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THE RELATIONSHIP BETWEEN THE GOVERNMENT AND NATIONAL OIL COMPANIES IN A DEVELOPING COUNTRY - THE CASE OF INDIA

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173/4

I. INTRODUCTION:

The purpose of this paper will be to sketch the relationship between the Government of India and the Government owned petroleum companies. It will focus on the nature and extent of government involvement in the corporate decision making process; the prime motivations of the State in seeking such involvement and the implications of this relationship on the formulation and implementation of corporate strategy. In addition the paper will track the development of the petroleum industry since independence and evaluate its performance in promoting the broader objectives of self sufficiency, self reliance and economic growth. It will conclude with a brief on the future course of the industry and the institutional changes required to ensure the industry's continued effectiveness as an instrument of government policy.

II. HISTORICAL OVERVIEW:

(a) Structure:

At the time of independence in 1947, the petroleum industry in India was almost non existent. One company, Burmah Oil Company of UK (BOC) was the sole organisation engaged in exploration and production. Its activities were confined to exploration of a small acreage in the North Eastern State of Assam and to production from the Digboi field, a discovery which Assam Railways & Trading Company (ARTC) had made way back in 1890 and which had passed on to BOC in 1921 when it acquired

173/5

ARTC. In addition one other company, a joint venture between Burmah Oil and Shell was involved in the refining, marketing and distribution of products derived from the Digboi crude. Production from Digboi was however a meagre 250,000 tonnes per annum and was thus of limited consequence.

In the initial years of independence, the Government did not involve itself deeply in the petroleum business. BOC was allowed to continue its exploration and production activities and permission was granted to two other companies to set up refineries - Standard Vacuum Oil Company in Bombay and Caltex in Visakhapatnam on the East Coast. Burmah Shell was also accorded permission to establish a second refinery in Bombay, apart from the one in Digboi.

Early indication of the Government's intended policy towards the petroleum sector was reflected in the model of economic development that it adopted. Keeping in mind the backwardness of the Indian economy and the poverty of the people, the Government decided to pursue the path of rapid industrialisation within a framework of economic planning and socialism. A role for the private sector was recognised but the major responsibility for channelling the resources of the country to achieve growth with equity was taken up by the Government. With regard to industry, this philosophy found clearest expression in the Industrial Policy Resolution of 30th April 1956. The Resolution articulated the rationale for Government control of industries expected to occupy the "commanding heights" and essential to the management of the economy. Petroleum was listed as among the most important of these industries.

In consequence, the Oil & Natural Gas Commission (ONGC), the Indian Refineries Limited and the Indian Oil Company Ltd were created as Government owned petroleum enterprises in 1958-59. ONGC, created by an Act of Parliament was assigned the task of exploration and development, the Indian Refineries Limited was made responsible for

173/6

supervising the construction and thereafter for operating the three new refineries that the Government had decided to establish in Gauhati (Assam), Barauni (Bihar) and Koyali (Gujarat) and Indian Oil Company Ltd was confined to the creation of a nationwide network for the distribution of petroleum products. Later in 1964, Indian Oil Company was merged with Indian Refineries Ltd and a new entity Indian Oil Corporation (IOC) was given primary responsibility for all downstream activities - Refining, Marketing and Distribution.

