

CLIVER WYMAN

RESILIENCE IN THE GCC

HOW GULF COUNTRIES CAN STRENGTHEN THEIR GOVERNANCE OF MAJOR RISKS





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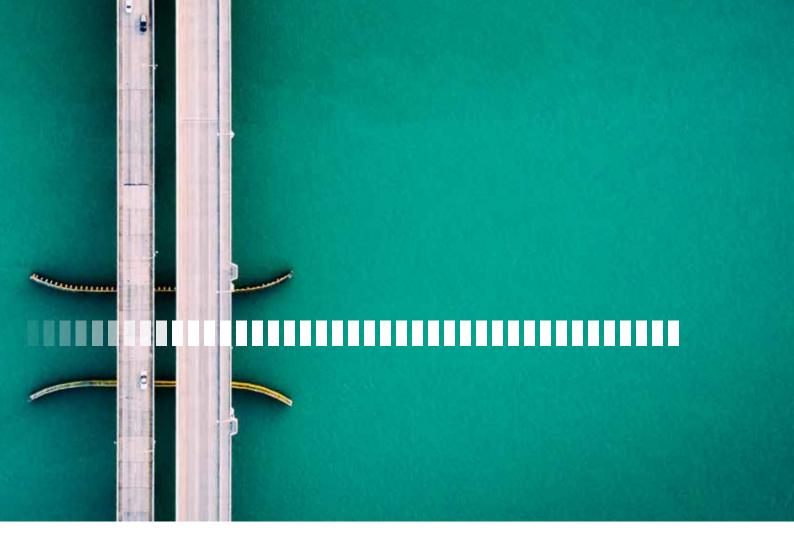
SUMMARY

Gulf Cooperation Council (GCC) countries experience an extraordinary array of risks that not only have the potential to disrupt societal wellbeing and economic activity today, but may also threaten the success of major economic transformations underway in the region. National leaders increasingly recognize the role that strong risk governance can play in building resilience, but this understanding needs to be turned into clear programs of action, involving government departments, the business sector, and citizens.

This short paper takes a Middle East lens to our firm's broader thinking on this topic. It begins by surveying the key risks facing the GCC nations. It then examines the efforts being made by individual states to grapple with the high-level risk agenda. It concludes by highlighting three priorities that would help regimes improve decision making and resource allocation for the long-term national good, and suggests that, given the character of their governments, Gulf countries have an opportunity to catch up with approaches to resilience in advanced economies and, in some areas, exceed them.

The core recommendations emphasize the importance of the following:

- Placing a risk management unit at the heart of government to coordinate national riskassessment efforts and drive the resilience agenda across the public sector and beyond,
- Developing strategies that encourage businesses, households, and other organizations to take on new risk responsibilities as part of a whole-ofsociety effort,
- Strengthening the resilience of critical infrastructure through tougher reliability and security expectations, and by investing in new assets to help forestall future crises.



RISKS AND EXPOSURES IN GULF COUNTRIES

Gulf countries are exposed not only to global risks, but also to threats and hazards specific to the region. The ongoing economic and, in some instances, societal transformations taking place add new layers of risk, creating an imperative for risk governance.

			NATURAL HAZARDS	HUMAN-INDUCED / ACCIDENTAL	MALICIOUS HUMAN ACTION	
RISK TYPE	Climate	Cyclones	Ē			
		Floods	(Å)			
		Rising temperatures	Σ	\mathbf{Z}		
	Food	Food import dependency	()			
		High pesticide levels in food		\mathbf{X}		
	Health	Animal disease outbreak	()		
		Human pandemic	()		
		Antibiotic microbial resistance				
		Foreign medicine dependency				
	Water	Declining desalination efficiency	5	R		
		Ground water contamination				
		Ground water depletion		\mathbf{X}		
	Economy	Dependency on expatriate labor		$\langle \rangle$		
		Dependency on oil		()		
	Societal	Crowd incidents		(>	
		Resistance to cultural change		Σ	\mathbf{X}	
	Security	Cyber attacks			()	
		Kinetic attacks/ terrorism			(Ē.)	
		Media/reputational attacks			(Ē)	
		Military conflict			()	
			Chronic/ cyclical	Fast-onset	Slow-burn	

