

**ESTIMATES COMMITTEE
(1982-83)**

SEVENTH LOK SABHA

FIFTY-FIRST REPORT

ON

MINISTRY OF ENERGY

DEPARTMENT OF PETROLEUM

Presented to Lok Sabha on 26 April, 1983



**LOK SABHA SECRETARIAT
NEW DELHI**

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(1982-83)

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*Elected w.e.f. 14.10. 1982 vice Shri Ram Chandra Rath appointed as Minister of State.

INTRODUCTION

1. The Chairman of Estimates Committee having been authorised by the Committee to submit the Report on their behalf, present this Fifty-First Report on the Ministry of Energy-Department of Petroleum.

2. The Committee took evidence of the representatives of the Ministry of Energy-Department of Petroleum on 25th, 27th, 28th and 29th January, 1983. The Committee wish to express their thanks to the Officers of the Ministry for placing before them the material and information which they desired in connection with the examination of the subject and giving evidence before the Committee.

3. The Committee also wish to express their thanks to the representatives of the following Non-Official Organisations for giving evidence and making valuable suggestions to the Committee : -

(i) Associated Chambers of Commerce and Industry, New Delhi,
and

(ii) Indian Chambers of Commerce, Cochin.

4. The Committee also wish to express their thanks to other Associations and Bodies who furnished memoranda on the subject to the Committee.

5. The report was considered and adopted by the Committee on 21st April, 1983.

6. For facility of reference the recommendations/observations of the Committee have been printed in thick type in the body of the Report, and have also been reproduced in a consolidated form in the Appendix to the Report.

NEW DELHI;
April 24, 1983

Vaisakha 1, 1905 (S)

BANSI LAL,
Chairman,
Estimates Committee

CHAPTER I

EXPLORATION AND PRODUCTION OF CRUDE OIL

A. Demand and Availability of Petroleum Products

1.1. The Department of Petroleum has furnished the following information in regard to the demand projections of petroleum products with yearwise build up for the Sixth Five year Plan period :

(Figures in million tonnes)

Year	Demand	Production	Imports (Products)	Remarks
1979-80 (Actual)	29.9	25.8	4.7	
1980-81 (Actual)	30.8	24.1	7.3	
I.I.P	33.3			IIP Report of June 1980.
1981-82 (Actual)	32.4	28.2	5.0	
O.C.C.	34.0	29.4	4.7	Original OEB for 1981-82
I.I.P	36.8			
1982-83 (Estimated)				
-OCC (OEB)	35.0	29.3	6.0	OEB estimates
-OCC	37.3	33.1	6.0	Long term estimates
-IIP	39.6			
-WGEP	35.5			Working group on Energy Policy (1979)
1983-84 (Estimated)				
-IIP	42.7	33.3	7.3	
-OCC	40.1			
1984-85 (Estimated)				
-IIP	45.8	38.1	4.5	
-OCC	42.7			
Sixth Plan	45.5	35.3	10.2	

Note : IIP — Indian Institute of Petroleum
OCC — Oil Coordination Committee
WGEP — Working Group on Energy Policy
OEB — Oil Economy Budget

1.2. The actual figures of total availability of indigenous production of petroleum products during 1980-81 and 1981-82 has been indicated as 24.12 and 28.19 million tonnes respectively. The imports of products during the same period were of the order of 7.29 and 4.97 million tonnes respectively.

1.3. During evidence, the Committee inquired about the total consumption of petroleum products in the country during the year 1982-83. The Petroleum Secretary stated that "it will be approximately 35 million tonnes." Asked what was the percentage of indigenous production as against the total demand, the Petroleum Secretary replied that "the total degree of self-sufficiency is around 60 per cent in 1982-83" The Committee wanted to know when the country would be self-sufficient in oil. The Petroleum Secretary stated as follows : —

"That is very difficult to say. Despite increase in demand, we do expect that in 1983-84, this percentage of self-sufficiency will increase to 70%. We can have further production from the areas where we are doing a great deal of exploration, where we have had indications of oil like Cauvery belt, Andhra Pradesh and so on."

1.4. The demand, Production and Imports of petroleum Products during 1980-81 were 30.8, 24.1 and 7.3 million tonnes. According to the 6th Plan these are expected to go upto 45.5, 35.3 and 10.2 million tonnes. Thus substantial imports at a heavy cost in foreign exchange will persist indefinitely. The Committee note there are divergent estimates of demand of petroleum products by the Indian Institute of Petroleum, Oil Coordination Committee and the Working Group on Energy policy. The Committee desire that the methodology of demand assessment should be rationalised. In view of the economic implications, there has to be an effective demand management to conserve the use of Petroleum Products by Pricing and other devices, maximise their efficiency, develop alternate sources of energy etc. The expected savings under each category should be spelt out as targets in 7th Plan. A machinery to coordinate this should also be evolved. Incidentally the Committee suggest that diesel rail traction being energy saving compared to road transport, this capacity should be augmented rather than of road transport.