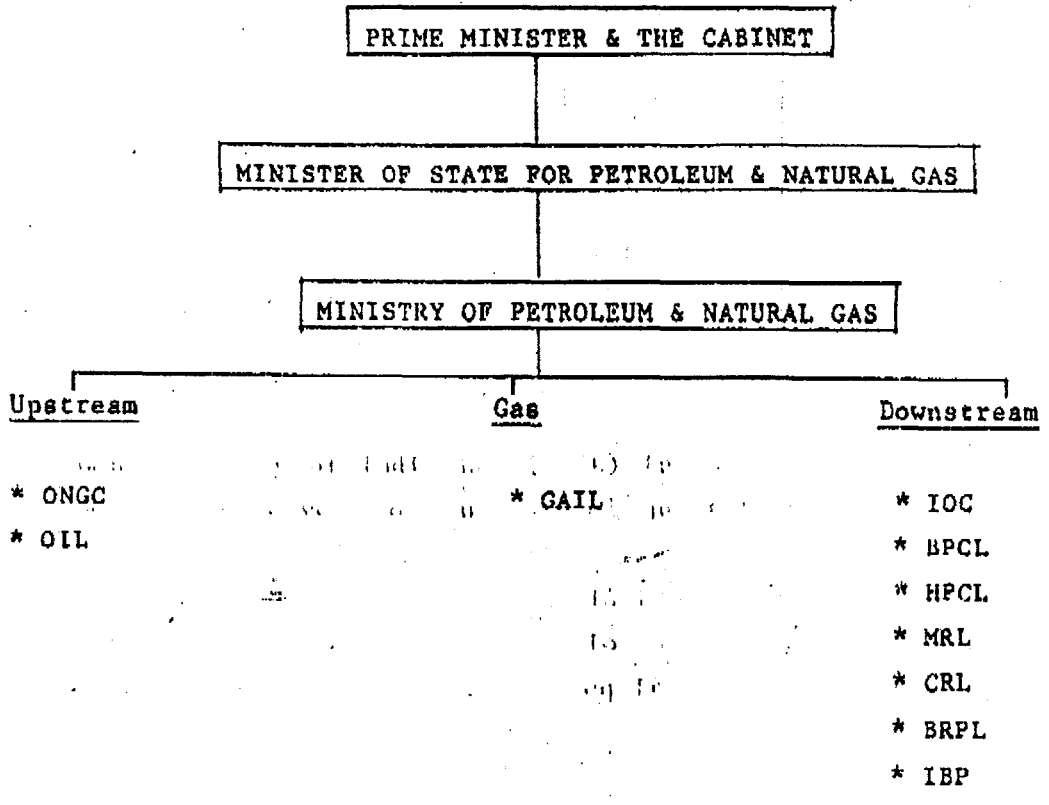
The operations of the private companies were not disturbed but the intent to eventually bring them into the public sector was made known. It was clarified that this would be done through a process of mutual discussions and not by a unilateral decision of the Government. Assurance was provided that the companies would be fairly compensated for their interests. It was in this spirit that the Government acquired 50% of Burmah Oil Company's equity in 1959 and incorporated a joint venture company called Oil India Limited (OIL). The Government shareholding in OIL was increased over the years and in 1981, OIL became a 100% Government owned entity. In like vein, in the late 70's Burmah Shell's refining and marketing interests were transferred to Bharat Petroleum Corporation Limited (BPCL) and Stanvac and Caltex interests to Hindustan Petroleum Corporation Limited (HPCL). The Government also had dominant shareholding in the two additional refineries that had been set up as joint ventures between it and the international companies in the early 1960's - the Madras Refinery Limited (MRL) with National Iranian Oil Company and AMOCO and the Cochin Refineries Limited (CRL) with Phillips Petroleum and Duncan Brothers. Majority equity control was also secured in 1972 in the Indo-Burmah Petroleum Company (IBP), a joint venture petroleum marketing company.

As a result all petroleum companies are today under Government control. One should mention that in addition to the above companies there are two more state owned petroleum enterprises. The Bongaigon Refineries and Petrochemicals Ltd (BRPL) was established in 1979 for the refining of crude and the manufacture of Polyster Staple Fibre and

173/7

the Gas Authority of India Ltd (GAIL) in 1984. The creation of GAIL follows the discovery of substantial quantities of natural gas and recognition of its emerging significance as a valuable energy source and petrochemical feedstock. GAIL is responsible for identifying the potential markets for the utilisation of gas and for creating the downstream infrastructure that is required to bring the gas from the well head to the end consumers.

THE STRUCTURE OF THE INDUSTRY



(b) The Institutional Link Between the Government and the Petroleum Companies

Two factors of background importance should be kept in mind when discussing the relationship between the Government and the public sector petroleum companies. One, India is a parliamentary democracy with Parliament as the supreme legislative and decision making forum

173/8

in the country. All Government owned entities are ultimately accountable to Parliament which exercises its rights of scrutiny by questioning the responsible Cabinet Minister. Cabinet Ministers are kept briefed about the performance of the public enterprises by the Civil Servants who in turn maintain close links with the corporate management. Second, as a planned economy, sectoral plans have to be dovetailed with the broader national priorities. The responsibility for reconciling the objectives of individual sectors with the strategic aims of the Government rests with the Planning Commission under the Chairmanship of the Prime Minister. Corporate plans have to therefore be integrated with the national plan as drawn up by the Planning Commission.