Exhibit 1: Global and region-specific risks faced by Gulf countries – examples

THE MULTIFACETED RISK LANDSCAPE

Due to their pivotal location in the world, the harshness of the climate, and complex demographics, Gulf countries face an array of complex risks (see Exhibit 1). These include natural hazards (such as tropical cyclones), humaninduced accidental risks (such as groundwater contamination), and malicious human action (such as terrorism). While some of these risks manifest themselves via sudden incidents, others can be characterized by their slow-burn escalation.

Resource risks are felt particularly keenly, due to rapidly-rising demand for energy, food, and water in GCC states. First, growing domestic energy requirements may well undermine the potential for oil exports over time. Second, the region is highly dependent on food imports and also home to three major choke points – the Suez Canal, the Bab-El-Mandeb Strait, and the Strait of Hormuz – through which one-third of the GCC's basic foodstuffs must pass.

Water constraints present a third strategic challenge. On the one hand, water depletion in countries currently exporting food to the Gulf raises questions about their sustainability as a supply source over the long term; on the other, without major water-usage efficiency gains, depletion of assets within the Gulf itself are a major concern. Groundwater reserves have been significantly reduced following years of misguided agricultural practices, and the threat of groundwater contamination is ever present due to environmental misuse. Desalination, once presented as a futureproof solution, faces challenges of its own, with rising saline levels in the Gulf threatening to reduce desalination efficiency.

Health risks are also notable. Antimicrobial resistance, for example, is developing faster in Gulf countries due to over-prescription by zealous doctors, self-medication facilitated by over-thecounter antibiotic availability, and treatments where the required course of medicine is not completed.

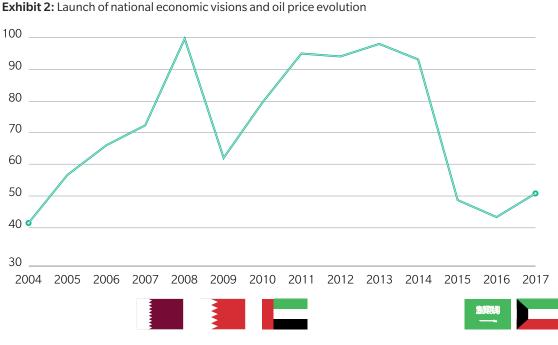
Malicious threats remain equally prominent, driven by political instability in neighboring countries, as well as other socio-economic factors. Low levels of terrorism activity exist, but those are dwarfed by the cyberattacks targeting government and private sector organizations in some states.

The increased movement of people between geographies, uneven levels of awareness and education, and entrenched behaviors are accelerating the spread of risks that might otherwise be contained. Moreover, the historical links between resource insecurity (primarily food scarcity) and political/societal instability are a stark reminder of the potential for risks to cross boundaries between economic and societal domains.

