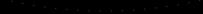
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Prepared for:



A Look Beyond The Horizon

The intelligence needed to inform risk management in 2023.



Foreword

The geopolitical risk analysis you read today is a prescient view over the horizon. We reduce the unpredictability of world affairs with well-articulated, detailed scenarios that inform our clients of the possible threats they face. Forewarned you can anticipate, prepare, and respond to a dramatic and dynamic world.

In 2023, Russia's war against Ukraine and the West will rage on, bludgeoning most global economies with food and energy shortages. As the world still struggles to recover from a lethal pandemic, the impact of full-spectrum warfare in Eastern Europe ripples into every geography. Sub-Saharan Africa's hope for an economic rebound is jeopardized by inflation and disrupted energy supplies. Looming food crises among young, disaffected populations pave the way for more military coups and violent protests.

Sweeping elections driving out incumbents in Latin America will create more problems than they solve. This punishment from the electorate sets up underfunded, inept new governments for more failures. As with other economies around the world, there is little societal or fiscal resilience remaining, creating a recipe for ethnic, religious, or political polarization to facture the Americas.

Persian Gulf nations rich in hydrocarbons will be insulated from the social and economic turmoil that will afflict large swathes of the Middle East and North Africa. The promise of Arab Spring is a distant memory as internecine politics and moribund economies hobble the governments of North Africa and the Levant.

Great Power Competition takes center stage as President Xi Jinping consolidates his singular grip on the People's Republic of China. Comparisons to Mao Zedong may be more foreboding than flattering. China's zero COVID policy and neutering of both public discourse and political rivals leave only Xi's hand on the tiller. His challenge is to navigate a vast disaffected population, Taiwan, and respond to a global economy loosening its dependence on an assertive China.

Intelligence is a craft practiced by experts using the tools of technology. Today the technologies that comprise Artificial Intelligence (AI) are transforming geopolitical risk intelligence both in the government and private sectors. Mastery of AI science requires three critical components: an unrivaled team of subject matter experts, a pioneering data scientist corps, and a singularly unique geopolitical intelligence dataset curated over decades. With these components, we are altering the Open Source (OSINT) landscape, delivering faster, more precise intelligence to the marketplace. Crisis24 is in a distinctive position to master this science for the benefit of our clients.

At the core is the Crisis24 Global Intelligence team. I am extremely proud of their wisdom, diligence, and integrity. Every day our geopolitical teams span the globe and leverage their language skills, unique experience, and broad expertise to inform and protect our clients. There are centuries of geopolitical knowledge in Crisis24's 2023 Global Risk Forecast. With it, you are prepared to operate with confidence in the coming years.

W. Michael Susong Senior Vice President, Global Intelligence

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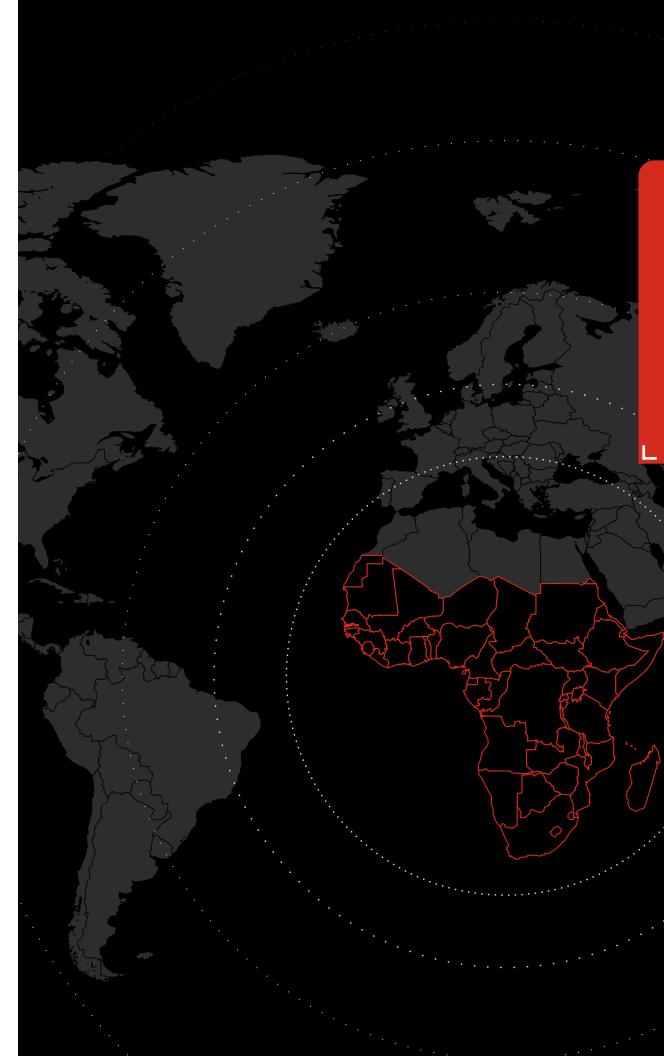
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Regional Outlook Sub-Saharan Africa

Growing Insecurity and Instability Expected across Africa due to Fallout from Russia-Ukraine War

The consequences of the Russia-Ukraine war will likely have prolonged adverse effects on political stability, economic development, and security in Sub-Saharan Africa. Economic pressures due to rising inflation and increased debt will jeopardize the continent's prospects for an economic rebound. The supply chain disruptions and reduced imports of fertilizers from Russia and Ukraine may exacerbate food insecurity and poverty across Africa. Moreover, the increased cost of living will continue to spark civil unrest, posing additional challenges for governments. Economic stresses may also lead to higher crime rates and increased militant activity.

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Key Judgments

- The Russia-Ukraine war will likely jeopardize Africa's prospects for an economic rebound due to rising inflation and disruptions to energy supplies.
- The conflict will trigger severe socioeconomic consequences throughout 2023, including food insecurity and increased poverty.
- The consequences of the war in Ukraine will impact government stability and security across the continent.





After 25 years without a recession, African nations found themselves facing significant social and economic consequences stemming from the COVID-19 pandemic. Tourism was strongly impacted, as were commodity exports; poverty rates rose as higher unemployment and food shortages took hold. Rising energy prices during the post-COVID-19 recovery prompted global supply chain disruptions and shortfalls in fertilizer production, threatening food security across the continent.

Russia's invasion of Ukraine in the immediate wake of the pandemic has significantly exacerbated the myriad of challenges that many African countries are already facing with regard to development, governance, and security. The conflict has disrupted energy supplies, leading to rising oil prices and consequently driving up inflation. Unfortunately, any benefits that oil-producing nations such as Angola, Nigeria, South Sudan, Congo, and Gabon might have seen from higher prices per barrel have been negated by the increased cost of importing refined petroleum products, upon which these countries rely heavily due to their lack of industrialization. The practice of subsidizing gasoline, diesel, and kerosene in some countries in order to provide the public with some degree of relief can become unsustainable as governments lack the funds to keep pace with rising fuel costs without driving the national debt to unmanageable levels. The financial pressures involved in acquiring petroleum at inflationary prices are obviously particularly harmful to net oil importers.

Increased inflation will further affect African countries' economic development as global growth drops and demand for African exports decreases. Higher energy and transport prices will severely impact businesses, which may have to absorb a greater share of those costs in order to keep their goods and services affordable for the general public. Countries such as South Africa, where roadways provide one of the main means of transportation, will experience particular issues with their ground freight operations and supply chains as a result of high fuel prices. The rising energy prices will also severely affect public transport, likely translating into higher fares for commuters. In Sierra Leone, the fuel price hike of up to 35 percent had reportedly raised the cost of local transport by 20 percent as of late 2022. Cost considerations and problems with fuel availability will also continue to have a visible negative effect on civil aviation and long-distance travel. Already, Cape Town International Airport (CPT) in South Africa was forced to cancel some of its flights in early October 2022 after airport authorities failed to source aviation fuel. Previously, in April 2022, a fuel shortage prompted authorities at Dakar's Blaise Diagne International Airport (DSS) in Senegal to advise that all aircraft flying to the country carry sufficient fuel for their return journeys.

Countries across Africa will probably struggle to offer aid or bail-out programs to help families deal with the economic fallout from the COVID-19 pandemic and the Russia-Ukraine war. Even in cases where such packages can be provided, governments are still running the risk of greatly increasing the national debt without realizing any appreciable return in the form of drops in fuel and food prices, or reductions in supply chain issues and inflation. According to the International Monetary Fund, growth in Sub-Saharan Africa slowed to 3.6 percent during fiscal year 2022 and will likely remain subdued at 3.7 percent in 2023, while the continent's debt is at its highest level since the beginning of the century. Although it is currently difficult to quantify the war's effects on poverty rates in Africa, in early 2022, the Economic Community of West African States (ECOWAS) released a report on the socioeconomic impact of the COVID-19 pandemic, suggesting it increased extreme poverty (number of people living on less than USD 1.90 per day) in West Africa by 3 percent. Additional economic contraction brought on by the conflict will almost certainly increase the ranks of the poor through 2023, probably prompting a rise in labor strikes and protests demanding higher wages and more robust social safety nets.

A Looming Food Crisis

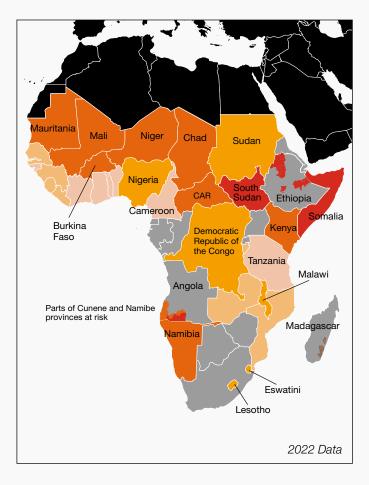
Western sanctions against Russia have also contributed to the disruption of Africa's supply chains, making it extremely difficult to ship goods to and from the continent. Food prices — notably that of bread — have skyrocketed over the past months as a number of African nations import a significant portion, if not most of the wheat they consume from Russia and Ukraine. The continent's high dependency on food imports, rising global food prices, and low agricultural productivity will have severe consequences for the population. Those nations that are heavily reliant on agricultural products, including wheat, corn, and sunflower, from Russia and Ukraine will witness a decrease in food supplies, increasing the risk of hunger.

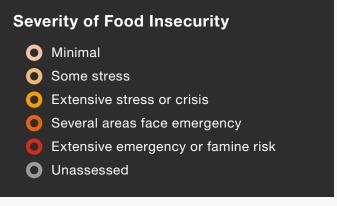
To make matters worse, a number of factors — such as inflated prices and low availability of imported fertilizers, environmental conditions, and insecurity — have significantly reduced agricultural productivity in many parts of the continent, especially the Sahel and the Horn of Africa, with the impact on food security probably not being fully felt until the 2023 harvest. A UN report released in late September 2022 projected that up to 26 million people across Somalia, southern and eastern Ethiopia, and northern and eastern Kenya would likely face a food crisis. The report further stated that 3.5 million Kenyans are facing high levels of acute food insecurity, citing a fourth successive season of below-average rains, localized resource-based conflicts, and the financial fallout from the war in Ukraine, among the causes.

In Nigeria, the COVID-19 pandemic and the conflict in Ukraine have highlighted how vulnerable countries that are highly dependent on imported food staples, such as rice and wheat, can be significant stressors. The country is Africa's largest consumer market and food importer, and imports 99 percent of the wheat it consumes, with 31 percent coming in from Russia and Ukraine. Assuming it is unable to identify alternative sources to compensate for any shortfalls, Nigeria's food security could become more precarious as the Russia-Ukraine war drags on. The government in Abuja will probably be unable to reduce the country's dependency on imports due to fundamental problems such as poor agricultural technologies, extreme weather, and armed conflicts. The attacks by armed criminals and militants who target farmers to get access to food production further complicate Nigeria's food security situation.



Food Insecurity Risk by Nation





Security Environment to Deteriorate

The broader implications of the Russia-Ukraine war could transcend economic and social outcomes to include impacts on government stability, along with rising criminal or militant-related activities. Frustration stemming from the high cost of living, food insecurity, and unemployment have increased anti-government sentiment on the continent, with citizens accusing their leaders of failing to tackle those issues. Increased economic hardship brought on by the conflict could lead to further unrest and potential socio-political upheavals, affecting democratic governance. Over the past two years, military leaders have seized power in Burkina Faso, Guinea, Mali, and Sudan. Other nations, especially those with complex political situations, could witness similar coup scenarios. Even in countries that have a strong democratic foundation and are politically stable, the economic repercussions of the war in Ukraine may disrupt that stability. Some African countries have witnessed violent protest movements to denounce the high cost of

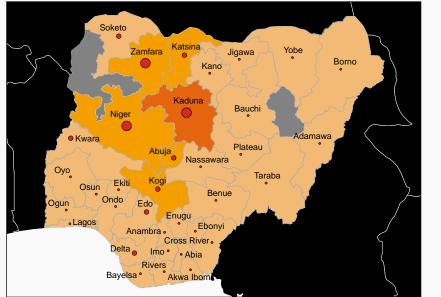
living, with government forces being increasingly violent towards protesters. Ghana's opposition has staged several protests over the high cost of living and record inflation, vowing to topple President Akufo-Addo over his perceived inaction; some of these actions became violent, with police resorting to the use of tear gas and other riotcontrol measures. Demonstrations over the cost of living in Sierra Leone have also devolved into violence, including acts of vandalism and attacks on security personnel. As the economic situation worsens through 2023, antigovernment sentiment will continue to rise.

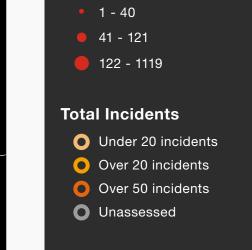
Frustration with governments is also reflected during elections or through support for controversial leaders. Young Africans increasingly seek to have their voice and change the political dynamic. Younger political leaders, such as William Ruto in Kenya, Sam Matekane in Lesotho, Assimi Goïta in Mali, and Ibrahim Traore in Burkina Faso, are gaining greater support. However, such a dynamic will not necessarily lead to major shifts in the political landscape from a practical standpoint as most governments lack the financial resources to implement tangible changes. Increased demand for energy such as oil and gas could also undermine peace and security prospects in Africa, especially in the most fragile regions. The rising costs of oil, combined with increased poverty, could give local armed groups, such as the Niger Delta militants operating in southeast Nigeria, new vigor to carry out attacks on oil infrastructure and kidnap oil sector employees for financial and political purposes. Border disputes for oil and gas deposits could also be reignited as prices and demand increase. Tensions between Senegal and Mauritania over recent gas discoveries in their shared territorial water could also emerge.

The incidence of certain crimes, such as burglaries or kidnapping for ransom, will likely increase as the hardesthit sectors of society seek other ways to survive the difficult economic environment. Moreover, jihadist groups may also seek to profit from the situation by increasing their recruiting efforts and expanding operations in the most vulnerable countries. Governments' seeming inability to fix their countries' deep systemic woes will continue to fuel criminal syndicates and militancy for the foreseeable future and pose significant risks to businesses operating in those areas. As one example, Burkina Faso's new transitional government, which came to power in the most recent military coup in Sept. 2022, is unlikely to have any greater success in improving the nation's security situation than previous administrations.

Militant groups will likely seek to exploit this latest episode of political instability and the increased social discontent over economic hardship to expand their operations and recruit new members. Mired by political and socio-economic instability, the threat of jihadist groups expanding operations in countries in coastal West Africa, such as Cote d'Ivoire, Togo, and Benin, opens a new front in the war against terrorism in Africa. In Nigeria, the fallout of the Russia-Ukraine War will exacerbate some of the main underlying causes of insecurity, i.e. a lack of opportunities and widespread unemployment. Nigeria's next president, who will be elected in February 2023, is unlikely to be any more successful in improving the nation's security. In 2023, Nigeria's kidnapping-for-ransom industry will continue to thrive and expand as disadvantaged people are motivated by its financial opportunities. South Africa is experiencing its own governance breakdown. The country's primary challenges - corruption, poor governance, service delivery disruptions, rampant unemployment, and economic hardship - are highly

Nigeria Kidnapping Hotspots: July 2021 – June 2022





Kidnapped Victims



likely to persist through 2023. Such issues regularly motivate social unrest and criminal activities; for example South Africa has experienced a recent increase in kidnapping cases, including those for ransom, which authorities have attributed to current economic conditions compelling desperate people to seek illegal avenues to raise funds.

Conclusion

Political tensions will likely increase across much of Africa in the coming months due to the resulting increase in cost of living, disruptions to the supply chain of basic goods, and heightened food insecurity. Public discontent over the situation will likely manifest in the form of greater instances of unrest and a general lack of security across the continent in the coming year.

