THE NEW SUPPLY CHAIN IMPERATIVE FOR THE GULF

EXECUTIVE SUMMARY

This White Paper presents a strategic imperative to the leadership of the Gulf Cooperation Council (GCC) member states: the construction of a fully integrated, resilient, multi-modal supply chain infrastructure network constitutes one of the most consequential national security investments the region can make in this decade to preserve and enhance generational economic security, growth and prosperity.

Strategic Thesis: The purpose of GCC supply chain resilience is not merely to survive an embargo after it is imposed. It is to deter the threat of embargoes by making them commercially, diplomatically, and operationally ineffective before they are attempted.

A region that can receive cargo outside a threatened chokepoint, clear it digitally, insure its carriers, move it overland through pre-authorised corridors, and draw from distributed strategic stocks cannot be isolated by a single maritime or political pressure point.

INTEGRATED INFRASTRUCTURE, COORDINATED GOVERNANCE, AND COMMERCIAL CONTINUITY DRIVE REGIONAL SUPPLY CHAIN RESILIENCE

3 CRITICAL MARITIME GATEWAYS HAVE FACED DISRUPTION

1 Strait of Hormuz	~20%	of global petroleum liquids
2 Bab al-Mandab	~Zero	LNG flows, 2024 – H1 2025
3 Suez Canal	30%	of global container traffic

IMPLICATION: GCC must reduce exposure through alternative routes, redundant capacity and strategic preparedness.

STRATEGIC PRIORITIES

1. STRENGTHEN CRITICAL INFRASTRUCTURE RESILIENCE
2. DIVERSIFY REGIONAL SUPPLY ROUTES
3. ENABLE SEAMLESS REGIONAL TRADE
4. ENSURE COMMERCIAL CONTINUITY
5. COORDINATED GOVERNANCE

KEY RECOMMENDATIONS

1. Power Security

Building a Resilient, Integrated and Secure Energy Future for the GCC

Regional electricity integration represents the programme's highest-return investment opportunity

US$25-40 BILLION
Required Investment

15-20%
Potential Operational Savings

US$80–120 BILLION
Avoided Generation Investment
between 2025 and 2040 using World Bank methodology

RECOMMENDED ACTIONS

- Expand GCC Interconnection Authority Network
- Deploy grid-scale battery storage
- Increase renewable and nuclear generation
- Strengthen regional cybersecurity

2. Water Security

Building a Resilient and Reliable Water Future for the GCC

- Expand distributed and decentralised desalination capacity
- Establish 90-day strategic water reserves
- Maintain 90-day stockpiles of critical desalination chemicals and equipment spares
- Develop cross-border water pipeline and emergency transfer protocols

3. Energy and Pipeline Resilience

Recognizing the distinct resilience requirements of crude oil and LNG is central to the proposed regional strategy

6.8M bpd existing operational crude oil export capacity bypassing the Strait of Hormuz

up to 3.8M bpd additional bypass capacity under construction or discussion

LNG presents a fundamentally different challenge
Because liquefaction and export infrastructure remains concentrated within the Gulf, physical bypass is not currently feasible

Recommendations for crude oil:

- Expand Saudi East-West Pipeline export capacity
- Accelerate UAE Fujairah bypass infrastructure
- Enhance Northern GCC pipeline connectivity
- Underground hardening of vulnerable pipeline segments
- Distributed strategic petroleum reserves

Recommendations for LNG resilience:

- Destination-flexible contracts
- Floating storage & regasification units (FSRUs)
- International cargo swap mechanisms
- Demand-side management agreements
- Diversify liquefaction infrastructure (Long-term)

4. Rail

Building the Backbone of Regional Freight

The paper recommends completing the 2,177-kilometre GCC Railway as the backbone of a regional freight network, linking Gulf, Red Sea and Arabian Sea ports while connecting to the Iraq Development Road, Turkey and wider Eurasian rail corridors.

Interoperable freight standards and seamless integration with ports, dry ports and logistics hubs.

PRIORITY PROJECTS:

- SAUDI LANDBRIDGE
- ETIHAD RAIL
- OMAN RAIL
- KUWAIT–BASRA CONNECTION
- QATAR–BAHRAIN CONNECTIVITY

5. Enhanced Port and Warehousing Infrastructure

Creating a network of ports to ensure continuity under any disruption scenario

1 ARABIAN SEA / HORMUZ-BYPASS PORTS

Duqm, Salalah, Sohar (Oman); Fujairah, Khorfakkan (UAE)

Receive cargo without entering the Gulf; move critical freight overland into the GCC via Oman–Saudi and UAE–Saudi corridors.

Primary bypass for a Hormuz closure.

