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# The Barriers and Enablers of Shipping in Eastern Africa and the Indian Ocean Region

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Exploring the strategic importance, infrastructure challenges, and digital transformation of key ports in the Indian Ocean region to boost regional and global trade.

# Overview of the Presentation Structure

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- 1 | **INTRODUCTION**
- 2 | **GEOSTRATEGIC AND ECONOMIC IMPORTANCE OF PORTS**
- 3 | **BARRIERS TO SHIPPING IN THE REGION**
- 4 | **SUSTAINABILITY AND GREEN PORT INITIATIVES**
- 5 | **CONCLUSION**





## Strategic Importance of the Region and Its Economic Role

Indian Ocean remains critical to the security and stability of shipping lanes and trade routes, accounting for over one-third of the world's bulk cargo traffic and two-thirds of the world's oil shipments and ensuring global access to food, precious metals, and energy resources.





# Barriers to Shipping and Logistics Efficiency





# RAIL AND ROAD CONNECTIONS

## CONNECTIVITY PROJECTS FUNDED BY CHINA\* 2019



Country	Project	Status	Funding	Companies
Kenya	Nairobi Mombasa SGR	Completed	\$3.6 billion China Export Import Bank (China ExIm Bank) \$400 million Kenya government	China Road and Bridge Corporation (CRBC)
	Nairobi Naivasha SGR	50% complete	\$1.5 billion China ExIm Bank	Communications Construction Company (CCCC)
	Naivasha- Malaba	Planned	\$3.5 billion China ExIm Bank	CCCC
	Lamu Port	42% complete	\$24 billion Gov't of Kenya	CCCC
	Oil Pipeline	Planned	\$3.9 billion Gov't of Kenya	
Ethiopia	Ethiopia-Djibouti (E-D) SGR	Complete	\$3.4 billion China ExIm Bank	China Rail Engineering Corporation (CREC) China Civil Engineering Construction Corporation (CCECC)
	Hawassa	Complete	\$250 million Gov't of Ethiopia	CCECC
	Ethiopia-Djibouti Water pipeline system	Complete	\$340 million China ExIm Bank	CGC Overseas Construction Co Ltd (CGCOC)
	Ethiopia-Djibouti SGR Electrification	Complete	\$24 million China ExIm Bank	Shanghai Electric Corp.
Djibouti	Doraleh Multipurpose port	Complete	\$590 million Djibouti Ports and Free Zones Authority (DPFZA) China Merchant Holding (CMHC)	China Merchant Holding Company (CMHC)
	Ghoubet port	Complete	\$64 million China ExIm Bank	China Harbour Engineering Corp.

