

# COUNTRY ANALYSIS BRIEFS

## Yemen

Last Updated: October 2005

### Background

***Yemen is showing economic improvement but security remains a concern for foreign investment.***

Yemen has shown economic improvement following 15 years of internal unrest, including the 1990 unification of North and South Yemen and the costly 1994 civil war. As a condition for a 1995 loan from the International Monetary Fund (IMF), Yemen's government has been attempting to implement an economic reform program that includes banking reform, privatization of state-run industries, major infrastructure investment, and reduction or elimination of government subsidies, including wheat, flour, diesel/gasoline, and utilities. However, progress has been slow as a result of resistance to reform, sales taxes, and cuts in subsidies.



Oil income makes up an estimated 65-70 percent of total Yemeni government revenue, although oil production has been falling. Overall, Yemen's economy benefits from high oil prices, which increase the country's hard currency receipts and remittances from Yemeni workers in the wealthier Persian Gulf countries. However, high oil prices also increase the country's expenditures on petroleum product subsidies, which cost hundreds of millions of dollars per year and constitute a heavy burden on the country's budget. Yemen's real gross domestic product grew 2.7 percent in 2004, and is projected to grow 3.3 percent in 2005.

Under terms of its agreements with the IMF and World Bank, Yemen is required to initiate privatization of most sectors of its economy. The country's privatization program aims to boost economic growth, while improving standards of living and access to critical resources (such as power and water). The plan aims to encourage private investment in agriculture, fisheries, and oil, and selling off the government's stake in companies throughout the Yemeni economy. Some companies are to be offered for tender or auction, while others are to be sold by private subscription. The government also is seeking to create a more attractive climate for foreign investment, as well as to join the World Trade Organization (WTO). State-owned businesses cited as candidates for privatization include farm and agricultural cooperatives, construction companies, power stations, public housing facilities, refineries, the state's petroleum retail network, shipping companies, and the state telecommunications company. Progress toward privatization, however, has been slow. In 2002, for instance, the country's privatization initiative faced a setback when price controls were reintroduced for some commodities, mainly foodstuffs. Also, the government has found it difficult to roll back subsidies, with attempts during July 2005 met with rioting and

unrest (in late July, the government partly rolled back the price increases).

Security remains a concern of foreign firms doing business in Yemen, particularly after the USS Cole was attacked in October 2000, and the French-flagged oil tanker Limburg was attacked off the Yemeni coast on October 6, 2002. Since then, Yemen reportedly has instituted a variety of maritime security measures, particularly at Aden and Hodeidah ports. Still, problems remain. Meanwhile, kidnappings of foreigners, including oil workers, have also been a problem. In addition, there have been periodic attacks on an oil pipeline in the Marib region of eastern Yemen, which is operated by U.S.-based Hunt Oil. The Canadian oil company Nexen, which operates the Ash Shihr/AI Mukalla oil export terminal, agreed in January 2003 to provide assistance to the Yemeni government in improving security.

Yemen held parliamentary elections in April 2003 and is scheduled to hold presidential elections in 2006. Political stability in Yemen is critically important to regional oil producers, given that Yemen sits at the entrance to the Bab el Mandab strait, which links the Red Sea to the Indian Ocean. The strait is one of the most strategic shipping lanes in the world, with an estimated 3 million barrels per day (bbl/d) oil flow (for other major oil shipping routes, please see our [World Oil Transit Chokepoints report](#)). Disruption to shipping in the Bab el-Mandab could prevent tankers in the Persian Gulf and the Gulf of Aden from reaching the Suez Canal/Sumed pipeline complex, instead diverting them at great cost around the southern tip of Africa (the Cape of Good Hope).

