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Indian oil industry

Rise of domestic players

Indian companies did enter into the oil exploration and refining activities with government's support during 1970-1990 but couldn't completely get out of the shadow of foreign players due to funding and expertise requirements

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The first article of this series on petroleum had focused on the firmness phase of the industry (1989-1989). Oil sector in those eight decades was primarily dominated by foreign companies. From 1989 to 1990, the government consolidated its position in the industry — exploration activities by national oil companies increased, new entrants were built and pricing committees were formed to control foreign marketing companies. However, the major corporate houses in India were still not prepared to take the risk of either oil exploration or refining.

In this piece, we shall narrate the development of India's oil sector during 1970-90.

Achievements

In 1970, the institutions involved in this field were Oil and Natural Gas Commission (ONGC), Assam Oil Company (AOC) and Oil India Ltd (OIL). The market share of ONGC was 53.2% and that of OIL and AOC together was 46.8%. In 1989, ONGC and OIL remained the only two companies engaged in this sector as AOC was nationalised by the state. Additionally, few foreign companies were also involved in exploration work on contract basis. From a modest production of 6218 thousand tonnes in 1969-70, the production rose to 34,602 thousand tonnes in 1989-90 (refer to Table). Through the 20-year period, production grew by over 460%, onshore production grew by about 90% in two decades. In the 1980s, imports started to decline.

While in 1969-70, the entire crude was produced from the onshore fields of Assam and Gujarat, in 1989-90, the share of offshore fields in total crude production was nearly 64.3% whereas the share of onshore crude came down to 35.7%. In 1989-90, onshore production was concentrated in the fields of Assam and Gujarat whereas share was 49.0% and 49.0% respectively. Together these two states contributed to 99.30% of onshore production.

Move to offshore

Just after the founding of Bombay High in 1964, KD Mishra had to quit the Cabinet. After his exit, the main attention was paid to Bombay. Ashok Mehta became the new Minister of Petroleum.

A debate was shimmering in the government between the pro-prospects of existing oil fields to develop the offshore oilfield through ONGC and those who proposed setting up of foreign oil companies on the ground that public sector units lacked know-how around advanced mining. Ashok Mehta belonged to the latter category.

The Soviets were kept out on the ground that their offshore technology was limited to the shallow waters of the Caspian Sea. No credit was given to ONGC's capacity either to acquire know-how or hire it. Only Americans were acknowledged with requisite technology. By 1968, at least four concrete proposals — two from the US, one from FRG and the fourth one from Japan-US consortium — were received by the government on Bombay High. However, debate on the issue delayed the decision.

Meanwhile, Trignau Sen joined the Union Cabinet of Indira Gandhi in 1968. It was then decided that joint ventures with foreign companies would not be desirable for developing a natural gas plant programme. ONGC was asked to re-examine the prospects of the Bombay High area and to outline a programme for exploration. The Commission's technical appraisal indicated that the prospects of the area were as good as warranted the taking up of entire risk by themselves, and to give the exploration the highest priority.

But Prime Minister Indira Gandhi, while making a decision on future oil exploration policy, said in 1975, "our offshore oil reserves appear to be limited... we have a fairly prominent structure



in continental shelf. Once we get on shore operation and acquire the necessary expertise as well as equipment, we would explore every promising area. All these points to the need to go ahead with our own plan for onshore-offshore operation without further loss of time."

This observation goes on to say the US companies over the 500 ft from the former had acquired better offshore technical skills at that time. Simultaneously, an idea had been generated that the land areas were not good prospects.

Meanwhile, a ten-volume techno-economic study carried out by ONGC and ONGC experts in 1971 gave a massive push to offshore drilling compared to onshore. Keeping in line with the findings of the report, chairman of the ONGC had submitted to the Committee on Public Undertakings that it was not the correct approach to confine ONGC to the areas where oil had already been found, namely Gujarat and Assam. He felt it necessary to spread ONGC's activities to all other sedimentary regions like Andhra Pradesh, West Bengal, Tripura, Andhra Pradesh, Maharashtra etc.

So, it is clear that while one group wanted to push exploratory activities offshore, the other suggested vigorous onshore exploration. The government tried to balance different groups at different periods of time. In mid-1971, an agreement was signed by the Government of India with Mitsubishi and the Offshore Company of America to provide the self-propelled jack-up unit as well as drilling contract services for the first year of operation.

However, the government's policy of "assured ownership operations" for offshore projects had changed within a few years. In March 1974, the government announced in the Rajya Sabha that all offshore areas other than those in Bombay High had been thrown open for foreign collaborations. In mid-1974, an offshore exploration and production contract was signed between National Carbonyl Company, USA and ONGC. Soon after, a second contract covering an area in the Kutch basin was signed with a group headed by Reading and Bates of USA. Both were production-sharing contracts. In the event of success, the companies were to recover costs from the first 40% of eventual production. The government would take 60% of the remainder and companies the rest 35%.

