreign workers, declines in remittance inflows, and a reduction in capital flows, including official development assistance from GCC countries. These dynamics would deepen macroeconomic imbalances and further strain already fragile social systems.

The current crisis highlights an urgent need for a comprehensive reassessment of development models adopted across the Arab States region. In its aftermath, countries will need to design and implement well-calibrated stimulus and recovery packages, anchored in coherent short-, medium-, and long-term policy frameworks:

- In the short term, priorities should focus on protecting most vulnerable populations through targeted social support and ensuring the rapid recovery of education systems to mitigate the long-term human capital losses associated with school closures.
- In the medium to long term, there is a pressing need to accelerate economic diversification strategies, not only by expanding the production base but also by diversifying supply chains and trade

routes to reduce overdependence on specific corridors and partners. While several countries have already initiated this transition, stronger policy coherence and implementation capacity are essential. Energy transition and efficiency should be positioned at the core of this agenda, as critical drivers of resilience and macroeconomic stability.

The crisis also reinforces a critical lesson: regional vulnerabilities are deeply interconnected. Despite relatively low levels of formal trade integration, the region is highly exposed to spillover effects, particularly negative ones, transmitted through financial flows, labor markets, and supply chains. This underscores the importance of enhanced regional coordination, beginning with aligned planning cycles and extending to macroeconomic and fiscal policy frameworks. Strengthening collaboration with subregional institutions, such as the GCC Secretariat, will be key to improving collective resilience.

UNDP's Immediate Response

To support its member countries, UNDP has rapidly mobilized its operational, analytical, and programmatic capabilities:

- At the regional level, UNDP activated crisis coordination mechanisms and strengthened collaboration with UN partners. UNDP also launched a real-time assessment of socioeconomic impacts, examining disruptions to energy markets, trade routes, and global supply chains and quantifying implications for growth, employment, poverty, and human development.
- In the most affected countries, particularly Lebanon, UNDP has expanded its response through an integrated crisis and stabilization package. This includes reinforcing crisis coordination systems, supporting disaster risk management institutions, and enhancing real-time data capacities. Immediate interventions aim to maintain essential services and stabilize livelihoods through municipal support, renewable energy solutions, emergency employment, and targeted assistance to small businesses and agricultural actors. UNDP is also mitigating social tensions through early warning systems, community dialogue, mediation, and support to counter misinformation.
- In GCC countries, where the escalation represents an unprecedented shock, UNDP is pro-

viding technical support to strengthen disaster risk management and recovery frameworks, conduct socioeconomic and environmental impact assessments, and advise on policies to enhance resilience and support economic diversification.

- Across Iraq, Jordan, the occupied Palestinian territory, Syria, and Yemen, UNDP is closely monitoring developments and stands ready to scale up support, recognizing that the escalation compounds ongoing protracted crises.
- In countries such as Egypt, where macroeconomic vulnerabilities are significant, UNDP is prepared to provide rapid technical assistance for sector specific assessments and the design of short-term mitigation measures and long-term policy responses.

Medium- and Long-term Support

UNDP is also scaling up strategic initiatives to strengthen crisis management, planning, and resilience across the region:

- Strengthening national and regional planning and policy analysis capacities, including support for the GCC Secretariat through advanced planning tools and capacities. This will help policymakers assess economywide impacts of shocks and reforms, integrating macroeconomic, social, and environmental dimensions into decision making.
- Supporting the establishment of a Policy Center in Saudi Arabia, designed as a think tank, policy advisory platform, and regional convening space. The Center will address structural challenges, particularly dependence on narrow revenue sources, by advancing diversification strategies, policy innovation, and South-South cooperation. It will also enhance institutional capacities, improve policy coherence, and facilitate knowledge exchange.
- Advancing a Regional Project for Crisis Prevention and Recovery, aimed at improving countries' ability to anticipate, absorb, and respond to shocks. This includes strengthening early warning systems, advancing risk informed planning, and embedding resilience in national development strategies.

Finally, this crisis could represent an important turning point in the development trajectory of Arab countries, requiring a fundamental rethinking of strategic choices across fiscal, sectoral, and social policies.

The analysis highlights that Arab economies are deeply interconnected, both economically and socially, and that development models designed in isolation, without accounting for regional dynamics—are increasingly vulnerable in the face of instability. It also underscores the need to transition from energy-intensive development models toward less oil-dependent and more sustainable economic structures, reducing reliance on cheap hydrocarbons as a driver of growth.

These findings underline the pressing need to strengthen regional collaboration to diversify economies, secure trade and logistics systems, broaden economic partnerships, and expand production bases, thereby reducing exposure to shocks and conflicts.

Across the region, and without delay, countries must embark recalibrating their development models to foster more robust and forward-looking resilience measures at the national level, while contributing to a renewed framework for regional and international cooperation.

