Caspian Basin and Central Asian Oil and Gas Report

The oil and gas export states of Azerbaijan, Kazakhstan, and Turkmenistan are viable markets for investors willing to maneuver through the maze of regulations they require. This report provides a comprehensive account of these markets, and the opportunities for participation in the oil and gas sectors. This report will assess the known and estimated oil and gas supply of the countries in the region and look at what sort of potential the Caspian and Central Asian states have. Equally important are the obstacles to getting the oil and gas to market: cross-border pipelines, political instability, and economic fragility in the region. This report will examine these aspects as well, especially the legal and political problems that potential investors will face.

Published in February 2001

Available in Print for $895 USD, Available in PDF/Acrobat format for $1195 USD
Caspian Basin and Central Asian Oil and Gas Report

Executive Summary
Throughout the 1990s, the region of the Caspian Basin and Central Asia has been dubbed the "Second Persian Gulf," suggesting that the oil reserves and potential are of substantial amounts. While this hyperbole may not be true, it is the case that this region is still being explored with new finds occurring on a regular basis.

This report will assess the known and estimated oil and gas supply of the countries in the region and look at what sort of potential the Caspian and Central Asian states have. Equally important are the obstacles to getting the oil and gas to market: cross-border pipelines, political instability, and economic fragility in the region. This report will examine these aspects as well, especially the legal and political problems that potential that investors will face. The oil and gas export states of Azerbaijan, Kazakhstan, and Turkmenistan are viable markets for investors willing to maneuver through the maze of regulations they require. The transit states of Georgia and Uzbekistan have their share of issues. Lastly, the peripheral states of Armenia, Kyrgyzstan, and Tajikistan – although not oil and gas exporters themselves, play significant roles in regional economic and political matters and should thus be afforded some attention.

While the region in question may not have the same impact on the energy market that, say, the Persian Gulf has, there is no doubt that the Caspian Basin and Central Asia will play an important role in the future of that sector. And as new fields are still being discovered and explored, the potential for profit remains high.
Caspian Basin and Central Asian Oil and Gas Report

Table of Contents

1.0 Introduction
1.1 Geographical Background
1.11 Caspian Sea basin
1.12 Central Asia
1.13 South Caucasus
1.2 Historical Background
1.21 Russian conquest
1.22 Soviet-era development
1.23 Political Independence
1.24 Economic inter-dependency
1.3 The Economic Lure: Fossil Fuels
1.31 Early discoveries
1.32 Current uncertainty – amount
1.33 Current uncertainty – legal status
1.34 Obstacle of transportation – defining the region
1.4 Challenge to businesses: Corruption
1.41 Soviet legacy
1.42 Forms of corruption
1.43 Measuring corruption in the region

2.0 Azerbaijan
2.1 Key Economic Statistics
2.2 Political Overview
2.21 Political Institutions
2.22 The Aliyev Presidency
2.23 Opposition forces and business
2.3 Economic Overview
2.31 Non-Energy Sectors
2.32 Reliance on Oil and Gas
2.4 Sources of Unrest
2.41 Nagorno-Karabakh
2.42 Refugees
2.43 Chechnya across the border
2.44 Political succession
2.5 Oil Industry
2.51 Development of the oil sector
2.52 Post-Soviet bidding
2.53 Legal status of oil consortia (PSA, PSC, taxation)
2.6 Oil Industry – Exploration and Activity
2.61- Site-by-site assessment
2.7 Gas Industry
2.71 Development of the gas sector
2.72 Azeri gas to Turkey and Iran
2.73 Legal status of gas exploration (PSA, PSC, taxation)
2.8 Gas Industry – Exploration and Activity
2.81 Site-by-site assessment
2.9 State Energy Companies
2.9.1 Profile
2.9.2 Contact Information
2.10 Key Industry Contacts

