

The Geo-politics of East Africa

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Powerful Thinking
for the global energy industry

East Africa Geo-political Issues

Three key dynamics in play for frontier E&P region



Upstream E&P Project
Development



Gas Monetization
Challenges



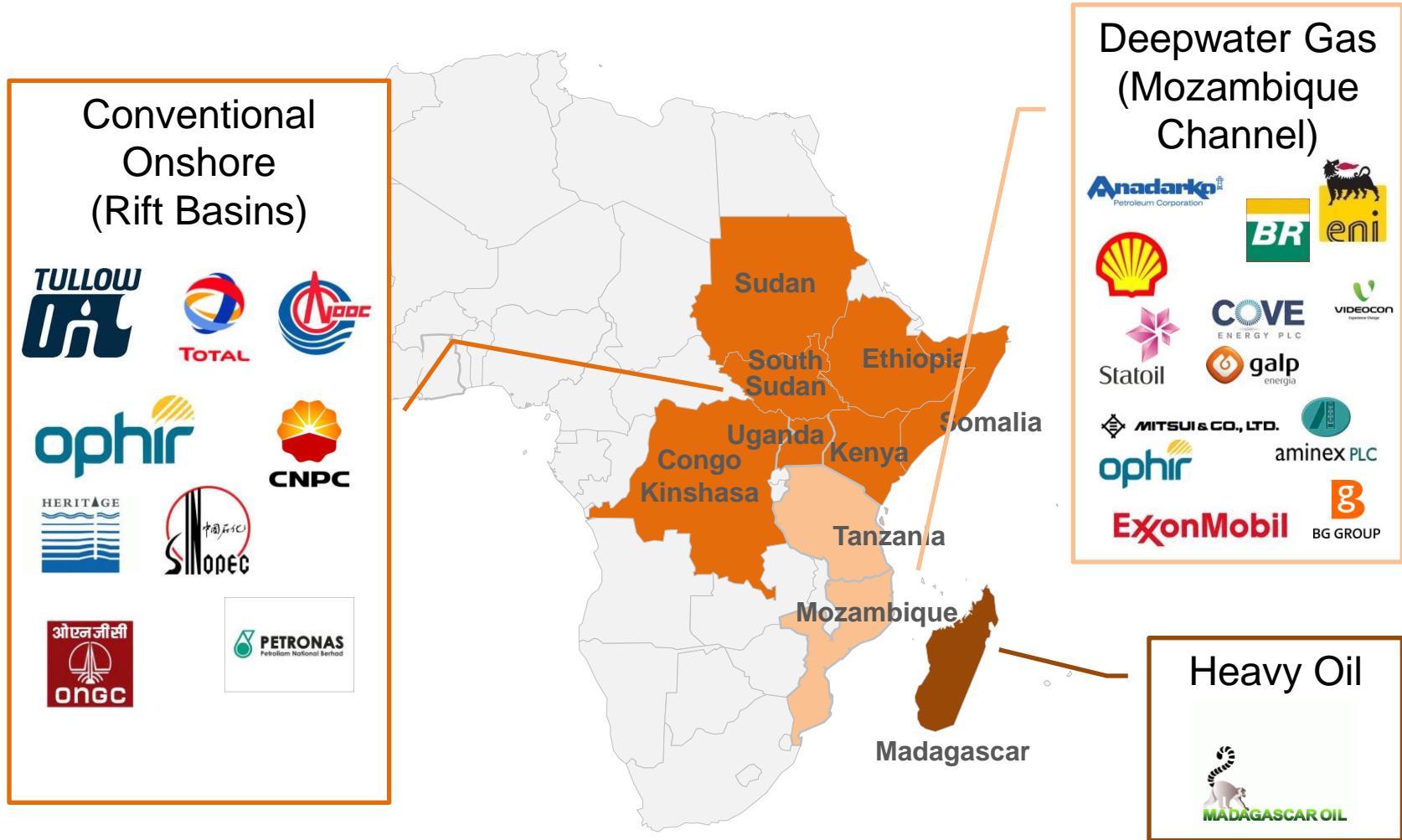
Products Hub System



Each has above-ground risk constraints and implications

Upstream E&P Project Development

Variety of frontier play types and company strategies

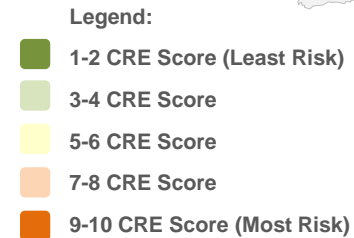


Upstream E&P Project Development

Above-ground risks will impact pace of project development

- Political Instability:
 - High number of conflict, post-conflict and failed states
- Regional Instability:
 - Unstable neighbors, spill-over effect impacting operations
- Corruption:
 - Reliance on patronage networks
- Low Social Development:
 - Lack of government services in areas of operations