Technical Annex

1. The GTAP 12 Global Database

The Global Trade Analysis Project (GTAP) 12 database is a comprehensive and internally consistent representation of the global economy at a given point in time. It integrates detailed information on production structures, consumption patterns, bilateral trade flows, taxes, tariffs, and international transport margins across a large set of countries and economic sectors. By ensuring that global flows are fully reconciled, for example, every export from one economy is mirrored as an import in another, the database provides a robust foundation for international economic analysis. GTAP 12 is widely used by governments, international organizations, and research institutions to examine the potential impacts of trade agreements, fiscal reforms, climate policies, geopolitical shocks, and other global developments. As a static dataset, GTAP does not generate forecasts; rather, it serves as the baseline structure upon which economic models build simulations of alternative policy scenarios.

2. The MIRAGE Global Computable General Equilibrium (CGE) Model

The MIRAGE model, is a dynamic, multi-country, multi-sector computable general equilibrium (CGE) framework designed to evaluate the medium- to long-term economic impacts of policy interventions and external shocks. While GTAP provides the empirical foundation, MIRAGE operationalizes these data through behavioural equations that describe how households, firms, and governments respond to changes in prices, incomes, and global market conditions. The model captures key features of international integration, including trade flows, investment, labour markets, migration, and technology, allowing policymakers to assess how different regions and population groups may be affected by policy choices. MIRAGE is particularly suited for analysing complex global issues such as climate action, food security, energy transitions, and macroeconomic disruptions.

2.1 Households and Consumption

In MIRAGE, household behaviour is represented through a single “representative household” in each country that allocates income across consumption, savings, and taxes. The household derives income from labour, capital, land, and natural resources, and its consumption decisions reflect both domestic and imported varieties of goods and services. The model incorporates consumers’ preference for domestic goods and differentiates imported products by origin, allowing it to reflect quality differences and realistic substitution patterns. This structure enables MIRAGE to analyse how changes in income, prices, or trade policies affect household welfare, consumption baskets, and the distributional implications of economic shocks.

2.2. Firms and Production

MIRAGE models firms as agents that combine capital, skilled and unskilled labour, land, natural resources, and intermediate inputs to produce goods and services. The production structure allows for varying degrees of substitutability among inputs and recognizes the complementarity between skilled labour and capital, reflecting modern production technologies. While agricultural sectors operate under perfect competition, many industrial and service sectors may include imperfect competition and economies of scale, which are essential for analyzing trade agreements and industrial policies. Firms also choose between domestic and imported inputs, mirroring consumer behaviour. This structure enables the model to evaluate productivity impacts, shifts in sectoral competitiveness, and changes in output and employment across sectors.

2.3. Macroeconomic Framework and Capital

The MIRAGE model incorporates a macroeconomic closure that ensures consistency across key economic aggregates, such as savings, investment, and external balances. Capital is mobile across sectors within each country, allowing production to respond to structural changes in demand and comparative advantage. However, land and natural resources remain fixed, reflecting biophysical constraints. The model maintains a fixed real current account balance, with exchange rates adjusting as necessary to preserve external equilibrium. In the short run, the capital stock is fixed, but over time it

evolves dynamically based on investment decisions. This framework supports the analysis of macroeconomic resilience, structural transformation, and the cumulative effects of policy reforms.

2.4. Dynamic Structure

MIRAGE operates as a recursive dynamic model, solving the economy year by year and linking each period to the next through capital accumulation, labour force evolution, migration, and technological progress. The model first constructs a no-war scenario trajectory, representing how the world economy would evolve in the absence of new shocks or policy changes. Policy simulations are then compared against this baseline to assess their long-term impacts on growth, trade, employment, and structural change. The model's dynamic nature allows it to capture the gradual effects of investment, demographic trends, and technological change, making it well suited for evaluating long-term development strategies.

2.5. Labour Markets and Unemployment

MIRAGE incorporates realistic labour market dynamics by allowing for wage rigidities and unemployment. Minimum wages, differentiated between skilled and unskilled workers, are calibrated to match observed unemployment rates, enabling the model to account for labour market frictions. This structure allows MIRAGE to examine how economic shocks and policy interventions affect employment, wages, and household incomes across different skill groups. It also supports assessments of labour mobility, job creation, and the potential trade-offs between labour market flexibility and social protection objectives.

2.6. Migration and Remittances

Migration is an integral component of MIRAGE, allowing the model to capture the economic and social links between origin and destination countries. Migration flows are updated annually based on demographic trends and policy settings, influencing the size and skill composition of national labour forces. Remittances are modelled as direct income transfers from migrant workers abroad to households in their home countries, affecting consumption, savings, and overall welfare in remittance-dependent economies. This feature is particularly relevant for regions where migration plays a central role in livelihoods and development, including the Middle East, North Africa, South Asia, and Central America.