3.0 Kazakhstan
3.1 Key Economic Statistics
3.2 Political Overview
3.21 President Nazarbayev
3.22 Political Institutions
3.3 Economic Overview
3.31 Resource Base
3.32 Trade and commerce
3.33 Transit problems
3.4 Sources of Unrest
3.41 Border delimitation
3.42 Expectations of oil revenues
3.5 Oil Industry
3.51 Soviet-era development
3.52 Current legal regime (PSA, PSC, taxation)
3.6 Oil Industry – Exploration and Activity
3.61 Site-by-site assessment
3.7 Gas Industry
3.71 Current legal regime (PSA, PSC, taxation)
3.8 Gas Industry – Exploration and Activity
3.81 Site-by-site assessment
3.9 State Energy Companies
3.91 Profile
3.92 Contact Information
3.10 Key Industry Contacts

4.0 Turkmenistan
4.1 Key Economic Statistics
4.2 Political Overview
4.21 Turkmenbashi – Cult of Personality
4.22 Political Institutions
4.3 Economic Overview
4.3.1 Isolated economy
4.3.2 Reliance on gas exports
4.4 Sources of Unrest
4.4.1 Economic decline
4.4.2 Ethnic/tribal conflict
4.5 Oil Industry
4.5.1 Legal regime (PSA, PSC, taxation)
4.5.2 Export potential
4.6 Oil Industry – Exploration and Activity
4.6.1 Site-by-site assessment
4.7 Gas Industry
4.7.1 Legal regime (PSA, PSC, taxation)
4.7.2 Personal control by President Niyazov
4.7.3 Export potential
4.7.4 Obstacles to export
4.8 Gas Industry – Exploration and Activity
4.8.1 Site-by-site assessment
4.9 State Energy Companies
4.91 Profile
4.92 Contact Information
4.10 Key Industry Contacts

5.0 Uzbekistan
5.1 Key Economic Statistics
5.2 Political Overview
5.2.1 Political Institutions
5.2.2 President Islam Karimov
5.2.3 Lack of Opposition
5.3 Economic Overview
5.3.1 Diversified economy
5.3.2 Agriculture versus energy sectors
5.4 Sources of Unrest
5.4.1 Economic downturn
5.4.2 Islamic extremists – IMU
5.4.3 Ethnic tensions
5.5 Oil Industry
5.5.1 Legal regime (PSA, PSC, taxation)
5.5.2 Export potential – mainly for CIS
5.6 Oil Industry – Exploration and Activity
5.6.1 Site-by-site assessment
5.7 Gas Industry
5.7.1 Legal regime (PSA, PSC, taxation)
5.7.2 Export potential
5.8 Gas Industry – Exploration and Activity
5.8.1 Site-by-site assessment
5.9 State Energy Companies
5.91 Profile
5.92 Contact Information
5.10 Key Industry Contacts

6.0 Georgia
6.1 Key Economic Statistics
6.2 Political Overview
6.2.1 Unstable independence
6.2.2 Regional divisions
6.2.3 Political institutions
6.2.4 President Shevardnadze
6.3 Economic Overview
6.3.1 Economic sectors
6.3.2 Energy sources and transit potential
6.4 Sources of Unrest
6.4.1 Regional separatists
6.4.2 Chechnya
6.5 Oil Industry
6.5.1 Modest reserves
6.5.2 Legal regime (PSA, PSC, taxation)
6.6 Oil Industry – Exploration and Activity
6.6.1 Site-by-site assessment
6.7 Gas Industry
6.7.1 Legal regime (PSA, PSC, taxation)
6.8 Gas Industry – Exploration and Activity
6.8.1 Site-by-site assessment
6.9 State Energy Companies
6.91 Profile
6.92 Contact Information
6.10 Key Industry Contacts

