

GULF STATES

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The Gulf States have assumed greater strategic importance recently having taken on the Saudi mantle of staging posts for the Iraqi war. These small monarchies and city-states with their growing and youthful populations, as well as unemployment concerns, are trying hard to diversify and combine their older traditions with an often dynamic modernism, typified by Dubai's gleaming hotels and international financial centre. The Gulf contains probably a third of the planet's future fossil-fuel supplies and by 2020 could be supplying over half the world's oil needs.

The United Arab Emirates (UAE) consists of a federation of seven including Abu Dhabi, Dubai, Sharjah, Ajman, Fujairah, Ras al-Khaiman, and Umm al-Qaiwain. Abu Dhabi is the most politically powerful; it and Dubai provide over 80% of the UAE's income. After reaching 7.9% in 2000, real growth in GDP slowed to 1.8% in 2001, largely as a result of cuts in oil export revenues, but is projected at 3.3% for 2003. The UAE's economy is heavily dependent on oil exports, which account for about 30% of total gross domestic product (GDP), although diversification has occurred in exports through aluminium production, tourism, aviation, re-export commerce, and telecommunications.

The UAE contains proven crude oil reserves of 97.8 billion barrels, just less than a tenth of the world total: Abu Dhabi accounts for 94% with some 92.2 billion barrels followed by Dubai (4 billion barrels), Sharjah (1.5 billion barrels) and Ras al-Khaimah (100 million barrels). Abu Dhabi joined OPEC in 1967, but Dubai did not. The UAE's total capacity is 2.65 Mbbl/d and its OPEC production quota effective September 1, 2001, is 2.03 Mbbl/d; production quotas were cut three times in 2001. The Abu Dhabi National Oil Co. (ADNOC), is planning a limited opening of UAE upstream oil production to foreign business and the first asset sale will involve 28% of the offshore Upper Zakhum field, currently producing some 500,000 bbl/d. ADNOC also operates two refineries; the Ruwais one underwent a US\$100 million upgrade in 1995 to a capacity of 145,000 bbl/d and a US\$1.2 billion second phase expansion. When it is completed by 2003, total capacity will be about 415,000 bbl/d. There are four smaller refineries and a 40,000 bbl/d second hand gasoline unit owned by ISO Octane opened near Jebal Ali in May 2000.

Natural gas reserves in the UAE are 212,000 billion ft³, the world's fifth largest, and 196,100 billion ft³ are located in Abu Dhabi where the non-associated Khuff natural gas reservoirs and Abu al-Bukhush oil fields are among the world's largest. Increased consumption and demand have prompted increasing use of natural gas, and the development of natural gas fields results in increased production and exports of condensates which are not subject to OPEC quotas. There has been a multi-billion dollar programme of investment in the natural gas sector; the second phase of the onshore natural gas development programme at the Habshan complex was finished in

early 2001; a third phase of expansion is planned and engineering and design bids were sought in September 2001.

The Asab natural gas development project was completed in 1999 and processes some 830 Mft³/d of associated wet natural gas and up to 100,000 bbl/d of condensate for processing at the Ruwais refinery. Natural gas consumption in Dubai alone is anticipated to increase by 7% annually through 2005. The US\$8-10 billion Dolphin Project, which will allow the export of non-associated natural gas from the huge offshore North Dome field, will develop links between the natural gas infrastructures of Qatar, the UAE, and Oman and possibly the Indian subcontinent with natural gas supplies starting in late 2005.

Dubai itself, with its Internet City, seems like a boomtown and has tried hard to diversify. Dubai Aluminium Co. (Dubal) founded in 1975 accounts for 2% of the world's aluminium production or some 536,000 t/y, and incorporates a power generating capability of over 1,400 MW and a seawater desalination plant capable of providing over 25 Mgal/d of potable water. It has expanded three times and Dubal considers itself the largest single-site smelter in the Western world and the largest non-oil foreign exchange earner in the UAE. With a workforce of 2,700, it is the world's largest supplier of foundry alloy to the automotive wheel industry in Asia and a significant supplier of billet for extrusion products. The UAE has one of the best developed desalination systems in the world, which has helped transform its shoreline and foster construction.

Other metal and mineral activities include: chromite mining in Fujairah; Ahli Steel Co. which has a 70,000 t/y steel plant for reinforcing bars in Dubai; Solo Industries Ltd, with a 800 t/y lead refinery for scrap recycling in Sharjah; and Lucky Recyling Ltd, a copper scrap facility in Dubai.