The broad guidelines for determining the institutional links between the Government and the public sector enterprises were spelt out in the Industrial Policy Resolution 1956 in the following language "...speedy decisions and a willingness to assume responsibility are essential if these enterprises are to succeed. For this, wherever possible, there should be decentralisation of authority and their management should be along business lines. It is to be expected that public enterprises will augment the revenues of the state and provide resources for further development in fresh fields. But such enterprises may sometimes incur losses. Public Enterprises have to be judged by their total results and in their working they should have the largest possible measure of freedom". The intent was clear. The Government should exercise appopriate apriori control over the setting of corporate objectives and corporate strategy. But in doing so, it should take care to allow for wide managerial autonomy. The decision making interface between the Government and the public sector enterprise should be such that on the one hand Government can ensure the compatibility of corporate policies with the broader pattern of economic development and on the other, management can achieve the highest norms of efficiency and profitability.

The relationship between the Government and the various petroleum companies has evolved within these broad parameters.

The Ministry of Petroleum & Natural Gas is the Government Department responsible for overseeing and coordinating the performance of the various petroleum companies. It exercises this responsibility through participation in Board Meetings of the Companies on which the Ministry is represented and also by administrative interaction between Ministry officials and corporate management. Thus all matters of corporate policy which require the approval of the Board of Directors has the benefit of Government input. It is at these meetings that Government indicates the broad guidelines that Management should take into account when setting corporate strategy. In between of course, management can seek assistance and clarification from the Government on an almost continual basis.

Macro planning is carried out by the Planning Commission at intervals of 5 years. These five year plans not only define macro economic objectives but also lay down with great specificity the targets for individual sectors. These include the amounts that public enterprises are expected to contribute to the state exchequer and/or how much they will be able to draw down as state subsidy. The plan also fixes the allocation of resources between sectors and within each sector between individual entities. Thus, the oil and gas sector was allocated Rs. 126.3 billions during the present five year plan (1985-90), of which the share of the exploration companies ONGC and OIL was Rs. 97 billions.

Reviews are held annually to progress the implementation of the five year plans. At these annual plan exercises, the Planning Commission evaluates the past performance of the company keeping in view the strategic objectives of the Government as articulated in the 5 year plan document and assesses its investment requirements for the following fiscal year. These meetings are an occasion for reviewing the implications of unanticipated market developments and for making appropriate adjustments in the distribution of resources.

173/10

Corporate Plans of the oil companies are dovetailed with the country's Five Year Plans. The companies have therefore to secure the approval of the Planning Commission for investment outlays for a five year period and for each year within this period. Resources are also identified for these investments from the internal resources of the company, from external borrowing and from the domestic capital market. Where necessary Government provides resources from its capital budget by way of equity contribution and/or loans. Initial drafts of the corporate plan are first discussed between the Ministry of Petroleum and the public enterprise. This phase of interaction provides the Ministry, which is the one organisation that has an overall picture of the industry, the opportunity to identify and remove conflicting or overlapping proposals. Once the plans have been submitted to the Planning Commission, the Ministry and the relevant enterprise whose proposals are under review are together required to explain its rationale to the Planning Commission. The Five Year Plan is finalised after detailed discussions which takes into account the demands of other priority sectors. Once issued it is an expression of government policy for investment and resource generation and allocation for the company or enterprise. Within the approved Five Year and Annual Plan outlays, the Boards and Management of the companies have delegated powers for approving investment in specific projects upto certain limits which have varied from time to time. Currently the limit in most cases is Rs. 200 million. Investments above this limit have been approved by Government after a techno-economic appraisal of the project.

One other issue should be mentioned in regard to the Government's relationship with the public sector enterprises. Broad guidelines have been prescribed by the Bureau of Public Enterprises, a Government Department under the Ministry of Industry on matters relating to the terms of employment of public sector employees, wages and salary levels and housing. These guidelines are kept in mind by corporate management and any variations that are felt necessary for corporate specific reasons are justified by the individual companies.

To summarise, a priori constraints are placed on the autonomy of the corporate management of petroleum enterprises in the formulation and specification of corporate objectives and corporate strategy. These have to be meshed with the wider plans of the economy and the resource requirements of other sectors. Financial powers are delegated and broad guidelines are also issued for Human Resource Management. But within these parameters the Management have a wide area of operational, financial and technical autonomy. Posteriori controls are geared largely towards the monitoring and evaluation of corporate performance particularly in matters relating to financial and budgetary issues. Managements are responsible and accountable for efficient and profitable operations.