Asia

Rough Waters or Smooth Sailing? China's Future in **Global Supply Chains**

The Regional Comprehensive Economic Partnership (RCEP) and Indo-Pacific Economic Framework (IPEF) will begin to restructure supply chains in Asia-Pacific in the near term. The RCEP positions China to lead in writing trade rules for the region. Meanwhile, the US launched the IPEF to establish high standards in data and environmental protection and supply chain resiliency that all but preclude Chinese participation. IPEF members overlap strongly with the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and US regional allies. Taken together, the IPEF and CPTPP will counterweight Beijing's current economic leadership, especially as indications emerge that China's economy will slow and domestic policies may hamper long-term growth. Together, the IPEF and CPTPP may have a significant impact on how high-tech goods and services are produced throughout Asia-Pacific in the coming years.

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- Security concerns and Chinese economic and political changes are likely to continue driving the US and some other countries in the Asia Pacific to consider alternatives to China's central role in global supply chains.
- US-China economic competition is likely to increase. Regional trade arrangements will begin to reshape supply chains in the region and help both countries expand and protect their influence.
- An overhaul of regional production is unlikely: the most significant impact will likely be in hightech manufacturing and products, where security considerations are most prominent.



US TRADE WITH CHINA USD 500 billion imports USD 151 billion exports

2021 Data



11 Regional Outlook: Asia

National Security Concerns Driving Economic Competition

Sino-US geopolitical competition continues to impact regional security dynamics in the Asia-Pacific region. In October, the US released its National Security Strategy, with President Joe Biden highlighting that China was "the only competitor with both the intent to reshape the international order and, increasingly, the economic, diplomatic, military and technological power to advance that objective." In response, the US launched a security partnership with Japan, Australia, and India; worked with NATO allies to ensure renewed focus on Beijing; bolstered support for Taiwan and South Korea, and jointly with the UK signed a nuclear submarine deal with regional power Australia. The US is also expanding its relations in the Pacific, promising to build new embassies and provide funding for maritime security and climate change preparedness, the main concerns of island nations. The fervor of US activity leaves little doubt that Washington is preparing to defend its position in the region.

Meanwhile, China, under President Xi Jinping, signed a "no limits" partnership with Russia's Vladimir Putin days before Moscow launched a war for Ukrainian territory and has refused to condemn the action. China also continues to provide key support to countries where democracy has been rolled back in recent years, most notably Myanmar and Cambodia. Beijing also continues to expand its reach, signing a security pact with Solomon Islands and increasing pressure on Taiwan following the visit of US Speaker of the House of Representatives Nancy Pelosi to the island in August 2022

The mistrust between Washington and Beijing has had little impact on the countries' economic partnership; the US imported more than USD 500 billion of Chinese goods, while US exports to China increased to USD 151 billion in 2021. However, China is spending billions of US dollars in research and development to reduce its reliance on Western technology by 2035. US leaders have become increasingly concerned about China's manufacturing advancement, especially in high-tech components like semiconductors. Concerns over this progress served as the backdrop for the IPEF, the CHIPS and Science Act, and other efforts by the US to pursue policies to encourage the movement of production to the US or other countries in the Asia-Pacific. Geopolitical concerns will continue to drive efforts at weakening interdependence between the economies, though their ultimate success remains unclear.

Trade Arrangements to Impact Supply Chains

Against the backdrop of strategic competition, trade and economic agreements coming into force will contribute to the adjustment of supply chains in the Asia-Pacific region. The RCEP - negotiated by members of ASEAN, Australia, China, South Korea, Japan, and New Zealand - came into force in January 2022 for 10 of its 15 members. However, participation has grown, with the agreement taking effect for Malaysia, South Korea, and Indonesia in 2022. China remains the dominant economy in the trading block, providing Beijing with a significant role in determining the terms of trade in Asia-Pacific. The agreement immediately lifted tariffs on 65 percent of goods in the region. More importantly, the RCEP set the rules of origin at 40 percent. The requirement will likely enhance connectivity, as 40 percent of inputs must be sourced from RCEP members to receive preferential tariff treatment. The RCEP could boost the use of Chinese and South Korean-made semiconductors and other technical components, as the US and Taiwan, which dominate advanced design and production, respectively, are not party to the agreement. Strategically, the pact ties many nations closer to China, which has a comparative advantage in manufacturing and is the world's largest market for raw materials and agricultural goods.

Chinese Policies Raise Economic Concerns

Domestic political changes and the impact of Beijing's COVID-19 response have raised questions about China's ability to drive growth in the region in the near term. President Xi has remade Chinese politics with himself at the center, receiving a norm-breaking third term at the latest Chinese Party Congress, and has eschewed the party's traditional consensus model of policy making. The Standing Committee of the Politburo, the de facto leaders of China, was cleared of any officials known to favor market reform, and replaced with Xi loyalists, suggesting a move away from efforts to open the economy. The party also downplayed the importance of economic development and enacted restrictions on industries. Rather, it is focusing instead on common prosperity, which could see increased tax burdens on high-earning corporations and individuals to address income inequality. Both could drive down innovation and growth in the coming year.



The Chinese government has shown little willingness to abandon its domestic response to the pandemic, known as "zero COVID." Lockdowns in major cities forced manufacturing centers to cease operations and ports to close, causing shortages and soaring prices for a variety of goods from appliances to automobiles globally. Youth unemployment reached nearly 20 percent due to the lack of new jobs. Despite significant damage to economic growth in 2022, the measures are likely to continue through at least mid-2023. Furthermore, any significant policy change is likely to be gradual, possibly leaving China-dominated supply chains vulnerable into 2024.

The Indo-Pacific Economic Framework

Amid growing concerns throughout the region over China's long-term prospects for economic growth and the overreliance on China for production, the US launched the IPEF in May 2022 with 14 member countries. The arouping represents 40 percent of global GDP and includes several high-income countries. Eleven IPEF members are also party to the RCEP, including Australia. Japan, South Korea, and Indonesia. In addition to the US, the IPEF also includes India, which is not part of the RCEP arrangement. Canada also intends to join the group. The IPEF will focus on four main pillars: fair trade policies, supply chain resilience, clean energy and infrastructure, and rules to reduce tax avoidance and corruption, centering Washington in establishing rules for the emerging areas of economic growth for a large portion of the Asia-Pacific region.

There is an intentional geopolitical component underlying the framework. All member nations are democracies, an increasingly important aspect of US policy concerned with authoritarianism. All four members of the so-called Quad security arrangement are also involved in the group, as well as US ally South Korea, and several other military partners from Southeast Asia. Indeed, security concerns form an unspoken component of IPEF. For example, rules on supply chains are likely to focus on semiconductors and rare earth minerals, to ensure a steady supply in the event of a dispute with China. Similarly, plans to develop rules on enhancing "digital trade" and "secure" digital architecture are likely also directed against China, which maintains tight internet controls and legally requires access to company data if requested.

The IPEF is not a traditional trade agreement, as there are no measures to reduce tariffs or open markets.

However, given the wide geographical representation, participation of high-income countries, and strategic commonality, the IPEF could significantly impact trade flow in the region. Furthermore, seven IPEF members, namely Australia, Brunei, Japan, Malaysia, New Zealand, Singapore, and Vietnam, are also party to the CPTPP, which eliminates 95 percent of tariffs on goods, though the full implementation continues as members have their own reduction schedules. Of those seven countries, the US has existing free trade agreements with Australia and Singapore, as well as joining Canada. The US also has a free trade agreement with IPEF member South Korea and is a net importer from ASEAN. Therefore, significant economic benefits remain to cooperation under the IPEF even without tariff reductions.

Agreements under the IPEF's four pillars are likely to emerge throughout 2023 ahead of a proposed, but ambitious, deadline of November. As agreements materialize, they will likely create new incentives for cooperation among member countries. Specifically, efforts to create "robust" supply chains will likely see inducements for companies to move production of components or finished products to countries adhering to IPEF rules. The IPEF's overall impact on the region's supply chains will ultimately depend on the shape of the final agreements. Without tariff reductions, its overall effect could remain limited. However, high-income countries like the US, Japan, South Korea, Australia, and Singapore, are likely to provide significant investments - particularly in clean energy and digital security to enhance cooperation and trade among the group, potentially at the RCEP and Beijing's expense.

Export Controls and Chip 4

In addition to the IPEF, the US is also likely to continue to directly enhance pressure on China. Again, security concerns are driving the impetus for action, as Washington fears Beijing's developing capability to produce advanced semiconductors necessary for military applications. The US Department of Commerce issued an export ban on advanced chip-making equipment and electronic components that could be used by Chinese companies to produce chip-making tools and equipment. The directive also barred US citizens from supporting or participating in the production of semiconductor facilities and tightened rules to prevent China from gaining access to technological know-how to build chips used in supercomputers and artificial intelligence applications. Reports indicate that the US is also encouraging allies in Europe, Japan, and South Korea to launch similar bans. If these nations follow suit, it could expedite the redistribution of advanced semiconductor production and drastically stymie China's efforts at technological independence.

The US has also introduced new initiatives to protect its core security supply chains. The shortage of semiconductors during the COVID-19 pandemic - at least partially attributable to domestic restrictions in production centers and key ports in mainland China underscored the interconnected nature of the industry and the global impact of disruptions in one location. To counter future disruptions, the US proposed an alliance with Japan, Taiwan, and South Korea, dubbed "Chip 4." Under the proposal, the US would produce the most advanced semiconductors, Japan would supply materials and equipment, and Taiwan and South Korea would continue as manufacturing powerhouses. The alliance — if realized — would house the production and supply of the vital resource exclusively in democratic economies with a strong history of partnership. However, South Korea, which has historically been reluctant to confront China economically, has yet to sign up for the arrangement. It remains unclear whether Seoul could acquiesce to the Chip 4 concept without a significant promise of additional purchases, as China comprised almost 50 percent of its memory chip exports in 2021.

If successful, Chip 4 would reshape the supply of chips for most products in the affected markets. The US is unlikely to allow partners to continue supplying advanced chips to China, making reliable high-tech manufacturing in mainland China more difficult. Although Taiwan and South Korea will likely be the primary beneficiaries of any production shift, some manufacturing will continue to shift to Japan, the US, Singapore, and Vietnam.

Conclusion

Geopolitical competition between the US and China is likely to continue to spread into the economic realm in the near term. US security concerns have ushered in renewed efforts to reshape supply chains in Asia-Pacific. Meanwhile, Beijing, long aware of its reliance on US technology. continues to invest heavily in domesticmade alternatives that can ensure its development is unencumbered by US policy. The RCEP, which allows China a central role in trade throughout the region, plays a role in that strategy by binding the region closer to it economically. However, Beijing's zero COVID policy and seeming shift in focus in domestic development has prompted concern in the region about China's reliability in the global economy. While domestic political dynamics in the US prevent the ascension or negotiation of free trade agreements, the Biden administration's IPEF carries enough economic incentive and investment potential to help alter supply chains in the region. Furthermore, US efforts and export controls on advanced semiconductors will likely change existing production lines for the most advanced technology. China will almost certainly remain a fundamental component in global manufacturing in the long term, but the IPEF and closely aligned CPTPP will ensure that Beijing is increasingly left out of supply chains for inputs and goods deemed essential for US and allied nations' national and economic security.

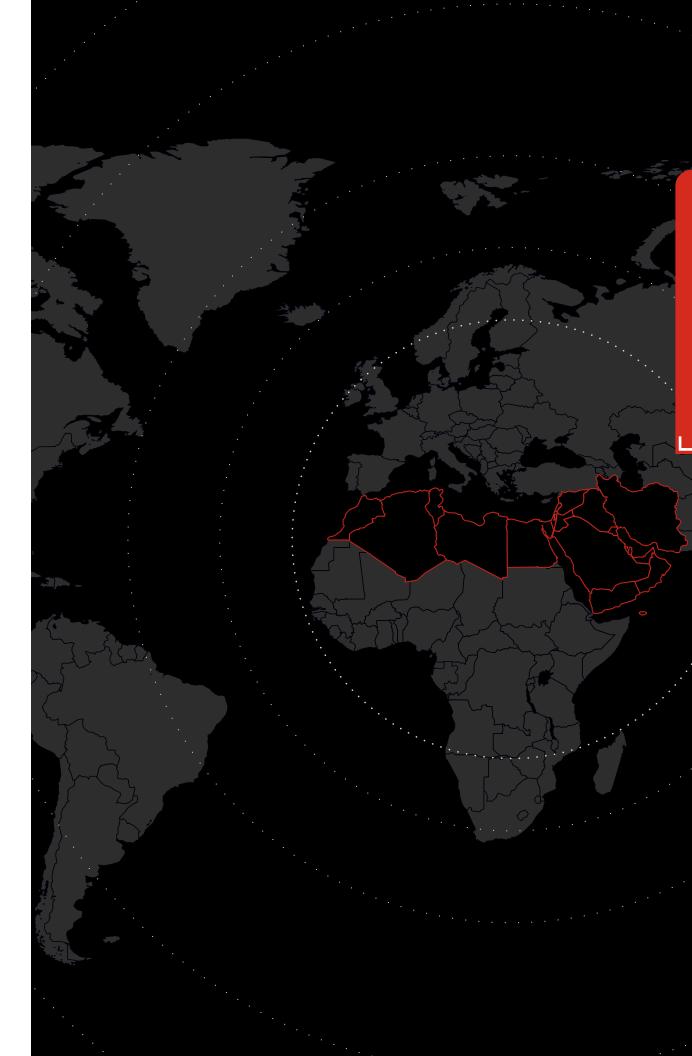


Middle East and North Africa (MENA)

Political Instability, Social Conflict, and Economic Uncertainty to Pose Serious Challenges for Governments and Businesses across MENA

Socioeconomic issues will continue to threaten the security environment across much of the MENA well into 2023. Internecine conflict and social upheaval will define several locations: Libya will likely fail to hold elections and continue with two parallel governments; Yemen and Syria will remain geographically fragmented and politically contested; Iraq will probably see an uptick in violence, given the absence of consensus on the formation of a government; and Iran will remain mired in protests as it continues to experience social and political unrest. The impacts of the war in Ukraine will exacerbate existing problems in vulnerable nations and related disruptions to food and energy imports will present serious challenges for many states. Additionally, inflation and the increasing shortages will almost certainly translate into increased social and political instability.

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Key Judgments

- The economic impact of the war in Ukraine will continue to exacerbate existing challenges in many countries across MENA.
- Social conflict, militant attacks, and communal violence will likely cause instability in some states in 2023.
- Protests and civil unrest will likely bring about social and structural changes in some MENA countries in 2023.

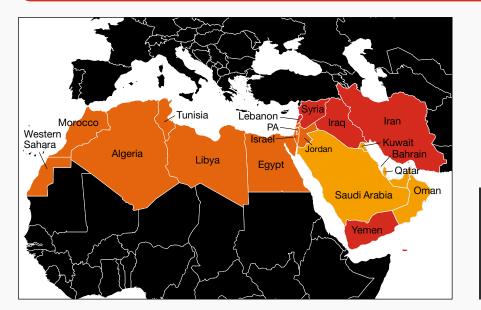


Gulf Countries to Weather Economic Turmoil

The Persian Gulf nations will be insulated from the socioeconomic turmoil that will afflict large swathes of MENA over the coming months. In contrast to the rest of the region, the hydrocarbon-extracting monarchies of Oman, Kuwait, Saudi Arabia, Bahrain, Qatar, and the United Arab Emirates (UAE) will be some of, if not the only, success stories of 2023. The Gulf Cooperation Council (GCC) states are uniquely positioned to profit from the economic turmoil caused by the Ukraine war while maintaining a position of de facto diplomatic neutrality. Even before the Ukraine conflict, the GCC countries had benefited from higher-than-expected hydrocarbon revenues. Brent crude at USD 78 per barrel in January exceeded the break-even price of USD 68 per barrel for 2022 for many of the GCC countries. The war in Ukraine and the resulting energy crisis have pushed the price of crude to over USD 100 per barrel, with it potentially rising further in 2023. Every USD 10 increase in the price of oil adds an estimated USD 65 billion to the Gulf monarchies' oil export receipts; oil at USD 100 per barrel is estimated to result in budget surpluses of 10-15 percent of the

GCC's GDP. This financial windfall will enable the GCC to levy additional financial support directed toward economic diversification, particularly in Saudi Arabia, where several grandiose infrastructure projects are underway. Increased state revenues will also stymie the possibility of unrest in the poorer GCC states.