B. Oil Exploration

1.5. Oil exploration is being done in the country by two agencies Oil & Natural Gas Commission (O.N.G.C.) and Oil India Ltd. (O.I.L.). The targets and achievements in respect of each of these agencies are examined in the following paragraphs.

Exploration by O.N.G.C.

1.6. O.N.G.C.'s target for 1980-81 for drilling metreage and No. of wells to be drilled was 303000 metres and 130 wells. The achievement, however,

was only 212000 metres of drilling and 104 wells. The Department of Petroleum has stated that the shortfall was due to "disturbed conditions in the eastern region, fishing complications, delayed arrival of platforms S.A., NP and NJ, and sub-marine conditions in Godavari Offshore." During 1981-82, ONGC performance was 299000 metres against the target of 364000 metres of drilling and 137 wells against the target target of 161 wells. It is stated that "the shortfall of the order of 42 thousand metres was mainly due to complications encountered in wells in the eastern region and central region and also complications in Krishna-Godavari horizon and delay in commissioning of platforms."

1.7. During evidence the Committee asked the representative of the Ministry why could at least some of the problems and complications not be foreseen and attended to promptly. The Secretary, Petroleum replied as follows :

"It is one thing to have a target for development. It is a different matter to have a target for explorations. The reasons are as follows :—

In respect of development, we have discovered oil. We know the area, we therefore are able to foresee what sorts of problems will come up and therefore it is possible to have targets which are fairly realistic and so from now on we are going to divide these targets into two parts. Because we know the area, we discovered the oil, we know what pressures we will encounter, it is certainly possible to have a realistic target.

For exploration it is exceedingly difficult because we do not know what is there 2000 or 3000 or 6000 metres below the soil. We have simply no idea. We only have a general assessment of the structure, but we do not know what pressures are there and what temperatures are there. For instance, we had Krishna-Godavari area, we have certainly encountered very difficult problems there—very high temperatures and high pressures. Similarly, in parts of West Bengal we encountered some problems. The same is the case with Tripura. The Russians, who are the largest world oil producers, are there. They are drilling the wells. But they are one year behind schedule because these are unprecedented problems which nobody could foresee. So, I would again submit, firstly, that development drilling is something where it is possible to foresee and therefore we have the targets which are realistic targets.

For exploration, it is very difficult to foresee. It is certainly not possible for us or for any country in the world to foresee the

pressures etc. First is the North-East which accounts for the major part of the shortfall. Let us see what 1982-83 has to bring in there."

1.8. In reply to a query from the Committee the Secretary, Petroleum replied :—

"For 1983-84, we did a very thorough analysis of this in September. We had a one day discussion in Dehra Dun with both Oil India and the Oil and Natural Gas Commission and finally we decided that for development drilling we may have targets and for exploration drilling we have a figure of our best endeavour."

1.9. In a written note furnished subsequently, the Department of Petroleum intimated the Committee as follows :—

"During the year 1980-81, oil field operations were very much affected due to 'Oil blockade' imposed by agitationists and the generally disturbed situation in Assam. It not only affected drilling and production but also all developmental and new projects in Assam and Arunachal Pradesh."

1.10. One of the reasons for shortfalls in the targets has been stated to be delay in commissioning of platforms. The Committee asked the witness the reasons for such delay. The witness replied :

"These platforms have to come from Overseas Countries. There was a delay in receipt of these platforms. In Bombay High, the monsoon is a critical period. Even though the platform was delayed for a few weeks, if it arrived after 15th of May, unfortunately it could not have been fixed in the area. You cannot therefore undertake development work during the monsoon."

1.11. When asked as to how would he justify the expenditure on exploration the Petroleum Secretary replied :—

"Even for exploration drilling, will certainly have internal targets. Against internal targets, of course, there will be question mark, depending upon what sort of horizons, temperatures, etc. we actually encounter. These factors cannot be foreseen. Therefore this is the best estimate that one can have. It cannot be a target in the sense that if you do not achieve it, the heads will roll and all that. I do not mean it in that sense. Certainly, there has to be a technological assessment of what happened against what estimate had been made."

