Pakistan's oil industry is one of the oldest in the world, cutting its teeth in the Punjab Province in the last quarter of the nineteenth century, and continuing to grow rapidly throughout the last century, bringing healthy economic progress in its wake.

Since the early 1950s, there have been discoveries of huge natural gas resources, and the establishment of an infrastructure for domestic markets. The country’s domestic production centers on the Potwar Plateau in Punjab and Lower Sind Province.

Although Pakistan remains a net oil importer, the government maintains flexible licensing agreements in order to remain competitive in the world market and develop domestic production capacity.
Pakistan's petroleum history began over a century ago when the first well was drilled in 1866 at Kundal in the Mianwali District of Punjab Province. Activities continued during the last quarter of the nineteenth century with sporadic attempts to drill shallow boreholes, mainly in the Sulaiman fold belt. The most notable success during this period was at Khattan, in Baluchistan, where 13 wells produced 25,000 barrels of oil between 1885 and 1892.

After independence in 1947, the Pakistan Petroleum (Production) Rules were announced in 1949. Oil prospecting was now a subject for the central government rather than a provincial matter, as it had been in pre-independence years. Concessions could only be granted to companies incorporated in Pakistan, as a result of which Attock Oil transferred its activities to a new local subsidiary, Pakistan Oil Fields Ltd (POL), while Burmah Oil, the other major active company, formed Pakistan Petroleum Limited (PPL). This was the beginning of the economic progress that would transform the Pakistani economy from a wood-burning base to one based on modern energy sources.

Gas below Baluchistan

In 1952, PPL drilled the discovery well of the giant (8.6 Tcf) Sui gas field in Baluchistan, located on a surface anticline on the southern margin of the Sulaiman fold belt. Production at Sui began in 1955 with an initial off-take of 15 MMscf/D. It was to remain the nation's most productive gas field until the early 1990s, accounting for 46% of production in 1993. PPL discovered five more gas fields at Zin, Uch, Khairpur, Mazarani and Kandhok between 1954 and 1958. More gas was discovered by Esso, which discovered the giant, 6-Tcf Mari gas field in the same central area in 1956. Thus by the end of the 1950s, substantial gas reserves had been discovered in the central part of Pakistan but the lack of a ready domestic market inhibited further exploration and development. This market has, however, evolved progressively, and now Pakistan has one of the largest gas infrastructures in Asia.

Encouraged by these early discoveries, Attock Oil Company (AOC) drilled the first commercial well, Khaur 1, on a surface anticline in the Potwar basin. Production was from sands in the lower part of the Miocene. A total of 396 wells was drilled from 1915 to 1954. Minor production from this field continues to the present day. Steady exploration drilling continued in the Potwar basin and led to the discovery of oil fields at Dhulian, Joya Mair and Balkasar in 1937, 1944 and 1946 respectively.

After independence in 1947, the Pakistan Petroleum (Production) Rules were announced in 1949. Oil prospecting was now a subject for the central government rather than a provincial matter, as it had been in pre-independence years. Concessions could only be granted to companies incorporated in Pakistan, as a result of which Attock Oil transferred its activities to a new local subsidiary, Pakistan Oil Fields Ltd (POL), while Burmah Oil, the other major active company, formed Pakistan Petroleum Limited (PPL). This was the beginning of the economic progress that would transform the Pakistani economy from a wood-burning base to one based on modern energy sources.

Gas below Baluchistan

In 1952, PPL drilled the discovery well of the giant (8.6 Tcf) Sui gas field in Baluchistan, located on a surface anticline on the southern margin of the Sulaiman fold belt. Production at Sui began in 1955 with an initial off-take of 15 MMscf/D. It was to remain the nation's most productive gas field until the early 1990s, accounting for 46% of production in 1993. PPL discovered five more gas fields at Zin, Uch, Khairpur, Mazarani and Kandhok between 1954 and 1958. More gas was discovered by Esso, which discovered the giant, 6-Tcf Mari gas field in the same central area in 1956. Thus by the end of the 1950s, substantial gas reserves had been discovered in the central part of Pakistan but the lack of a ready domestic market inhibited further exploration and development. This market has, however, evolved progressively, and now Pakistan has one of the largest gas infrastructures in Asia.

In the 1950s, drilling outside of central Pakistan had been relatively unsuccessful. In order to keep up the level of exploration, the government formed its national Oil and Gas Development Corporation (OGDC) in 1961. OGDC carried out extensive regional surveys and, up until 1970, had drilled eight structures. The discoveries included one oil field at Toot, (Figures 11.1 and 11.2), a condensate field at Meyal (Figure 11.3) in the Potwar basin, and small gas fields at Sari and Hundi in the Lower Indus region. Further success came in 1976 with the Dhodak 1 well, located on the eastern margin of the Sulaiman fold belt. With reserves of 581 Bcf of gas, and 16.2 million barrels of condensate Dhodak 1 established the presence of significant liquid petroleum outside the Potwar basin.
Foreign companies attracted

OGDC's successes in the first half of the 1970s around the interests of foreign companies. Further attractions included the modification of the petroleum regulations in 1976 and the dramatic increase in crude prices in the mid-1970s, as a result of which several foreign companies entered Pakistan.