2 RED SEA PORTS

Jeddah Islamic Port, King Abdullah Port, Yanbu, Jazan (Saudi Arabia)

Serve Europe/Mediterranean cargo, Saudi Landbridge flows, fuel export redundancy, and emergency stockpile access.

Critical for Bab al-Mandab and Suez disruption scenarios.

3 GULF PORTS

Jebel Ali, Khalifa (UAE); Hamad (Qatar); Dammam, Jubail (Saudi Arabia); Shuwaikh/Shuaiba (Kuwait); Mina Salman (Bahrain)

Normal commercial throughput; surge redistribution when non-Hormuz lanes remain open; regional consolidation for intra-GCC delivery.

Core for everyday flows and surge handling.

4 EXTERNAL FALLBACK PORTS

Aqaba (Jordan); Mersin, Iskenderun, Ceyhan (Turkey); East Port Said, Sokhna (Egypt); Djibouti; Mundra, Nhava Sheva (India)

Route substitution, supplier diversification staging, and crisis inventory pre-positioning outside GCC waters.

Essential for 90-180 day scenarios requiring rebuilt supplier relationships.

6. Expanded Overland Corridors

Building flexible, high-capacity road freight corridors

The paper recommends establishing a network of pre-authorised GCC heavy freight corridors linking Arabian Sea ports such as Duqm, Sohar and Salalah with Gulf and Red Sea gateways, integrating these routes with the GCC Railway and the Iraq Development Road to create multiple bypass options around regional chokepoints

ENABLING FAST TRUSTED AND RESILIENT OVERLAND FREIGHT

- MODERNISED JOINT BORDER POSTS
- HARMONISED VEHICLE & DRIVER REGULATIONS
- DIGITAL CUSTOMS
- AEO GREEN LANES
- INTEGRATED NETWORK

7. Critical Goods Continuity

Critical goods resilience should move beyond inventory management to integrated regional continuity planning.

PERFORMANCE OBJECTIVES

- 90 DAYS STRATEGIC FOOD RESERVES
- 180 DAYS HIGHEST-PRIORITY MEDICINES
- DISTRIBUTED STRATEGIC WATER RESERVES
- EMERGENCY AIR CARGO CAPACITY
- COMMODITY-SPECIFIC RESILIENCE STANDARDS

INTEGRATED REGIONAL CONTINUITY PLANNING

ENERGY · FOOD · PHARMACEUTICALS · WATER · INDUSTRIAL INPUTS · CRITICAL MANUFACTURING COMPONENTS

COORDINATED AT THE REGIONAL LEVEL

8. Legal, Insurance and Commercial Continuity

RECOMMENDATIONS

- GCC-backed sovereign war-risk insurance facility
- Finance continuity arrangements
- Pre-contracting shipping lines and emergency air cargo capacity
- Legal frameworks to prevent excessive pricing
- Electronic trade documents

9. Cross-Border Harmonisation

Cross-border harmonisation is essential to unlocking the full value of GCC infrastructure investment

TARGET OUTCOME

REDUCE TRUSTED-FREIGHT BORDER CLEARANCE TIMES

CURRENT		TARGET
~48 HOURS	→	<4 HOURS

RECOMMENDED MEASURES

- HARMONISED CUSTOMS PROCEDURES
- INTEROPERABLE DIGITAL TRADE DOCUMENTATION
- COMMON VEHICLE AND DRIVER STANDARDS
- MUTUAL RECOGNITION OF AEO PROGRAMMES
- SHARED CUSTOMS RISK-MANAGEMENT PLATFORMS

10. Resilience by Design

RECOMMENDATIONS

- Embedding resilience directly into the design and governance
- Adopting N-2 engineering redundancy
- Distributing critical infrastructure
- Integrating cyber resilience across transport and energy systems
- Standardising crisis activation procedures
- Conducting annual national resilience exercises and biennial GCC-wide simulations
- Institutionalising continuous public-private coordination

11. Crisis Response Playbooks

CHOKEPOINT RESPONSE PLAYBOOK TIMELINE

72 hours
- Activate alternative ports
- Emergency customs procedures
- Pre-contracted carriers
- Public communications

30 days
- Deploy strategic reserves
- Diversify suppliers
- Activate insurance mechanisms
- Prioritize critical freight

90 days
- Activate alternative corridors
- Regional power balancing
- Emergency procurement
- Maintain critical flows

180 days
- Structural resilience operational
- Diversified supply chains active
- Transition to steady-state
- Review & strengthen systems