2.7. Transport Costs and Trade Logistics

International transport margins, as captured in the GTAP database, are directly incorporated into MIRAGE to reflect the costs associated with moving goods across borders. These costs include freight, insurance, port handling, and other logistics-related services. By influencing trade prices and competitiveness, transport costs play a critical role in determining bilateral trade flows. Their inclusion is essential when assessing the impacts of conflicts, disruptions to transport corridors, changes in oil prices, or investments in trade facilitation. MIRAGE's ability to incorporate such logistical dynamics enhances the robustness of policy simulations, especially in contexts where connectivity and market access are key development challenges.

3. The Modelling of the Military Escalation in the Middle East shock

Within this framework, the conflict is modelled through three main transmission channels:

First, the trade channel. We introduce an increase in trade costs affecting the set of countries directly exposed to the conflict. This is captured through higher trade margins. The shock is calibrated to reflect a four-week disruption (28 days) and is annualized proportionally ($DUR/365$), thereby reflecting disruptions in transport, insurance, border procedures, and regional trade flows.

Second, the productivity channel. Total Factor Productivity (TFP) is temporarily reduced in the affected countries during the first simulation period. The decline is moderate across most sectors but significantly larger in the extraction sector, reflecting operational disruptions, reduced efficiency, energy market volatility, and uncertainty. The magnitude of the shock is scaled to the 28-day duration of the conflict, capturing short-term efficiency losses rather than permanent structural damage.

Third, the capital destruction channel. We incorporate a direct reduction in the capital stock in the most severely affected countries, specifically, a 5% decline in Lebanon.. This represents physical damage to infrastructure and productive assets, lower capacity utilization, and delayed or cancelled investment decisions resulting from heightened uncertainty.

To illustrate the relative amplitude and transmission strength of each channel, we conducted a series of five simulation scenarios. In these simulations, trade costs were progressively increased, ranging from 10 times to 100 times their baseline level, during the conflict period.

In addition, we introduced an extended scenario in which the productivity (TFP) shock is more pronounced in the energy (extraction) sector, reflecting heightened vulnerability of this sector to operational disruptions, geopolitical risk, and market volatility.

4. The Estimation of People pushed into Unemployment

To provide a more tangible interpretation of the simulated labour market impacts, changes in unemployment rates were translated into approximate headcounts of individuals affected. This was done by applying the simulated percentage-point changes in unemployment to estimated labour force sizes for each country.

First, total labour force size was approximated using:

$$\mathbf{LF = Total\ population_{2026} \times working\text{-}age\ share \times LFPR}$$

Population projections for 2026 were drawn from the United Nations World Population Prospects, while labour force participation rates were obtained from International Labour Organization modelled estimates.

Second, the labour force was disaggregated into skilled and unskilled components. In the absence of harmonized data on labour force composition by skill across countries, educational attainment was used as a proxy. Specifically, the share of the population with tertiary education was used to approximate the proportion of skilled workers in the labour force, with the remainder classified as unskilled. This approach is commonly used in applied macroeconomic analysis when direct skill-disaggregated labour force data are not available.

Thus:

$$\begin{aligned} \mathbf{Skilled\ labour\ force} &= \mathbf{Labour\ force} \times \alpha \\ \mathbf{Unskilled\ labour\ force} &= \mathbf{Labour\ force} \times (1 - \alpha) \end{aligned}$$

where α represents the share of individuals with tertiary education.

Third, the simulated changes in unemployment rates for skilled and unskilled workers were applied separately:

$$\begin{aligned} \mathbf{\Delta U_s} &= \mathbf{Skilled\ labour\ force} \times \frac{\mathbf{\Delta u_s}}{\mathbf{100}} \\ \mathbf{\Delta U_u} &= \mathbf{Unskilled\ labour\ force} \times \frac{\mathbf{\Delta u_u}}{\mathbf{100}} \end{aligned}$$

Total changes in unemployment were then obtained as the sum of skilled and unskilled components:

$$\mathbf{\Delta U = \Delta U_s + \Delta U_u}$$

It is important to note that these estimates represent approximations and should be interpreted as indicative orders of magnitude rather than precise forecasts. Several limitations apply. First, the use of the total population rather than strictly working-age population may affect the scale of estimated labour force sizes. Second, educational attainment is an imperfect proxy for labour market skill composition, particularly in countries with large shares of migrant workers. Third, the translation assumes full transmission of simulated unemployment rate changes into headcount effects, whereas, in reality, labour market adjustments may occur through wages, migration, or changes in labour force participation.

Despite these limitations, the approach provides a useful approximation of the potential scale of employment impacts and supports a more policy-relevant interpretation of the simulation results.