Yemen, on the other hand, will continue to suffer from growing inflation, internecine conflict, and instability in 2023. The collapse of a nationwide truce in early October resulted in renewed clashes along most of Yemen's front lines. Fighting will likely return to, or potentially exceed, previous levels of violence and destruction over the course of the year. The resumption of open conflict will also likely reverberate across the region. Al-Houthi crossborder missile and drone attacks against Saudi Arabia are almost certain to resume. Periodic attacks against maritime vessels operating off the Yemeni coast, including those transiting the Bab al-Mandeb, are likely to resume. Fratricidal clashes between secessionist militias and government loyalists will likely beset areas of southern Yemen, further undermining the stability and legitimacy of the central government. To make matters worse, the repercussions of the war in Ukraine have exacerbated Yemen's food insecurity crisis, as the country imports 40 percent of its wheat from Ukraine and Russia.



Few Locations to Escape Economic or Sociopolitical Instability in 2023

Insulated from turmoil
Economic and social unrest
Defined by instability

Social Conflict and Political Uncertainty to Persist in the Levant

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The Levant will face significant challenges as commodityimporting MENA countries contend with the detrimental impacts of high inflation, including social unrest and political instability. Lebanon, for example, will continue to suffer from one of the world's worst financial crises. As of late 2022, the country's currency has plunged by more than 90 percent in value, and many basic goods are scarce. Lebanon's concurrent political crisis, born of elite corruption and rent-seeking behavior, has exacerbated the economic fallout and will almost certainly impede reforms needed to secure an International Monetary Fund (IMF) bailout program — the country's only apparent way out of the meltdown. Economic and political crises will catalyze significant protest activity, strikes, and flight of human capital from key sectors and institutions. While Beirut could reach an agreement with the IMF by mid-2023, political instability is almost certain to present headwinds, hindering subsequent economic recovery. Protest activity will almost certainly increase in frequency and severity over the interim as Lebanese citizens, rather than banks or state institutions, bear the burden of the country's linked crises.

Jordan will also likely face negative economic and social impacts from high inflation rates wrought by the COVID-19 pandemic and war in Ukraine. Price hikes for food and fuel, among other goods, will strain public budgets despite IMF-backed efforts to broaden the tax base and rein in public sector spending. Moreover, while Jordan will almost certainly maintain macroeconomic stability, Amman's push for fiscal consolidation will threaten the country's rentier social contract following cuts to social protection programs and amid perennially high unemployment. With foreign aid and reviving



tourism revenue very probably remaining insufficient to meaningfully address these issues, the risk of protests and strikes will rise in 2023. However, any resulting protest activity will not significantly impede business operations in the country; security forces will quickly disperse disruptive demonstrations in most cases.

Israel will face largely different challenges than its Arab neighbors in 2023. While the country is not immune to the region's price hikes, Israel's currency strength will cushion the inflationary impact, and its economic growth will likely remain relatively buoyant at around 3.5 percent, per recent economic forecasts. Additionally, Israel's economic growth will likely see a boost as it strengthens its diplomatic relationships with Gulf and North African countries over the coming year as part of a broader Arab geopolitical realignment against Iran. While the risk of direct confrontation with Iran will remain low, Israel will almost certainly continue to launch airstrikes against Iran-backed proxies in Syria. Meanwhile, clashes between Palestinians and Israeli soldiers and settlers will continue in the West Bank and East Jerusalem, prompting Palestinian protests, strikes, and cross-border rocket fire from the Gaza Strip. Israel will likely respond forcibly to disruptive protests and all instances of cross-border fire. Nonetheless, a significant conflagration between Gazabased Palestinian militant groups and Israeli forces is likely at some point during the year amid a period of heightened tensions. Within Israel, Palestinian militant attacks will remain a threat in Jerusalem, Tel Aviv, and other cities. Political instability will probably continue throughout the year, with government coalitions likely to remain fragile and subject to rapid dissolution; multiple elections cannot be ruled out.



Economic and Political Instability to Heighten Social Unrest in North Africa

Sociopolitical instability will continue to define the political landscape of North African countries in 2023. The region's economy is in turmoil, as the war in Ukraine has jeopardized the slow recovery from the COVID-19 pandemic. The Russian invasion disrupted global food and energy supply chains, increasing prices and exacerbating shortages of basic goods. The dire economic situation has increased the risk of disruptive protest activity in the coming months. Additionally, political uncertainty and a return to authoritarian tendencies have led to civil unrest throughout the region, which could have serious ramifications for North African societies, politics, and businesses.

Tunisia has experienced an increase in civil unrest, with over 5,000 demonstrations taking place in the first half of 2022. The protests will likely grow in number and size as the government fails to address the economic crisis. Additionally, President Kais Saied continues to consolidate his hold on Tunisian institutions. In July 2022, Saied modified the constitution to create a presidential system, reducing the power of the Parliament and many Tunisian institutions. This move angered most opposition parties, which later announced their intent to boycott the legislative elections in December 2022.

The economic crisis has also put pressure on the Egyptian government, but any significant civil unrest has yet to materialize. The nation's economy was already weakened by the COVID-19 pandemic, which halted its tourism industry; in 2020, revenues from tourism plummeted nearly 66 percent by comparison with 2019. Further damaging the Egyptian economy, the Ukraine war disrupted the global wheat supply. Egypt remains the largest wheat importer in the world, and nearly 85 percent of its grain imports originated from Russia and Ukraine in 2021. The government has taken several measures to alleviate the impact of the crisis on its population, notably increasing the national strategic reserves in wheat and subsidizing bread to control its price. New reforms were implemented to attract foreign investors, including devaluating the nation's currency, reducing the government's hold on the economy, and putting pressure on national business owners to relinquish their market shares. While protest activity is banned in Egypt, civil unrest cannot be entirely ruled out amid increasing prices of goods.

The security and political situation in Libya will remain unstable in 2023. The country is risking a return to wide-scale conflict as its crisis of political legitimacy deepens. Libya's two rival governments — the Tripolibased Government of National Unity (GNU), led by Prime

Minister Abdulhamid al-Dbeibah, and the Government of National Stability (GNS), which is backed by the east-based House of Representatives and led by Prime Minister Fathi Bashagha — are locked in a political stalemate. Prospects for elections, widely touted by international stakeholders as the most viable way to bridge the GNU-GNS split, remain dim as key players continue to disagree over the constitutional framework for a future vote. The domestic and international disunity has provided space for an array of rival armed groups to increasingly shape the trajectory of Libyan politics through violence, leading in late August 2022 to the worst clashes in Tripoli since 2019. Despite an uptick in diplomatic efforts since the recent fighting in the capital, the political crisis will likely intensify in 2023, further threatening the country's stability.

Tensions between Algeria and Morocco have expanded beyond the Western Sahara conflict. Algerian authorities have accused Morocco and Israel of supporting the Movement for the Self-determination of Kabylie (MAK), which aspires to create an autonomous region for the Kabyles, who are ethnically Amazigh Algerians, in Kabylie Province. Algiers is also wary of Rabat's growing diplomatic prominence in the region, its increasing economic prospects, and its expansion of business ties throughout the world. As tensions heighten, Algiers could also expel thousands of Moroccans who live in Algeria. This is something that Algiers has done in the past. Severed diplomatic relations between the two countries





will continue to impact business operations and will likely cause disruptions to transport, supply chains, and travel in 2023.

Meanwhile, geopolitical tensions remain high around the disputed territory of Western Sahara but will likely continue to fall short of direct military confrontation. In late August, Tunisia hosted the head of Polisario Front, the main independence movement of Western Sahara, during the Tokyo International Conference on African Development (TICAD). This move led to a diplomatic crisis between Rabat and Tunis and reignited the decades-long tensions with Algiers. While Tunisia remains neutral in the conflict, Western Sahara remains a flashpoint between Rabat and Algiers, as the latter has allowed the Polisario Front to operate in Algeria, where it maintains training bases.

Tunisia has experienced an increase in civil unrest, with over 5,000 demonstrations taking place in the first half of 2022.

Social and Political Instability to Define Iran, Iraq, and Syria through 2023

Ongoing protests in Iran initially sparked by the death of a Kurdish woman named Mahsa Amini while in police custody for allegedly violating the country's dress code have evolved into a national revolt. While the protesters' immediate demand remains that laws requiring women to wear a hijab or headscarf be repealed, this issue has essentially become symbolic, serving more as a rallying cry against the government's social and political policies as a whole. The demonstrations have shown no sign of abating; nevertheless, the regime's coercive power and capacity remain immense. It is unlikely that authorities will do away with the existing hijab laws, much less introduce serious reforms; the hijab is a key underpinning of the government's ideological foundation. Once the hijab is removed, it is hard to imagine how the Iranian government could justify some of the other policies that are not in line with most Iranians' views.

However, even if the current protests led by women die down. Iran will continue to suffer from serious bouts of social unrest. Protests in Iran have become increasingly frequent over the last few years. There were 4,000 demonstrations in 2021; over 2,220 protests took place in the first two guarters of 2022 alone. These demonstrations revolve around declining socioeconomic conditions, equal rights for women as well as ethnic and religious minority groups, and the government's discriminatory policies.

The latest demonstrations have prompted long-term observers of the country to wonder whether some sort of a revolution is underway. While the Iranian government has rarely encountered demonstrations of this scale, it is premature to believe that the protest movement could severely undermine Tehran's grip on power. All levers of the state apparatus have been set up such that they can ensure the continuity of the ruling establishment. However, while a serious domestic challenge to the regime may previously have been inconceivable, it is now possible to imagine that a persistent, determined group of Iranians could mount a formidable threat to political stability in the country.

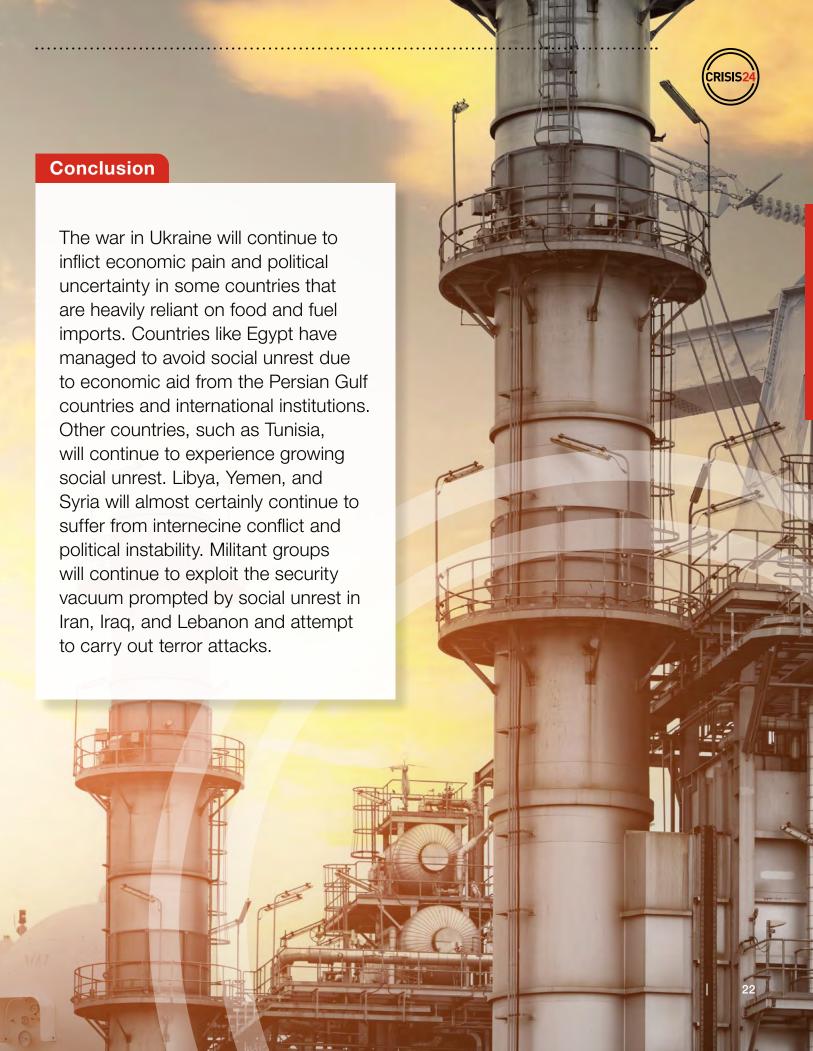
Political instability in Iraq will likely worsen in 2023. The country's parliament elected Rashid Latif as a new

president in October, who in turn charged Mohammad Shi'a al-Sudani with the formation of a government. While the Islamic State (IS) will continue to operate pockets in central and western Iraq, the most immediate threat to political stability remains the intra-Shi'a violence. The Sadrist Movement led by Muqtada al-Sadr has regularly clashed with militias aligned with the Iranian-backed Shi'a Coordination Framework, an umbrella group comprised of diverse Shi'a parties. Further violence remains likely through 2023.

Following months of political paralysis in the wake of the country's October 2021 federal elections, in which the Sadrist Movement won the largest number of seats in parliament, al-Sadr supporters launched significant protests in July to denounce al-Sudani's nomination. Although al-Sadr eventually withdrew from politics and closed his political offices, he remains a potent force who can certainly upend the status quo. However, given the numerous political blocs, alliances, and establishment factions that are opposed to al-Sadr's vision for the country, the protesters' demands, ranging from early elections to constitutional amendments, will likely fail to be realized over the short term.

Syria will continue to grapple with internecine conflict, Israeli airstrikes against Iranian forces, and militant activity. Turkey will continue to launch attacks on Syrian soil against the Democratic Union Party (PYD) and its military wing — the People's Protection Units (YPG) — which Ankara accuses of having deep ties to the Kurdistan Workers' Party (PKK). IS still appears to possess the operational capability and reach to conduct attacks against civilians and Syrian and Kurdish security forces in the country. While Syria will continue to remain politically contested and geographically fragmented, there are no serious military and political challenges to President Bashar al-Assad.

to economic aid from the Persian Gulf to carry out terror attacks.



Europe and CIS

Energy Shortages and Geopolitical Tensions to Persist throughout 2023 as War in **Ukraine Continues**

The Ukraine war will likely extend well into 2023 with spring expected to facilitate new offensives after a relative lull in combat activity. Despite bellicose rhetoric from the Kremlin's more hawkish supporters and officials, the use of nuclear weapons remains highly unlikely. If ultimately finding its offensive efforts thwarted, Moscow will allow hostilities to settle into a frozen conflict, with sporadic fire continuing across a static line of contact while it awaits an advantageous time to resume active military operations. Moscow will continue to weaponize energy to apply pressure on Ukraine's Western supporters, though Europe's energy crisis should start abating in the second half of 2023. While energy disruptions and record-high inflation will encourage increased civil unrest in the region, Europe will remain largely united in its support for Ukraine.

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A Snapshot of the Military Situation

Despite a series of Ukrainian successes and Russian failures on the battlefield in the second half of 2022, neither side in the conflict appears to be on a path to clear victory. After being pushed out of northern Ukraine having failed to take either Kharkiv or Kyiv, and ultimately relinquishing Kherson in the south, Moscow's forces continue to wage their war of attrition, attempting to wear down Kyiv's troops, albeit while suffering very high casualty rates and rapidly expending available stocks of military supplies. On the other hand, regardless of its higher morale, capable command structure, and materiel support from NATO, the Ukrainian military does not yet possess the degree of force multipliers it would need to achieve President Volodymyr Zelenskyy's stated goal of pushing the Russians out of the country completely.

On Sept. 21, 2022, Russian President Vladimir Putin ordered a nationwide partial mobilization — a move tacitly acknowledging the significant setbacks his military had experienced since the beginning of its war in Ukraine. By late October, Moscow had deployed around 82,000 of the 300,000 reservists it had activated; however, the influx of fresh troops produced few results. Reports that the new enlistees received only cursory training and inadequate equipment before being sent to the front appear to have been borne out by developments on the ground as Ukrainian forces continued to make steady gains recapturing territory, particularly in the Luhansk and Kherson regions, and compelling Russian forces to withdraw from the west bank of the Dnipro River.

The winter months will probably see a comparative decrease in combat intensity as the two opposing armies engage in at least some degree of operational pauses to bolster supply stocks, deploy replacements, and consolidate their positions. Russian forces, in particular, will likely maintain a mostly defensive posture during this period in order to allow time for their remaining 200,000 or more newly mustered reservists to undergo predeployment training. Nevertheless, Ukrainian troops will continue with phases of offensive action to ensure they maintain operational momentum over the enemy; Russia, on the other hand, will continue attempting localized advances and occasional long-range strikes on Ukrainian infrastructure despite depleted stocks of precision missiles.