ADNOC subsidiary, National Chlorine Industries, produces caustic soda, chlorine, and salt at its Umm Al-Nar plant. Silica sand demand is increasing, with a glass bottle factory in Dubai where there are also ten cement factories. Expansions have occurred at Fujairah Cement Industries and at the Ras al-Khaimah Co. for white cement and construction material; cement is also manufactured in six of the seven emirates. High- quality rockfill and aggregate are quarried near Fujairah's port and Ras al Khaymah where rockwool factories using doleritic feedstock have been operating.

Abu Dhabi Fertilizer Industries (Adfert) has helped make the Emirates self-sufficient in that area. Established in 1997, it is one of the fastest-growing business conglomerates in the UAE. ITT Emirates established Adfert, one of the largest agricultural firms engaged in the marketing of fertiliser in the Gulf region, and has an association with SQM Corp., the Chilean nitrate and potash producer. The two companies co-operated to set up an NPK chemical fertiliser plant with two production lines (water soluble, granular NPK compound fertilisers) and the first trial production run was done in July 1997, with commercial production starting the next month. Expansions have continued with eight new production lines by the end of 2000.

Qatar holds the third largest natural gas reserves and the largest non-associated gas field in the world. An OPEC member, Qatar currently exports over 745,000 bbl/d of oil. However, the country sees the need to diversify and has invested heavily in projects for the export of liquefied natural gas and petrochemicals. The government feels that the country's economic future lies in developing this impressive gas potential. Qatar's real gross domestic product (GDP) is projected to grow at an annual rate of 3.8% in 2002, after growth of 3.4% in 2001. This follows a phenomenal growth rate of 11.5% in 2000, which was largely the result of a sharp increase in natural gas exports. Inflation in Qatar remains relatively low, projected at 2.8% for 2002. Qatar has begun to pay down its large external debt, which peaked at nearly US\$12 billion in 1999, and this is the government's focus rather than increasing public expenditures.

Proven and recoverable oil reserves are 13.2 bbl with the onshore Dukhan field being the largest producing one. There are also six offshore fields. In 2000, Qatar produced 863,000 bbl/d of liquids (including crude oil, natural gas liquids, and condensate) and, as of June 2001, monthly crude oil production was averaging 700,000 bbl/d. Lease condensate and other natural gas liquids are also produced and not included in OPEC quotes. Qatar has been trying to encourage foreign oil companies such as Chevron to improve oil recovery and exploration with improved contract terms and production-sharing agreements.

BP Amoco operates al-Rayyan, one of the newer oil fields, which has been producing some 25,000 bbl/d recently, and BP Amoco and its consortium partners agreed in April 2001 to develop it further, which will almost double its capacity. The National Oil Distribution Co. (Nodco), is upgrading its refinery at Umm Said to increase capacity from 57,500 bbl/d to 137,000 bbl/d. A 30,000 bbl/d condensate refining unit came onstream in July 2001, with more upgrades finished at the end of the year. A US\$400 million, 80,000 bbl/d condensate refinery at Ras Laffan is due for completion this year as is a US\$1.1 billion petrochemical plant, Q-Chem, to produce 500,000 t/y of ethylene and 467,000 t/y of polyethylene, including high-density and linear low-density polyethylene (Phillips Petroleum Co. holds 49%, QGPC 51%). Natural gas proven reserves stand at 394 trillion ft³ mostly in the North Field. The Dolphin project will provide an integrated gas pipeline grid for Qatar, UAE, and Oman, and Kuwait may also buy Qatari gas from ExxonMobil's North Field.

Bahrain, a constitutional monarchy ruled by King Hamad bin Issa Al-Khalifa since March 1999, comprises a group of islands off Saudi Arabia. Although very oil dependent, Bahrain has diversified strongly into banking and financial services. Relatively high oil prices in recent years have bolstered Bahrain's economy. Real gross domestic product (GDP) grew by 4.1% in 2001 and by 2.9% in 2002.

Bahrain's oil reserves of only 148 Mbbbl are in the Awali field, the first developed in the Gulf and producing about 35,000 bbl/d of crude oil. Consolidation of Bahrain's state-owned petroleum sector began in January 2000, as the upstream Bahrain National Oil Co (Banoco) began merging into

Bapco. The merger was completed on June 1, 2002, forming the Bahrain Petroleum Co (BSC) charged with the exploration, production, refining, marketing and distribution of Bahraini oil for domestic use and the international market. Bahrain does have a significant refinery south of Manama with a capacity of 248,900 bbl/d, and a US\$800 million modernisation programme should be finished in 2004. Financing problems have delayed a further 500,000 bbl/d refinery by Petroma. Bahrain has natural gas reserves of about 3.2 trillion ft³, most of which is associated gas from the Awali oil field. Bahrain produced 300 billion ft³ of natural gas in 2000, all of which was consumed locally. Gas production and processing are the responsibility of the majority state-owned Bahrain National Gas Co (Banagas). Because of Bahrain's growing demand for fuel for electric power generation, the country is expected to become a net natural gas importer in coming years.