5. Human Development Estimations

These macroeconomic changes ultimately translate into impacts on human development outcomes, particularly through changes in income, employment, and access to essential services. The impact of the conflict on human development was estimated by translating the simulated GDP shocks into changes in the income component of the Human Development Index (HDI) for each country. The HDI combines three dimensions, health, education, and income, measured respectively by life expectancy at birth, expected and mean years of schooling, and gross national income (GNI) per capita. In this analysis, the simulated GDP changes were used as a proxy for changes in GNI per capita and therefore the HDI income index, allowing the resulting effect on HDI to be calculated.

Because the most recent HDI data available correspond to 2023, the individual HDI components were projected forward to 2026 using average annual growth trends for countries in the past decade. These projected values were used as the baseline trajectory in the absence of conflict. The simulated economic shocks were then applied to this projected baseline in order to estimate the deviation in HDI outcomes under each conflict scenario.

This approach captures the primary short-term transmission channel through which the conflict affects human development across most countries in the region, namely the macroeconomic shock to income levels resulting from disruptions to trade, energy markets, transport routes, tourism, and investment. These economic shocks translate relatively quickly into changes in national income per capita, which is reflected in the HDI income dimension.

For Lebanon, which is directly exposed to large-scale destruction and displacement, additional adjustments were incorporated beyond the income channel. In this case, the conflict is expected to affect education and health outcomes through school closures, displacement, conflict-related mortality, and increased pressure on healthcare systems. Supplementary shocks were therefore applied to expected years of schooling (EYS) and life expectancy in order to capture these direct impacts on the education and health dimensions of human development.

Given the absence of real-time, country-specific estimates of education and mortality impacts during the current escalation, parameters are introduced as stylized assumptions, calibrated to reflect plausible short-term disruptions based on evidence from comparable conflict-affected contexts.

In particular, a –1.5 percent reduction in expected years of schooling was assumed for Lebanon to reflect the likely disruption to schooling caused by displacement, school closures, and household economic hardship. Evidence from conflict-affected settings shows that armed conflict increases the probability of school dropout and delayed progression through the education system, particularly where schooling relies heavily on private provision and household financing. Lebanon’s education system is especially vulnerable to such disruptions, as a large share of students are enrolled in private schools, and the system has already been weakened by the recent economic crisis. In this context, even temporary interruptions to schooling can translate into permanent learning losses or reduced educational attainment, justifying the assumption of a modest but meaningful decline in expected years of schooling.

The life expectancy adjustment was estimated by incorporating both direct conflict-related deaths and additional indirect mortality associated with disruptions to healthcare services. Indirect deaths were assumed to represent 20 percent of direct conflict fatalities, reflecting evidence from conflict settings where excess mortality arises from reduced access to healthcare, medicines, and essential services. The resulting estimate of total excess mortality was then translated into a small reduction in life expectancy relative to the baseline trajectory, which in turn affects the health component of the HDI.

6. Poverty Estimation

To estimate the impact of the simulated GDP shocks on poverty, the analysis applies country-specific poverty–growth elasticities that capture the empirical relationship between changes in economic activity and poverty outcomes. The poverty–growth elasticity measures the percentage change in the poverty rate associated with a one percent change in GDP. For each country, the simulated GDP shock obtained from the CGE scenarios was multiplied by the corresponding elasticity to estimate the proportional change in the poverty rate. Elasticity values were assigned based on empirical evidence in the literature on the growth–poverty relationship and differentiated by income level and structural characteristics of each economy. Lower elasticities were applied to high-income economies, where poverty levels are already very low and social protection systems tend to dampen the transmission of macroeconomic shocks to poverty outcomes. Higher elasticities were applied to lower- and middle-income economies, as well as fragile and conflict-affected contexts, where income shocks typically translate more strongly into changes in poverty due to higher vulnerability, larger informal sectors, and more limited social protection coverage. The elasticity values used therefore reflect the short-run transmission of macroeconomic shocks to poverty outcomes rather than long-term structural relationships.

The estimated proportional change in poverty was then applied to the most recent available poverty rate for each country to derive the updated poverty headcount ratio under each scenario. Baseline poverty rates correspond to national poverty lines for each country, reflecting nationally defined poverty thresholds and policy-relevant measures of deprivation. These poverty estimates were drawn primarily from the World Bank’s Poverty and Inequality Platform (PIP), which compiles poverty estimates based on national household surveys, complemented where necessary with recent country assessments from World Bank and UN reports for countries lacking recent survey data. Finally, the number of people pushed into poverty was calculated by applying the estimated change in the poverty rate to each country’s projected population in 2025. This approach provides an approximate estimate of the immediate poverty impacts associated with the simulated economic shocks while remaining consistent with empirical growth–poverty relationships documented in the development literature.



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