After integrating its recently mobilized troops, the Russian high command could attempt a late winter or early spring offensive to break through Ukrainian lines, most likely in the Donetsk or Luhansk regions. However, any such operation will almost certainly fail to achieve its main objectives. The Russian military's command-andcontrol (C2) issues, combined with persistently low troop morale, ineffective supply and logistics, and increasing reliance on inexperienced recruits, will severely hamper any offensive. Given the Ukrainian armed forces' superior C2, tactical and operational flexibility, and higher standard of non-commissioned officers, even if Russia manages to capture some additional territory, Ukrainian units are unlikely to break ranks and descend into a disorderly retreat. At the same time, the Ukrainian military has been steadily receiving support in the form of military equipment and training from NATO members and will remain better equipped to defend its positions and stage localized counterattacks.

Kyiv will remain determined to regain territory captured by Russia. Ukrainian forces will likely initiate an offensive or counteroffensive, as the case may be, in the spring months of March-May. Subsequent limited and major Ukrainian offensives through the summer will capitalize on any Ukrainian advances made in the spring and increasingly pressure Russian defensive lines and logistics. A successful push into the Zaporizhzhia Region, retaking strategically located towns and/or dividing Russian forces, would not only threaten Moscow's coveted land bridge with Crimea, it would also call into question the Kremlin's ability to defend lands it had recently annexed and loudly touted as being Russian soil.









Nuclear Weapons

Kremlin officials have actively sought to sow concern in NATO countries by holding out the specter of Russia's willingness to use nuclear weapons in Ukraine. Still, while it cannot be completely ruled out that Russia might resort to the use of low-yield tactical nuclear weapons in an effort to turn the tide of the war, the potential international blowback along with the likely practical problems of a nuclear battlefield make the likelihood of such an escalation very low, despite the strong rhetoric from Moscow hawks.

Prior to authorizing the use of nuclear weapons, the Kremlin leadership would almost certainly take a very serious look at the "cost/benefit" ratio of such a move. First, any Russian use of nuclear weapons in Ukraine regardless of how limited – will almost certainly draw swift and widespread international condemnation with additional sanctions, even from many countries that have thus far been largely tolerant of Moscow's invasion. Essentially, a nuclear attack could almost immediately backfire from a political standpoint by drawing more global support for Ukraine and steeling the country's resistance rather than intimidating it into capitulation. Moreover, NATO has warned that a Russian nuclear strike would draw a "physical response" from the alliance and would have "unprecedented consequences" for Russia, without providing any indication of exactly what these might entail. Following its numerous miscalculations surrounding the war effort - such as the degree of

Ukrainian resistance, the unity of NATO, the Swedish and Finnish responses, and the poor performance of the Russian military — the government in Moscow would also have to consider the dangers of potentially miscalculating the Western alliance's resolve to make good on its word.

Battlefield use of nuclear weapons could also be problematic at the practical level, potentially complicating combat operations as much for Russian forces as for the Ukrainians. While low-yield warheads of 20 kilotons or less will certainly cause significant casualties, especially if targeted against populated areas, they are not powerful enough to cause the types of blast radii and radioactive material dispersal that could impact the entire country or broader areas of Europe. However, the effectiveness of ground forces attempting to operate near localized radiological hot zones left by detonations of tactical nuclear munitions would be significantly hampered by the need to employ chemical, biological, radiological, and nuclear (CBRN) suits, along with other protective gear and procedures. Moreover, prevailing winds in Ukraine could carry radioactive fallout back over Russian positions. In the case of the use of multiple devices against Ukrainian troops on the front line, fallout could settle in the Dnipro River, ultimately being carried southward through the North Crimean Canal to contaminate Russian-annexed Crimea's fresh water supply.

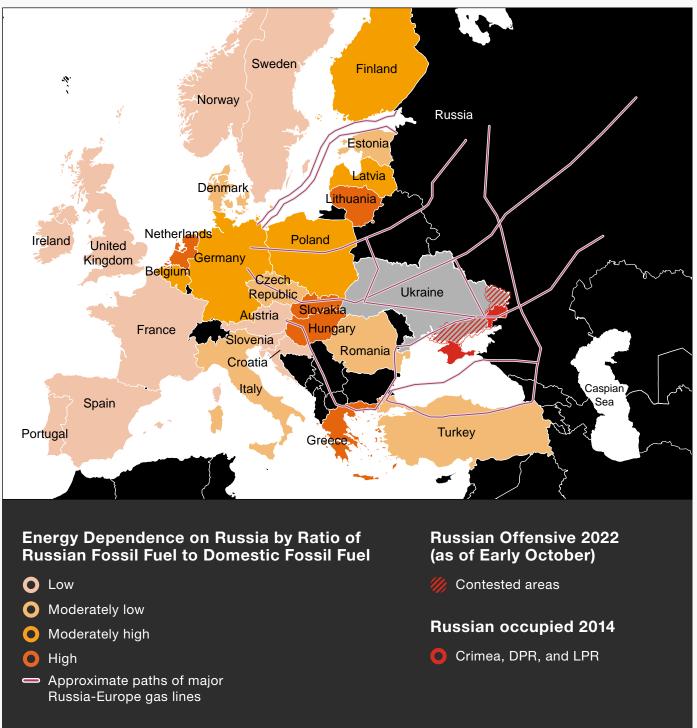
Full Russian Mobilization

Although a full-scale Russian mobilization would appease the country's securocrats and ultranationalists, who are important to the survival of Putin's regime, the Kremlin will probably be reluctant to order such a move, especially so soon on the heels of its generally unpopular partial mobilization. Nevertheless, the wording of Putin's directive implementing the partial mobilization left Moscow the latitude to continue quietly activating reservists indefinitely as replacements for losses incurred in Ukraine, without further official declarations.

New Incursions

Despite increasing tensions between Belarus and Ukraine, Belarusian troops are extremely unlikely to engage in the conflict. A slight possibility remains that Moscow will decide to invade northern Ukraine through Belarus once again. At the same time, an incursion of Russian troops from the breakaway enclave of Transnistria in Moldova can almost certainly be ruled out.

Dependence on Russian Fossil Fuel





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The Economic Battlefield

Aside from its actual military operations, Russia has become embroiled in an economic game of "chicken" with the West, which will likely be a determining factor for the outcome of the conflict. Both sides are under economic stressors resulting not only from sanctions imposed to punish Moscow for its invasion of Ukraine, but also lingering effects from the COVID-19 pandemic. The challenge facing the Kremlin is to hold its increasingly tenuous war effort together long enough for high fuel prices and rising inflation to erode popular support in Europe and the US for financial and military aid to Kyiv; cuts in such assistance could give Russian forces the relief they need to regain the initiative on the battlefield. However, this is a significant gamble with time being of the essence; and there is no solid indicator that the West will waver in its efforts to stymie Moscow's ambitions any time soon.

Europe has been highly reliant on cheap imports of Russian energy since long before Moscow's invasion of Ukraine. In 2020, the EU imported 58 percent of its energy, of which around half of the coal and natural gas it took in came from Russia. Germany was by far the EU's largest importer of natural gas, two-thirds of which came from Russia. Almost all European countries had high levels of imports combined with a lack of investment in alternatives.

Russia's invasion of Ukraine prompted severe EU sanctions targeting Russian goods, services, finance, and individuals. These included a planned 90-percent reduction in crude oil imports by December 2022. Although the EU has not sanctioned Russian natural gas exports, its members voluntarily agreed to cut demand by two-thirds by the end of the year. Targets included reducing consumption by 15 percent, increasing imports from the US, Algeria, Norway, and Qatar, and expanding storage facilities and interconnectivity.

Europe faces reduced economic growth due to energy shortages and elevated inflation. Countries in central and eastern Europe are the hardest hit due to the double impact of their higher dependence on Russian fossil fuels and the regional reverberations of a German economic slowdown. Decreasing imports of Russian oil have already been creating a crisis in Europe. Many countries were forced to enact unpopular energy-saving measures and pass large financial support packages to protect their citizens and businesses from high energy prices.

Moscow probably sees a window of opportunity through the second quarter of 2023 in which it can exploit the energy crisis. Assuming the winter on the continent is not unusually harsh and governments do not use up large quantities of their strategic reserves, Europe's energy crisis will likely generally subside by the summer months. Europe has found alternative energy sources that can mostly replace Russian imports, though fuller implementation of these solutions is ongoing. Ending reliance on Russian oil and coal will include boosting biogas, hydrogen, and domestic rooftop solar power panels. The European Commission has suggested replacing Russian gas with LNG, and other countries have been encouraged to explore their gas fields to increase the supply in the market.

Nevertheless, Western governments, especially in Europe, may need to impose tough and unpopular energy restrictions through at least February 2023, and possibly again in winter 2023-24. Price hikes and energy shortages are likely, potentially leading to power cuts, gasoline shortages, and transportation disruptions. With the average eurozone inflation rate reaching roughly 10 percent through late 2022, an ever-growing number of citizens of EU countries are discontent with their financial well-being. As a result, civil and labor unrest will almost certainly increase across Europe in the medium term. Various activist groups and unions will continue organizing large-scale cost-of-living protests to demand pay raises that keep pace with the growing inflation. At the same time, climate activists will stage frequent demonstrations to denounce the increasing use of fossil fuels in response to the energy crisis. Some of the most disruptive groups could receive covert backing from Russia in the form of social media propaganda and financial support in an effort to create cracks in European unity regarding Ukraine. However, European unity on this matter will likely persist for the foreseeable future, despite the economic and energy challenges.

An Effective Stalemate?

Faced with an effective stalemate, where it is unable to turn either the military or political tide to its advantage over the coming year, Moscow could ultimately resort to one of its fallback strategies and allow the war in Ukraine to settle into a frozen conflict. Such a move would allow Russia to retain de facto possession of its territorial gains, while posing an everpresent threat to Ukrainian stability and a thorn in NATO's side as Moscow consolidates its position over the longer term and bides its time. In this scenario, Russian forces would dig in and fortify their current positions, engaging in occasional exchanges of fire with Ukrainian units across a largely static line of contact. The Kremlin, on the other hand, would use the time to solidify Russian government establishments and infrastructure in held territories. Such a situation could potentially persist for years before Russia decides the climate is right for its next move.

Conclusion

The war in Ukraine will continue throughout 2023 with neither side being able to achieve clear victory. A nuclear escalation of the conflict will remain highly unlikely. The adverse economic effects of the conflict on Western Europe, including consequent increased civil unrest and energy crises, will likely worsen in the first half of 2023 before slowly improving in the second half. In the context of its failing military campaign, Russia's longer-term strategy is likely to switch to maintaining a frozen conflict in Ukraine to wear down the patience of Kyiv's Western backers — particularly their electorates.

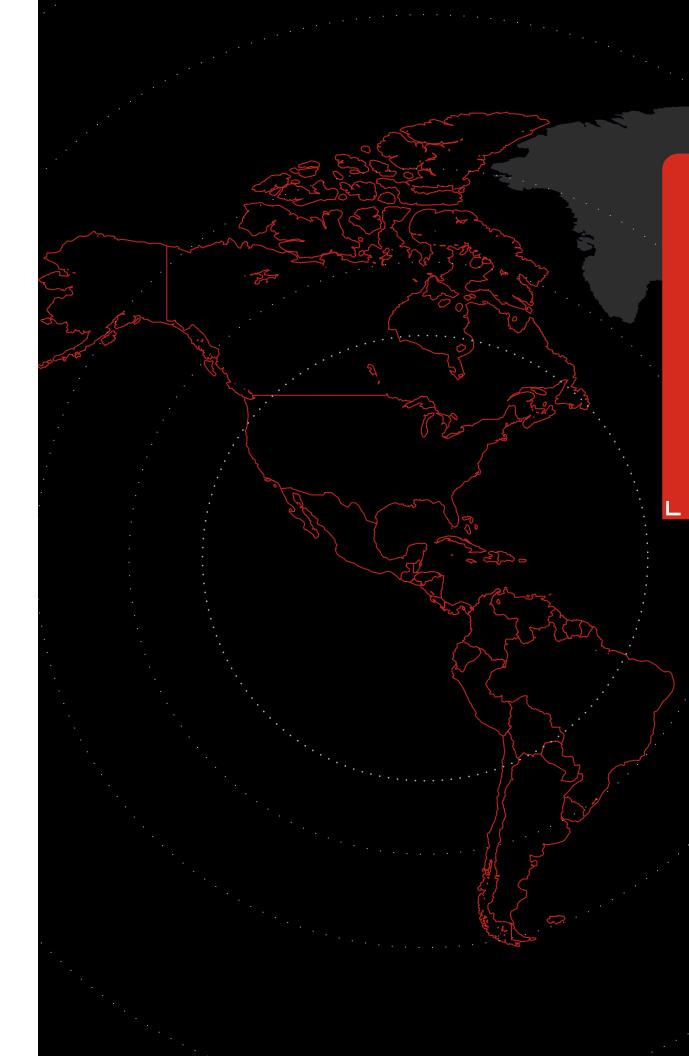


Americas

Americas to Face Challenges to Social and Political Stability in Disruptive Economic Climate

Socio-economic and political pressures in the Americas will likely lead to increased social unrest and political instability in 2023 as governments struggle to deliver on their promises and mitigate their citizens' hardships. Many issues that fueled discontent in 2022 are likely to intensify in 2023. Most governments in Latin America will have weak legislative and popular support, limiting their ability to pass major reforms, thereby increasing the likelihood of political instability and disruptive protests. Economic limitations and ineffective governments will probably contribute to higher levels of criminality.

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Key Judgments

- Slow economic growth and high inflation will present major challenges to governments in the Americas and cause discontent throughout much of the region. Because presidents in many countries in Latin America have limited public and legislative support, weak governance will be a major issue in 2023.
- Business operations across multiple sectors will be threatened by unrest in 2023.
- Weak governments and limited resources will likely allow criminal organizations to grow and exacerbate crime rates.



Slow Economic Growth and High Inflation are Likely to Challenge Governments, Increase Discontent

Between the twin prospects of inflation and slowing growth, economic pressures will likely continue to challenge individuals and states in the Americas and fuel discontent. As of late 2022, the International Monetary Fund (IMF) forecasted that average inflation in Latin America and the Caribbean is likely to peak at over 14 percent in late 2022 and decrease to 11.4 percent in 2023, remaining above the global average for developing economies. This rate will be significantly higher for individual countries, such as Argentina, where inflation is nearly 100 percent, and Venezuela and Haiti. Consumer prices in Latin America are projected to remain well above global averages, placing pressure on lowerincome families, who often spend up to half of their income on food and fuel. Fuel price increases also affect the transport, agriculture, and manufacturing industries, contributing to sector-based unrest, such as in Bolivia, Canada, Ecuador, Panama, and Peru,

In response to inflationary pressures, central banks throughout the region have been increasing interest rates.

As such, forecasts indicate that most governments in the Western Hemisphere will see slowed economic activity in the coming months. Some of the Americas' largest economies may enter a recession in 2023. According to the IMF, Latin American states' gross domestic product (GDP) will grow by an average of only 1.7 percent in 2023, two percentage points lower than the average for emerging economies globally. The major economies in the region will likely perform even below this level, as the United States and Brazil's GDPs are projected to increase by only one percent. Mexico and Canada are expected to grow by 1.2 and 1.5 percent, respectively. Some economists think that even these low-growth figures are overly optimistic; surveys have shown that most economists polled believe that the US will enter a recession in 2023, a scenario that would weigh heavily on other regional economies.

Any recession would increase unemployment and pressure on individuals and businesses. Governments would receive less revenue to address mounting challenges. Protests in 2022 pressed governments for greater subsidies on staples like fuel and food; with the prospect of recession, this social spending becomes even more difficult. Many regional governments are unlikely to be able to afford to subsidize fuel and other basic food items to mitigate motivation for protests in the same way they have in 2021 and 2022. Protests and resulting instability are likely to continue for the foreseeable future.



Low Public and Legislative Support Likely to Result in Weak Governance in Latin America

Most leaders in Latin America are likely to face challenges with low public support and weak mandates in 2023. Many leaders were elected during times of high political discontent, with voters more interested in voting out incumbents than building genuine support for their replacements. This is reflected by the fact that many presidents who have won the presidency in a runoff facing incumbent leaders and parties in 2021-2022 won only a small percentage of votes in the first round. For example. Peru's Pedro Castillo. Ecuador's Guillermo Lasso, and Costa Rica's Rodrigo Chaves Robles all won less than 20 percent of the votes in the first round before winning the presidency. Similarly, Chile's President Gabriel Boric won less than 30 percent of the votes in the first round. Argentina's October 2023 elections are likely to follow this trend, as the current government faces growing popular unrest and, as of late 2022, pre-election polls indicate that no candidate has more than one-third of the population's support. Even Brazil's President-elect Luis Inácio Lula da Silva, who won 48.4 percent in the first round, faced nationwide protests immediately after his second-round victory and will begin his mandate in 2023 with a rejection rate of over 45 percent due to deep polarization.