In January 2002, Qatar and Bahrain signed a Memorandum of Agreement indicating Bahrain's intentions to purchase natural gas from Qatar's North Field Enhanced Gas Utilisation Project. Preliminary estimates indicate that Bahrain could import as much as 500 M ft³/d from Qatar by 2006. Qatar, which is planning to build a pipeline for exporting natural gas to Kuwait, has considered the possibility of connecting a spur line to Bahrain.

Aluminium Bahrain's smelter has been one of the largest in the Middle East with a 460,000-t/y capacity; aluminium has accounted for about a quarter of total exports and has fostered new downstream industries.

Kuwait boasts 96.5 billion barrels of proven oil reserves, about 9% of the world's total, and so is one of the world's leading oil-producing states as well as depending heavily on the commodity. It shares the Neutral Zone with Saudi Arabia and half its five billion barrels of reserves. The bulk of Kuwait's oil production capacity is in the southern onshore Greater Burgan field, whose Burgan, Magwa, and Ahmadi structures normally produce around 1.35 Mbbl/d. Kuwait's other main producing fields include the northern fields of Rawdhatain and Sabiriyah (600,000 bbl/d of production capacity); the southern fields of Minagish and Umm Qudayr (150,000 bbl/d); and Kuwait's share of the Saudi-Kuwaiti Neutral Zone (150,000 bbl/d).

When oil prices increase, Kuwait experiences budget surpluses and vice versa. Kuwait's real gross domestic product (GDP) growth for 2002 was estimated at about 1.8%, with forecast real growth of 3.3% for 2003. In January 2003, Kuwait pegged the country's currency (the Dinar) to the US dollar. Since oil revenues account for around 90%-95% of total export earnings and two-fifths of GDP, Kuwait is attempting to diversify its economy away from oil and state subsidies. The country channels around 10% of its oil revenues into the 'Future Generations Fund' for the day when oil income runs out (in 2000, the Fund was worth around US\$50 billion). With this in mind, Kuwait has begun a privatisation programme outside the oil sector in order to reduce subsidies, a move spurred by low oil prices in 1998 and 1999. In March 2001, an economic reform package was introduced which eased restriction on foreign banks, as well as providing protection to foreign investors against nationalisation or confiscation and eliminating the need for a

Kuwaiti sponsor. While there is no foreign ownership of Kuwait's mineral resources, the government is looking into foreign investment in upstream oil development and fees to foreign firms per barrel rather than production sharing agreements, but opposition in parliament has hampered this move.

Kuwait hopes to increase its oil production capacity from 2.5-2.6 Mbbbl/d to 3 Mbbbl/d by 2005 and 3.5 Mbbbl/d by 2010 under Project Kuwait, a US\$7 billion 25-year plan entailing controversial help from foreign companies. Kuwait's three domestic refineries have a combined capacity of approximately 772,800 bbl/d. An explosion and fire in 2000 at the Mina al-Ahmadi refinery reduced production capacity by over 100,000 bbl/d and in December of that year a US\$300 million contract was awarded to Fluor Daniel and Sunkyong to rebuild it; as of July 2001 it was operating at around 300,000 bbl/d.

Kuwait plans to upgrade its three other refineries and wishes to hasten development of its modest petrochemical sector; Petrochemical Industries Co. manufactures urea, ammonia, and fertiliser for export and is beginning to produce higher-value products. It may increase production at its polypropylene plant by 20% to 120,000 t/y if prices warrant. The Equate joint venture with PIC and Union Carbide (with 10% held by Boubyan Petrochemical Co.) is a US\$2 billion industrial complex at Shuaiba which includes a 650,000 t/y ethylene cracker, two polyethylene units and a 350,000 t/y ethylene glycol plant. In April 2001, a US\$2 billion plan was approved to construct Equate II to produce olefins.

Kuwait also plans to increase its use of natural gas. At present, it produces only a modest quantity, mostly associated gas from oil production. Exploratory drilling is going on at the Rawdhatain oilfield. In July 2000, Saudi Arabia and Kuwait concluded an agreement on the offshore Dorra gas field that calls for equal sharing of the gas resources; Iran also has a claim on it and negotiations continue.