7.0 Armenia
7.1 Key Economic Statistics
7.2 Political Overview
7.21 Diaspora Politics
7.22 Political Isolation
7.3 Economic Overview
7.31 Limited resources
7.32 Pipeline routing
7.4 Sources of Unrest
7.41 Nagorno-Karabakh
7.42 Dashnak politics
7.5 Oil Industry
7.51 Legal regime (PSA, PSC, taxation)
7.6 Oil Industry – Exploration and Activity
7.6.1 Site-by-site assessments
7.7 Gas Industry
7.7.1 Legal regime (PSA, PSC, taxation)
7.8 Gas Industry – Exploration and Activity
7.8.1 Site-by-site assessment
7.9 State Energy Companies
7.91 Profile
7.92 Contact Information
7.10 Key Industry Contacts

8.0 Tajikistan
8.1 Key Economic Statistics
8.2 Political Overview
8.2.1 Post-Civil War politics
8.2.2 Relations with neighboring states
8.3 Economic Overview
8.3.1 Economic sectors
8.3.2 Trade routes
8.4 Sources of Unrest
8.4.1 Drug trafficking
8.4.2 Regional divisions/warlords
8.5 Oil Industry
8.5.1 Limited sites
8.5.2 Legal regime (PSA, PSC, taxation)
8.6 Oil Industry – Exploration and Activity
8.6.1 Site-by-site assessment
8.7 Gas Industry
8.7.1 Limited sites
8.7.2 Legal regime (PSA, PSC, taxation)
8.8 Gas Industry – Exploration and Activity
8.8.1 Site-by-site assessment
8.9 State Energy Companies
8.91 Profile
8.92 Contact Information
8.10 Key Industry Contacts

9.0 Kyrgyzstan
9.1 Key Economic Statistics
9.2 Political Overview
9.2.1 Political Institutions
9.2.2 President Akayev
9.3 Economic Overview
9.3.1 Lack of resources
9.3.2 Energy imports
9.4 Sources of Unrest
9.4.1 Islamic extremists
9.4.2 Drug trafficking
9.5 Oil Industry
9.5.1 Limited sites
9.5.2 Legal regime (PSA, PSC, taxation)
9.6 Oil Industry – Exploration and Activity
9.6.1 Site-by-site assessment
9.7 Gas Industry
9.7.1 Limited sites
9.7.2 Legal regime (PSA, PSC, taxation)
9.8 Gas Industry – Exploration and Activity
9.8.1 Site-by-site assessment
9.9 State Energy Companies
9.91 Profile
9.92 Contact Information
9.10 Key Industry Contacts

10.0 Pipelines and Pipeline Routes
10.1 Soviet Era Routings
10.11 Through Russia
10.2 Obstacles and Parameters
10.21 Unclear customs regimes
10.22 Political rivalries
10.23 Financing
10.3 Russian Pipelines – CPC
10.31 Routing and capacity
10.32 Consortium members
10.33 Market
10.4 Baku-Tbilisi-Ceyhan
10.41 Routing and capacity
10.42 Consortium members
10.43 Market
10.5 Iranian Routes
10.51 Routing and capacity
10.52 Consortium members
10.53 Market
10.6 CNPC and East Asia
10.61 Routing and capacity
10.62 Consortium members
10.63 Market
10.7 Afghanistan and South Asia
10.71 Routing and capacity
10.72 Consortium members
10.73 Market
10.8 Variations and Deals
10.81 Regional capacity and market needs
10.82 Economic and political obstacles
10.83 Timetable for completion of pipeline routes

11.0 Caspian Delimitation
11.1 History of Caspian Ownership
11.2 Current Status – Legal Issues
11.21 Status as a “sea”
11.22 Status as a “lake”
11.3 Respective Perspectives/Motivation
11.31 Russia and Iran
11.32 Azerbaijan, Kazakhstan, and Turkmenistan

12.0 “Great Game II”
12.1 Overview
12.11 External actors’ interests in Caspian and Central Asian oil and gas
12.12 Potential for financing and support
12.13 Potential to disrupt or block routes
12.2 Russia
12.3 Iran
12.4 Turkey
12.5 China
12.6 Middle East/OPEC
12.7 South Asia
12.8 United States/EU
12.9 CIS
12.10 Intangibles
12.11 Non-state actors
12.12 Extremist movements in the region