(c) Pricing:

The price for crude and petroleum products are administratively fixed by the Government.

Administrative pricing was introduced in 1957 as one of the consequences of the Industrial Policy Resolution. Until then the four private oil companies had almost complete latitude to set prices. In 1947 they had agreed amongst themselves to price petroleum products on a cost plus reasonable return basis. Later in 1950 they adopted the "value stock accumulation" system whereby prices were related to the FOB price of products Ras Tanura in the Gulf plus freight, insurance, other expenses and a 10% return on investment. This principle was retained for some time after the introduction of administrative prices with the Government limiting its role to ensuring that the final price reflected actual costs and excessive profits were not made. Steps were however initiated to review the entire pricing process and in the

173/12

early 60's, the Government decided to base the ex refinery price of products on the concept of import parity. This concept was altered in the 1970's and refineries were now offered "a retention margin" based on operating expenses and a reasonable return on investment. This system is still in force today.

The "retention margin" for each product determines the ex refinery price charged to the marketing company. This in turn sets the base for establishing the selling price that the marketing companies are permitted to charge the consumer. The selling price incorporates the statutory levies and a distribution and marketing profit margin. Apart from the retention price, the actual consumer price provides an element which goes to support the various plan programmes of the Central and State Governments.

(d) The Performance Of The Indian Petroleum Industry:

It would be useful at this stage to review the effectiveness of the organisational structure, the decision making process and the pricing mechanism described in the previous sections by outlining the performance of the petroleum industry since independence. It should be recalled that the objective of bringing the petroleum sector into the public fold was to expedite the attainment of self sufficiency and self reliance.

In 1947, indigenous production was a mere 250,000 tonnes per annum. Exploration had been carried out only in the Northeast State of Assam. One refinery with a throughput of 0.5 mtpa was the extent of downstream capacity. And most telling, no more than a handful of Indians had found employment in the technical and executive cadres of the foreign companies. As a result, India was almost totally dependent on the outside world for its petroleum requirements.

173/13

Forty years later in 1987, IOC is ranked by sales among the Fortune 100 companies of the World. India has raised its indigenous production to over 30 mtpa and its refining capacity to over 46 mtpa. In consequence, the country meets around 62% of crude requirements from domestic supply and imports around 4.5 MMT of products. Equally impressive, the industry has developed strong technical skills comparable to the highest international standards. It has, as a result, been able to extend its upstream and downstream activities to the international arena and is an active competitor with the foreign multinationals for the provision of consultancy and training facilities to the petroleum industries of third countries.

ONGC and OIL together should be credited for the significant progress that has been made in tapping India's indigenous reserves Table-1 traces the growth of production of both crude oil and natural gas since independence.

Table-1

Year	Crude oil Production (million tonnes)	Natural Gas Production (million cubic metres)
1948	0.2	n.a.
1955	0.35	n.a.
1960	0.45	n.a.
1965-66	3.47	1445
1970-71	6.82	2368
1975-76	8.45	2358
1980-81	10.51	8134
1987-88 (anticipated)	30.17	9839 (86-87)

173/14

One should mention that the spurt in production during the period 1980-81 - 1985-86 was almost entirely due to the development of the giant Bombay High Offshore discovery by ONGC. This field along with the satellite discoveries contributes 20.6 mtpa to India's aggregate production. The balance production originates from onshore discoveries in the states of Assam-Arunachal Pradesh in the North East and Gujarat in the West.

There has been a corresponding rise in the drilling activity of the two exploration companies. (Table-2)

Table-2

	1980-81		1986-87	
	Wells	Metreage ('000 M)	Wells	Metreage ('000 M)
Onshore				
Exploratory	45	96	78	236
Development	40	71	180	369
	85	167	258	605
Offshore				
Exploratory	15	40	44	132
Development	20	42	35	116
	35	82	79	248
TOTAL	120	249	337	853

173/15

As a result of this expansion in exploratory drilling the reserve base has been appreciably increased (Table-3)

Table-3

Year	Balance of recoverable reserves (at the beginning of the year)		Reserves to Production ratio (oil)
	GAS (billion cum)	OIL (mmt)	
1970-71	62	128	18.8
1975-76	88	144	17.0
1980-81	352	366	34.8
1985-86	479	500	16.6
1987-88 (provisional)	541	577	19.1

The growth of the downstream sector has been equally impressive. Refining throughput capacity has risen from 18.3 million tonnes per annum in 1970-71 to 45.7 mtpa in 1986-87 (Table-4)

Table-4

Crude Throughput ('000 tonnes)

	1970-71	1975-76	1980-81	1985-86	1986-87
Public Sector Refineries	10820	17045	25333	42910	45710
Private Sector Refineries	7559	5238	503	-	-
TOTAL	18379	22283	25836	42910	45710

 173/16

It should be recalled that the private sector refineries that existed in 1970-71 were eventually brought into the public sector fold, so that by 1985-86 all the refineries were under Government control.

