CHAPTER X

IMPLICATIONS FOR POLICY

We shall now examine what policy implications we can draw for petroleum industry in particular and the energy sector in general from our analysis so far. We shall consider the issues of increased production of crude, pricing, taxation, substitution of other fuels for oil, organisation, issues of coordination, energy planning and foreign trade.

Increased Production of Crude

The dominant fact of India's oil policy all these years has been its increasing dependence on foreign sources of supply. Since the last quarter of the 19th century, India has been importing petroleum products from U.S.A. and U.S.S.R. As the demand for petroleum products went on increasing due to industrialisation and economic development, India had to depend more and more on foreign sources. Later on when foreign owned refineries were established in India during the 50's, India had to import crude oil. Besides crude India is also importing some petroleum products like kerosene whose demand is more than
the domestic production of such commodities. This involves spending vast amounts of foreign exchange on import of crude oil and petroleum products. In order to reduce the foreign exchange burden on account of import of crude and petroleum products and to ensure indigenous control of petroleum industry through government ownership, the government of India took the following measures in the past. They are:

(1) The Government tried to force reduction in the prices of imported crude oil and petroleum products. With this aim it appointed many committees to recommend crude and product prices.

(2) The Government worked with other foreign oil companies through joint ventures in the field of exploration. The 'Oil India Limited' which is a joint venture of the Government of India and Burmah Oil Company is an example.

(3) The Government also tried to expedite the development of exploration, refinery and marketing efforts. It established 'Oil and Natural Gas Commission' (ONGC) in the public sector. This is engaged in exploration and production of crude oil. The Government also established in the public sector 'Indian Oil Corporation' as well as
In the present circumstances the need to produce more crude oil at home is more in view of the rapid increase in the prices of crude oil in the international market. In order to reduce dependence on foreign sources of supply and to save valuable foreign exchange India should intensify exploration. Apart from carrying out exploration activities by the public sector organisation like ONGC, foreign oil companies may also be allowed to carry on exploration independently.

Pricing

Since India is still dependent on foreign crude to the extent of 60 per cent of its requirements, the price of crude to the refineries should reflect its true cost. In case of imported crude India has no option except to price it on the basis of import parity. The price of indigenous crude should also be fixed on par with imported crude. The present policy of charging a lower price for indigenous crude should be discontinued. The real cost of the indigenous crude to the economy is the price at which crude can be had from another country. When the crude is priced at less than its imported cost we are encouraging the wasteful use of a scarce resource.
In the case of product prices in India, we have advocated a change from 'import parity' to fixing ex-refinery prices on the basis of cost of production. When most of the petroleum products are produced within the country, import parity has no relevance at all. The prices of petroleum products should be fixed in such a way that refineries get ex-refinery prices for different products which taken as a whole, cover the cost of inputs and allow a reasonable margin of profit for the refineries. The present policy of retention prices for each refinery is very well suited for this purpose.

The prices of petroleum products at the retail level are made up of taxes apart from transport cost and trade margins. Therefore the government has more scope to manoeuvre prices at retail level so as to make the price policy conform to the objectives of national oil policy.

Taxation

The taxation of petroleum products can be made to conform to the objectives of national oil policy. The different petroleum products can be taxed at different rates. They can be classified on the basis of the availability of domestic substitutes for them. A product for which substitutes are available can be taxed higher so
that its consumption can be reduced. The petroleum products can also be classified as necessaries which are required by all like kerosene and luxuries like gasoline which are consumed mainly by the well-to-do. The necessaries can be taxed at a lower rate and luxuries at a higher rate. Therefore a flexible tax policy which takes into account the nature of the use of petroleum products and the availability of domestically produced substitutes can encourage the use of substitutes to many petroleum products wherever they are available. An appropriate tax policy will be able to achieve the objectives of the national oil policy more effectively than the price policy because of its flexibility.

Substitution Issues

There are possibilities of substitution of other fuels for oil in many sectors of the economy.

Industrial Sector

The industrial sector in India accounts for 38.7 per cent of the commercial energy consumption. But it derives 14 per cent of its energy from oil.¹ The consumption of

'fuel oil' in industries can be reduced and coal can be substituted without affecting production. The 'fuel oil' that is so saved can be used to produce other high cost petroleum products. However the substitution efforts here will not be very smooth. The problem of finding stacking area for coal and ash within the premises of the existing industrial establishments will be very acute in metropolitan centres. Therefore central dumps will have to be maintained in such areas and there must be an efficient supply system. If all these problems are solved 70 per cent of the industries using fuel oil can be switched over to coal. The 'fuel oil' that is so saved can be used to produce other high cost petroleum products.

Even in industries where use of oil products is inevitable it is possible to reduce the consumption of oil products by adopting efficient methods of use. The Fuel Policy Committee has recommended the establishment of "National Fuel Efficiency Service" which can ensure that the choice of fuel is done in each industry with regard to technical and national interest.

2 Ibid.
Transport Sector

Transport in India accounts for 50 per cent of the oil consumption. Therefore transport sector is the most heavily affected sector by the increase in oil prices. Since transport accounts for half of the consumption of oil, it is in this sector that a major reduction in oil consumption can be effected. But in order to do that it is necessary to evolve an integrated transportation policy involving all means of transport for men and materials. The bullock-carts can be used for short-haul freight traffic between villages and towns.

Even the pedal-powered vehicles have a place in the movement of men and materials between villages and nearest market place. The transportation by sea and river can also be exploited. There are also possibilities of saving oil by strengthening public transport so that the use of private vehicles is restricted. Similarly if railway goods service is made very attractive growth of trucking can be contained.