List of Tables

Table 1.1: Primary energy consumption in Asia, 1997  
Table 1.2: Crude oil production, total consumption and refining throughput, 1997(e)  
Table 1.3: Oil refineries and capacities, 1998  
Table 1.4: Composition of oil product demand in the US, western Europe, Japan and Asian emerging market economies, 1997  
Table 1.5: Consumption of oil products by country, 1997(e)  
Table 1.6: Proportionate consumption of oil product by country, 1997(e)  
Table 1.7: Growth in oil consumption in Asia by country, 1987 and 1997(e)  
Table 3.1: Recent growth in refining capacity, 1987-1998(e)  
Table 3.2: Shell refineries in Asia Pacific, 1998  
Table 3.3: Exxon refineries in Asia Pacific, 1998  
Table 3.4: Mobil refineries in Asia Pacific, 1998  
Table 3.5: Idemitsu Kosan refineries in Asia Pacific, 1998  
Table 3.6: Grassroots refinery projects in Asia, 1998  
Table 3.7: Refinery upgrade projects, 1998  
Table 4.1: Economic growth and energy consumption in Bangladesh, 1995-1998(e)  
Table 4.2: Refinery capacities, Bangladesh, 1998  
Table 4.3: Oil production, refining and consumption in Bangladesh, 1997(e)  
Table 4.4: Economic growth and energy consumption in Brunei, 1995-1998(e)  
Table 4.5: Refinery capacities, Brunei, 1998  
Table 4.6: Oil production, refining and consumption in Brunei, 1997(e)  
Table 4.7: Economic growth and energy consumption in China, 1995-1998(e)  
Table 4.8a: Refinery capacities, China, 1998  
Table 4.8b: Refinery capacities, China, 1998  
Table 4.9: Oil production, refining and consumption in China, 1997(e)  
Table 4.10: Economic growth and energy consumption in India, 1995-1998(e)  
Table 4.11: Refinery capacities, India, 1998  
Table 4.12: Oil production, refining and consumption in India, 1997(e)  
Table 4.13: Economic growth and energy consumption in Indonesia, 1995-1998(e)  
Table 4.14: Refinery capacities, Indonesia, 1998  
Table 4.15: Oil production, refining and consumption in Indonesia, 1997(e)  
Table 4.16: Economic growth and energy consumption in Japan, 1995-1998(e)  
Table 4.17: Refinery capacities, Japan, 1998  
Table 4.18: Oil production, refining and consumption in Japan, 1997(e)  
Table 4.19: Economic growth and energy consumption in Malaysia, 1995-1998(e)  
Table 4.20: Refinery capacities, Malaysia, 1998  
Table 4.21: Oil production, refining and consumption in Malaysia, 1997(e)  
Table 4.22: Economic growth and energy consumption in Myanmar, 1995-1998(e)  
Table 4.23: Refinery capacities, Myanmar, 1998  
Table 4.24: Oil production, refining and consumption in Myanmar, 1997(e)  
Table 4.25: Economic growth and energy consumption in Pakistan, 1995-1998(e)  
Table 4.26: Refinery capacities, Pakistan, 1998
Table 4.27: Oil production, refining and consumption in Pakistan, 1997(e) 104
Table 4.28: Economic growth and energy consumption in the Philippines, 1995-1998(e) 105
Table 4.29: Refinery capacities, Philippines, 1998 106
Table 4.30: Oil production, refining and consumption in the Philippines, 1997(e) 109
Table 4.31: Economic growth and energy consumption in Singapore, 1995-1998(e) 111
Table 4.32: Refinery capacities, Singapore, 1998 112
Table 4.33: Oil production, refining and consumption in Singapore, 1997(e) 113
Table 4.34: Economic growth and energy consumption in South Korea, 1995-1998(e) 117
Table 4.35: Refinery capacities, South Korea, 1998 118
Table 4.36: Oil production, refining and consumption in South Korea, 1997(e) 121
Table 4.37: Economic growth and energy consumption in Sri Lanka, 1995-1998(e) 123
Table 4.38: Refinery capacities, Sri Lanka, 1998 124
Table 4.39: Oil production, refining and consumption in Sri Lanka, 1995 125
Table 4.40: Economic growth and energy consumption in Taiwan, 1995-1998(e) 127
Table 4.41: Refinery capacities, Taiwan, 1998 127
Table 4.42: Oil production, refining and consumption in Taiwan, 1997(e) 129
Table 4.43: Economic growth and energy consumption in Thailand, 1995-1998(e) 131
Table 4.44: Refinery capacities, Thailand, 1998 132
Table 4.45: Oil production, refining and consumption in Thailand, 1997(e) 133
Table 5.1: Impact of regional crisis on oil sector investment, 1998 140
Table 5.2: Level of interest in oil sector, by activity, in five most popular prospective investment locations, 1998 149
Table 5.3: Reasons for interest in oil sectors of five most popular prospective investment locations, 1998 151
Table 5.4: Major obstacles to investment in five most popular prospective investment locations, 1998 153