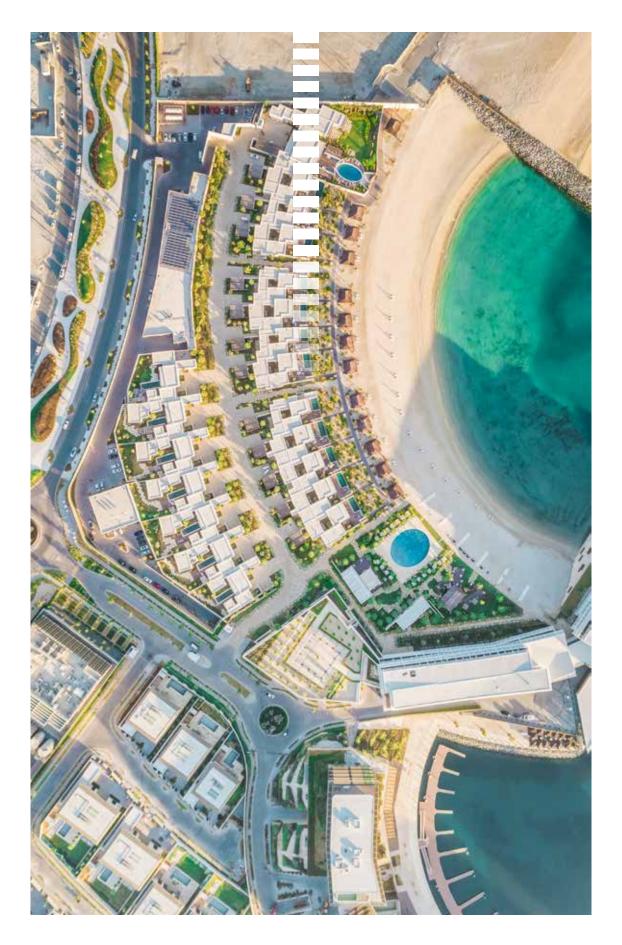
THE RISK MULTIPLIER OF SOCIO-ECONOMIC TRANSFORMATIONS

While some Gulf petro-monarchies presciently realized in the early 2000s that their economic dependency on oil was unsustainable, the global recession of 2008 and the rout in oil prices in mid-2014 catalyzed their launch of far-ranging national economic transformation programs (see Exhibit 2). Qatar and Bahrain launched their "Vision 2030" and "Vision 2035" in 2008, followed by the UAE in 2010 with its "Vision 2021". Saudi Arabia and Kuwait subsequently launched their own programs, "Vision 2030" and "New Kuwait 2035", in 2016-17. The success of these programs is critical to these countries' long-term sustainability. The programs have, however, created new societal risks, through their attempts to rein in government expenditure. Energy subsidies, for instance, long considered to be the birthright of citizens, have been significantly reduced in the UAE, Oman, Kuwait, and Saudi Arabia in recent years. While the introduction of programs such as Saudi Arabia's Citizen's Accounts has, to some extent, compensated less well-off families for higher energy prices, this has not been the case with public sector pay reform. In 2016, a three-day strike by workers of the Kuwait Petroleum Corporation took more than one million barrels per day off the market, representing more than a third of production. It does not take much imagination to envisage how such situations could be exploited by malicious actors with political agendas.

Without key institutional mechanisms to mitigate and prepare for such risks, there is a higher likelihood that catastrophic incidents will take place and that otherwise manageable events will get out of control. Given the pace of change, complacency and slow progress are not options. Strong risk governance is an essential building block in the edifice of government, demonstrating through both actions and perceptions that national leaders are acting in their citizens' best interests. Moreover, displaying an awareness of key risks, and developing programs and capabilities to mitigate them, can nurture the confidence of current and prospective investors (domestic or foreign), as well as directly contributing to national resilience.



Source: Oliver Wyman, Energy Intelligence Agency. Oil price data is the annual average WTI spot price in USD.



THEORY AND PRACTICE OF COUNTRY RISK GOVERNANCE IN THE GULF

National risk governance requires an extensive effort to identify, assess, mitigate, and prepare for all risks, irrespective of their nature. This in turn requires concerted interaction between different stakeholders, founded on unprecedented levels of collaboration. Gulf countries are starting to recognize this necessity, albeit to varying degrees.

