

# International Crude Oil Markets and Trade in sub-Saharan Africa

## Pricing Mechanisms, Regional Trade Flows, and Market Dynamics



Focus on: **The Manager** ☒ **The Specialist** ☒ **Spotlight Programme** ☐ **Hands-on Skills** ☐

### Course Overview

This 5-day program provides a comprehensive understanding of crude oil and refined product markets with a regional focus on Sub-Saharan Africa. Participants will explore crude pricing systems, benchmark structures, refinery economics, regional supply chains, and the dynamics of cross-border product flows. The course blends global crude market fundamentals with the specific realities of Sub-Saharan Africa, including:

- Nigeria's role as Africa's largest oil exporter and home of Bonny Light and Qua Iboe crudes.
- Angola's deepwater crude grades and Asia-focused exports.
- Ghana's Jubilee and TEN fields and Côte d'Ivoire's role as a product hub.
- Central African producers (Congo, Gabon, Equatorial Guinea) and their niche blends.
- South Sudan and Chad's reliance on pipelines through Sudan and Cameroon.
- Refinery upgrades and new projects (Dangote, Sonangol Luanda, SIR Abidjan, Tema, Sapref in South Africa, Mozambique LNG condensates).
- South Africa as a downstream trading and refining hub for Southern Africa.

Participants will also learn about price risk management tools, hedging instruments, and the impact of global benchmarks (Brent, Dubai, WTI) on African oil exports.

Course Objectives		This Course is Ideal For:	
1	Understand the fundamentals of upstream supply, crude quality, and value.	✓	Business Development & Corporate Planning Managers
2	Analyze pricing systems and benchmarks relevant to Sub-Saharan African crudes.	✓	Geoscientists & Engineers in upstream operations
3	Evaluate refining processes and economics in African markets.	✓	Refinery & Trading Professionals
4	Assess regional trade flows of crude and refined products.	✓	Supply Planners & Scheduling Staff
5	Apply risk management and hedging tools to African crude trading.	✓	Government Regulators Auditors & Policy Makers
6	Gain insights into the roles of NOCs (NNPC, Sonangol, GNPC, SNH, GEPetrol, Gabon Oil Co.) in regional trade.	✓	Tax & Finance Advisors and Legal, Contracting & Compliance Officers in oil & gas

### Course Content





Day	Theme	Coverage
1	Upstream Supply & Regional Crude Characteristics	<ul style="list-style-type: none"> <li>• Global oil supply overview vs Sub-Saharan production</li> <li>African reserves &amp; output: Nigeria, Angola, Ghana, Congo, Gabon, Equatorial Guinea, Chad, South Sudan</li> </ul>

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		 <ul style="list-style-type: none"> <li>Crude oil assays: Bonny Light, Qua Iboe, Jubilee, Dalia, Cabinda, Djeno</li> <li>Fundamentals of oil economics &amp; crude valuation</li> <li>Case Study 1: Comparing Nigerian Bonny Light vs Angola's Dalia for Asian refiners</li> </ul>
2	Crude Oil Pricing Systems in Africa	 <ul style="list-style-type: none"> <li>Evolution of oil pricing systems (OPEC, spot, formula pricing)</li> <li>African OSPs (Official Selling Prices) and Brent linkage</li> <li>Spot markets, long-term contracts, and formula pricing in African exports</li> <li>Benchmarks: Brent and Platts West Africa assessments</li> <li>Fiscal regimes &amp; agreements in oil sales (royalty/tax vs PSC-linked lifting)</li> <li>Case Study 2: Angola's Sonangol OSPs vs Nigeria's NNPC crude marketing</li> </ul>
3	Refined Products & Regional Trade Flows	 <ul style="list-style-type: none"> <li>Refinery capacity and utilization in Sub-Saharan Africa (Dangote, Port Harcourt, Tema, SIR Abidjan, Luanda, Sasol/Sapref, Maputo)</li> <li>Product imports vs exports: gasoline, diesel, jet, LPG</li> <li>Intra-African product flows: <ul style="list-style-type: none"> <li>Nigeria → Niger, Benin, Togo</li> <li>Côte d'Ivoire → Mali, Burkina Faso</li> <li>South Africa → Botswana, Namibia, Mozambique</li> </ul> </li> <li>Arbitrage &amp; cross-regional flows to Europe &amp; Asia</li> <li>Group simulation: Trading a West African crude cargo in volatile Brent markets</li> <li>Case Study 3: Dangote Refinery's impact on West &amp; Central African product imports</li> </ul>
4	Risk Management & Hedging	<ul style="list-style-type: none"> <li>Price risk in Sub-Saharan oil trade (Brent volatility, FX exposure)</li> <li>Hedging tools: futures, swaps, options, crack spreads</li> <li>FX hedging for oil importers/exporters (Nigeria, Ghana, South Africa)</li> <li>Operational risks: bunkering, piracy, sabotage (Niger Delta, Gulf of Guinea)</li> <li>Case Study 4: Ghana's BOST hedging program &amp; lessons learned</li> </ul>
5	Market Integration & Future Outlook	 <ul style="list-style-type: none"> <li>Characteristics of African energy markets: regulation vs liberalization</li> <li>WTO, AfCFTA, and regional oil trade harmonization</li> <li>Shipping &amp; logistics laws in African crude/product trade</li> </ul>

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		<ul style="list-style-type: none"> <li>• Future demand &amp; energy transition: biofuels, gas-to-power, refining upgrades</li> <li>• Case Study 5: Mozambique LNG condensates &amp; new trade flows to Asia</li> </ul>
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Course Assessment	Certification
<b>Participants will be assessed on:</b> Participation in sessions Completion of exercises & case studies Performance in assessments	Upon successful completion of the course, participants will receive a <b>Certificate of Successful Completion</b> , along with a <b>Transcript of Marks</b> showing the performance by grade in each element of assessment and overall.

Course Instructor
<p>With BSc and PhD degrees from the UK, and with over 30 years of refinery technology, operations, and management expertise for several famous-name oil companies, this speaker is now an internationally-famous chemical engineering consultant.</p> <p>As a Chartered Chemist, a Member of the Royal Society of Chemistry and a Member of the American Institute of Chemical Engineers, he holds honorary appointments at a number of European universities and conducts cutting-edge research into vacuum distillation, gas recovery, absorption and pyrolysis.</p>