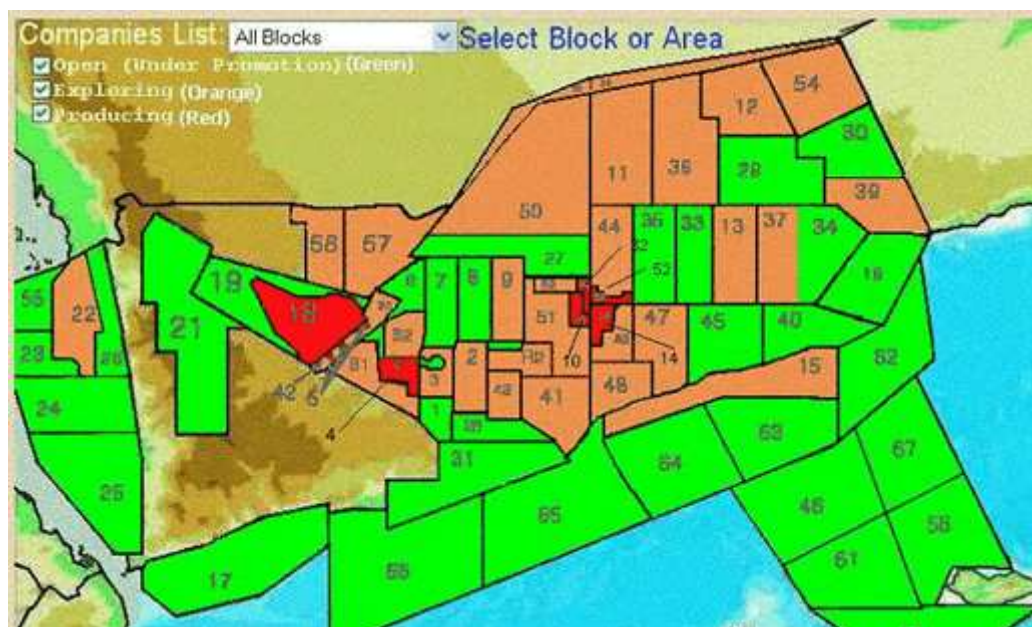
## Oil

**Yemen is actively attempting to attract foreign investment in order to reverse a recent decline in crude oil production and to reach its goal of 500,000 bbl/d in the next few years.**

Yemen is a small, non-OPEC oil producer. According to *Oil and Gas Journal*, the country contains proven crude oil reserves of 4 billion barrels, concentrated in five areas: Marib-Jawf Block 18 (estimated 800 million barrels) in the north; Masila -Block 14 (estimated 800+ million barrels) in the south; East Shabwa - Block 10A (estimated 180 million barrels); Jannah - Block 5 (estimated 345 million barrels) and Iyad - Block 4 (estimated 135 million barrels) in central Yemen. In 2004, Yemen's crude oil output averaged 423,743 bbl/d, down from 448,288 bbl/d in 2003. For the first 9 months of 2005, Yemeni crude production was down again, to 416,656 bbl/d. In part, according to Yemen's Petroleum Exploration and Production Authority (PEPA), this is due to declining production in Masila and Marib, the country's two largest fields. Despite these declines, Yemen hopes to boost output to 500,000 bbl/d in the next few years. The country is also talking about setting up a national oil and gas company, to be called Petro-Yemen.

### Overview

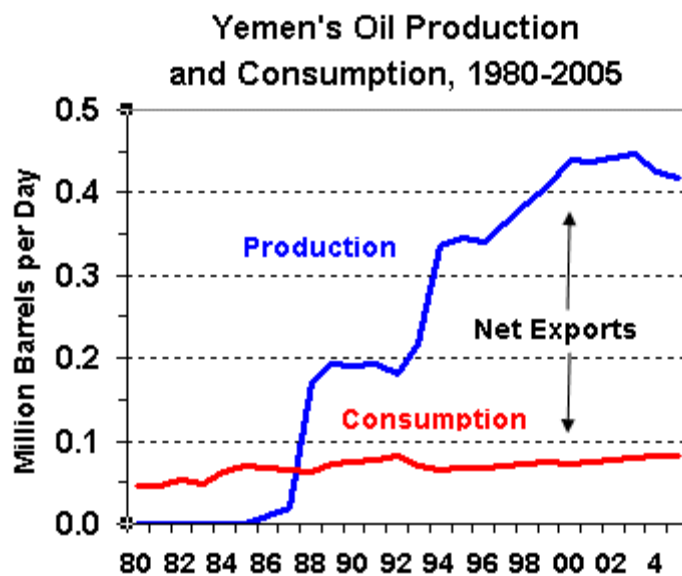
To date, Yemen's territory has been divided into 84 blocks, only 11 of which actually produce oil. Around half of the blocks have been licensed for exploration and possible production of oil and/or natural gas. Unlike much of the petroleum and natural gas production in the region, Yemeni production is heavily reliant on private foreign companies, with more than 20 foreign firms operating concessions. Dozens of other foreign and domestic companies are partners in the concessions, including ExxonMobil and TransGlobe Energy. Since the withdrawal of major international oil companies in the mid-to-late 1990's, due to a combination of economic and security issues, the government of Yemen has targeted smaller, independent oil companies to take part in Production Sharing Agreements (PSAs).