1.12. The Committee asked the Petroleum Secretary at what level the shortfalls in the targets on the basis of which funds had been allotted were

examined and reasons for shortfalls evaluated. The Petroleum Secretary replied :—

“We get reports of the progress of drilling of every single well, as to when the well was spudded, what was the estimated time, how it is proceeding, what problems have come up, how the problems are sought to be overcome and by when. It is called the situation report. We are getting these regular reports both from the Oil India and the ONGC.”

1.13. When asked about the periodicity of the Reports, the Petroleum Secretary stated that the reports were fortnightly.

Exploration by Oil India Ltd.

1.14. It has been stated that OIL was assigned the targets of 90000 metres of drilling and 25 wells during the year 1980-81. The actual achievement during that year was only 37000 metres of drilling and 10 wells. During 1981-82 also whereas the targets were 108000 metres of drilling and 30 wells, the achievements were only 64000 metres of drilling and 17 wells. The reasons for slippage during 1980-81 are indicated as “disturbed conditions in Assam and also due to expiry of drillship contract” and the shortfall during 1981-82 is stated to be due to “land acquisition problems and other technical complications and also delay in finalisation of contracts.”

1.15. During evidence, the Committee asked the Petroleum Secretary whether all these reasons were insurmountable and could not be foreseen to take remedial action in time and whether there was any rigid demarcation of areas of operation between the ONGC and OIL. The Petroleum Secretary replied :

“The OIL India’s major activity in these particular years was in Assam. They have also some activity in Arunachal Pradesh and also in Mahanadi. The major proportion of it really relates to Assam where the big problem was the disturbed conditions. In the Mahanadi, the drillship was to drill three wells. We have also to remember that these were the years when the world market for drillship was exceedingly tight, not easily available. We were able to get drillship. But that drillship was able to drill only two wells and not the third well. By that time, the contract expired. The shortfall was only one well which could not be drilled.

There were other complications in Arunachal Pradesh. We had fishing problems. While drilling, it got stuck and we tried to get it repaired. Similarly, for the Oil India also it was so.”

1.16. The Committee asked the Petroleum Secretary about the precise nature of the difficulties in the matter of land acquisition and other technical complications" and whether the technical complications arose out of lack of adequate technology or had developed in the techniques in use. The Petroleum Secretary replied :—

As regards the land acquisition problems, these are specially related to north-eastern area. These are all reserved forest areas. When we drill, we have to get the land in the reserved forest areas and we have to clear the land and build the roads to take the heavy equipment. There is a policy which is being enforced very vigorously that before you are permitted to work in any reserved forest area, you have to get approvals not only from the State Government but also from the Central Government. They count the number of trees that have to be felled and how you are to reclaim that area. There are a lot of procedures. These procedures have taken much longer than we thought they would take. Because of all these problems, I have had a meeting at my level with the Secretary, Agriculture Ministry and the concerned authorities in charge of Forests to try to find a speedy way of getting these transfers in regard to land acquisitions.

Then, there are environmental aspects and forestry aspects. I think we will be able to speed it-up. But the fact remains that the cause of the Acts in regard to both environment and forestry. We do have problems in getting the land where we are going to explore and going to drill. It does take a little time...

Technical complications are technical complications in the sense that drilling the well involves considerable difficulties. There are problems, like fishing. The drill pipe can break. The bit can get stuck and in taking it out and putting it back it breaks. High temperatures are there..... The repair works pose the real difficulty. There are many wells all over the world which are abandoned because despite efforts at repair, it is not possible to repair them. It is this sort of problem that comes up and complications arise. Then it takes much longer and there is no knowing whether the efforts at complete drilling to the target depth would succeed. Finalisation of contracts relates to the off-shore work in the Mahanadi area. We drilled two wells earlier. We were not able to drill the third well because drillship was not available. All the data collected both in the seismic work as well as in the drilling was reinterpreted and there was also a check-back with a very reputed consultant to see whether they had any suggestion to offer in regard to the strategy that we wish to follow. This

takes time. As a result of this, some contracts were certainly delayed. The whole programme which costs Rs. 122 crores has been approved by Government.

The approval was given after the strategy had been fully finalised. As a result of checking up with the reputed consultants, changes in strategy are made. There is really a need for further check on the interpretation and, therefore, the formulation of the strategy on how to further explore the Mahanadi area. That has been worked out. Rs. 125 crores has now been approved. The drillship has been chartered."