Thin legislative support for several Latin American leaders in 2023 will likely limit their ability to pass major reforms. In Colombia, President Gustavo Petro has backtracked on his campaign promise of taxing extractive industries after his environmental policies were blamed for contributing to the national currency's depreciation and major losses for Colombia's oil giant Ecopetrol. Such compromises will be increasingly necessary as Petro's coalition with traditional parties will likely oppose more radical reforms. The prospect of high government debt and slow growth will likely also shrink legislative and public support for costly plans, such as health and land reforms. Recent polls show Petro's approval ratings slumped in the two months after his September win, and they may continue to fall as many polled mentioned costly reforms as a key concern.



In Chile, Boric's increasingly limited public and political support will hinder his ability to deliver major reforms. Notably, 62 percent of Chileans rejected the new constitutional draft that Boric's administration touted in a referendum in September, mainly due to criticisms of vagueness and costliness. While a new constituent assembly will likely be elected to edit or re-draft the constitution, the Congressional opposition will likely push for a more moderate document. This may further delay the process, making a new constitutional referendum unlikely to occur until at least late 2023, with no assurances of approval. These delays and uncertainty will probably hurt Boric's approval ratings. Additionally, support for the government is particularly likely to shrink among indigenous ethnic Mapuche communities, with Boric failing to end the conflict and army presence in southern Chile; as such, the often-violent uprising in the south is likely to continue, eroding the credibility of Boric, who partially ran on a campaign of ending the strife.

In some cases, limited legislative support also raises prospects of political instability, as some presidents in the region risk being forced out of office in 2023 before finishing their terms. In late 2022, Peruvian President Pedro Castillo's near-constant clashes with the legislature reached a dramatic end when Castillo attempted to illegally dissolve Congress, a move that led to Castillo being swiftly removed from office and arrested. The administration of his successor, Dina Boluarte, is particularly fragile due to a major protest movement and a Congress that has steadfastly refused to cooperate with her. Even if Boluarte remains in office, her administration is likely to be consumed with the political crisis that has developed in Peru, limiting its ability to advance on any economic reforms in 2023.



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Increased economic pressures will likely lead to greater unrest. Higher food and fuel prices will strain less developed economies and poorer individuals, whose disposable income will be reduced significantly. More developed economies, such as Canada and the United States, also face inflationary pressures in housing, with both rent and home ownership becoming increasingly expensive. Large and potentially unruly protests are likely in major cities such as Lima, Buenos Aires, and Bogotá. Citizens will probably press governments for subsidies or wage increases; public sector unions like teachers are particularly likely to strike across the region. Such protests and strikes may also occur in North America and the Caribbean.

Small-scale farmers will probably continue protesting across Latin America in cities and along key thoroughfares through 2023. They depend on increasingly expensive fuel and fertilizer. They are likely to protest for subsidized fuel prices, higher market prices for their produce, or import restrictions on competing international produce. This unrest may exacerbate the cost-of-living pressures faced by the urban poor, leading to conflict between regional interests, such as Bolivia faced in November 2022. Truckers, heavily affected by fuel prices and a logistically crucial sector to almost every country, will also probably protest over fuel prices, as was seen in Argentina, Guatemala, Paraguay, and Peru in 2022. Blockades of major routes or occupation of urban centers are likely tactics. Again, such actions may exacerbate the cost-of-living pressures by the urban poor, leading to conflict between rural and urban interests.

Opposition may build towards environmental policies perceived as contributing to increased costs of fuel and food, such as carbon taxes and subsidies on green energy. Protests for and against environmental initiatives will likely grow and become increasingly politicized, further pressuring governments. More developed economies throughout the region are likely to be the most affected, including Chile, Colombia, the US, and Canada.

Increased immigration, both documented and undocumented, from poorer to wealthier countries can be expected in such tough economic circumstances. More Haitians will likely move across the border to the Dominican Republic, on boats to surrounding Caribbean islands, or through Central America to the United States. Wealthier South American countries like Chile will likely see more migrants from their neighbors. The flow of migrants from Central America and parts of South America through Mexico to the United States is likely to continue.

In the challenging economic climate, popular sentiment may become increasingly nativist, turning against immigrants seen as contributing to the scarcity of jobs, goods, and housing. This may manifest in protests or violence against individuals or companies perceived as foreign. Governments may feel pressure to alleviate their citizens' concerns; in some cases, this may feed into more political populism.



Unrest Likely to Continue Affecting Business Operations

Weak Governments and Limited Resources Will Likely Allow Criminal Groups to Gain Influence

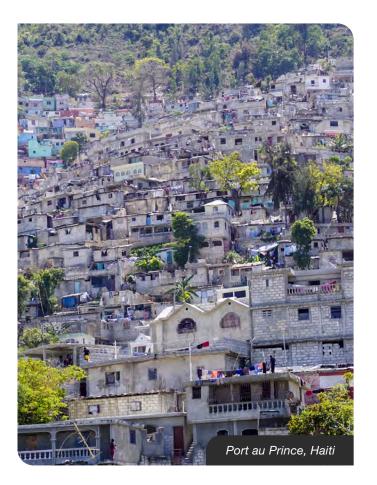
Economic hardship and weak governments are likely to contribute to elevated levels of violence in Latin America, where criminal groups can take advantage of the states' limited capabilities. In Mexico, powerful drug-trafficking organizations (DTOs) will likely continue to expand their reach and carry out violent attacks as the country fails to implement an effective security strategy. These groups will also continue contributing to growing levels of political violence; they were responsible for the majority of the 18 assassinations of mayors since President Andrés Manuel López Obrador came to power in Dec. 2018. Mexico's increasingly militarized approach to public security will likely continue to fail in preventing crime as its security operations are primarily reactive and its intelligence gathering is poor.

In Colombia, DTOs will likely gain influence as recordhigh coca production during the pandemic boosted their income and allowed them to increase trafficking activity. As a result, Ecuador's northern border with Colombia and largest city of Guayaquil have suffered a severe surge in violent crime, including bomb attacks, the public display of the bodies of murder victims, and major gang violence in the country's overcrowded prisons. Given Ecuador's lack of budget for prison reform to reduce organized crime, the situation will likely continue to strain police capabilities.

Haiti will likely remain the state most severely affected by criminal gangs, increasing insecurity, and political uncertainty. The power vacuum created by former President Jovenel Moïse's assassination in July 2021 has allowed gangs to consolidate themselves as quasiauthorities in several regions. Gangs have controlled vital areas, including most of Port-au-Prince and critical highways, often overpowering the Haitian National Police. Gangs have pressured Haiti's political leaders by severely disrupting access to essential supplies nationwide, including fuel, food, and water. Haiti is becoming an increasingly challenging location for foreign businesses that are frequently victims of extortion, violence, and disruptions to supplies of fuel and utilities. Even in the case of international forces deploying to Haiti, as per Prime Minister Ariel Henry's request to the United Nations, foreign troops would encounter well-consolidated gangs

and higher levels of public and political opposition than in previous missions, making immediate meaningful security improvements unlikely.

The risk of attacks targeting high-profile government members in Latin America will likely remain high in the region through 2023. Paraguayan prosecutor Marcelo Pecci was killed in May 2022, and Haiti's former president was killed in July 2021. Both incidents were linked to criminal groups. Additionally, growing polarization and political discontent in the region may increase lone wolf attacks, such as the stabbing attack against President Jair Bolsonaro in 2018 and the assassination attempt on Vice President Cristina Kirchner in Argentina in September 2022.



Conclusion

The twin economic challenges of the rising costs of living and an economic slowdown, combined with political leaders with weak mandates and strong domestic discontent, will challenge many states and societies in the region. Popular unrest from several sectors will likely continue or even intensify, with protests and blockades that could impact business operations, further strain fragile economies, and pressure administrations. Governments will struggle to deliver on their promises, with weak fiscal and economic resources and brittle, divided political support limiting their ability to respond to perceived needs, such as defraying the cost of living or engaging in social and economic reforms.

While the United States and Canada may face recession, it is in Latin America and the Caribbean where popular unrest and challenges to governments will likely be most intense. The struggle for such governments to rise to the growing challenges of 2023 may lead to government changes, whether by the ballot box, disintegrating political coalitions, popular pressure on the streets, or even political violence. Political violence and growing problems of deeply rooted organized crime will feed on and accelerate the challenges strained states face. Such unrest and political changes could provide operational and planning challenges for organizations operating in these countries.



Five Key Risk Trends

Crisis24's regional experts are supported by our category intelligence teams, who monitor a variety of distinct thematic threat vectors - including developments relating to natural events, maritime security, aviation, cybersecurity, and health which can evolve to impact life safety and business operations. Here, our Category Intelligence specialists forecast how some key trends will develop in the coming year and examine how they are likely to impact your people and organization.

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Global Risk Forecast 2023

Environment

'Triple Dip' La Niña to Continue Trend of Extreme Weather Patterns Globally into 2023 and Beyond

La Niña has formed for the third consecutive year in the Pacific, an event that has only happened twice since records began in the 1960s. Forecast models indicate that La Niña conditions are likely to persist through at least early 2023 and will likely be a key factor in the ongoing upward trend in extreme weather events through the rest of the year. Due to La Niña's effect on rainfall distribution, periods of extreme heat, drought, and torrential rainfall are likely to occur more frequently and intensely across many parts of the globe. The severity of tropical storms, if not necessarily the overall frequency, is likely to continue to increase.

Key Judgments

- La Niña conditions are likely to continue into 2023 and will drive abnormal rainfall distributions across many parts of the world, as well as influence the ongoing upward trend in the number and impact of extreme weather events.
- There is an increased likelihood of raininduced flood events in parts of Australia and Southeast Asia over the coming months due to La Niña, which could cause significant transport, business, and utility disruptions, as well as pose a potential threat to life.
- La Niña is also expected to prolong drought conditions in parts of East Africa and North America. Strains on power grids and an increased wildfire risk are likely in areas of reduced precipitation.

Many of these previously considered unprecedented climatic anomalies will probably become increasingly common, increasing the human and economic costs to governments, especially in developing countries, whose budgets and infrastructure are less capable of coping. Businesses and travelers should be vigilant for potential natural hazards, especially in vulnerable areas and at certain times of the year.

What is La Niña?

La Niña is part of the El Nino-Southern Oscillation (ENSO) climate pattern involving changes in the sea surface temperature of waters in the central and eastern tropical Pacific Ocean. The warming and cooling cycle of these waters can be referred to as being in three stages: La Niña, El Niño, or neutral. La Niña is associated with the cooling of sea temperatures in the tropical Pacific, and its counterpart El Niño is associated with the warming of sea temperatures in these waters. When the oscillation pattern is in one of these two extreme phases of the cycle, it can have a significant driving influence on rainfall distribution across many parts of the world due to its effect on atmospheric pressures and trade winds across the Pacific. These extreme episodes alternate on an irregular inter-annular pattern and generally occur every two-to-seven years, reverting to a neutral phase in between. The cycle's La Niña and El Niño periods typically last only a few months before reverting to a neutral phase, so it is very rare for one of these cycle phases to dominate for such an extended period. El Niño and La Niña phases are typically strongest from December to April.

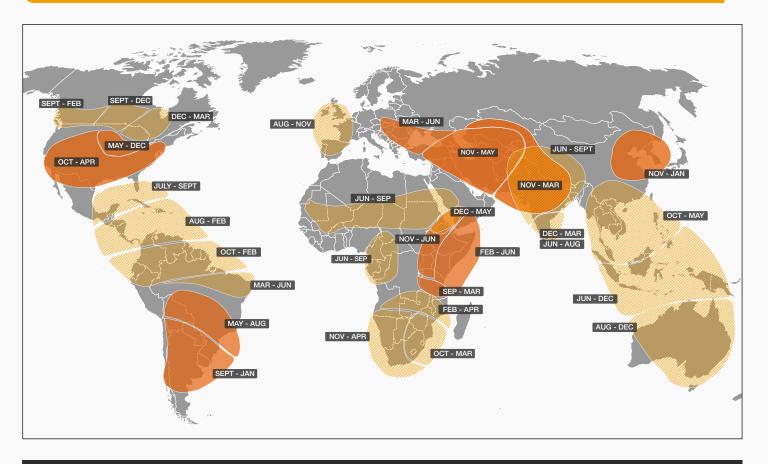
Likely weather impacts of La Niña

The various swings of the ENSO oscillation are one of the key influencers on climate variability and are attributed to temperature and precipitation anomalies across many parts of the world. They can therefore play a significant factor in triggering flooding and exacerbating droughts in affected areas. While the oscillation pattern is one of the major drivers of weather patterns across the globe, they also interact with many other climactic factors, and their precise impact is often

difficult to predict or quantify. However, based on historical evidence, what is certain is that the La Niña and El Niño phases of the ENSO oscillation shift the odds in favor of either above or below-average precipitation levels occurring across various regions.

Increased rainfall over certain regions could see further extreme weather events in 2023, such as the severe flooding witnessed in Pakistan and eastern Australia in 2022. These weather events can lead to casualties, damage to infrastructure, and widespread disruptions. Flood-related catastrophes could occur in parts of Australia, Southeast Asia, Southern Africa, and South America, where increased precipitation is forecast. La Niña will also exacerbate ongoing long-term drought issues associated with climate change. Being "stuck" in a La Niña phase will likely prolong ongoing droughts in East Africa, Europe, and North and South America. The current drought in the Horn of Africa affects more than 20 million people in Ethiopia, Kenya, and Somalia. With a La Niña oscillation forecast to linger until at least early 2023, the drought in the region is likely to worsen; another failed rainy season could see the humanitarian crisis reaching even more catastrophic levels.

Areas of Above- and Below-Average Precipitation Influenced by La Niña



Above-average precipitation



Below-average precipitation

Prolonging the ongoing droughts in certain parts of the world will likely affect agriculture, leading to further increases in food prices amid the current cost-ofliving crisis. In recent months, cotton crops in Texas and soybean and corn crops in Argentina have been devastated by the lack of precipitation in the respective regions. Droughts can also dry out rivers used for shipping goods, causing supply chain issues, as witnessed in Argentina and Germany in 2022. The risk of wildfires is also likely to increase in areas of drought.

Extreme Weather Becoming More Commonplace

With more extreme weather events occurring more frequently, existing infrastructure, maintenance schedules, and budgets are often insufficient to handle the increase, especially in developing countries. The way we have built our cities and grown our crops in the past has been based on historical prevalent climate norms that have since altered dramatically in many locations. Existing drainage infrastructure often struggles to cope with increased rainfall, resulting in devasting floods and landslides. Due to the recent prolonged heatwaves across the globe, power grids are being strained; blackouts and power rationing have been imposed in many regions. These strains on electricity supplies coincide with increased energy prices across much of the globe.

There is no evidence that this trend of an increase in the frequency of extreme weather events shows any signs of abating in 2023. Periods of extreme heat, drought, and torrential rainfall will likely continue to occur more frequently and intensely across many parts of the globe. Tropical storm systems will likely continue to increase in severity if not necessarily in the overall number. Many of these previously considered unprecedented climatic anomalies are likely to become increasingly common. The economic and human costs to governments are likely to increase as the number and severity of natural disasters increase. Businesses and travelers should be vigilant for potential natural hazards, especially in vulnerable areas. Aerial view of widespread flooding in Careiro da Varzea, near the city of Manaus, Amazonas state, during the rise of Negro River waters due to heavy rains and La Niña phenomenon in Brazil.

Conclusion

La Niña is associated with increased rainfall across parts of Australia and Southeast Asia and droughts across parts of Europe, the Americas, and East Africa. It also typically suppresses hurricane activity in the central and eastern Pacific basins due to stronger vertical wind shear, and enhances it in the Atlantic basin due to weaker vertical wind shear and trade winds. More frequent spring hailstorms and tornadoes across the south-central US are likely with La Niña. The current La Niña phase is likely to transition into a neutral phase in early-to-mid 2023; however, its impacts will likely persist throughout much of 2023 as the global trend of relatively unusual climate patterns becoming more commonplace looks set to continue.





Maritime

Low-level Piracy to Rise Worldwide despite Continued Drop in **High-level Incidents**

The trend of decreasing high-level piracy incidents¹ seen in 2022 will likely continue well into 2023, primarily due to successful international naval missions as well as landbased socioeconomic initiatives. Nevertheless, low-level incidents² may rise worldwide due to the global cost-ofliving crisis and economic uncertainty.