Currently there are nine PSAs in existence. Canada's Nexen, which owns 52 percent of the Masila (Block 14) and an 87.5 percent of East Al Hajr (Block 51), produces around 200,000 bbl/d in Yemen - 170,000 bbl/d from Masila and 30,000 bbl/d from East Al Hajr. US-based Hunt Oil produces an estimated 125,000 bbl/d as well --75,000 bbl/d from Marib al Jawf (Block 18) and 50,000 bbl/d from the Jannah Block.

In March 2005, Yemen's Parliament decided to terminate Hunt's Block 18 concession when it expires in November, despite an earlier agreement to extend it by 5 years. Hunt, which has operated in Yemen since 1984, reacted by threatening legal action against the Yemeni government, while hinting that the company's participation in the Yemen LNG project (see below) could be adversely impacted. Nexen has indicated interest in Hunt's Block 18 if the concession is not renewed. However, in mid-September 2005, the government reportedly was considering a consortium of Premier Oil and the Yemen Oil Company to replace Hunt.



**Note:** Production includes crude oil, natural gas liquids, other liquids, and refinery gain.

France's Total produces around 35,000 bbl/d from its East Shabwa concession. U.K. independent Dove Energy, which operates the East-Saar (Block 53, including the Sharyoof field), produces an estimated 25,000 bbl/d. Norway's DNO produces an estimated 16,000 bbl/d in the Hawarim Block (Block 32 - Tasour field), 15,000 bbl/d in Nabrajah (online in July 2005) and 5,000 bbl/d in South Hawarim (Block 43). In mid-September 2005, Yemen awarded Korea's KNOC the rights to develop and operate Iyad (Block 4), which produces around 500 bbl/d. Independent Vintage Oil operates the S1 block (Damis, including the An Nagyah field), with production of 8,500 bbl/d. Calvalley is expected to bring on 8,000 bbl/d from its Malik (Block 9) field in 2006.

The Ministry of Oil and Mineral Resources (MOMR) places oil tenders up for bid on a semi-annual basis. Contracts typically involve a 2-3 year exploration period and a 20-year production concession. The Petroleum Exploration and Production Board of MOMR authorizes all licenses for exploration and production in Yemen, subject to ratification by parliament. All contracts are signed between a company or group of companies, as contractor to the government of Yemen. In late 1999, the government took steps toward improving investment in the country's oil, gas, energy and petrochemical activities by redefining terms for certain concession agreements. These more favorable terms include lower signature bonuses, an increase in the proportion of oil earnings that companies can claim for development cost recovery to between 50 percent and 70 percent (compared with a previous range of 25-45 percent), and the introduction of a sliding scale of 3-10 percent for royalties (compared with a previous flat fee of 10 percent). In mid-2001, Yemeni officials took further steps to improve the energy-related investment climate, announcing a policy of contract extensions, added flexibility on negotiations, and a commitment to amending existing

legislation if necessary.

Yemen General Corporation for Oil & Gas/Mineral Resources, is an affiliation of several state-owned subsidiaries including: the Yemen Oil Company (YOC); the Yemen Refining Company (YRC); the Petroleum Exploration and Production Authority (PEPA) and the General Department of Crude Oil Marketing (GDCOM). All branches report to the MOMR. The company is responsible for managing the industry contracts and relations with operators and partners, as well as the government's share of crude exports.