1.17. Asked whether ONGC and Oil India had to get petroleum, exploration licence, the Petroleum Secretary replied :—

"ONGC and Oil India have to get, what is called 'Petroleum exploration licence.' They get the petroleum exploration licence and if there are reserved forests, they have to get separate specific approval."

1.18. Explaining further the representative of the Ministry, stated :—

"Once the ONGC has decided to explore an area in accordance with the strategy decided upon, they apply for PEL. According to the procedure, the State Government gives the PEL and they start survey work. Survey allows a certain amount of drilling and production upto a certain level. If they have to produce from that area, then they plan as to what they are going to produce and the expenditure is projected to the Government of India in their Budget and they do not operate that, till they have got the Mining Licence. So, they are not free."

1.19. Clarifying the position the Petroleum Secretary explained ;—

"Even if they have a petroleum exploration licence, if they want to do seismic work in the reserved forests, require further approvals. PEL does not give them the right to go into reserved forests in that area in which they want to drill. This is where the new amendment has come into force on exploitation of minerals in the reserved forests. There is the sub-committee of the Inspector General of Forests. You have to apply for permission to work in a reserved forest indicating precisely what the impact will be. The environment impact statement will have to be given. "

1.20. The Committee then pointed out to the Petroleum Secretary that these were the working problems which one would expect in such operations and

while fixing targets proper allowance should be given for these problems. The Petroleum Secretary replied ;—

“Just a few illustrations. These are drilled in a particular area and it has taken six months to complete a well. We want to drill some more wells some miles away. The expectation is it will not take much time. But no structure is absolutely identical.”

1.21. The Committee asked the Petroleum Secretary whether there was any system to judge the efficiency of the staff after the operations had started. The Petroleum Secretary stated that “there are a number of yard-sticks. Just take drilling cycle speed time for demobilisation. There are a number of efficiency factors.”

1.22. Asked further whether the Ministry was satisfied that there was no deficiency, the Petroleum Secretary replied ;—

In many of these areas, we are below international standards. International standards are not easy because they have to be related to the particular conditions of a structure. Even so, there is a steady improvement. Now we have still not reached the best efficiency standards. But this is a hard road. We have to have more training, better plans of operation, research, far better mobility, personnel and equipment etc. ;

Achievement of Plan Targets for Oil Exploration

1.23. The Committee pointed out to the representatives of the Ministry that if the shortfalls in achievements against the targets observed during the first two years of the 6th Plan were any indication, it would be well nigh impossible to achieve the 6th Plan exploration targets in the remaining three years of the plan. The Committee, therefore, wanted to know from them as to what special efforts were contemplated to ensure that the Plan targets were achieved. The Petroleum Secretary replied :—

“The shortfalls which have occurred in the last two years, we are attempting to make up in the balance period by doing a lot more. About exploration, we have acquired a lot more equipment both on-shore and off-shore. We have already taken a forward view that is we are trying to acquire the equipment required five years from now. We have got the approval from Government for acquisition of equipment worth Rs. 800 crores to meet our requirements looking ahead five years from now. We are expediting this and are trying to cover all the shortfalls within the Plan itself.”

1.24. Asked how it would be possible to achieve the sixth Plan target when the Committee had already been told that in exploration it was difficult to fix any targets. The Petroleum Secretary replied :—

“I have already dealt with development drilling and exploration. It is not possible to say how many wells or metres one rig will drill. This is really a problem. We have assumed that one rig will be able to drill so many metres. There are technical problems because of which it may not be possible. Therefore, what we are trying to do is to get a lot more equipment and try to cover the possible failures. We are trying to get more rigs so that even if there is a problem, we have something more. You might ask why we could not do this earlier. I would say that, apart from the disturbed conditions in the north-east, in places like Tripura we have taken much longer to complete drilling. In Tripura, for example, the estimate was that we would be able to complete Rokhy a well in one year. It has taken a little over two years to complete that. What it means is that we are encountering structures, pressures and temperatures for higher than what were estimated. The result is, if we want to drill three wells, it is going to take six rig-years instead of three rig-years because it will have to be based on actual experience. Similarly in off-shore, we have found that the rig-months required for each well have been under estimated and therefore we have to provide for a larger number of rig-months to achieve the target. This is why, we have taken a five-year view and have got the approval for Rs. 800 crores for a lot more rigs both for off-shore and for on-shore.”

1.25. The Committee pointed out that if the Sixth Plan Targets were not likely to be reached, it was obvious that there would have to be heavy imports and that would mean heavy financial burden. The Committee, therefore, asked whether it would not be more advisable to spend more on sophisticated technology and thereby augment exploration rather than spending such big amounts on imports. The Petroleum Secretary replied :—

“I would not directly link import with exploration. But I would say that certainly it is very necessary to speed up exploration to the extent possible.”