Domestic Sector

Domestic sector accounts for 30 per cent of the oil consumption in India. Savings in the consumption of petroleum products in the domestic sector can be had by two
ways. One is by changing the design of stoves for cooking so that waste heat is utilised to the maximum. The other is by providing alternative energy. The establishment of sewage plants in towns and cities can provide 6 million mwht of energy which is roughly equivalent to 18 per cent of the country's consumption of kerosene.

In rural areas in India the energy requirements of the masses in the domestic sector is met by non-commercial sources like cow-dung, wood and agricultural waste. Therefore, the population below and just above the poverty line, in India which forms the majority of the population has not been touched by the present energy crisis. But the use of non-commercial energy is not desirable from the environmental and economic points of view. An alternative energy source has to be provided to these persons. An alternative that is suggested is to have an energy forest for each village so that fire wood would be made available in rural areas at a very low private cost so that the poor can afford it.

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Agricultural Sector

Agricultural sector in India consumes very little oil. It accounts for only 5 per cent of the oil consumption in India. The consumption of oil takes place in tractors and pumpsets. The consumption of oil in pumpsets can be reduced with the electrification of villages. But there is no substitute for oil in tractors. Therefore with increasing mechanisation of agriculture the consumption of oil in this sector is expected to go up.

Organisation/ownership Issues

In the case of ownership in the oil industry, India has 3 policy alternatives. They are:

1) To have total government ownership.
2) To leave it to private enterprise completely.
3) To allow both private and government activity either in separate operations or joint ventures.

The total government ownership of oil industry at the stage of exploration may not be desirable at present. In the case of a developing country like India, complete Government ownership at the stage of exploration involves

4 Ibid.
financial difficulties for the Government. Exploration for petroleum involves spending huge amounts of money. Therefore some type of association of international oil companies with the government's effort is desirable because the international oil companies not only have the financial resources to undertake such a risky venture but have also the technical know-how in view of their long experience in the field.

The second alternative of leaving it to private enterprise completely cannot be advocated in the given conditions of the Indian economy. Private individuals cannot be expected to invest huge sums of money in such a risky venture. Petroleum is too important a commodity to be left completely to private enterprise.

The third policy alternative namely allowing both the government and private enterprise seems to be the best policy in the present circumstances of the oil industry in India. The most important stage in the production of petroleum is the exploration. The government can enter into joint ventures with foreign oil companies at the stage of exploration. The foreign oil companies may also be allowed to carry on exploration independently.
In the case of "down stream operations" namely refining, transport and marketing, these should be confined to public sector in order to have a consistent national oil policy. When the refineries are in the public sector it would be possible to produce various petroleum products according to the demands for these products in India. (By resorting to hydro-cracking it is possible to produce more of 'middle distillates' whose consumption is very high in India, at the cost of 'heavy ends'.)

The present policy of having private marketing companies along with the public sector marketing company has led to wastage and duplication in the opening of retail outlets for marketing of diesel and gasoline. The government can take over these private marketing companies and merge them with Indian Oil Corporation so that it will save unnecessary duplication in the opening of retail outlets. The take over of ESSO in 1974 and Burmah-Shell and Caltex in 1976 is a step in the right direction.

Issues of Co-ordination

The oil industry in India is both in the public as well as in the private sector. At the stage of exploration there is a public sector organisation - ONGC a
joint sector organisation - Oil India Ltd., and a private sector organisation - Assam Oil Company. Apparently there is no common policy among these different sector organisations. Each of these agencies is expected to conduct its operations in a manner which is in the national interest. Yet there must be some common policy among them. This has become more important now in view of the rising crude prices in the international market.

Apart from co-ordination among the various agencies engaged in exploration for petroleum, there should also be a co-ordination of the pricing policies of fuel industries to have a national fuel policy. The national fuel policy should take into account other sources of energy like coal, natural gas, and hydro-electric power. All these sources of energy compete with oil, and they can be substituted for oil in certain uses. The long term energy policy should be based on the maximum utilisation of the indigenous energy resources. If this becomes our objective there is no alternative but to switch back to coal. Therefore the prices of all fuels should reflect their cost to the economy. The price should also take into account the diseconomy involved in the use of coal which leads to atmospheric pollution. The ordinary market price for coal
does not indicate the real cost. This can be dealt with by raising the price of coal to a higher level to take account of pollution.

Energy Planning

While all steps should be taken to reduce the consumption of oil products by making available alternatives to it, in the long run efforts should be made to expand energy resources. As a part of the long term national energy policy efforts should be made in the following directions:

i) Increased production of coal.
ii) Optimisation of the consumption and production of petroleum products.
iii) Increased oil exploration and production.
iv) Greater electrification of railways.
v) Intensive utilisation of water power.
vi) Greater use of coal for fertilizer production.
vii) Increasing the contribution from nuclear energy.

A comprehensive energy plan of this nature would require unified direction of development of different energy resources.
Foreign Trade

India should make special efforts to increase exports to the Middle East countries producing petroleum. Because of the spectacular increase in the price of oil in the international market, the incomes in these countries have increased tremendously. There is vast scope for increasing the export of consumer goods of all types to these countries. Commodities with large export potential to these countries should be selected so that they may be given special assistance for intensified production. The government can also enter into bilateral agreements with oil producing countries for the import of crude oil in exchange for consumer goods from India.