Key Judgments

- The frequency of high-level piracy incidents globally will remain at a low level or continue to decrease.
- Conversely, the frequency of low-level piracy incidents will increase worldwide due in part to global economic downturn.
- The increase in low-level piracy activity will largely counterbalance the positive effect of the reduction in high-level piracy incidents on supply chains.

The continued decrease in high-level incidents will have positive effects on supply chains by reducing operating costs. However, given that the areas where such incidents take place are relatively localized, the benefits realized may be outweighed by a potentially more widespread increase in low-level piracy. This is particularly true considering that low-level incidents typically take place at shipping chokepoints and thereby have a disproportionate impact on supply chains.

High-level Piracy

Over the past decade, high-level piracy incidents have primarily taken place in the Gulf of Guinea (GoG) and in the Western Indian Ocean (encompassing waters off the Horn of Africa). As a result, these areas have been designated as "High Risk Areas" (HRAs) by insurers, with ensuing ramifications on premiums, coverage, and route choice. Despite this, both HRAs have seen a significant decrease in incidents in recent years.

Following a peak in 2020, when 60 piracy incidents were reported, the GoG has seen a steady decline in piracy, with only two significant incidents reported between January and September 2022. Similarly, the Western Indian Ocean has experienced a drop in piracy, prompting shipping industry bodies to lift the zone's HRA designation in early January 2023. Despite a continued threat from piracy in the Gulf of Aden, the last successful hijacking by Somali pirates took place in 2017.

This trend is likely to persist due to the continued implementation of policies aimed at eradicating piracy by international and regional governments. Recent examples of such efforts include the handing of a Nigerian oil pipeline security contract to a former pirate and warlord,

Government Ekpemupolo, known as Tompolo, in August 2022. While the appointment was highly controversial, particularly among Nigeria's security agencies, numerous successes against militant and criminal groups were reported in the following months. Many of the groups targeted had been involved in piracy, and high-profile pirates have been killed or arrested as a result.

Low-level Piracy

With countries worldwide facing ongoing or looming cost of living crises, a global increase in low-level criminality is likely. This may take the form of piracy in coastal communities and the threat is particularly heightened in areas where international shipping is prevalent, as such vessels may be seen as lucrative targets. A similar situation played a role in the rise of Somali piracy from 2000, when illegal fishing and pollution by foreign trawlers threatened the livelihoods of local fishermen. Ultimately, the fishermen responded by attacking foreign shipping and taking hostages for ransom. While this was an extreme case and is unlikely to be replicated by the costof-living crisis alone, it highlights the increased threat from piracy at times of economic difficulty.

¹ Attacks or boardings with the intent to kidnap or hijack ² Armed or unarmed robberies

Low-level piracy typically occurs close to shore, at anchorages, or at chokepoints such as straits. This is because vessels in such places are grouped up and either stationary or slow-moving, providing a wealth of possible targets for would-be robbers, and the proximity to shore also allows small vessels to approach safely. At present, hotspots for low-level piracy include the Singapore Strait, the GoG, Bay of Campeche, the Peruvian port of Callao port, and anchorages throughout Indonesia and Bangladesh. Increased economic pressures may result in piracy in areas where it has not been recently reported, with a September 7 robbery near Suez being illustrative.

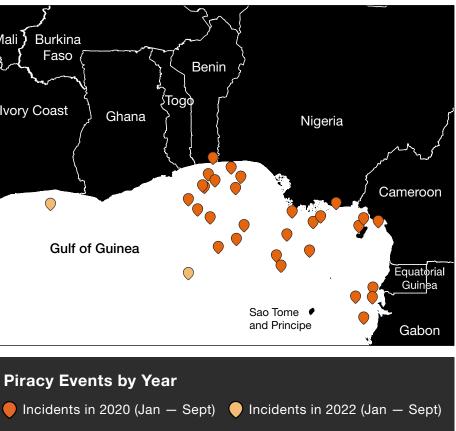
Conclusion

Piracy Incidents in the Gulf of Guinea

The removal of HRAs will result in decreased costs for shipping in affected areas and open additional routes for shipping. For example, vessels transiting the Suez Canal will likely see reduced premiums from January 1 with the removal of the Western Indian Ocean HRA. which extends north of the Bab-el-Mandeb and controls access to the Canal. However, such gains may be negated to a certain extent should low-level piracy increase significantly, especially if it proliferates in new areas. Vessels may require additional security when visiting affected areas, and any incident may cause delays at chokepoints.

This would drive up costs as well as result in more targets for potential thieves,

further disrupting supply chains still recovering from COVID-19. Insurers may also declare new HRAs should conditions deteriorate, such as a transition from opportunistic thefts to targeted ones. Worsening economic conditions worldwide are certain to cause disruption to supply chains, be it through labor unrest, changing consumer habits, or operational cost increases. Increasing piracy, albeit on a small scale, may also bring new challenges.





Aviation

Navigating Turbulence En Route to a Stronger Air Travel Sector

The global airline industry is inherently stable long term, yet vulnerable to the world's crises short term. Within the following year, the industry will likely continue to encounter day-to-day disturbances and significant longer-term operational shifts, as well as innovation and technological advancements to correct its course, continue its growth, and maintain safety standards. These changes have already led to increased costs for businesses and leisure travelers, delays and cancellations, changes to routes and service locations, and an emphasis on transparency and customer amenities, albeit for an additional charge. Such changes will continue; as the industry settles into a new normal, it will remain paramount to understand safety and security implications along with necessary company policy updates.

Current Situation

Events at the start of this decade significantly impacted the airline industry globally. The COVID-19 pandemic, the closure of Russian airspace, inflation, rising fuel prices, and supply chain and production challenges, combined with the re-emerging issues of global warming, a push toward sustainable aviation fuel (SAF), cybersecurity threats, and staffing levels, all led to the largest downturn in aviation history. The industry has proven resilient, but it was required to make changes to facilitate recovery from the pandemic and meet demands for future sustainability, profitability, and new growth.

The Turbulence

Staffing shortages and tension between carriers and unions felt worldwide have been magnified due to the strong post-pandemic travel rebound, as well as the continued decrease in capacity on many airlines compared to pre-pandemic numbers. Regional airlines will likely continue to suffer through the next year due to major carriers heavily recruiting staff from smaller

Key Judgments

- The current rise in operating costs for airlines will linger as fuel and labor costs continue to increase, and are ultimately passed on to the customer via fares and private charter prices.
- Airlines, particularly those recovering more slowly from the impact of the pandemic, will likely restructure operations by cutting routes, increasing fares, and introducing more partnerships and codeshare arrangements.
- New technologies will increase efficiency and passenger comfort but may open safety and security vulnerabilities.

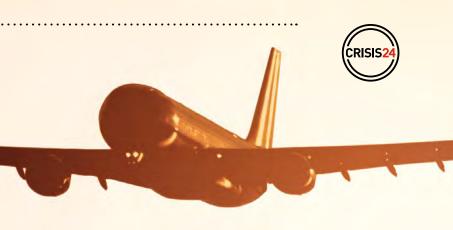
operations, as well as the business aviation side being required to compete with commercial airlines for qualified employees. These issues' impact on businesses and leisure travelers will most likely cause prices to continue rising. Flight delays and cancellations will likely persist, as will the permanent suspension of routes already seen in many global markets. Businesses should watch for route changes to continue into next year and plan for alternative means of travel to smaller cities.

Russia's airspace will probably remain closed to Western airlines through 2023, and some of those carriers will no longer be able to sustain long-haul detour routes, particularly connecting Europe and Asia. The longer routes increase fuel burn and flight hours and will not be a viable solution given higher fuel prices and staffing complications. Airlines will likely restructure their operations by cutting these routes or increasing costs to make a profit; this may be particularly true for carriers seeing slower recovery from the pandemic. These actions will leave routes unfilled or give rise to start-up carriers. Travelers will find it necessary to change preferred airlines or utilize airlines with codeshare or partner agreements serving those destinations.

The new technologies for increased security, safety, and efficiency, as well as for passenger amenities and comfort, will continue to emerge in 2023.

Such advancements include emphasis on artificial intelligence to drive more efficient routes or the use of fully automated customer service centers. High-speed in-flight internet on commercial flights will provide passengers with connectivity even on transoceanic routes. Technology, however, has cybersecurity vulnerabilities, as evidenced by distributed denial-of-service (DDoS) attacks at airports. Cyberattacks will likely increase, given the aviation industry's critical role across the globe and geopolitical significance of impacting a commercial airliner.

In the long term, the push for a more sustainable industry will give rise to new innovations, such as electric Vertical Takeoff and Landing (eVTOL) aircraft and sustainable aviation fuel (SAF). Although eVTOLs could revolutionize air mobility in cities, companies are unlikely to launch eVTOL services in 2023 and global implementation will take several years. Businesses will have to adopt policies, procedures, and risk mitigation to accommodate employee use. The push for SAF is more prevalent than ever, and countries continue to recommit to a more sustainable future with a goal for the industry to achieve net-zero carbon emissions by 2050. The industry is already seeing trends toward airlines taking actionable steps by placing SAF orders; however, due to current supply rates and the cost being almost four times as much as jet fuel, it will likely increase prices unless otherwise subsidized. Businesses not seen as "going green" will face increased scrutiny and brand degradation.



Conclusion

Many of the upcoming changes point toward increased costs to businesses and travelers, continued delays, and route cancellations, requiring users to change carriers and pay increased ancillary fees based on desired options. Business travel will continue to recover more slowly than leisure travel over the next year, and airlines will need to increase incentives to remain competitive within that market segment. The continuous push toward operational transparency within the industry, as well as the desire by businesses for a return to face-to-face human interaction, will continue to be major factors in the rate of recovery. As businesses increase global travel, staffing levels stabilize, and accelerating manufacture of new aircraft expands airline capacity, the associated flight costs should decrease and, by the end of 2023, begin to unveil a larger, more innovative, and sustainable industry.

Global Risk Forecast 2023

Cybersecurity

The Evolving Cybersecurity Threat through 2023

As cybersecurity incidents continue to dominate headlines, the main types of attacks likely to persist through 2023 include phishing, ransomware, and data theft. Furthermore, with remote working set to continue, social engineering will likely remain one of the key attack vectors in the coming year. The monetary impact of cyber threats, and the cost of mitigation measures, will continue to be significant. Organizations increasingly rely on cyber insurance to help cover the costs associated with a cyber breach; however, with the cost of premiums growing and coverage limits, organizations must take more proactive steps to mitigate against risks.

Key Judgments

- Cyberattack levels, particularly those utilizing social engineering techniques, are likely to remain high in 2023, impacting organizations of all sizes and from all industry sectors, with significant monetary impact.
- Hacktivism and state-sponsored attacks are likely to gain additional traction in 2023, as geopolitical tensions and environmental activism continue to shape the global sociopolitical environment.
- Organizations will continue to adopt proactive monitoring of deep and dark web sources, in combination with intrusion detection and breach alert solutions to allow for timely discovery of potential data breaches, and avoid legal ramifications related to more stringent privacy and breach notification requirements globally.

Cyberattacks on the Rise

Cybersecurity requires organizations to be dynamic.

Cyber breaches — defined as unauthorized access to modify, delete, or render unavailable any computer network and or system resource – are common, and the technologies, resources, strategies, and motivations of cyber threat actors are continually evolving. Cyberattacks have continued to rise globally, impacting organizations of all sizes and from all industry sectors. Threat actors include script kiddies, organized crime groups, hacktivists, and nation-states.

Social engineering techniques are responsible for over a third of all cyberattacks, with threat actors employing increasingly sophisticated methods. Most adversaries continue to launch phishing campaigns, the most reliable point of entry. In 2022 alone, the recovery from breaches related to remote working each cost an average of USD 1 million more than usual. The configuration and hardening of security systems are therefore crucial.

Hacktivism

In the last year, hacktivism rose, with Distributed Denial of Service (DDoS) attacks reportedly increasing by 60 percent in the first half of 2022, compared with the whole of 2021. This trend is expected to continue to gain traction, with political unrest and environmental activism motivating hacktivist groups to target states and private organizations. Various groups, including Anonymous, Cyber Partisans, and Pro-Russian Killnet, have launched campaigns associated with the 2022 Ukraine conflict. Cyber Partisans were responsible for targeting the Belarusian railway network resulting in the encryption of servers, databases, and workstations. The intent was to restrict the internal movement of Russian military forces in the country. Hacktivism also coincided with civil unrest in Iran in 2022 when a group called "Ali's Justice" interrupted a live domestic broadcast. Hacktivism will continue to coincide with global crises and incidents through 2023, mainly as attacks can be conducted anonymously and at a low cost to achieve significant propaganda or material gain.

State-Sponsored Attacks

State actors also employ information technologies and cybersecurity techniques in geopolitical conflicts and diplomatic disputes. In September 2022, the Federal Bureau of Investigation (FBI) and the Cybersecurity and Infrastructure Security Agency (CISA) published a joint cybersecurity advisory detailing a destructive cyberattack launched by Iranian state cyber actors against the Government of Albania. The attack rendered websites and services unavailable. The incident included ransomware-style file encryptor and disk-wiping malware. The actors maintained continuous network access for approximately a year, periodically accessing and exfiltrating email content, conducting lateral movements, network reconnaissance, and credential harvesting from Albanian government networks. Eventually, the Iranian state actors launched the ransomware, leaving an anti-Mujahideen E-Khalg message on desktops. When network defenders identified and began to respond to the ransomware activity, the cyber actors deployed a version of ZeroClear destructive malware, which rendered websites and services unavailable.

Likewise, there is an established precedent of cybercriminals targeting critical civil infrastructure, including government departments, licensing authorities, and transport and communication infrastructure. Cyber threat actors may target democratic institutions or take

Average Total Cost of Data Breach (Measured in USD Millions)





advantage of campaign processes to launch cyberattacks to extract data, obtain administrative access to systems, and potentially infect institutions with malware.

Ransomware Attacks

Ransomware attacks have evolved and increasingly rely on initial access provided by organized crime groups, otherwise known as "access brokers," before deploying more malicious malware. Monetizing the individual components of an attack — namely access, data exfiltration, and malware deployment as separate services — has contributed to the rise in attacks and monetary demands, as parts are outsourced to various threat actor groups, with each taking a cut. This operating model has streamlined the attack process and will likely continue into 2023.

The coupling of ransomware attacks with data theft has seen organizations shift to proactive monitoring of deep and dark web sources. In many instances where organizations have poor visibility of their networks and data, other vendors or clients may be alerted to a breach in advance through their monitoring solutions. This trend will likely continue, particularly as more jurisdictions impose more stringent data privacy and breach notification requirements. As such, timely intrusion detection and breach alert solutions will become increasingly pertinent.

Conclusion

As 2023 develops, organizations can take several simple steps to secure their networks and systems, such as updating security infrastructure and information technology systems regularly and avoiding using obsolete software and hardware systems. Furthermore, organizations should train staff on basic cybersecurity practices, including identifying suspicious activity, reviewing access controls, and enabling two-factor authentication on user and service accounts.



Five Key Risk Trends: Cybersecurity



Health

Vaccine-preventable Diseases in a Post-COVID-19 World

Over the course of the COVID-19 pandemic, immunization programs aimed at preventing several vaccine-preventable diseases (VPDs), such as measles, were halted to prioritize COVID-19 containment and response. Nations with already weakened or underfunded healthcare infrastructure experienced the greatest negative impact from the suspension of routine immunization programs. Since 2020, these countries have reported an increase in the incidence of VPDs. Moreover, because COVID-19 restrictions have been dropped, national borders have re-opened, leading to increased mobility and consequent reports of VPDs in countries that normally have high immunization coverage.

The Current VPD Situation Globally

VPDs include diphtheria, hepatitis B, measles, polio, some forms of pneumonia, tetanus, whooping cough; and varicella (chickenpox) and herpes zoster (reactivated chickenpox or shingles). If untreated, these diseases can lead to serious health complications and sometimes death. Vaccines offer protection against these diseases and reduce transmission among family members, coworkers, neighbors, school mates, and other members of society. Meningitis is more prevalent in all regions, excluding North America, East Asia and the Pacific. Whereas varicella and herpes zoster were more prevalent in the Middle East and North Africa region, Latin America and the Caribbean, Europe and Central Asia, East Asia and the Pacific, and North America. Historically, these regions have reported a similar trend in VPD outbreaks over the last decade.

The rise in VPD incidence in countries with historically high vaccination coverage can be attributed to whether the country has implemented mandatory vaccination policies. In countries with fewer resources, the rise in VPD outbreaks can be attributed to political will, conflict, vaccine supply, delivery, and access.