STRUCTURING RISK GOVERNANCE THROUGH FRAMEWORKS

Risk governance frameworks provide an overview of actions during all phases of the risk management life cycle - from the observation and assessment of risks, to risk prevention and emergency preparedness, to emergency response and recovery, followed by learning and adapting for better future risk management. These frameworks may be conceptual or technical in nature, focused on outcomes or processes, vague or definitive regarding responsibilities. Well-known versions include the United Nation's Sendai framework for disaster risk reduction, which focuses on statelevel hazard management; the COSO and ISO risk management guidelines, oriented towards business organizations; and the OECD's principles, embedded in its recommendations for member countries on the governance of critical risks.

For broad-based, national risk management ventures, the OECD framework stands out, as

it articulates the importance of taking a holistic view of risks, covers both risk and emergency management, and sees national resilience as a collective, collaborative endeavor across all spheres of society (government, the private sector, and citizens). As a testimony to its pertinence, this "allhazards, trans-boundary" approach is also being adopted by some non-OECD countries.

The existence of a robust framework, however, is no guarantee of success. While advanced economies have made great strides in improving their risk resilience, they still face challenges in mitigating avoidable disasters. These challenges are driven by lags in necessary regulatory reforms, insufficient investment in protective infrastructure, and suboptimal contributions from the private sector and society at large.

RISK GOVERNANCE IN THE GULF - ON THE PATH TO TRANSITION

Risk management, as opposed to emergency management, is a relatively new science. Historically, governments developed emergency response capabilities to secure the safety of their citizens. This led to the creation of police forces, firefighters, ambulance services, emergency

rooms, and other services in what was essentially a "relief-centric" model. In due course, appreciating the socio-economic benefits from risk mitigation, many advanced economies began to take a longerterm view, balancing contingency preparedness with strategic mitigation investments. Traditional national security issues in the Gulf have dominated the risk discourse in the region. This is reflected not only in the focus of national security structures of states, but also in the absence of more broadly conceived risk management arrangements. When it comes to non-security risks (such as ones that are not driven by defense, intelligence, or politically motivated threats), most states remain anchored to the relief-centric model. While some have begun to institute a broader approach to governance, progress has been uneven. Moreover, the large role played by the public sector in Gulf countries, whether as the prime employer of citizens or as the owner and operator of public infrastructure, has led to bureaucratic inefficiencies. These are often instigated by hierarchical constraints that impede fast decision making and provide for lower transparency than exists in Western countries.

COUNTRY	STRUCTURE	COMPOSITION AND GOVERNANCE	RESPONSIBILITIES
BAHRAIN	 National Committee for Disaster Management (NCDM)* National Emergency Control Center (NECC) 	 Inter-ministerial committee, headed by Chief of Public Security Reporting to Minister of Interior 	 Coordinating observation, prevention/mitigation and preparedness Coordinating response to emergencies (NECC)
KUWAIT	 High Committee of Civil Defense (HCCD) Higher Emergency Committee (HEC) 	 Inter-ministerial committees, chaired by Deputy Interior Minister (HCCD) and Interior Minister (HEC) 	 Coordinating preparedness Coordinating response to emergencies (HEC)
OMAN 兴	 National Committee for Civil Defense (NCCD)* National Disaster Management Center (NDMC, within NCCD) 	 Inter-ministerial 1committee, chaired by Royal Omani Police Inspector General Reporting to Sultan 	 Conducting observation, prevention/ mitigation, preparedness Coordinating response to emergencies (NDMC)
QATAR	 Permanent Emergency Committee (PEC) National Command Center (NCC, within MOI) 	 Inter-ministerial committee, headed by Director General of Public Security (Interior Ministry) Reporting to Minister of Interior 	 Coordinating preparedness in the form of emergency plans Coordinating response to emergencies (NCC) – but more of a dispatch center
SAUDI ARABIA 选择预测	 A dedicated risk management entity is understood to be considered Civil Defense Committee (CDC within MOI) 	 N/A CDC inter-ministerial committee 	 Conducting observation, prevention mitigation, preparedness Coordinating response (NCSO) – but more of a dispatch center
UAE	 National Crisis and Emergency Management Agency (NCEMA)* National Operations Center (NOC - within NCEMA) 	 Chaired by National Security Adviser; under jurisdiction of Supreme Council for National Security Reporting to President 	 Coordinating observation, prevention/mitigation, preparedness Coordinating response to emergencies (NOC)