#### *Recent Exploration*

Despite declining output in mature fields, Yemen's immediate goal for the petroleum industry involves increasing oil production and oil exports (in 2005, around 330,000 bbl/d is being exported, primarily to Asian markets, including China, India, and Thailand). In order to realize this goal, oil exploration activity in Yemen has accelerated since 1997, after a downturn following Yemen's civil war. In July 2005, Yemen completed an upstream bidding round with the award of seven blocks, six onshore and one offshore. Companies winning blocks included Oil Search (Blocks 7 and 74), Al Thani (Blocks 34, 37 and 55), and Occidental (Block 75). The country is slated to hold another upstream bidding round in early 2006, with 14 blocks being offered in Hadramout (6 blocks), Mahra (2 blocks), Shabwah (2 blocks), Hodeidah (1 block) and others.

In August 2003, Canada's Calvalley Petroleum announced the discovery of four oil bearing wells in the Roidhat field in the Malik Block (9). Calvalley has yet to determine if the oil find is of commercial quality. In August 2005, Yemen's Oil Ministry granted a license to Calvalley, Reliance Industries (India) and Hoodoil (Yemen) to develop Block 9 through 2025.

Nexen continues to explore Block 51, adjacent to their Masila field's and Total's East Shabwa. In June 2004, the Yemeni government offered newly demarcated Blocks 69-74 up for bid (Blocks 69-70 are in the Sabatain Basin, Blocks 71-74 are located in the Masila/ Shabwa Basins). In the same month, a consortium including Norway's DNO and Canada's TransGlobal Energy was awarded exploration rights to Block 72. The oil concession encompasses 703 square miles and is located next to Nexen's holdings. China's Sinopec was awarded rights to explore blocks 69 and 71, while Dove Energy acquired Block 73. Blocks 70 and 74 are yet to receive bids.

In July 2005, Norway's DNO ASA announced that its Nabrajah Field had begun production. This is DNO's third Yemen oilfield development since the company entered the country in 1998. In August 2005, OMV announced that it made a third oil discovery in the Al-Uglah area (Block S2) of the Shabwah Basin. OMV also is slated to conduct exploration work in Block 2, located near Block S2.

In June 2000, Yemen and Saudi Arabia signed the Treaty of Jeddah, resolving a longstanding border dispute. The agreement opened up opportunities for increased Saudi trade and investment in Yemen, and made possible the award of oil and gas exploration rights for areas in Yemen, adjacent to the border. In 2000, four new blocks were demarcated in this area, and several companies have signed memoranda of understanding (MOU) for exploration rights. In January 2001, Nexen was granted the right to operate Block 59, located adjacent to the Saudi border. Nexen holds a 60 percent interest, with the other 40 percent held by Occidental Petroleum (of which Nexen is no longer a subsidiary). In December 2001, Austria's OMV, along with Cepsa of Spain and PanCanadian, concluded an exploration and production contract with the Yemeni government for Block 60.

#### *Pipelines*

Yemen has an integrated network of pipelines for transport of the crude oil and natural gas produced in three central areas. This 560-mile network connects with four longer pipelines that transport oil to several major export terminals. The 263-mile Marib-Ras Isa pipeline is the longest of the domestic pipelines, transporting oil from the Marib basin to the Ra's Isa offshore export terminal on the Red Sea. The pipeline has a capacity of 225,000 bbl/d. The Masila-Shahir pipeline, capable of transporting 300,000 bbl/d, has the largest capacity of pipelines in Yemen. It runs approximately 93 miles from Masila to the export terminal at Ash Shahir. The Shabwa-Rudhum pipeline carries up to 135,000 bbl/d from the Eyad-Shabwa block to the Rudhum terminal on the Gulf of Aden. Jannah-Safir, built in 1996, carries 120,000 bbl/d to production facilities in the Marib region.