KEY REGIONAL PERFORMANCE INDICATORS

<4 HOURS Border clearance for trusted freight	**72 HOURS** Port-switch activation to alternative gateways	**4-TIER** Port architecture operational
90 DAYS Strategic food reserves maintained	**180 DAYS** Critical medicines (top 500 SKUs)	**90 DAYS** Desalination chemicals & critical spares reserves
2,177 KM GCC Railway network	**6.8M BPD** Existing crude oil bypass capacity	**+3.8M BPD** Potential additional bypass capacity
US$25-40BN Investment in regional power grid integration	**15-25%** Potential operating savings in power sector	**US$80-120BN** Avoided generation investment (2025-2040)
99% Power/water system uptime	**60 MINUTES** Cyber system recovery (Category-1 systems)	**80%** Critical freight under trusted corridor status

12. Multinational Node Integration

1 Iraq

NEAR-TERM PRIORITY INVESTMENTS

- Kuwait-Basra rail link (-43 km)
- Gas pipeline from Basra
- Border management modernisation
- Power grid interconnection

2 Jordan

Corridors to Mediterranean Ports and the Levant

3 Egypt

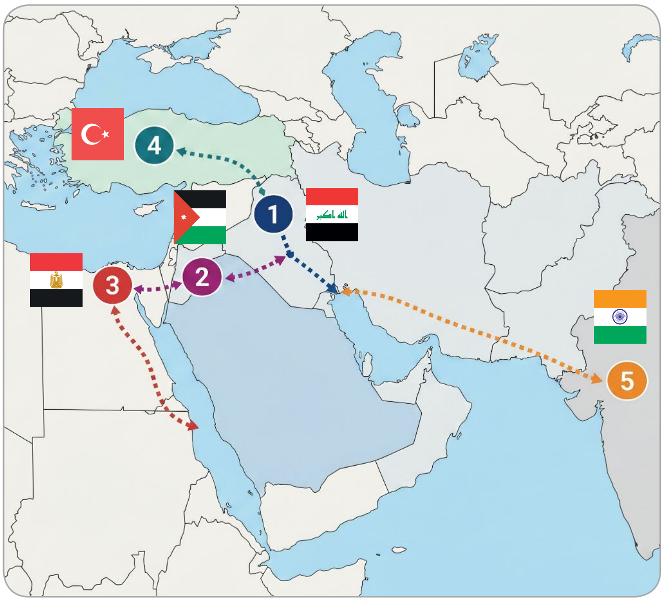
Suez Canal - single chokepoint for GCC trade with Europe and the Americas

4 Turkey

Overland trade corridors with Europe and China

5 India and the IMEC Corridor

Multi-modal connectivity framework connecting India to Europe through the GCC and the Levant



13. Governance, Investment and Implementation

1. GOVERNANCE ARCHITECTURE

- GCC SUPPLY CHAIN RESILIENCE COUNCIL (SUPREME LEVEL)
- INTEGRATED PROGRAMME OFFICE (OPERATIONAL LEVEL)
- MODALITY TECHNICAL COMMITTEES
- PRIVATE SECTOR AND FAMILY BUSINESS ADVISORY BOARD

2. FINANCING FRAMEWORK:

- SOVEREIGN INVESTMENT
- MULTILATERAL DEVELOPMENT FINANCE
- FAMILY BUSINESS HOLDING COMPANIES & FAMILY OFFICES
- REGIONAL ISLAMIC FINANCE INSTITUTIONS
- PRIVATE INFRASTRUCTURE FINANCE
- BELT AND ROAD CO-INVESTMENT

3. INVESTMENT FRAMEWORK

TOTAL INVESTMENT

$250-$350 BILLION

15 YEARS

IMPLEMENTATION HORIZON

THE COST OF INACTION

- Supply Chain Disruptions
- Economic Loss
- Trade Diversion
- Strategic Vulnerability
- Missed Opportunities

US$1.5 TRILLION lost in annual GCC trade flows exposed

THREE-PHASED IMPLEMENTATION

PHASE 1 (2026-2029)
Critical Vulnerability Reduction

- Electricity interconnection
- GCC Rail
- Oman Connectivity
- Strategic Ports
- Customs Harmonization

PHASE 2 (2029-2034)
Network Completion

- Strategic Stockpiles
- Legal Continuity Mechanisms
- Cross-Border Standards
- Commercial Resilience Programs

PHASE 3 (2034-2040)
Full Continental Integration

- Regional Governance
- Multinational Logistics Integration
- Continuous Exercises
- Long-Term Infrastructure Optimisation

OUTCOME: ACTING COLLECTIVELY CREATES SCALE, INTEROPERABILITY, STRONGER BARGAINING POWER AND REGIONAL RESILIENCE

14. Conclusions

- Build an integrated GCC resilience architecture
- Accelerate national initiatives for integration with coordinated governance
- Strengthen resilience to geopolitical and supply chain disruptions
- Maximize the value of current and future infrastructure investments
- Enhance competitiveness, investment and economic security
- Position the GCC as a global leader in secure and connected supply chain

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