In 1981, foreign companies were again invited to explore potential basins — both onshore and offshore. However, this time, unlike the previous cases in the 1970s, the government took a long-term

approach in a more organized manner, selecting spots through global tenders. In ONGC's budget, the planned expenditure as a percentage of gross revenue declined steadily in the 1980s, from 94.3% in 1980-81 to 31% in 1987-88. In case of exploration, it declined from 26.6% in 1981 to 1977 and in December 1988, too low amount of USD 190 million was provided for the development of Bombay High. In October 1982, a loan of USD 166.5 million was provided for exploration in Krishna-Godavari delta.

Role of the World Bank and Soviet Fund

The World Bank started to show interest in direct involvement in India's petroleum exploration only in the 1970s when prospects of Bombay High became brighter. In late 1977 and in December 1981, two loans of total amount of USD 230 million were approved for the development of Bombay High. In October 1982, a loan of USD 166.5 million was provided for exploration in Krishna-Godavari delta.

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The government's decision in the early 1980s to systematically open its sedimentary basins to the international oil companies through global tender coincided with the World Bank loans. The World Bank had been associated with Bombay High development since the early stages of the project. The development of Bombay High field had proceeded largely according to the plans formulated by the Bank. Before granting the loan, the Bank took an undertaking from the Government of India regarding the adoption of land grant pricing policy which would enable ONGC to earn satisfactory profit.

From 1980 onwards, the World Bank directly influenced the petroleum exploration and pricing policy of the country. In this decade, the World Bank extended more loans in other projects of ONGC. Till March 1990, ONGC had drawn loans of

USD 159.3 million for South Basin, USD 213.5 million for Cambay Basin and USD 282.25 million for WG Development.

In the late 1980s, OIL also took massive loans from the World Bank. As on March 31, 1989, OIL's loaned amount was Rs. 20 crore which increased to Rs 50 crore in March 1990.

Soviet fund: An agreement was signed between ONGC and Techno Export of the USSR in 1983. As per the agreement, two major projects on a turnkey basis had been taken up by the Soviets for intensive integrated exploration (IIE) of hydrocarbons. The areas covered under those projects were North Cambay Basin and Gaury Basin. Subsequently, another agreement was signed with the Soviet Union in November 27, 1989, for West Bengal offshore exploration. About 70% of the costs of these turnkey projects were to be financed out of a long-term Soviet loan.

It is interesting to note that the government offered most potential Category 1 & II onshore blocks to the Soviets. But the Soviet oil exploration ventures in those basins turned out to be among the costliest in the world.

In 1989, an officer of ONGC commented that "The Soviets are wanting our time and money". It was reported that the Soviet's performance in the West Bengal basin, where they had been working for over eight years since 1981, was equally dismal. Insiders alleged that IEP was focused on a reluctant ONGC by the government. The ONGC did not want to part with any area in Cambay and Gaury where it had already discovered a number of oil and gas fields.

Participation of Indian private companies

The government, by the end of 1989, planned to involve Indian companies in the next round of 340

blocks for exploration. The Secretary, Ministry of Petroleum & Natural Gas, in a seminar on February 8, 1989, announced: "We are extremely keen that Indian companies do participate with us from outside should take up exploration and drilling within the country. We are prepared to offer them maximum cooperation in this field."

By then, a few Indian companies also started putting pressure on the Government for an opportunity to prove their ability. Since the mid-1970s, Indian exploration has been increasingly involved in various capacities in the offshore services. Houses like Gasar, Tans, Mahardas and many small companies, chartered thousands of rigs to ONGC. Such services were profitable due to various incentive schemes extended by the government to indigenous companies. But those companies had no right to discover crude as it was the prerogative of ONGC.

Few companies considered to involve themselves into direct exploration of crude. A new company, Hindustan Oil Exploration Company Ltd (HOEC), formed in 1983, formally appraised the government for such an opportunity. In addition to HOEC, other companies which had shown interest and enjoyed considerable financial strength were:

- **High Tech Drilling Services India:** A joint venture between Tata and Sarda Jee International Drilling Inc. a Schenbergen group company.

- **Easar Gajani Ltd:** In 1989, it earned considerable expertise in oil exploration and owned both onshore and offshore drilling rigs.

- **Hallam Industries Ltd:** In the late 1980s, it opened an office in India and applied for a million-tonne refinery in Western India.

Understanding the mood of the government, several foreign companies, including British Petroleum of the UK and CPT Total of France started negotiations with the oil ministry for possible joint ventures to participate in the fourth round of exploration.