East Africa – CRE 2012 Overall Scores



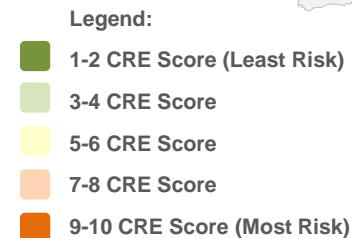
Source: Energy Intelligence Country Risk Evolution Service

Upstream E&P Project Development

Above-ground risks will impact pace of project development

- Monetization Risk:
 - Prioritization of domestic utilization and heavy infrastructure needs
- Weak Sectoral Capacity:
 - Limited institutions and NOCs to manage the sector
- Shifting Fiscal/Regulatory Environment:
 - Move from favorable “frontier” terms to increased take and value-added from the sector as resource development ramps up

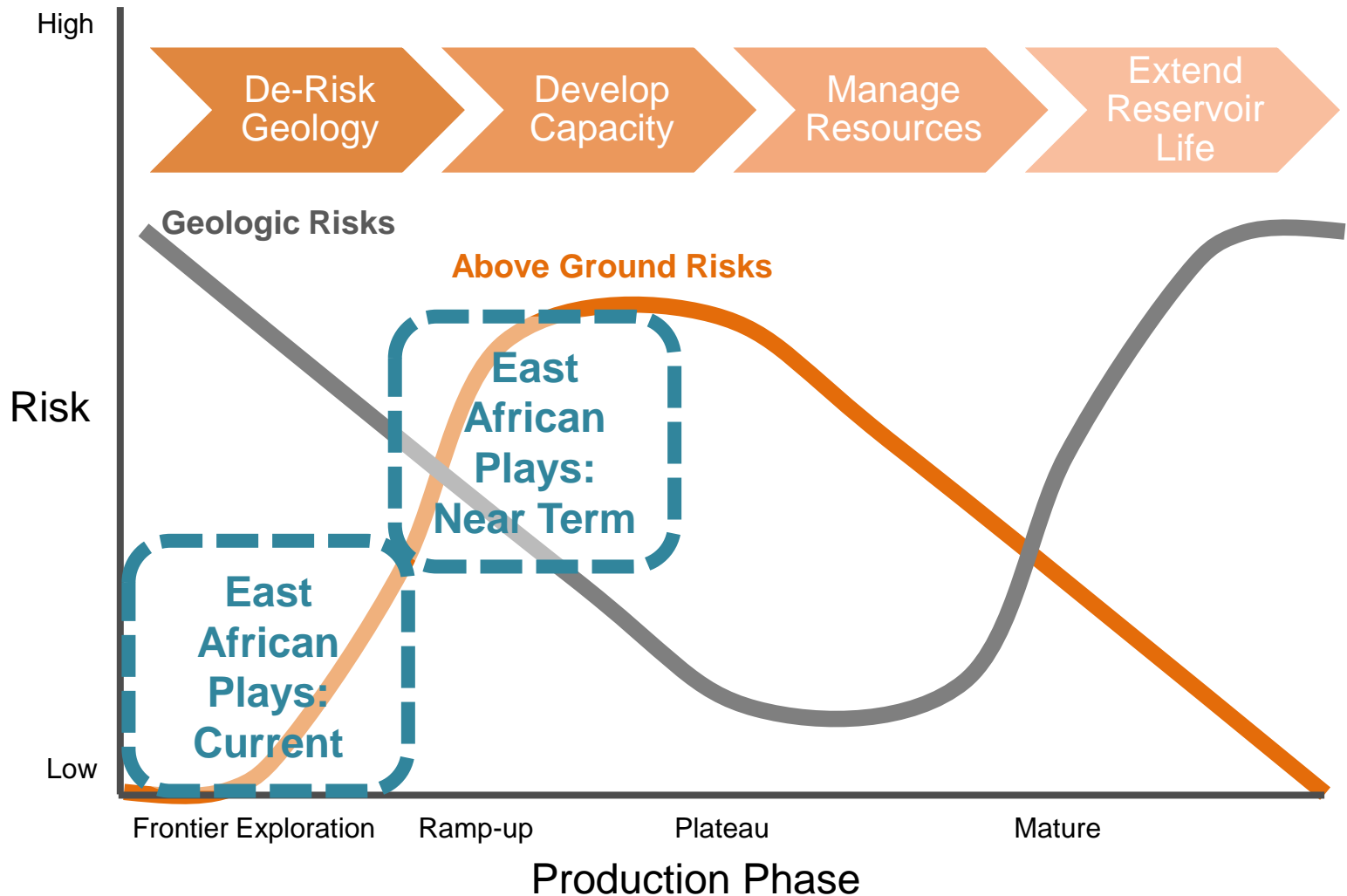
East Africa – CRE 2012 Overall Scores



Source: Energy Intelligence Country Risk Evolution Service

Upstream E&P Project Development

Above-ground risk evolution as resources are developed



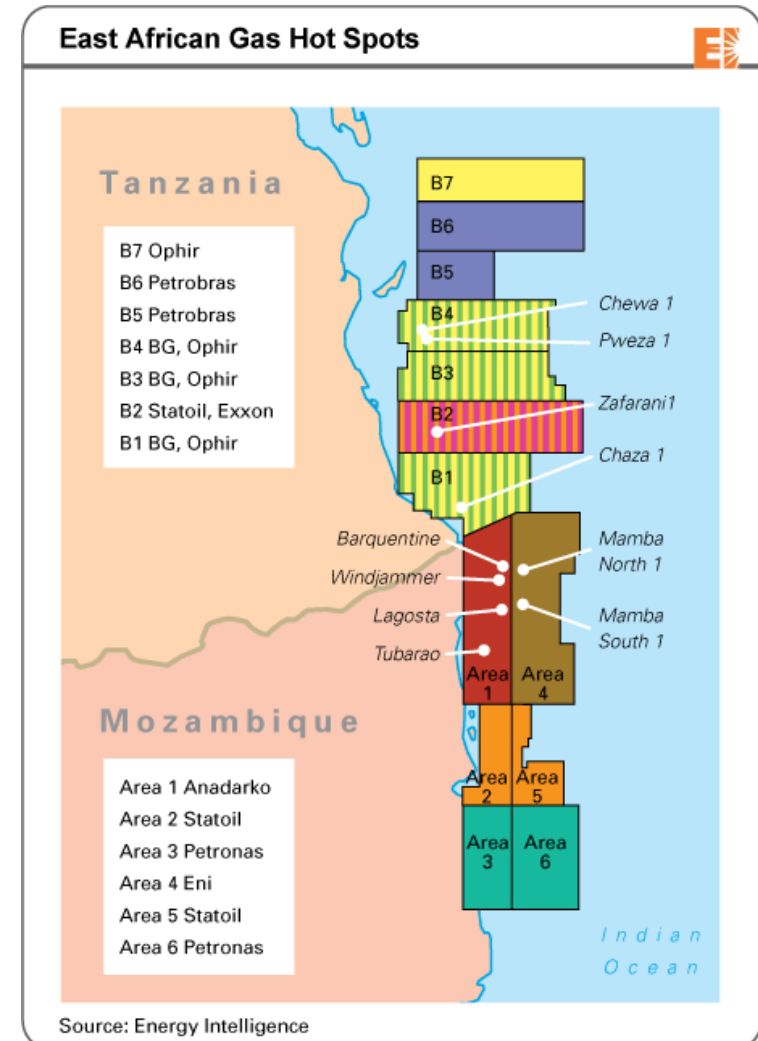
Above-Ground Risk and Investor Impact

Resource Development Stage	Frontier Exploration (Appraisal/ Development)	Production Ramp-up	Production Plateau	Mature Production