List of Figures

Figure 0.1: Oil refining capacities, 1998 2
Figure 0.2: Refining involvement by key oil majors in Asia Pacific, 1998 3
Figure 0.3: Relative importance of oil refining nations to region and likely investment focus, 1998-2005 4
Figure 1.1: Oil consumption versus refinery throughput, 1997 8
Figure 1.2: Share of Asian refining capacity by country, 1997 9
Figure 1.3: Growth in Asian refining capacity, 1987-1997 12
Figure 1.4: Oil consumption in Asia by country, 1987 and 1997 16
Figure 1.5: Product demands, 1987 versus 1997 17
Figure 1.6: Gasoline consumption in Asia, 1997(e) 19
Figure 1.7: Jet fuel consumption in Asia, 1997(e) 21
Figure 1.8: Kerosene consumption in Asia, 1997(e) 22
Figure 1.9: Distillate consumption in Asia, 1997(e) 24
Figure 1.10: LPG consumption in Asia, 1997(e) 25
Figure 1.11: Residual consumption in Asia, 1997(e) 26
Figure 1.12: Consumption of unspecified oil products in Asia, 1997(e) 28
Figure 3.1: Recent growth in refining capacity, 1987-1998(e) 49
Figure 3.2: Global top ten oil refiners by refining capacity, 1997 51
Figure 3.3: Share of oil major involvement in selected Asian refineries* 52
Figure 5.1: Refining capacity growth forecasts, 1997 to 2010(e) 137
Figure 5.2: Product end use demand forecasts in Asia Pacific, 1987 to 2010(e) 137
Figure 5.3: Oil industry evaluation of likely recovery time from regional crisis, 1998 139
Figure 5.4: Impact of regional crisis on oil sector investment, 1998 140
Table 5.1: Impact of regional crisis on oil sector investment, 1998 140
Figure 5.5: Oil industry evaluation investment strategy and project status, 1998 141
Figure 5.6: Economic growth, 1970-2010(e) 142
Figure 5.7: Relative importance of oil refining nations to region and likely investment focus, 1998-2005 147
Figure 5.8: Oil industry investment interest in region by country, 1998 148
Figure 5.9: Level of interest in oil sector, by activity, in five most popular prospective investment locations, 1998 149
Figure 5.10: Reasons for interest in oil sectors of five most popular investment locations, 1998
Figure 5.11: Major obstacles to investment in five most popular prospective investment locations, 1998 152
# Order Form - Caspian Basin and Central Asian Oil and Gas Report

To order, select electronic or print version below and fax this form to +1 202 337 2860

<table>
<thead>
<tr>
<th>Check One</th>
<th>Product Version</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ]</td>
<td>Electronic/PDF Version (available within 24hrs)</td>
<td>$1195 USD</td>
</tr>
<tr>
<td>[ ]</td>
<td>Single User License</td>
<td>$3950 USD</td>
</tr>
<tr>
<td>[ ]</td>
<td>Unlimited User License</td>
<td></td>
</tr>
<tr>
<td>[ ]</td>
<td>Print Version (allow 5-10 days delivery)</td>
<td>$895 USD</td>
</tr>
</tbody>
</table>