In July 2002, the government of Yemen approved of an agreement in principle with the Saudi Arabia for studies to be made on the first international pipeline (oil, liquefied natural gas, or liquefied petroleum gas) from Saudi southern oil fields to the Yemeni port at Hadramout. The two governments are conducting further negotiations on this project. The pipeline will be used for exports from exploration and production (E&P) ventures in the Saudi portion of Rub' Al Khali involving a Shell-Total partnership, LUKoil of Russia, Sinochem of China, an Agip-Repsol partnership.

### Refining

Yemen currently has a crude refining capacity of 130,000 bbl/d from two aging refineries. The refinery in Aden, operated by Aden Refinery Company (ARC), has a capacity of 120,000 bbl/d, while capacity at the Marib refinery, operated by Yemen Hunt Oil Company, is 10,000 bbl/d. The Aden refinery, which had a design capacity of 170,000 bbl/d, sustained significant damage during the country's 1994 civil war, but was later partially rebuilt. The Yemeni government has backed away from a 2001 plan to privatize the Aden refinery, but may offer a partial stake to private investors in the future.

Yemen signed an agreement in December 2002 with the Hadramout Refinery Company, the country's only private refining company, to construct a 50,000-bbl/d (rising to 100,000-bbl/d) capacity at Al Mukalla. The facility is scheduled to be completed by 2006. Another refinery is planned for Ra's Isa with a capacity of 60,000 bbl/d and completion by 2007. Refinery output would be targeted for domestic use rather than export, despite the fact that according to the MOMR, domestic growth in demand for oil products, especially subsidized diesel fuel, has been sluggish over the past several years. The slow demand growth is mainly attributed to high import tariffs on fuels and to the smuggling of cheap (subsidized) Yemeni oil products across borders, where fuel prices are higher (leading to domestic shortages).

## Natural Gas

**Yemen LNG appears to be moving ahead, with first shipments of LNG to the United States and South Korea possible by late 2008.**

With reserves of 16.9 trillion cubic feet (Tcf), Yemen has the potential to become a commercial producer and exporter of natural gas. The bulk of Yemen's gas reserves are concentrated in the Marib-Jawf fields (Block 18). In 2003, there was no production of natural gas in Yemen, despite longstanding plans to develop an export-based natural gas industry. Currently, the gas extracted as by-product of oil production is reinjected.

Since the mid-1990s, a primary interest of Yemeni natural gas development has been focused on the export of liquefied natural gas (LNG). In 1997, TotalFinaElf (now Total, with a 42.9 percent stake), Yemen Gas Company (23.1 percent), SK Engineering (10 percent) and Hyundai Heavy Industries (6 percent) established Yemen LNG. In June 2002, the proposed project suffered a major blow, when ExxonMobil and Hunt Oil announced that they were leaving the consortium. Hunt (18 percent stake), however, later retracted its withdrawal. In August 2005, after various setbacks, Yemen's government approved three LNG supply agreements -- for 6.7 million tons per year -- with KOGAS (1.3 million tons per year), Total (2 million tons per year), and Tractebel (2.5 million tons per year). In early September 2005, the government awarded an engineering, procurement and construction contract for the project. First shipments of LNG could be made available by late 2008, with gas likely to flow to the United States and South Korea. Gas for the LNG project will come from the Marib-Jawf field operated by Hunt. Infrastructure includes three pipelines from the fields at Marib and a two-train liquefaction plant at the Arabian Sea port of Balhaf, south of Al Mukalla.

Growing regional competition, especially from Oman and Iran, has been the most significant obstacle to developing LNG for export. In Yemen, costly transportation of the gas from the country's rugged interior, combined with additional security measures, increases production costs. In 2002, in order to encourage investment in commercial natural gas development, the government began offering 25-year purchase price agreements that lowered the price of natural gas to \$0.50 per million Btu. Facing slow progress in export-oriented production, the Yemeni government is now considering developing natural gas for domestic electricity generation and petrochemical production. In May 2004, more than 25 companies bid on a domestic gas utilization and pipeline feasibility study for a proposed 373-mile pipeline that would transport gas from Marib to a planned 300-MW power station at Mabar. The World Bank, in cooperation with the Yemen's National Coordination Council, is funding this study.