Key Judgments

- Vaccine-preventable diseases (VPDs) are highly transmissible and occasionally fatal to unvaccinated or under-vaccinated individuals, especially adults.
- VPDs have high economic costs, specifically in the form of employee absenteeism to recover from disease or to care for ill family members. Such costs can disproportionally impact small businesses, and companies operating in countries without welldeveloped laws on leave time for workers.

Societal Impacts

Individuals most impacted by VPDs are those who do not have ready access to vaccines and those who are hesitant to be vaccinated. Low vaccination coverage and uptake in well-resourced countries can be attributed to vaccine hesitancy whereas, in under-resourced countries, inequitable access to vaccines is linked to supply chain issues, suboptimal storage facilities, conflict, political will, as well as religious and cultural perceptions.

Vaccine hesitancy is the refusal or delay in acceptance of safe and effective vaccines due to fear. misinformation. and myths that have been fueled by the so-called "antivax" movement and inaccurate science. When vaccine hesitancy is prevalent, it is possible for VPD-associated outbreaks and deaths to rise. To prevent and effectively manage such outbreaks, surveillance strategies are crucial since the data collected allows countries to accurately set priorities and develop targeted interventions to alleviate them. This data includes case counts and rates, vaccine coverage, and the proportion of individuals who either "strongly disagree" or "somewhat disagree" that vaccines are safe.

Individuals ill with VPDs are unlikely to be able to work throughout the duration of the illness. These diseases have incubation periods ranging from 7 to 21 days.

The attitudes toward vaccine uptake are divided between the global south and global north, with 92-98 percent of countries located in South America, South Asia, North Africa, and southern Africa supporting the relevance of vaccines and their importance in reducing VPDs. In the global north, some regions report over 80 percent of their countries share the belief that vaccines are safe. For every one percent decline in vaccine hesitancy, nearly four COVID-19-related fatalities per 100,000 population are averted, with the greatest impact observed among the young. Furthermore, in areas where vaccine hesitancy is high, fatalities are nearly seven times greater than in those areas with low vaccine hesitancy. This highlights the importance of vaccination coverage in preventing COVID-19 transmission.

Disruption of Immunization Services due to COVID-19

During 2020, many countries reported disruption of essential health services, such as immunizations, due to the pandemic. Nearly one-third of countries currently report ongoing supply chain disruptions, potentially impacting the availability of vaccines needed to prevent VPDs. Immunizations were among the worst-affected health services during 2020, specifically in rural areas (70 percent) and health facilities (61 percent). Globally, nearly 40 percent of immunization services were disrupted compared with approximately 50 percent in the African region, nearly 25 percent in the European region, 55 percent in the Americas region, and more than 10 percent in the Southeast Asian region. The high immunization service disruption reported in the



African region during the pandemic can be attributed to governments prioritizing the management of COVID-19 through increasing personal protective equipment, such as gloves and surgical masks. Routine immunization campaigns, especially in rural areas, were halted to prevent transmission of the virus. In the Americas region, the high immunization disruption was not only due to governments' focus on managing the pandemic, but also to misinformation regarding the severity of the disease leading to a high incidence in disease transmission and associated-deaths.

Once the COVID-19 vaccine was made available to the public, well-resourced countries purchased nearly all WHO-approved vaccines, leaving little for the rest of the globe. This highlighted the inequitable distribution of vaccines and the significant impact it has on worsening disease transmission. The African region and Latin America were greatly impacted by the limited access to the vaccines. Whereas, in the global north, even though populations had limited barriers to access a vaccine, vaccine hesitancy and misinformation of vaccine safety, hindered vaccine uptake which led to the rapid rise in COVID-19 transmission rates.

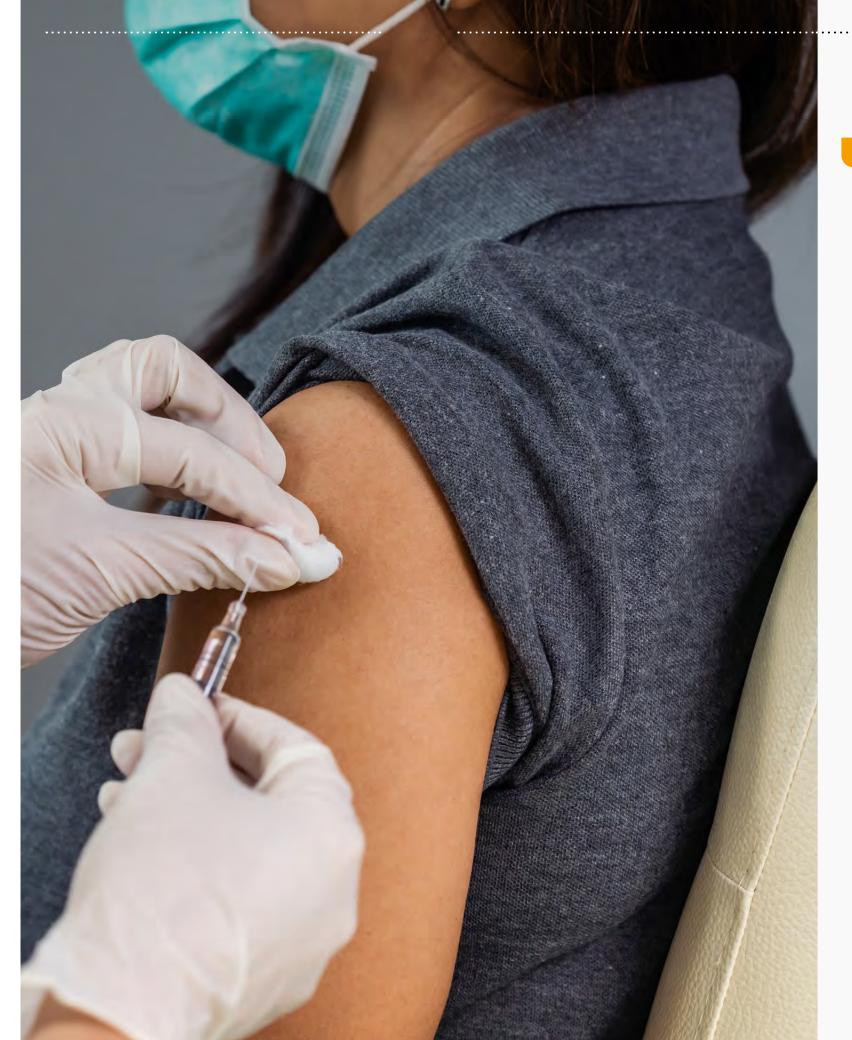
Economic Cost of VPDs

Vaccination is one of the most cost-effective ways to prevent disease transmission and plays a significant role in the overall public health of a country. The economic cost of becoming ill from a VPD impacts not only individuals but also the workforce as a whole and, by extension, national economic growth.

The protection against VPDs like varicella or herpes zoster (shingles, HZ) is spread across the lifespan when given at an early age, suggesting that if children are healthy, this will lead to healthy and productive adults entering the workforce. If the population is unprotected against VPDs, it will lead to lower productivity due to higher illness-related employee absenteeism. In countries where businesses do not offer flexible benefit packages, employees can experience further stressors in the form of high unexpected medical bills and lost wages.

The increase in VPD transmission has major implications for the workforces of countries that are not accustomed to managing related outbreaks. In the longer term, immunization campaigns are cost-saving since they are an effective strategy to prevent infection and reduce deaths. Therefore, during a VPD outbreak, these nations spend more money on related medical tests, treatments, and procedures, and caregivers require additional time off work to care for the sick. HZ is a useful example of a VPD having a significant impact on the workforce: this form of infection can be more fatal in older individuals than younger ones, with those infected with HZ experiencing long-lasting neurological pain of nearly 90 days following the initial rash. Individuals who have been infected with HZ reported nearly 116 hours of work loss for each HZ episode representing 14 days of productivity loss for the business.

From a practical standpoint, however, the actual impact that VPDs will have in the coming year will vary greatly depending on company size and business model, as well as the countries in which they operate. Small companies operating in jurisdictions with fewer laws on worker compensation and benefits will likely have greater difficulty absorbing the direct expenses of and lost productivity from upswings in VPD transmission; this could have a disproportionate impact on national economies in countries where small business represents a significant portion of GDP. Medium and larger companies, on the other hand, will remain much better prepared to mitigate the impact of VPDs, especially in countries having well-established worker compensation laws and government-run public healthcare programs where expenses behind such schemes are already rolled into the cost of doing business.





Conclusion

Businesses will continue to experience negative financial impact from productivity losses due to VPDs through 2023, despite the significant progress made toward ending the pandemic and the lifting of most associated restrictions. The economic cost of VPDs will remain high; it will therefore be crucial for companies to have appropriate policies and strategies in place to ensure employees can avail themselves of vaccines as a hedge against diseaserelated drops in productivity.

Expert Insights

The strength of Crisis24's intelligence lies in our analysts' expertise and commitment and our powerful AI technologies. Crisis24's experts draw upon decades of experience helping individuals and organizations understand the global threat environment. In this series of interviews, some of our leading regional and subject-matter experts talk about the state of intelligence and how it helps inform decisions so your organization can operate with confidence and achieve organizational resilience.

Open Source Intelligence: How Crisis24 Makes Open Source Intelligence Actionable	Page 59
Embedded Intelligence Services: Using Embedded Intelligence for Dynamic Decision-making	Page 61
Artificial Intelligence: Elevating Integrated Risk Management through Artificial Intelligence	Page 63
Crisis Management: Ground Truths Remain Essential to Planning and Managing Crises	Page 65







Open Source Intelligence

How Crisis24 Makes Open Source Intelligence Actionable

In today's social media-rich environment, vast amounts of information about incidents and events worldwide are readily available. Through social media channels like Twitter, Facebook, Telegram, and the like, individuals have become eyewitnesses and reporters with the tap of a send button.

For risk and security companies tasked with gathering intelligence about crisis points and incidents for their globally dispersed clients, that information, known as Open Source Intelligence (OSINT), can be a boon — but only if vetted expertly to make sure that what is reported is accurate, timely, and actionable.

"We rely on OSINT to inform our clients about events or incidents that may potentially impact their personnel, travelers, and assets," says US-based Director of Intelligence Sumedha Senanayake.

The issue with regard to open source information is verification – finding out what is accurate –because there are no checks and balances. In other words, there is no overseer of all this information. OSINT is only as useful as the verification and analytical process behind it. "Social media is like fire, it's incredibly useful, but it can burn your house down if you're not careful," notes UK-based Director of Intelligence Jonathon Keymer.

With such a vast amount of information, companies need to be able to sift through it to verify what is accurate. Risk management organizations have the expertise to efficiently vet information, analyze it, and provide guidance to clients to mitigate any risks.

"OSINT sources that we have historically found to be neutral and accurate are the ones we use. At the same time, with the rise of citizen journalists and organizations that sprout up [on social media], we're always searching for new sources to verify information so clients can protect their assets, make informed decisions, and remain resilient through a crisis," says Senanayake.

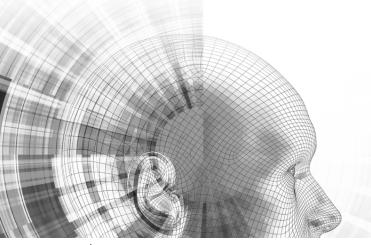
Taking care of the "fire" of social media includes separating accurate reports from inaccurate ones, but also distinguishing between misinformation — cases where reports are simply inaccurate or wrong, from disinformation — cases where the inaccuracy is deliberate and intentional. Yet even disinformation can provide useful data and insights. Keymer notes that there is usefulness even with unreliable sources, "by accurately identifying the bias or motivation behind disinformation, even misleading information can be a powerful tool for clients."

In addition to carefully vetting the influx of data across channels, the development of Artificial Intelligence (AI) tools has proven to further elevate the faster, more accurate analysis of incoming reports. AI can seek out the corroborating sources that make OSINT work, which becomes most useful when you're working with multiple independent sources. AI can also aid in determining how reliable a given source is, and by speeding up the process of confirming multiple reliable sources, intelligence and guidance can be delivered to clients more quickly.

A business's ability to make quick informed decisions is critical to avoiding, mitigating, and responding to potential risks. Harnessing the power of OSINT responsibly can be among the sharpest tools to avoiding the twin roadblocks of misinformation and disinformation and producing timely, accurate intelligence.



We're always searching for new sources to verify information so clients can protect their assets, make informed decisions, and remain resilient through a crisis.



Expert Insights: Open Source Intelligence

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Sumedha Senanayake

Director, Global Intelligence

US-based Intelligence Director responsible for overseeing regional intelligence teams. Sumedha joined Crisis24 in 2008, and holds a Master's degree in Arab Studies from Georgetown University, as well as a Bachelor's degree in Psychology from Sarah Lawrence College. He was on the ground in Sri Lanka, performing research and fieldwork, during the final years of the civil war.

Jonathon Keymer

Director, Global Intelligence

London-based Intelligence Director responsible for watch operations and category intelligence. Jonathon joined Crisis24 in 2015 and was previously the head of the Europe and Central Asia analyst team. He holds a Bachelor of Science in Economics from Queen Mary and Westfield College, London University, along with a Master's degree in Arms Proliferation and International Security from Kings College, London University.

Embedded Intelligence Services

Using Embedded Intelligence for Dynamic Decision-making

Embedded Intelligence Services (EIS) have quickly become one of the most valuable security intelligence resources for several industries — specifically for understanding how to mitigate threats. EIS brings an analyst — or even a team of analysts — in-house so that intelligence support can be immediately accessible and better aligned with the organization's culture and its specific risks.

An embedded intel program is meant to add value, supporting all security operations and departments of an organization. It utilizes tactical and strategic intelligence to better understand potential disruptions, threats, and reputational concerns impacting their properties, employees, customers, and events. It provides greater clarity about complex threat information, which helps leaders navigate crises and keep pace with often rapidly changing circumstances.

Using an analytical methodology to assess large amounts of disparate data, an internal intel team can identify threats quickly and communicate them to client leadership. In contrast to other intel services, embedded intelligence is more aligned with a specific organization. Not only can it identify overall threats across categories, but can also focus on what those threats mean at that time and advise how the client can respond in the most comprehensive and timely manner.

For one client, the EIS analysts provide value by offering situational awareness and actionable intelligence for ongoing geopolitical issues and global incidents. Crisis24's client initially requested support at the beginning of the COVID-19 pandemic to understand the impact on their employees and sites. The EIS team built comprehensive scorecards summarizing the situations in the vicinity of all their global offices. As additional incidents emerged, the team was able to pivot to providing actionable intelligence and support regarding how the California wildfires and the 2020 US Presidential elections and related civil unrest could affect the client's employees, facilities, and assets. "The use of embedded intelligence across organizations and industries has seen incredible growth," says EIS leader Kristin Lenardson.

"In the past 10 years, embedded intelligence has significantly grown in the private sector from a few thousand analysts when I started to having tens of thousands of analysts now making up embedded intel teams worldwide. Two universities now offer professional intelligence programs. That is just the beginning as companies fully realize just how invaluable this level of intelligence is."

EIS is also a scalable solution. Depending on a client's global footprint and organizational size, EIS can be scaled up or down as needed. Several organizations have 24x7 teams, with analysts all on-site or in a follow-the-sun model. However, others may need a smaller program with a single, or even a part-time, analyst supporting their global security team. The scalability of an EIS team is dependent on the client's need and not the size of the organization. EIS also provides smaller programs and one-off projects as needed for clients.

With security professionals embedded in an organization, communication becomes much more effective. Intelligence analysts who can quickly digest complex and conflicting information become the trusted voice on global threats and operational information for an entire organization, ensuring that decision makers always have the best available information. They also serve as a filter for senior leadership, protecting their time while monitoring events until they exceed predetermined thresholds.

Another growing trend of EIS is the sheer reliance of organizations on embedded teams, which are increasingly involved in areas that have traditionally been the sole responsibility of the security department — from risk to crisis management and business continuity.

"Now, embedded intelligence is much more all-encompassing," says Lenardson. "That shift can be tied in part to the COVID-19 pandemic, as intel teams had to learn several new skill sets immediately to help organizations pivot and quickly respond to the changing environment."

ElS analysts can help anticipate events before they happen, allowing businesses to stay ahead of the next geopolitical crisis. By forecasting potential business disruptions and reducing uncertainty, an ElS team prepares decision makers with the best information before the next crisis, ensuring your organization is dynamic and information-driven.

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In the past 10 years, embedded intelligence has significantly grown in the private sector, from a few thousand analysts when I started, to having tens of thousands of analysts now making up embedded intel teams worldwide.





Kristin Lenardson

Vice President, Embedded Intelligence Services

US-based Vice President of Embedded Intelligence Services, responsible for managing the Crisis24 embedded intelligence team. She joined in 2020, and holds a Bachelor's degree in criminology from Valparaiso University. Kristin is a past president and founding board member of the International Protective Security Board. Prior to joining Crisis24, Kristin spent close to 10 years with the FBI.