Controversies

- (i) Oil prospects in the Bengal basin gave rise to severe controversies with political outsiders. It may be recalled that even before the birth of ONGC, the Bengal basin was explored superficially by State — an UN company. After drying up the basin was explored by the Soviets. In the mid-1960s, ONGC had put the Bengal basin in category II. But the activities of ONGC in that basin reflected their conservative approach. Till the end of 1980, only 2.2 well on an average were drilled for every 10,000 sq. km in Bengal

basin against the national average of 11.6. Moreover, it was also alleged that the drilled wells were shallow and not properly directed to the oil-bearing rocks.

(ii) The announcement for the fourth round of bidding was delayed due to change in the ministry in late 1989. ONGC also opposed the proposal of an expert group to reap certain blocks of Bombay offshore region to international companies. ONGC argued that it would undermine national security and create operational problems in adjoining areas of Bombay High.

It alleged that in the previous rounds, foreign companies abandoned the off-shore blocks of Kutch, Gaury and Sarahrtha when they failed to find oil after drilling a couple of wild cat wells. In the charged political situation, opposition from ONGC added a new dimension to the debate. The new Petroleum Secretary then decided to refer the expert committee report to the Committee of Secretaries. Their recommendations would be placed before the cabinet for final decision. He concluded that a decision on exploration bids would have to be taken at the political level.

(iii) The most serious allegation against ONGC was that when the international oil price was declining, the oil production in India started to pick up steadily till 1989. The very high negative value (-0.448) of correlation coefficient between reported crude price (USD/tonne) paid by the government of India and production of domestic crude for the period 1982-89, implied that international price and production moved in opposite directions.

It was later alleged that to meet the production target, the wells were over-used and eventually by ONGC between 1987-89. Subsequently, oil production fell drastically which coincided with the rise of international oil prices. After the reformation of Government in India in December 1989, the government constituted an enquiry committee on April 26, 1990 under the Chairmanship of Union Minister for Power, Mr. C. D. Deo. The former Managing Director of OIL.

Soon after the formation of the AB Dhanagada Committee, the World Bank had sent, in May 1989, a three-page note to the ministry and ONGC, alleging that an "irrevocable loan of 75 million tonnes of crude had already occurred from Bombay High. The Bank had also said that it found a lot of similar magnitude in the country years, and pointed a dark picture about India's oil prospects."

The timing of the World Bank report raised controversy in the petroleum industry about the reality of the Bank's findings. Experts considered the Bank's note to be motivated and aimed at influencing the government to open Bombay offshore and Gulf of Cambay to international basins.

In December 1989, the AB Dhanagada Committee report was submitted to the Ministry of Petroleum and Chemicals and was the most important findings were:

- **Reservoir logging of Bombay High oil fields** despite warning by India's oil ministry — experts had expensively damaged main wells.
- **Reporting three wells** would take a minimum of five years and involve expenditure running into hundreds of crores of rupees. The expenditure would go up substantially in case production was not started immediately.
- **There was a danger of irretrievable loss of recoverable oil** from the reservoir.
- **The production loss due to the closure of damaged wells** would be 8 million tonnes of oil annually.
- **The CPT of France**, which was one of the consultants to ONGC for the development of Bombay High, had estimated the loss at 1.20 million tonnes.

In the 1980s, ONGC's production had to be cut down drastically on the advice of the World Bank and its foreign consultants when international crude prices started to inch against the Gulf War. Eventually, India's oil reserves were depleting rapidly and had to take massive loans from the IMF again.

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Conclusion

Notwithstanding the State's substantial involvement in petroleum exploration and production, its dependence on foreign companies and international companies did not decrease. Though in the later years, Indian private capital got involved in this sector, it was too dependent on foreign technology in critical operational areas.
(Dipankar Dey is an oil analyst)

TABLE : PRODUCTION AND IMPORT OF CRUDE OIL IN INDIA (000 TONNES) 1970-90

Company	1969-70	1976-77	1980-81	1989-90
Assam Oil Company (AOC)-onshore	112	62	48	88
OIL India (OIL)-onshore	3,079	3,083	1,243	2,702
OIL and Natural Gas Commission (ONGC)				
onshore	3,627	3,492	4,231	9,670
offshore	0	406	4,985	22,320
Total production	6,818	8,978	10,507	34,692
Imports	11,465	14,548	15,976	18,919

Source: Tata Energy Research Institute, Trade and Technical Directory of India, Vol. 1, 1991, p.49, Oil India Periodicals and Natural Gas Statistics 1989-90, p.0