## Electricity

**Yemen is attempting to meet its rapidly growing power needs while reducing its dependence on oil for electricity generation.**

In 2003, Yemen's diesel-fired power plants generated 3.9 billion kilowatthours of electricity. According to Yemen's Public Corporation for Electricity (PCE), the country's generating capacity (810-900 MW) and electricity distribution network is inadequate. Currently, it is estimated that only about 5 percent of rural households and 30 percent of urban households in Yemen have access to electricity from the national power grid. Even for those connected to the grid, electricity supply is intermittent, with rolling blackout schedules maintained in most cities. According to the World Bank, Yemen's electricity shortage is one of the major restraints on economic growth - limiting industrial production and depressing standards of living. In order to meet growing demand (up 20 percent between 2000 and 2003) and to avert an energy crisis in the medium term, Yemen's Electricity and Water Ministry has plans to increase the country's power generating capacity to 1,400 MW by 2010.

Over the past decade, the government has taken steps toward alleviating Yemen's electricity shortage, including reform, expansion and integration of the country's power sector through small-scale privatization and independent (private) power projects (IPPs). Plans to restructure the electricity sector were formally laid out in the 1997 Power Sector Strategy, which included a restructuring of the PCE, planned for 2001. The reform package originally including the privatization of generators having a capacity of less than 5 MW, and the sale of generators of 5 MW-20 MW through public offerings. However, plans to privatize the power stations have been delayed indefinitely. Currently, Yemen's two largest power plants are the 165-MW power station at Ra's Kanatib, near Al Hodeidah, and the 160-MW station in Al Mukha, south of Al Hodeidah.

Long term development of Yemen's power sector includes a reduction in oil dependence, thus maximizing oil for export. Yemen's plans include the construction of several gas-fired power stations, expansion of the national power grid, and the introduction of renewables, such as solar energy, to rural areas. In the immediate term, the government is promoting large-scale IPPs in order to increase generation capacity over the next few years. Achieving this goal may prove difficult, however. Several IPPs have faced delays or collapse due to lack of natural gas infrastructure development and disagreement over the fixed price to be paid to the IPPs for new electricity supply.

In late 1999, the Yemeni government signed an MOU with the US corporation Delma Power for the first IPP - a 400-MW capacity, gas-fired power complex, transmission line, and substation near the Marib oil and gas field, east of Sanaa. However, lack of development of a natural gas production and distribution network from the nearby Safar fields has threatened to delay progress on the project indefinitely.

Another possible gas-fired power plant is planned for Safar. Funding is to come from the Arab Fund for Economic and Social Development, the Saudi Development Fund, and the Yemeni government. The plant is to have a generating capacity of 2,800 MW.

In March 2005, Siemens signed a contract to build a 340-MW gas-fired power plant in Yemen for \$160 million. The plant will be fueled by natural gas from the Marib field, and is to begin commercial operations in the summer of 2007. Ultimately, a total of 1,000 MW in generating capacity is to be built at the Marib site.

While large-scale power development has mostly stalled, efforts by the Yemeni government to encourage interest in IPP ventures, including the long terms gas-purchase agreements, have resulted in several smaller-scale projects. In 1998, the Mukalla power project was completed. The project included the construction of a 40-MW diesel-fired plant, six substations, and the laying of 62 miles of transmission lines. The Finnish firm Wartsila recently completed the Aden power project, which involved building a 30-MW plant and repairing the Al Hiswa power plant to serve the city's port. The Al Hiswa plant is currently under consideration for expansion by 60 MW of generation capacity as part of the redevelopment of Aden, which was heavily damaged in the 1994 civil war.

To date, much of Yemen's electricity infrastructure improvements have been funded by multilateral development organizations. The national grid linkage, completed in July 1997, was first funded by the Kuwait-based Arab Fund for Economic & Social Development (AFESD), which provided the initial \$54 million of the \$64 million required for the project. In 1998, the World Bank and the International Development Foundation (IDF) granted Yemen a \$33 million loan for the "Sanaa Emergency Power Project," an upgrade of the Dhaban power plant to 50-MW total capacity, which was completed in June 2004. The Saudi Fund for Development (SFD) and the AFESD are also major backers of the first phase of the Marib power plant project. Currently, there is discussion of a possible linkage between the power grids of Yemen and Djibouti, with financing by international lenders.