The infrastructure for transportation, marketing and distribution has been built up in tandem with the growth of production and refining.

In 1947 there existed only one crude oil pipeline connecting the Digboi field to the Digboi refinery and a 37 km long product pipeline from Digboi to Tinsukia owned and operated by the Assam Oil Company. Today as Table-5 shows an extensive network of offshore and onshore pipelines traverse the country.

Table-5

Crude Oil, Product & Gas Pipeline

	Length (Kms)
Crude	
Onshore	2915.59
Offshore	203.00
Product	2452.16
Gas	
Onshore (including the 1700 kms long HBJ pipeline under construction)	1859.8
Offshore	440.0
Total	7870.55

173/17

A network of marketing and distribution facilities have also been created. The industry has today 283 storage installations and depots with a total tankage of over 50 lakh kiloleters. The number of retail outlets as Table-6 shows has also increased apreciably.

Table-6

Number of Retail Outlets

(as of January 1 of each year)

	1970-71	1975-76	1980-81	1985-86	1986-87
No. of retail outlets	10255	10596	12042	13209	13643

LPG has also become an important source of domestic fuel. In 1970-71 LPG availability was only 0.18 mtpa covering a small number of households. Today 1.2 mtpa is accessible to over 10 million people.

Table-7

No. of LPG Domestic Consumers

(as at the end of the year)

(millions)

1980-81	1985-86	1986-87
3.3	10.8	12.4

The contribution of the petroleum sector to the Indian economy is brought into sharper focus when looked at from the perspective of self sufficiency and self reliance.

Table-8 traces the relationship between consumption and imports. From being almost completely dependent on imports, India is today able to meet around 62% of its consumption requirements of petroleum products from domestic sources.

173/18

Table-8

Year	Consumption of products (mmt)	Gross Imports Crude	Gross Imports Products	% age import dependence in crude terms (approx)
1948	2.46	-	2.27	92
1955	4.82	3.02	2.07	> 95
1960	7.06	5.72	2.03	> 95
1965-66	12.44	6.84	2.53	75
1970-71	17.91	11.68	1.09	70
1975-76	22.45	13.62	2.22	70
1980-81	30.90	16.25	7.29	76
1986-87	43.40	15.53	3.04	35
1987-88 (est)	46.40	18.00	4.5	38

In financial terms, the petroleum companies have more than fulfilled the expectations of the Government as expressed in the Industrial Policy Resolution. In 1968-69 the capital employed by the industry amounted to only Rs. 6.2 billion and an estimated 11% return was achieved on the investment. By 1986-87 the capital employed had risen to over Rs. 100 billion and the return to around 30%. As a result, the net profit earned rose from Rs. 500 million in 1969-70 to over Rs. 20 billion in 1986-87 (Table-9). It should be noted that individual companies have been consistently ranked among the most profitable companies in the country and as a public sector the petroleum industry has made the most significant contribution to the national exchequer.

173/19

Table-9
Financial Structure (Profitability) (1986-87)

(Rs./millions)

	Industry Segment		
	Exploration & production	Refining & marketing	Total
1. Paid Up Capital	3958.5	3297.5	7256.0
2. Capital employed	69923.2	35104.3	105027.5
3. Sales/operating income	48907	213249.5	252156.5
4. Gross profit before interest & tas	21871.4	9449	31320.4
5. Net profit after interest & tax	14869.2	5281.0	20151.1
6. Net profit to paid up capital (%)	375.6	160.2	
7. Gross profit to capital employed (%)	31.3	26.9	

The industry has also been successful in promoting the country's objective of attaining self reliance in manpower development and technology. Today as Table-10 charts, the petroleum industry provides employment to over 100,000 people, both skilled and unskilled. The largest numbers are engaged in exploration and production.