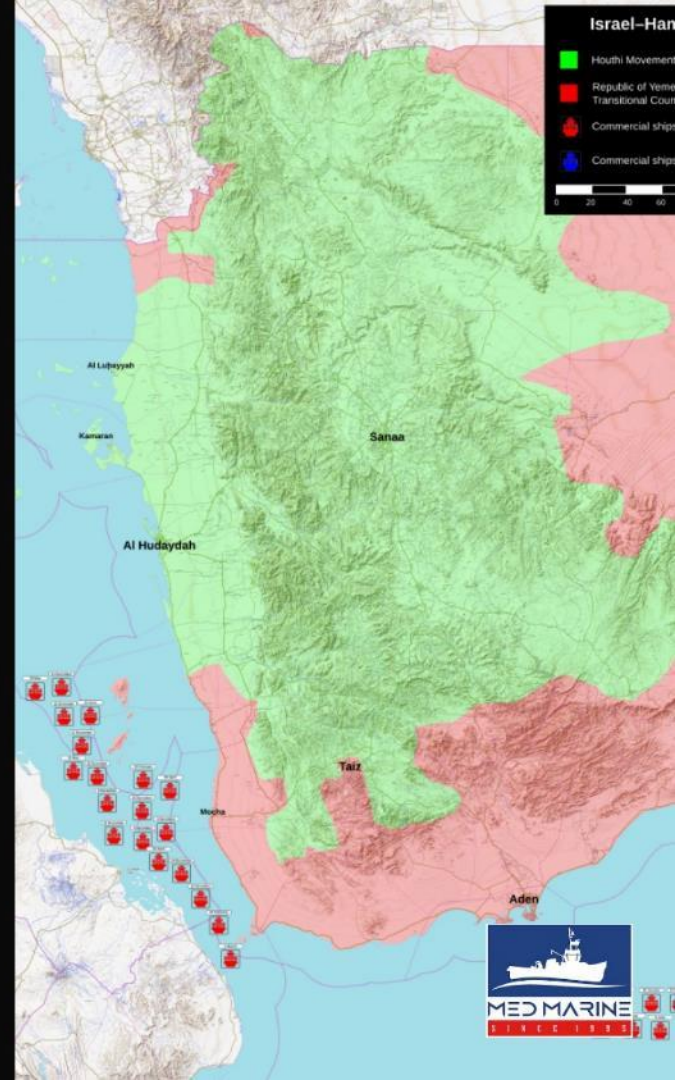
# Security Challenges and Piracy

DECREASE IN SOMALI PIRACY SINCE 2011

ONGOING PIRACY  
RISKS IN THE REGION

SECURITY THREATS IN THE RED SEA

IMPACT ON SHIPPING COSTS



# Enablers of Shipping in the Region

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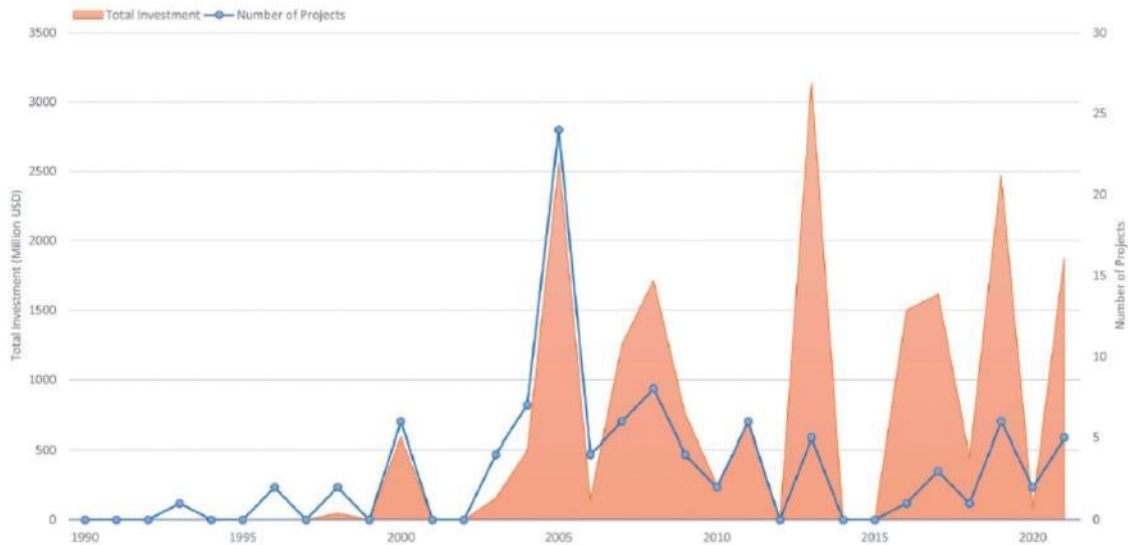
**STRATEGIC LOCATION  
ON GLOBAL TRADE  
ROUTES**

**FOREIGN INVESTMENT  
AND INFRASTRUCTURE  
MODERNIZATION**

**DIGITALIZATION AND  
TECHNOLOGICAL  
INNOVATION**







**Figure 1.** Investment and projects in Africa's ports sector, 1990–2021.  
Source: World Bank Private Participation in Infrastructure (PPI) (2021).

## Foreign Investment and Infrastructure Modernization

# Digitalization and Sustainability

## DIGITAL TRANSFORMATION OF PORT OPERATIONS

Various ports in East Africa have embraced digital technologies to streamline port processes, including automated cargo tracking systems, electronic documentation, and real-time data sharing. These digital tools improve operational efficiency, reduce human errors, and enhance trade flow.

## ENHANCING TRADE VISIBILITY AND PREDICTABILITY

Digital solutions like container tracking and predictive analytics provide greater visibility and predictability across the supply chain, enabling shippers and logistics providers to make more informed decisions and optimize their operations.

## REDUCING PORT EMISSIONS AND CARBON FOOTPRINT

East African ports are implementing sustainable practices to lower their environmental impact, such as using renewable energy sources, upgrading equipment to reduce fuel consumption, and exploring electric and hybrid cargo handling vehicles to cut down on emissions.

## COLLABORATION FOR SUSTAINABLE DEVELOPMENT

Regional and international partnerships are crucial for driving sustainable port development. Initiatives like the East African Community's (EAC) green port program and the United Nations' Sustainable Development Goals provide a framework for ports to adopt environmentally-friendly policies and technologies.



# Sustainability and Green Port Initiatives

- 1 INITIATIVES BY INTERNATIONAL AND REGIONAL ORGANIZATIONS
- 2 ADOPTION OF GREEN PORT STRATEGIES
- 3 SUSTAINABILITY AS AN ENABLER



# Conclusion and Recommendations

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- **INFRASTRUCTURE DEVELOPMENT**

Continued investment in port capacity expansion, improved road and rail connectivity, and modernization of cargo handling systems are crucial to enhancing the efficiency and competitiveness of East African ports.

- **SECURITY MEASURES**

Strengthening regional maritime security efforts, such as the UNODC's anti-piracy programs, is essential to mitigate threats and ensure the safe and uninterrupted flow of trade through the region.

- **DIGITALIZATION**

Embracing digital technologies, including cargo tracking systems, automated customs processes, and integrated port management platforms, can significantly improve trade flow, reduce errors, and enhance overall efficiency.

- **REGIONAL COOPERATION**

Initiatives like the African Continental Free Trade Area (AfCFTA) can foster greater regional integration, harmonize trade policies, and position East African ports as critical hubs in the global supply chain, unlocking new economic opportunities.



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