मेथेनॉल की उपलब्धता बढ़ाने के इंतज़ाम होंगे



नई दिल्ली | सौरभ शुक्ल

केंद्र सरकार पेट्रोल आयात घटाने के लिए बजट में मेथेनॉल उत्पादन बढ़ाने से जुड़े इंसेंटिव दे सकती है।

योजना के तहत पेट्रोल में बड़े पैमाने पर मेथेनॉल मिलाया जाएगा। इसके लिए सरकार कोल गैसिफिकेशन प्रोजेक्ट में निवेश करने वाली निजी कंपनियों को सब्सिडी दे सकती है। वहीं जरूरी सामानों के आयात शुल्क में छूट दी जा



20 हजार करोड़ का निवेश

इस मिशन के तहत साल 2030 तक 20000 करोड़ रुपये के निवेश की योजना है। ये पेट्रोल, डीजल और इथेनॉल तीनों से सस्ता होता है। यही वजह है कि इसकी मिलावट से सरकार वित्तीय घाटे कम कर सकती है।

चल रहा प्रयोग

सरकार की आने वाले दिनों में जल परिवहन और सैन्य ट्रकों की निर्भरता मेथेनॉल पर ही रखने की योजना है। बनारस, हल्दिया और प्रयागराज में इन पर प्रयोग भी चल रहा है।

सकती है। सरकार इन कंपनियों को निवेश पर 15 साल के टैक्स हॉलिडे के साथ-साथ ब्याज पर भी छूट देने पर विचार कर रही है। केंद्र ने बीते साल

नेशनल कोल गैसिफिकेशन मिशन का ब्लू प्रिंट जारी किया था। इसके तहत गैस से मेथेनॉल बना कर 15 % तक पेट्रोल में मिलाने का लक्ष्य रखा गया है।

बीएस-4 डीजल वाहनों में भी लग सकेगी सीएनजी और एलपीजी किट

जनसत्ता ब्यूरो
नई दिल्ली, 29 जनवरी।

देश में जल्द ही भारत स्टेज उत्सर्जन मानक (बीएस 4) डीजल वाहनों में सीएनजी और एलपीजी किट लगाने की व्यवस्था लागू होगी। इसके लिए केंद्रीय सड़क व परिवहन मंत्रालय ने अधिसूचना जारी की है। अधिसूचना के मुताबिक 3.5 टन से कम वजन वाले वाहनों के लिए यह व्यवस्था लागू की जाएगी।

-पूरी खबर पेज



जनसत्ता Sun, 30 January
<https://epaper>



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इसके लिए केंद्रीय सड़क व परिवहन मंत्रालय ने अधिसूचना जारी की है। अधिसूचना के मुताबिक 3.5 टन से कम वजन वाले वाहनों के लिए यह व्यवस्था लागू की जाएगी। अभी केवल पेट्रोल वाहनों में ही सीएनजी और एलपीजी किट की रेट्रो फिटिंग की अनुमति है। मंत्रालय ने इस मुद्दे पर आम लोगों से तीन दिन में सुझाव मांगे हैं। इसके अलावा मंत्रालय ने

यात्री व स्कूल बसों में आग की चेतावनी वाली प्रणाली अनिवार्य।

लंबी दूरी वाली यात्री बसों और स्कूल बसों में फायर अलार्म और सप्रेसन सिस्टम लगाना जरूरी कर दिया है।

अधिसूचना में मंत्रालय ने कहा है कि सीएनजी पर्यावरण-अनुकूल ईंधन है और पेट्रोल और डीजल इंजन की तुलना में कार्बन मोनोआक्साइड, हाइड्रोकार्बन, पार्टिकुलेट मैटर और धुएं के उत्सर्जन स्तर को कम करेगा। इस मामले में मंत्रालय ने सभी हितधारकों के परामर्श से यह विस्तृत योजना तैयार की है।

यात्री व स्कूल बसों में आग की चेतावनी वाली प्रणाली जरूरी : मंत्रालय ने लंबी दूरी वाली यात्री बसों और स्कूल बसों में फायर अलार्म और सप्रेसन सिस्टम लगाना जरूरी कर दिया है। मंत्रालय की तरफ से शनिवार को जारी एक बयान के मुताबिक, लंबी दूरी तय करने के लिए बनाई गई व संचालित की जा रही यात्री बसों और स्कूल बसों के उस हिस्से में आग लगने से बचाव का सिस्टम लगाना होगा जहां पर लोग बैठते हैं। इसके लिए 27 जनवरी को अधिसूचना जारी कर दी गई है। अभी तक वाहनों के इंजन वाले हिस्से से निकलने वाली आग की पहचान करने, अलार्म बजने और सप्रेसन सिस्टम की ही व्यवस्था लागू रही है।