Table-10
Manpower Employed in the Petroleum Industry
(as on 1st April of the year)

Category	1970	1975	1980	1986
1. Expl. & production	26051	27067	31413	52041
2. Refining	10715	12327	15334	23247
3. Marketing	20362	19072	19920	27814
4. Others	1864	4004	5630	7257
5. Total	58992	62470	72297	110359

Considerable time and resources have also been dedicated by the individual companies to developing indigenous technical skills. ONGC has for instance set up several institutes for the advancement of exploration and production techniques. The Keshav Dev Malviya Institute of Petroleum Engineering which was set up in 1963 is the premier geoscientific research organisation in the country and advises ONGC on its exploration strategy by carrying out integrated geophysical, geological and geochemical analysis of individual basins. The Institute of Reservoir Studies carries out research on reservoir engineering and secondary and tertiary recovery methods, while the Institute of Drilling Technology trains drillers and emphasises the study of deep drilling under abnormal pressures and other subsurface complexities. Plans to set up three more institutes have also been finalised - the Institute of Engineering & Ocean Technology, the Institute of Production Technology and the Institute of Petroleum Safety and Environment Management.

Research on downstream activities has also been given equal emphasis by the refining and marketing companies through the vehicle of their R&D departments and specialised institutes like the Indian Institute of Petroleum and the Central Design Institute. Most recently in May 1987, the Government created a Centre for High Technology for identifying the emerging requirements of refining technology by the industry and for facilitating "state of the art" research. A safety council and directorate have been set up to review safety standards and to promote hazard analysis and hazard management.

173/21

III. THE FUTURE:

It should be evident from the foregoing section that the organisational relationship between the Government and the public sector petroleum enterprises has worked successfuly in stimulating exploration and development activity and in creating a technologically mature and self reliant petroleum industry. The question is whether this relationship should be continued unchanged or whether in the light of emerging issues and different market conditions, it should be subjected to fresh scrutiny.

At the broadest level, one can unhesitatingly say that the petroleum sector will continue to be controlled by the State. It is much too important an economic sector to be left exclusively to the dictates of the market. But given this fact, there is room for redefining the procedural links that bind the public enterprises to the Government. The Government is only too aware that governmental interaction should be constructive and cooperative and seek to promote the capability and efficiency of the public enterprises.

It is against this background that the Government has initiated discussions with the public enterprises to determine whether or not the existing organisational relationship needs to be redefined. The purpose of these discussions is to make sure that within the ambit of state control individual companies have sufficient managerial freedom to most effectively meet the challenges of the future. Certain procedures may have to be simplified; some others simply removed. The intent is to create a stable framework for management to plan their future programmes. One proposal that has already been accepted and is being implemented is the signing of a Memorandum of Understanding between the public enterprise and the Government that would define the obligations and rights of the two parties over a given period of time. Such a Memorandum of Understanding would make explicit the

173/22

relationship between the Government.Any intervention that is not in accordance with such an understanding would then be disallowed. A White Paper on public sector enterprises is shortly to be presented to the Parliament. This will outline and highlight the new approaches to Government-public sector interface not only in the petroleum sector but also in all other public sector enterprises.

Notwithstanding the successes of the industry so far, the petroleum situation in India leaves little room for complacency. The consumption of petroleum products is rising at a much faster pace than the additions to productive capacity. There is an urgent requirement therefore for acclerating exploration and upgrading the prognosticated reserves of hydrocarbons to the producible category. Unfortunately the pace of exploration is limited by the overall constraint on government's financial resources and the call on these resources of other priority sectors. It was in part response to these resource constraints that the Government decided to encourage private participation in the exploration effort. Five production sharing contracts have only recently been signed with the international companies and negotiations on a few others are under consideration. The Soviet Union is also carrying out extensive exploration in three basins.In addition the Government has agreed to allow private equity in the setting up of new refineries. The commercial development of natural gas has also been accorded paramount priority. The construction of a 1700 km long gas pipeline from Hazira on the West Coast to Jagdishpur in North Central India is nearing completion. This pipeline will connect the South Bassein free gas field offshore Bombay to bulk consumers across the country. Plans for creating regional gas grids and eventually a natural gas grid are also on the anvil.

173/23

This is but a sketch of current Government thinking on the matter of its future relationship with the petroleum companies. But it does reaffirm the Government's continuing interest in the efficient functioning of public sector enterprises. The intent of the Industrial Policy Resolution that public enterprises must not only strive to maximise public welfare but also "augment the revenues of the State" remains the yardstick by which potential organisational changes will be assessed.

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