Artificial Intelligence

Elevating Integrated Risk Management through Artificial Intelligence

Companies are operating in an unpredictable and continuously changing world. In a fast-paced hypergrowth industry like risk management, tools developed and used across the sector will continue to revolutionize how we find solutions. One of these tools has already positioned itself as a key component to elevating how organizations operate, particularly in the security industry: Artificial Intelligence (Al).

"Al is already a game-changer in risk management and with the continued research and efforts being put behind its power, and potential by the brilliant minds in the space, will only continue to prove its unmatched value," says Al expert Matteo Grella.

The key advantage of AI is its ability to transform data into knowledge automatically by processing and tagging content — such as incidents or customer requirements — with metadata, classifying and aggregating them, and making them easy to retrieve and process for indepth analysis. This allows a better understanding of event impacts, implications, and outcomes, opening the door for companies to determine more accurately and efficiently where data is coming from and how it can be best utilized to enhance their services.

For risk management firms, AI supports analysts by rapidly tracking global and hyperlocal events. When used as part of a more nuanced process called online threat monitoring (OTM), the AI uses Machine Learning techniques applied to natural language processing and audio-video analysis for information filtering, for example, to distinguish incidents or threats from non-relevant data.

Al can identify and process massive amounts of data via various avenues, including Open Source Intelligence (OSINT), such as online media, magazines, radio, television, and newswires, and Social Media Intelligence (SOCMINT), which encompasses all social networking sites such as Twitter and Telegram – all with a degree of autonomy.

To put it simply, Al does in a matter of seconds what it would take people hours. As a result, analysts can avoid repetitive monitoring tasks and instead focus on evaluating events and producing analysis, tasks in which the human brain still reigns supreme.

"This process extracts, analyzes, and outlines the most important information in over 45 languages maintaining state-of-theart accuracy, resulting in wider (coverage), deeper (hyperlocal), faster (speed) and curated (precision) intelligence," Grella explains.

Both the behavior of mankind and the unfolding of events are ever-evolving and sometimes unpredictable. On the other hand, we live in an age where vast amounts of information are immediately available online, with an estimated size of around 5 million terabytes of data. Sources can come from anywhere, and up to 90 percent of that data is characterized by unstructured information, like text, video, audio, and social media.

The marriage of "man and machine" — rather than relying solely on AI — leverages the knowledge and resources that both offer. This union will revolutionize how we gather, analyze, and utilize information in any industry, at any level, for any purpose.

"A conscious use of AI by combining man and machine, is not only crucial to improve the performance of your business but vital to taking it to the next level," says Grella.

For an industry rooted in timely and accurate intelligence, that, in many cases, is essential to the safety of people, assets, and organizations across the globe, the value of AI is simply unmatched. And in order to fully utilize all of its potential, companies must work from a unique approach to intelligence gathering by leveraging the value of open sources, combining man and machine, and supporting search and analysis methodologies based on the most recent advancements in information technology research.

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Al is already a gamechanger in risk management and with the continued research and efforts being put behind its power, and potential by the brilliant minds in the space, will only continue to prove its unmatched value.





Matteo Grella

Head of Research and Artificial Intelligence

Italy-based Head of Research and Artificial Intelligence, responsible for managing Crisis24's global AI team. He oversees the application of cutting-edge technologies enabling analysts to track global events faster and have a better understanding of their impact, implications, and outcomes. His experience includes AI projects at private companies, universities, and government agencies. His research focuses on Natural Language Processing and related Machine Learning models.

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Crisis Management

Ground Truths Remain Essential to Planning and Managing Crises

Effective crisis management starts well before the critical incident itself, and organizations looking to operate securely in the fast-changing conditions of places like Ukraine need to harness the power of ground truth. That's how organizations with a comprehensive portfolio of resources and intelligence – from a physical "boots on the ground" approach to harnessing and analyzing the crucial intelligence from thousands of sources allow them to protect people, assets, and organizations worldwide through effective crisis management. Intelligence informs both planning for crises — shaping contingency plans based on actual or realistically potential situations – and the crisis management required when situations change or deteriorate. In order to provide the most effective services when it comes to crisis planning, security, and safety, organizations need an array of intelligence sources, from commercially available satellite coverage and privileged human intelligence (HUMINT) to open source intelligence (OSINT) gathered and vetted for utmost accuracy.

"During a crisis, ground truths are absolutely essential," says security risk and crisis management expert Graeme Hudson. His operational support teams develop what Graeme calls "bespoke, spotlight intelligence projects." Those, he says, "provide essential situational awareness that allows the

crisis management team to make the most informed decisions."

In Ukraine, for example, teams deployed on the ground are physically engaging assets and making their own observations, breaking through any clutter or misconceptions that might be portrayed in the media or online sources.

Another example, Hudson notes, is a situation in which a client was attempting to self-evacuate from Ukraine shortly after the Russian invasion and requesting remote support from Crisis24. Using on-the-ground assets in each of the bordering countries (Poland, Slovakia, Hungary, Romania, and Moldova), the team was able to advise the client on the best route to take, avoiding recent military action and areas that were likely to be heavily congested due to checkpoints or other obstacles. The client was monitored remotely using cell phone tracking until they had successfully crossed into Slovakia, approximately 24 hours later.

In any crisis situation, it's imperative for organizations to have a plan in place in order to protect their people and assets. To really set a team apart, however, is the merging of security, crisis management, and operations. While many companies might provide crisis management remotely, in the Crisis24 approach, says Hudson, "team members are physically on the ground and engaging. We've developed local assets that we can draw upon and use to help inform."

Why is ground truth so important? Because it comes into play long before any crisis point and can inform other aspects of the overall plan or process in invaluable ways: "Early in contingency planning work, companies should use the most up-to-date intelligence as a 'sanity check' to demonstrate ground truth," says risk consultant Philip Kennington. "If the client is on board with the ground truth, you can then use experience and ongoing monitoring to suggest scenarios that could occur."

The benefit to the client is twofold. On the front end, the use of ground truth and other intelligence, feeds into developing crisis management plans to help to make sure that any plans being put together are contingent on the real events that might be occurring on the ground.

Another benefit of accurate intelligence is that it allows companies and their clients to continually reevaluate developing situations relative to the "trigger points" identified in each client's contingency plan. That promotes guick reactions based on actual threats when situations do change, ensuring that the actions taken are the best for the circumstances. Experiences in the weeks leading up to Russia's invasion of Ukraine, for example, provide a case in point, says Hudson: "Misinformation ahead of the invasion created a general lack of trust in what people were hearing in the media and from government officials, and it really impacted the speed and the decisions that were being made by our client organizations." Without a doubt, misinformation will muddy the waters and make it difficult for people to make the right decisions. However, intelligence companies with a thoughtful risk management approach are able to provide clarity around what is actually happening, thanks to a network of

carefully vetted sources and a strategically tailored

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contingency plan.

Early in contingency planning work, companies should use the most up-todate intelligence as a 'sanity check' to demonstrate ground truth.





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Graeme Hudson

Associate Director, All-hazards Response

UK-based Associate Director for all-hazards response at Crisis24. Graeme joined in 2016 following 10 years in the security risk and crisis management industry, working alongside international NGOs and government agencies. Prior to this, he served 15 years with the UK armed forces. He has advised on multiple cases as a primary and secondary response consultant including threat/extortion, kidnap and ransom, and cyber. He has managed over 120 cases as part of the response management team.

Philip Kennington

Senior Managing Consultant

Australia-based Senior Managing Consultant at Crisis24. Over the last 30 years, he has led product risk, security, and crisis management projects across Asia Pacific countries. He held senior risk management roles in the banking, telecommunications, high tech, and energy sectors. Philip is a former Royal Marines Commando, holds a master's degree in security and risk management and is a certified fraud examiner. Over the past year, he was deployed to Eastern Europe in charge of managing the ground operations for major international companies evacuating Ukraine.



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Crisis24 would like to thank our contributors, whose expertise gained from experience in both government and private sector intelligence agencies underpins our support capabilities to our clients, giving us unrivaled depth in the field.

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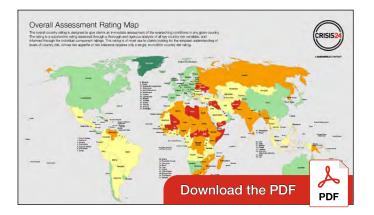
Zulfah Albertyn-Blanchard Category Manager, Intelligence (Health)





Risk Assessment Rating Maps

Overall Assessment Rating Map



The overall country rating is designed to give organizations an immediate assessment of the overarching conditions in any given country.

Political Assessment Rating Map



This map provides an assessment of the political conditions within a territory and its impact on businesses and foreign travelers. The map incorporates an analysis of challenges to government authority and its perceived legitimacy, and the prevalence of corruption and presence of sanctions. It also provides an assessment of the level of judicial independence and measures the consistency of application of legal decisions.

Security Assessment Rating Map

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This map provides an assessment of the security conditions within a country. It incorporates levels and prevalence of crime, conflict, terrorism and unrest, and the impact upon business operations and foreign travelers.

Kidnapping Assessment Rating Map



This map represents the overall kidnapping threat. The rating is influenced by several factors, including crime rates, common kidnapper motivations and modus operandi, the country's geopolitical environment, and the presence or absence of terrorism.

Infrastructure Assessment Rating Map



Health and Medical Assessment Rating Map



This map provides an assessment of the health and medical conditions within the country, specifically quantitatively assessing six main health categories and multiple sub-categories, including medical infrastructure, risk of trauma, ease of access to pharmaceuticals, and the prevalence of infectious diseases.

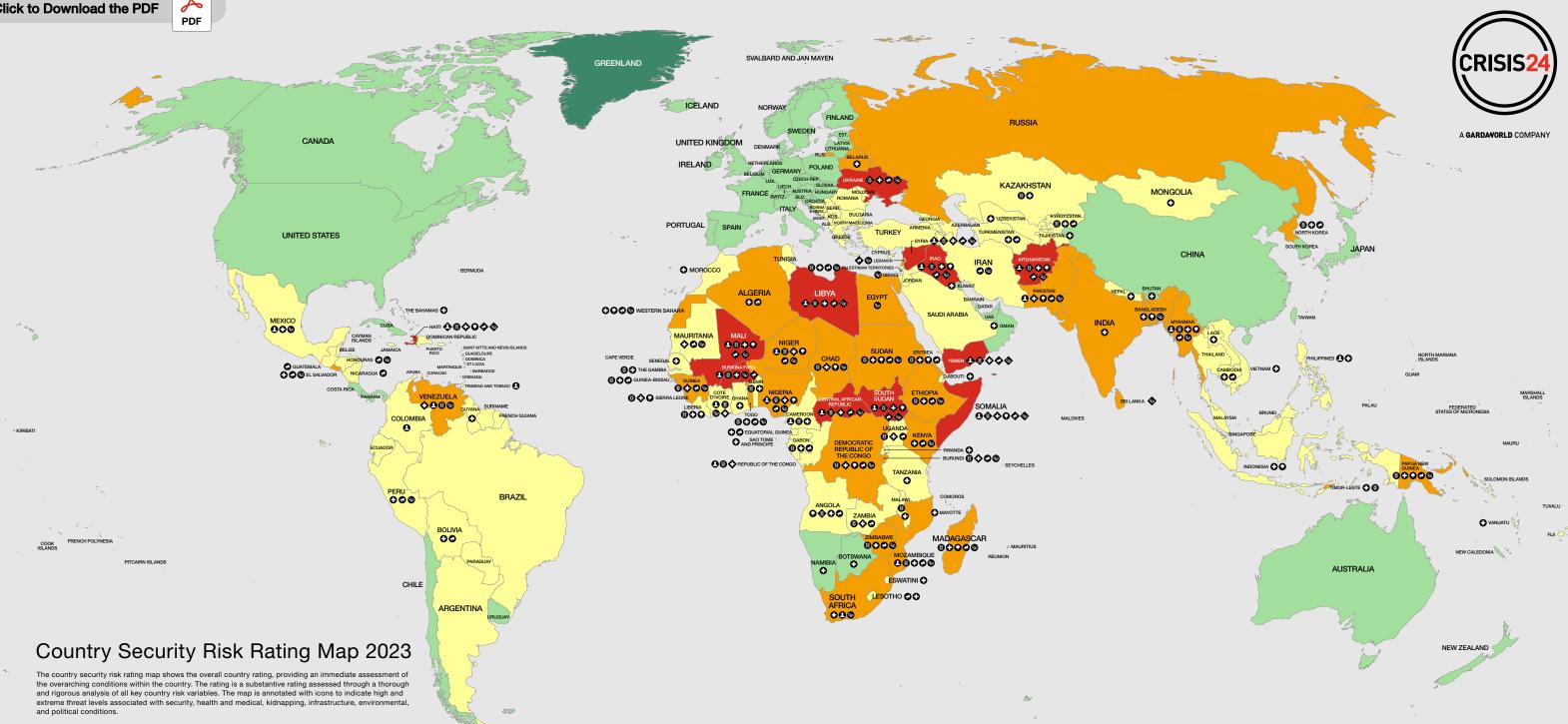


This map provides an assessment of the conditions and reliability of infrastructure within a territory. The rating is reflective of the safety, security, and regulatory standards as they relate to aviation, overland travel, and access to utilities. It also includes an assessment of digital and cyber threats, the level of technology employed, and the existence of dedicated cybersecurity mitigation measures at the country level.



Environment Assessment Rating Map

This map provides an assessment of the impact of environmental factors on business operations and travelers. It includes assessment of seismic events, extreme weather, and climate conditions. The category also includes the impact of man-made hazards, such as unexploded ordnance, industrial pollutants, and industrial accidents. Click to Download the PDF



OVERALL RISK RATING BREAKDOWN The overall rating provides an assessment of the overarching conditions within a country. It is a substantive rating assessed through an thorough and rigorous analysis of all key risk variables, including security, political, infrastructural, environmental, and medical challenges.		ariables,	EXTREME The operating environment is characterized by pervasive direct threats to business, personal safety and/or travel, requiring strict risk management procedures.		HIGH The operating environment is hostile and there are significant threats to business, personal safety and/ or travel, requiring comprehensive mitigations and planning.	MODERATE The operating environment is challenging and there are serious threats to businsess and/or travel requiring some mitigation.	LOW The operating environment is generally permissive, although there are a limited number of threats to business and/or travel that requiring basic mitigation.	MINIMAL The operating environment is benign and there are only isolated threats to business and/or travel.	
The threat of abduction is pervasive and endemic in the majority of the country or territory. Kidnappers		EME THREAT ARISING INFRASTRUCTURE is poor across most of the territory, and or safety concerns. Utilities provision is e or even unavailable throughout most of	dynamic incidents also occur and threaten health. Healthcare services		EXTREME THREAT OF ENVIRONMENT IMPACT Environmental hazards pose major challenges to the operating environment.	EXTREME THREAT OF POLITICAL INSTABILITY The country is effectively a failed state. Institutions are unable to provide basic services, and there is total breakdown of law and order.	EXTREME THREAT OF INSECURITY The security environment in the country is generally hostile and business operations face severe challenges.		
	HIGH THREAT OF KIDNAPPING The threat of abduction is pervasive and endemic, but may be elevated in specific areas or at specific times. Kidnappers typically target both locals and foreigners.	Infrastructure	THREAT ARISING INFRASTRUCTURE is underdeveloped in most of the safety standards are poor. Utilities netilable.	Health threats frequently. He	THREAT TO H AND MEDICAL are widespread, and dynamic outbreaks occur althcare services may be absent, disrupted, or have and challenges levels.	HIGH THREAT OF ENVIRONMENT IMPACT Environmental hazards pose significant challenges to the operating environment.	HIGH THREAT OF POLITICAL INSTABILITY State institutions are unreliable and ineffective throughout most of the country, and can only provide basic services in its capital and/or major urban centers.	HIGH THREAT OF INSECURITY The security environment in the majority of the country poses significant challenges, and there may be some regions that are inherently unsafe.	

Global Risk **2023**

About Crisis24, a GardaWorld company

Crisis24, a GardaWorld company, draws on 55 years of field experience to provide actionable risk management solutions to organizations around the world seeking to stay ahead of emerging risks. Our in-country intelligence analysts, highly specialized operational experts and proprietary technology platform enable us to deliver fully integrated end-to-end risk management solutions that help our clients protect their people, organization, assets, and cyberspace. Whether at home or abroad, organizations can grow their operations anywhere in the world with Crisis24 as a trusted advisor and partner of choice.

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