The most far-reaching event during this period turned out to be the signing of a concession agreement in 1977 by Union Texas and Cities Services for a block covering 18,000 km² on the Thar slope of Texas and Cities Services for a block concession agreement in 1977 by Union Texas. This was followed by the signing of a block in 1978, as a result of which several regulations in 1976 and the dramatic modification of the petroleum companies. Further attractions included the 1970s, as a result of which several regulations in 1976 and the dramatic modification of the petroleum companies.

Foreign companies attracted

OGDC's successes in the first half of the 1970s around the interests of foreign companies. Further attractions included the modification of the petroleum regulations in 1976 and the dramatic increase in crude prices in the mid-1970s, as a result of which several foreign companies entered Pakistan.

The most far-reaching event during this period turned out to be the signing of a concession agreement in 1977 by Union Texas and Cities Services for a block covering 18,000 km² on the Thar slope of Texas and Cities Services for a block concession agreement in 1977 by Union Texas. This was followed by the signing of a block in 1978, as a result of which several regulations in 1976 and the dramatic modification of the petroleum companies. Further attractions included the 1970s, as a result of which several regulations in 1976 and the dramatic modification of the petroleum companies.

OGDC's successes in the first half of the 1970s around the interests of foreign companies. Further attractions included the modification of the petroleum regulations in 1976 and the dramatic increase in crude prices in the mid-1970s, as a result of which several foreign companies entered Pakistan.

The most far-reaching event during this period turned out to be the signing of a concession agreement in 1977 by Union Texas and Cities Services for a block covering 18,000 km² on the Thar slope of Texas and Cities Services for a block concession agreement in 1977 by Union Texas. This was followed by the signing of a block in 1978, as a result of which several regulations in 1976 and the dramatic modification of the petroleum companies. Further attractions included the 1970s, as a result of which several regulations in 1976 and the dramatic modification of the petroleum companies.
the giant Bab oil and gas field. The project added two 350 MMscf/D trains to treat and process associated gas from Bab’s lower Cretaceous Thamama B reservoir and nonassociated gas from the Thamama C reservoir. A 625 MMscf/D train was put in place for nonassociated gas from the Thamama F and compression facilities that could inject up to 830 MMscf/D into this layer.

The second phase of the OGD project increased condensate capacity by 50,000 B/D and added 1 Bcf/D of sales gas by 2000. Sustained economic growth and urbanization will ensure a high and growing demand for gas to use in power generation and water desalination.

In recent years, the UAE has undertaken several projects to diversify its economy and to reduce its dependence on oil and gas revenues. According to one Emirates newspaper, the non-oil sector accounted for 69% of the gross domestic product in 1997. The federal government has invested heavily in sectors such as tourism, telecommunications, re-export commerce and aviation. As part of its strategy to further expand its tourism industry, UAE plans to build new hotels, restaurants and shopping centers, and to expand airports and duty-free zones.

Beyond the oil

The United Arab Emirates is a relatively new oil and gas producer with production starting in the 1960s (Figure 16.9) and the country being formally constituted from the seven Emirates in 1971. The country has used its oil and gas revenues to establish itself as one of the leading business centers in the Middle East.

Unable to rely on vast oil reserves for continued growth, Dubai has become a central Middle East hub for trade and finance, accounting for about 70% of the Emirates’ non-oil trade. In 1996, Dubai unveiled its strategic development plan for the twenty-first century, which focused on the private sector and emphasized capital-intensive industries. It called for a new infrastructure and the loosening of trade and banking rules. For its part, Abu Dhabi planned to develop an offshore financial and commodity trade center on Saadiyat Island. This will include storage facilities, a port, a freight center, and a financial and insurance center to facilitate trading.

In recent years, the UAE has undergone several projects to diversify its economy and to reduce its dependence on oil and gas revenues. According to one Emirates newspaper, the non-oil sector accounted for 69% of the gross domestic product in 1997. The federal government has invested heavily in sectors such as tourism, telecommunications, re-export commerce and aviation. As part of its strategy to further expand its tourism industry, UAE plans to build new hotels, restaurants and shopping centers, and to expand airports and duty-free zones.

Beyond the oil

The United Arab Emirates is a relatively new oil and gas producer with production starting in the 1960s (Figure 16.9) and the country being formally constituted from the seven Emirates in 1971. The country has used its oil and gas revenues to establish itself as one of the leading business centers in the Middle East.

Unable to rely on vast oil reserves for continued growth, Dubai has become a central Middle East hub for trade and finance, accounting for about 70% of the Emirates’ non-oil trade. In 1996, Dubai unveiled its strategic development plan for the twenty-first century, which focused on the private sector and emphasized capital-intensive industries. It called for a new infrastructure and the loosening of trade and banking rules. For its part, Abu Dhabi planned to develop an offshore financial and commodity trade center on Saadiyat Island. This will include storage facilities, a port, a freight center, and a financial and insurance center to facilitate trading.