**Deliver to:**

Name ___________________________________________ Position ___________________________________________

Organization ______________________________________________________________________________________

Address _____________________________________________________________________________________________

City ___________________________ State/Province __________________________________________________________

Postal Code ______________________ Country ______________________________________________________________

Phone: ___________________________ Fax: ________________________________________________________________

Email: _____________________________________________________________________________________________

**Credit Card:**  [ ] AMEX  [ ] MC  [ ] VISA

Card Number __________________________________________________________ Expiration _________

Name on Card __________________________________________ Signature ____________________________________________
Customized Consulting Services

Introduction

Emerging Markets Online (EMO) provides customized market research and consulting services for the energy, telecommunications and utilities sectors worldwide. EMO specializes in providing each customer with personalized market research and business development support. Our global team of consultants specializes in management consulting, marketing and distribution strategies, project finance, tender and bid support, supplier strategies, and partner facilitation.

Research and Consulting Services

When you are preparing for a specific project, EMO's team can help. We will work with you to identify and assess emerging market opportunities and challenges. EMO helps clients to:

⇒ Develop research initiatives with direct surveys of markets, competitors, prospective suppliers and government regulatory and procurement entities;
⇒ Perform due diligence and investigative research on specific companies;
⇒ Identify new business opportunities in regional and local markets;
⇒ Facilitate Joint Venture activities and identify prospective partners;
⇒ Provide assessments of sales and distribution channels;
⇒ Track competitor’s activities;
⇒ Forecast market growth potential for products and services;
⇒ Analyze new trends in the industry;
⇒ Acquire strategic information on utility markets deregulation, liberalization and privatization initiatives;
⇒ Develop strategies for competitive tenders and bidding scenarios.

For more information, send a Request for Proposal with your specific information requirements, scope of work, and deadline to services@emerging-markets.com
Customized Consulting Services

Recent Consulting Projects
EMO has helped dozens of clients worldwide assess emerging market challenges and identify new growth opportunities. Here are a few examples of recent projects EMO has completed for our clients:

⇒ EMO advised the M&A director for a major multinational E&P corporation on how current LNG projects are structured and financed. This included an analysis of the mix of private finance, commercial finance, ECA and multilateral finance, and engineering finance in current projects. The assignment included a matrix of how current LNG projects are financed by participant and percentage. EMO also provided details of how key LNG projects were structured and financed in Egypt, Trinidad, Qatar, Oman, Baja Mexico, and Nigeria. Finally, we identified three major trends in the financing of LNG projects.

⇒ Consulted a major Russian oil and gas company on the practices of U.S. refinery operating companies. Performed a survey of refinery companies, detailing management practices, investment and purchasing activities, refinery manager roles and responsibilities, and downstream operations. Produced a report of recommendations for applying western practices in refinery management and operations to Russian firm.

⇒ Supported a major law firm with an in-depth assessment of South Africa’s natural gas market. Produced a survey and a report of key players, existing operations, exploration activities, pipeline developments, major contracts, pricing mechanisms, and the outlook for downstream natural gas markets

⇒ Consulted a major U.S. pipeline company in its transition from an energy utility to a broadband telecom services and trading company. Activities include due diligence, competitor assessments, supplier surveys, and regulatory analysis.

⇒ Produced a due diligence assessment on a major electric and natural gas company’s operations in Latin America

⇒ Created a market assessment for a major European utility regarding the market for power generation, transmission and distribution in eastern Europe

⇒ Identified prospective buyers for a cellular license for a Latin American country in support of a big-five consulting firm’s representation of a Latin telecommunications operating company

Proposal Requests
For more information, send a Request for Proposal with your specific requirements, scope of work, and deadline to services@emerging-markets.com