Exhibit 3: Gulf countries' institutional structures for risk and emergency management

Exhibit 3 provides a high-level view of the risk and emergency coordination institutions in Gulf states. This yields three main observations:

- Risk and emergency management remains the prerogative of the Ministry of Interior in most countries (Bahrain, Kuwait, Oman, and Qatar). Due to the Ministries' original mandates focusing on "traditional" security risks, this tends to skew the focus away from a comprehensive view of risks at the highest level of government.
- Despite their name, risk and emergency management committees vary in levels of capability. In Qatar and Kuwait, they are simply inter-ministerial committees; in Oman and Bahrain (as well as in Saudi Arabia and the UAE), they are dedicated entities with staff. The UAE model allows for in-house subjectmatter experts and the continuous support and monitoring of resilience-building measures across stakeholders.
- Emergency response coordination is linked to the broader risk management structure only in the UAE, Oman, and Bahrain. Other countries are therefore unable to leverage the relationships and knowledge built in times of peace (risk management) during times of crisis (emergency management).

The United Arab Emirates' dedicated risk management entity, which hosts an emergency response coordination center and is overseen by the highest inter-ministerial council in the country, makes for a winning combination in the region in terms of institutional maturity for resilience. The National Crisis and Emergency Management Agency (NCEMA) is governed by the Supreme Council for National Security, which plans and implements the country's overarching national security framework and is chaired by the UAE President. Qatar and Oman have been conducting comprehensive national risk assessments and complex scenario-planning exercises; both have launched National Resilience Programs. In Oman, the National Committee for Civil Defense (NCCD) is responsible for building the national risk register, which covers cyclones and floods, earthquakes and tsunamis, and industrial, transport, climate, and health risks. It coordinates 18 ministries, the armed forces, and police and civil defense bodies. Guiding the efforts of a National Emergency Management Center that reports to it, it is chaired by the Inspector General of the Royal Omani Police (who reports to the Sultan).

Recognizing the importance of mitigating national risks through multi-stakeholder coordination, Saudi Arabia is expected to establish a national risk unit in due course. Kuwait stands at the lower end of the spectrum, having a largely reactive, or reliefcentric, approach. It has nonetheless expressed its intention to implement the recommendations under the Sendai framework through its Fire Services Directorate.



DEVELOPMENT PRIORITIES FOR THE GULF AND UNDERLYING ENABLERS

Gulf countries face unique risks that may intersect with chronic security challenges and threaten their long-term economic and societal development ambitions. While risk awareness is growing, government leaders need to learn from global best practices and build out governance frameworks that mesh well with existing institutional arrangements.

States can strengthen their governance of national-level risks in three ways: setting up standalone risk management units to coordinate government efforts; promoting responsibility for resilience across society; and strengthening the resilience of critical infrastructure (see Exhibit 4). Delivering on these priorities will require making the most of core advantages and overcoming deep-seated challenges.

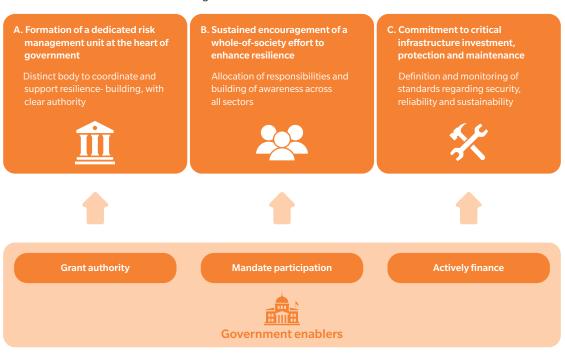


Exhibit 4: Priorities for successful risk governance in Gulf countries

Source: Oliver Wyman

A. DEDICATED AND STAND ALONE RISK MANAGEMENT UNITS

The primary role of risk management units is to coordinate resilience-building efforts across government. They may also engage with the business sector at a high-level and have an advocacy function across society more generally. One key activity is the development of a National Risk Assessment involving subject-matter experts, which can enable governments to understand the risk landscape and appreciate the potential damage from individual risks and knock-on effects. In some countries, risk units include personnel who support the anticipation and management of major