Industry Activities	<ul style="list-style-type: none"> • Licensing • Seismic acquisition • E&A drilling 	<ul style="list-style-type: none"> • Project conceptualization and infrastructure investment • Project approvals • Environmental permitting • Production management 	<ul style="list-style-type: none"> • Production management • Additional E&A drilling 	<ul style="list-style-type: none"> • EOR applications
Government Objectives	<ul style="list-style-type: none"> • Secure investors with attractive fiscal terms, quick approvals and low regulatory burden • Encourage rapid exploration commitments by license holders 	<ul style="list-style-type: none"> • Build capacity to manage state resources • Includes new institutions and NOC • Revenue generation 	<ul style="list-style-type: none"> • Revenue generation • Value-added investment linkages • NOC and local sector development 	<ul style="list-style-type: none"> • Retain and attract investors • Revenue generation from sector and value-added investments • Opportunities for NOC and local sector
Above-Ground Risks	<ul style="list-style-type: none"> • Low entry risks • Low operating risks 	<ul style="list-style-type: none"> • Higher government take • Contract sanctity • Rising NOC mandate and influence • Export restrictions 	<ul style="list-style-type: none"> • Pressure to invest in “value-added” sectors (downstream, power, petchem) • Rising local content • Nationalization 	<ul style="list-style-type: none"> • Decreasing entry risks, but strong NOC presence
Country Example	<ul style="list-style-type: none"> • Kenya • Somalia 	<ul style="list-style-type: none"> • Mozambique/Tanzania • Uganda 	<ul style="list-style-type: none"> • South Sudan 	<ul style="list-style-type: none"> • Sudan

Gas Monetization Challenge

Deepwater Mozambique Channel finds to be monetized via LNG

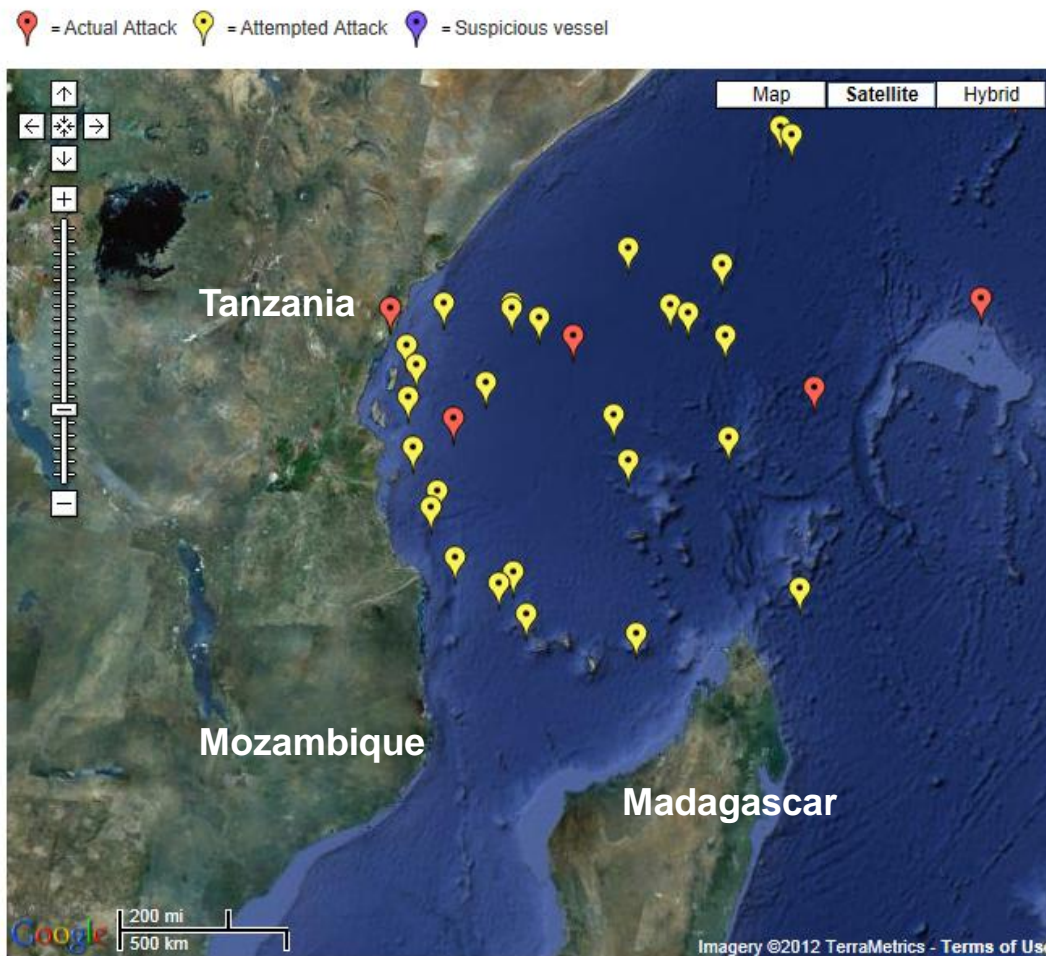
- Infrastructure needs:
 - LNG facilities, pipelines, power generation
- Global gas market linkage:
 - Supply-side competition, demand-side assumptions, pricing concerns
- Host government policy:
 - Evolving natural gas policies from host governments could emphasize greater domestic utilization