#### *Sector Organization*

Yemen's state-owned PCE, under the Ministry of Electricity and Water, operates an estimated 80 percent of the country's generating capacity as well as the national power grid. The remainder of Yemen's electricity is generated by small off-grid suppliers and privately-owned generators in rural areas. The PEC distributes electricity in the national grid through two 132Kv transmission systems, one serving the northern region of Sanaa-Hodeidah-Aden, the other serving Mukalla and Hadramout. Plans to restructure PEC, laid out in the 1997 Power Sector Strategy, have been making slow progress at best due to financing and other problems.

## Profile

## Country Overview

<b>Chief of State</b>	President Field Marshall Ali Abdallah Saleh (reelected in September 1999)
<b>Location</b>	Middle East, bordering the Arabian Sea, Gulf of Aden, and Red Sea, between Oman and Saudi Arabia
<b>Population (2005E)</b>	20,727,063
<b>Languages</b>	Arabic
<b>Major Cities</b>	Sanaa (capital), Aden, Al Hodeidah, Taizz
<b>Religion</b>	Muslim including Shaf'i (Sunni) and Zaydi (Shi'a), small numbers of Jewish, Christian, and Hindu
<b>Currency</b>	Yemeni rial (YER)
<b>Inflation Rate (2005E)</b>	8.5%
<b>Gross Domestic Product (GDP, 2004E)</b>	purchasing power parity - \$16.25 billion
<b>Real GDP Growth Rate (2005E)</b>	3.3%
<b>Exports (2005E)</b>	\$5.0 billion
<b>Imports (2005E)</b>	\$4.1 billion

## Energy Overview

<b>Minister of Oil and Mineral Resources</b>	Dr. Rasheed Saleh Baraba
<b>Proven Oil Reserves (January 1, 2005E)</b>	4 billion barrels
<b>Oil Production (2005E)</b>	416 thousand barrels per day, of which 100% was crude oil.
<b>Oil Consumption (2005E)</b>	83 thousand barrels per day
<b>Net Oil Exports (2005E)</b>	333 thousand barrels per day
<b>Crude Oil Refining Capacity (1/1/05E)</b>	130 thousand barrels per day
<b>Proven Natural Gas Reserves (January 1, 2005E)</b>	16.9 trillion cubic feet
<b>Natural Gas Production (2003E)</b>	None
<b>Natural Gas Consumption (2003E)</b>	None
<b>Recoverable Coal Reserves (2003E)</b>	None
<b>Coal Production (2003E)</b>	None
<b>Coal Consumption (2003E)</b>	None
<b>Electricity Installed Capacity (2003E)</b>	0.8 gigawatts (100% oil fired)
<b>Electricity Production (2003E)</b>	3.8 billion kilowatt hours
<b>Electricity Consumption (2003E)</b>	3.6 billion kilowatt hours
<b>Total Energy Consumption (2003E)</b>	0.2 quadrillion Btus*, of which Oil (100%), Natural Gas (0%), Coal (0%), Nuclear (0%), Hydroelectricity (0%), Other Renewables (0%)
<b>Total Per Capita Energy Consumption (2003E)</b>	7.8 million Btus
<b>Energy Intensity (2003E)</b>	9,648.6 Btu per \$2000-PPP**

## Environmental Overview

<b>Minister of Water and the Environment</b>	Mohammed Lutf al-Iryani
<b>Energy-Related Carbon</b>	10 million metric tons, of which Oil (100%), Natural Gas (0%), Coal (0%)

<b>Per-Capita, Energy-Related Carbon Dioxide Emissions (2003E)</b>	0.5 metric tons
<b>Carbon Dioxide Intensity (2003E)</b>	0.6 Metric tons per thousand \$2000-PPP**
<b>Status in Climate Change Negotiations</b>	Non-Annex I country under the United Nations Framework Convention on Climate Change (ratified February 21st, 1996). Not a signatory to the Kyoto Protocol.
<b>Major Environmental Issues</b>	Very limited natural fresh water resources; inadequate supplies of potable water; overgrazing; soil erosion; desertification
<b>Major International Environmental Agreements</b>	A party to Conventions on Biodiversity, Climate Change, Desertification, Environmental Modification, Hazardous Wastes, Law of the Sea, Nuclear Test Ban and Ozone Layer Protection