B. WHOLE-OF-SOCIETY EFFORT

Governments cannot do everything themselves. Individuals, households, communities, nongovernment organizations, religious institutions, academia, the media, and the private sector all play a vital role in supporting national resilience. This may involve helping to assess risks, being vigilant for early-warning signals, deploying safeguards, responding appropriately in crisis situations, and promoting good behavior. Specific examples include households stocking up on food and water reserves, communities looking after members crises, in alignment with government decision makers and the appropriate response agencies.

Owing to the nature of GCC governmental arrangements, political leaders can rapidly empower such units to take an independent view of the country's key risks, vulnerabilities, and response capabilities, with the aim of identifying solutions and directing resources to areas of greatest concern. Success, however, requires overcoming inherent bureaucracy, which can be especially challenging on initiatives that involve multiple ministries.

and visitors in emergencies, and corporations implementing cyber-security measures.

Well-respected governments in Gulf countries should be able to stimulate multi-directional communication, galvanize action and build this endeavor into broader societal change programs. To do so, they will need to overcome deep-seated expectations that safety and security are the responsibility of the government alone and to surmount a cultural and religious mindset in some constituencies that risk mitigation is a futile effort.

C. LONG-TERM COMMITMENT TO THE PROTECTION AND MAINTENANCE OF CRITICAL INFRASTRUCTURE

Critical infrastructure – whether for energy, water, transportation, healthcare, telecommunications, or banking – is vital for the daily functioning of society and ensuring responsive capacity during emergencies. Existing infrastructure needs to be kept secure and reliable in the face of an evolving risk landscape. This requires robust maintenance regimes, tested security arrangements (including both cyber and physical protection measures), a good understanding of interdependencies between assets and networks, and strong incident reporting mechanisms. It is also essential to invest in new, and possibly different types of, infrastructure in a timely way, anticipating major disruptive threats and societal transformations. Gulf countries that have a high level of state ownership of, or authority over, critical infrastructure should be able to roll out best practices quickly and consistently, mandating resilience requirements that elsewhere might experience pushback from private operators. GCC states are also able to make large-scale strategic investments in new infrastructure, with longer payback expectations than might be desirable for private investors. Progress, however, will require overcoming institutional inertia and mismanagement that can lead to significant project delays. It will also be important to reflect risk-reward arrangements and risk management expectations in public-private partnerships, given the increasing need for non-government capital to finance major developments.

RECENT PUBLICATIONS



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The World Economic Forum highlights the issue that will exacerbate volatility and uncertainty in the next decade - while also presenting opportunities for government and businesses to build resilience and deliver sustainable growth. Marsh and McLennan Companies has been a strategic partner of the report since 2006.

RISK GOVERNANCE DEFICITS

Prepared by the International Risk Governance Council with the assistance of Oliver Wyman, this report provides a structure for organizations to assess the effectiveness of their own risk governance structures and processes - particularly with regards to emerging risks.



MATERIAL IMPROBABILITIES

24 million

PRINCIPLES FOR THE GOVERNANCE OF CRITICAL RISKS

Five core principles adopted by OECD member countries, produced with the involvement of Oliver Wyman. The document sets out approaches to national-level risk and crisis anticipation, and the development of resilience.

GETTING PRACTICAL WITH EMERGING RISKS

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CLOSING THE FINANCING GAP

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EMERGING RISKS IN CONSTRUCTION

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