Gas Monetization Challenge

Security concerns could also impact LNG projects

Regional Piracy Attacks, 2011



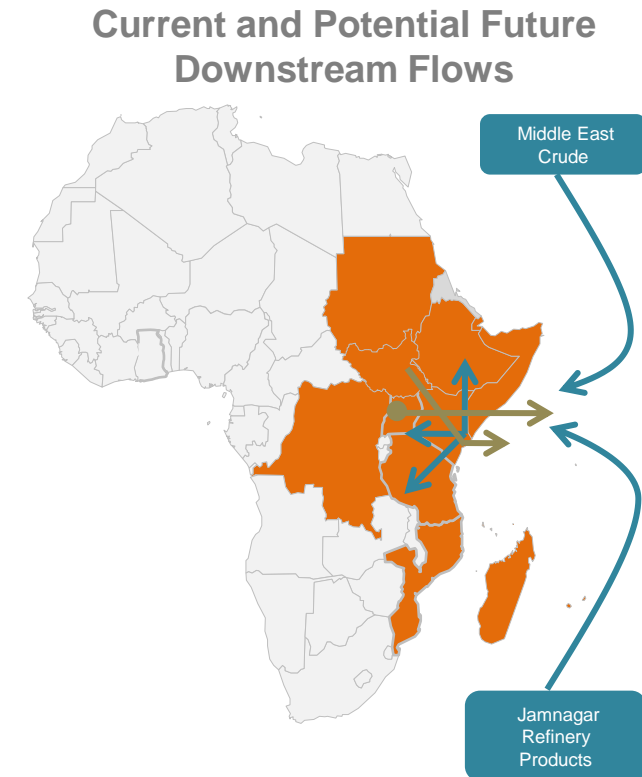
Source: International Chamber of Commerce, <http://www.icc-ccs.org/home/piracy-reporting-centre/imb-live-piracy-map-2010>

- The East Africa region has seen an increased number of threats on vessels.
- This threat could extend to platforms and supply vessels to the LNG project.
- This will increase costs and lead to project delays.

Products Hub System

Long-term potential to reverse current downstream flows

- East Africa is a product-short region, requiring imports from Indian Ocean
- Kenya is a vital hub for product imports and distribution to inland markets
- New discoveries in Rift Basin could reverse the general flow:
 - Uganda requires domestic refining of all crude, with potential export of excess product
 - South Sudan seeking to build crude pipeline to Kenya
 - New inland Kenya discovery could link to Uganda or South Sudan pipeline system
- Unlike the upstream sector at present, strong downstream NOCs will seek a role in future activity
- Notable absence of supermajors in the downstream sector (except Total), with competitive space occupied by local/regional marketing firms



Concluding Remarks

- The East Africa region continues to offer entry opportunities via licensing rounds and government negotiation, while M&A activity continues apace as the competitive landscape expands.
- However, high levels of political risk in Somalia, South Sudan, Sudan, Congo Kinshasa and Madagascar could deter project development.
- In less risky locations, such as Mozambique, Tanzania, Uganda and Kenya, investors could see above-ground risks evolve as resources are developed, such as changing fiscal terms, decision-making delays within the NOC and ministry, as well as domestic utilization requirements.
- These collective risks may impact the pace of project developments and the overall size of regional resource development.

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