## Oil and Gas Industry

<b>Organizations</b>	Yemen General Corporation for Oil & Gas/Mineral Resources - loose affiliation of several subsidiaries, including: Yemen Petroleum Company (YPC) - manages a nominal government interest in production (PSAs), handles marketing; General Corporation for Oil and Mineral Resources (GCOMR) - investment and holding company; Yemen Refining Company (YRC) - manages refining industry; General Department of Crude Oil Marketing (GDCOM) - handles government shares of exports; The Petroleum Exploration and Production Authority (PEPA) - contract negotiations
<b>Major Oil Producing Blocks</b>	Masila (including the Camaal and Heijah fields), Marib al Jawf (including Alif, Asaad Al-Kamil, Azal, and Wasi Bana fields), Jannah, East Sarr, East Shabwa, Howarin (including the Tasour field), and Iyad
<b>Natural Gas Reserves</b>	Marib al Jawf, Jannah, East Shabwa, Iyad
<b>Foreign Oil Company Involvement</b>	Calvalley, Cepsa, Dove Energy, DNO, ExxonMobil, Hunt Oil, Korea National Oil Company, Kufpec, Nexen, Occidental, Oil Search, OMV, PanCanadian, SK Corp., Sinopec, Soco, Total, Vintage Oil
<b>Major Refineries (Capacity)</b>	Aden (120,000 bbl/d), Marib (10,000 bbl/d)
<b>Main Ports/Export Terminals</b>	Aden, Al Hodeidah, Bir Ali, Ash Shihr/Al Mukalla, Mocha, Nishtun, As Salif-Ra's Isa (offshore)
<b>Major Pipelines</b>	Marib-Ra's Isa Pipeline, Masila-Shahir, Shabwa-Rudhum Pipeline (pipeline linking the Iyad -Shabwa fields to the Rudhum terminal on the Gulf of Aden at Hisn an Nushaymah), Jannah-Safir (pipeline from Jannah to production facilities in Safir, Marib), East Shabwa-Masila (pipeline from East Shabwa to Masila)

\* The total energy consumption statistic includes petroleum, dry natural gas, coal, net hydro, nuclear, geothermal, solar, wind, wood and waste electric power. The renewable energy consumption statistic is based on International Energy Agency (IEA) data and includes hydropower, solar, wind, tide, geothermal, solid biomass and animal products, biomass gas and liquids, industrial and municipal wastes. Sectoral shares of energy consumption and carbon emissions are also based on IEA data.

\*\*GDP figures from OECD estimates based on purchasing power parity (PPP) exchange rates.

## Links

### EIA Links

[EIA - Country Information on Yemen](#)

### U.S. Government

[CIA World Factbook - Yemen](#)

### General Information

[AME Info Middle East Business Information](#)

[Gulf Wire](#)

[Yemen Gateway](#)

[YemenNet.Com](#)

[The Yemen Times](#)

### Associations and Institutions

[The Center for Middle Eastern Studies - Yemen](#)

### Foreign Government Agencies

[Central Bank of Yemen](#)

[General Investment Authority - Yemen](#)

[Government of Yemen](#)



[Petroleum Exploration and Production Authority of Yemen \(PEPA\)](#)

### **Oil and Natural Gas**

[Oil Exploration Blocks in Yemen](#)

[Petroleum Exploration and Production Authority of Yemen \(PEPA\)](#)

## **Sources**

Agence France Presse

APS Review of Oil and Gas Market Trends

BBC Worldwide Monitoring

CIA World Factbook

Dow Jones News Wire service

Economist Intelligence Unit ViewsWire

Energy Compass

Gas Daily

Global Insight

International Oil Daily

Oil & Gas Journal

Petroleum Economist

Petroleum Intelligence Weekly

Reuters

U.S. Energy Information Administration

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