1.26. When the Committee suggested that if the exploration targets failed, there was no other alternative but to get oil imported, the Petroleum Secretary responded :—

“There are two parts of drilling. One, development drilling which is development of fields already discovered and where we have yet to achieve the maximum exploitation. The second,

exploration which is discovery of hydro-carbons which have yet to be discovered. In exploration if we find oil we are not going to be liable to produce that oil in two years-time because there will be a lot of further work to be done. Therefore, exploration would be related, not necessarily to the 6th Plan target but further, whereas development drilling will be related to the Plan target.....The second point with which I agree is, we have to have much more sophisticated equipment. One of our major challenges is in the field of reequipment of the existing ones. This is specially true in seismic geo-physical work. I have submitted earlier that we have imported and will be purchasing a lot more of the latest sophisticated seismic equipment and computers for analysis of seismic research and interpretation."

1.27. In the following written note furnished to the Committee subsequently, the Ministry have clarified the position as under :—

The approved Sixth Five Year Plan envisaged a total crude oil production of 21.60 million tonnes in 1984-85. However, in 1981-82 based on increased reserves predicted for the offshore fields, a decision was taken by the Govt. to increase the pace of exploration and production activities. Based on this the likely crude oil production for 1984-85 is now estimated to be around 30 million tonnes, reducing our dependence on imports of crude oil. Over the 6th Five Year plan period against the original plan of production 93.40 million tonnes, it is now expected to produce about 108.14 million tonnes.

The main purpose of exploratory drilling is to augment the in-place geological reserves of oil and gas. During the 6th Five Year Plan, it was planned to establish in-place hydrocarbon reserves to the extent of 700 million tonnes. In the first 2 years of plan period, the ONGC has already established 656.89 million tonnes of hydrocarbon reserves.

Figures about actual achievement in the years 1980-81 1981-82 and up to December, 1982 for the year 1982-83, regarding the exploratory meterage as also the total exploratory meterage expected to be drilled in 1982-83, 1983-84 and 1984-85 show that as against the total target of 1026.7 thousand metres as per the 6th plan, ONGC expects to achieve 967.4 thousand metres during the Plan period and OIL 169.4 thousand metres against 216.4 thousand metres. Thus, there would be a shortfall of 58.8 thousand metres in case of ONGC and 47.00 thousand metres in case of OIL."

Agencies for Exploration

1.28. Asked by the Committee why there were two agencies viz., ONGC and OIL engaged in the exploration work, the Petroleum Secretary stated :-

“A part of the reason, of course, is historical...The Oil India was a separate company in which the Burmah Oil had 50 per cent equity share holding and the Government of India had 50 per cent. We succeeded in taking over 50 per cent held by the Burmah Oil who were also willing to sell. This happened in October 1981. Apart from that there are advantages in having more than one organisation because ours is a very large country and a very farflung country. Therefore purely from the point of view of management, there is an advantage having more than one company.”

1.29. The Committee inquired of the petroleum secretary whether these two companies were quite sufficient considering the magnitude of work involved. He replied that “these two companies exist right now. We have signed a contract with a company of USA which is the third company in the area of exploration. They have commenced oil exploration in Saurashtra off-shore”.

1.30. The Committee felt that exploration work was going on at a number of places and it was difficult for these two companies to complete the exploration work in time. The Committee, therefore, asked whether in view of that it would not necessary to engage more companies in the exploration work. The Petroleum Secretary explained that “there is a lot of delegated authority to the local establishments.”

1.31. Asked as to why the Oil India should not be merged with ONGC when the latter was well equipped and had enough expertise, the Petroleum Secretary replied :—

“There are advantages and disadvantages. Oil India has developed in a particular way. It has particular methods and techniques. It is doing good work and, on balance, there is really no advantage in merging it with ONGC. Its assets are different. It is operating in a different way and in a different area.”

1.32. In regard to a suggestion by the Committee that the ONGC had become unmanageable and it should be decentralised along the lines of General Insurance, the Petroleum Secretary replied :—

“.....What I submit is that while the ONGC is a statutory commission, it is operating in a number of areas and it has got very large semiautonomous organisations to link together because there are some very fundamental research facilities also.

There is the Institute of Reservoir Studies and the Institute of Petroleum Exploration and the Institute of Drilling,"

Achievements in finding oil

1.33 The Committee asked the representatives of the Department whether any attempt had been made to bring out an oil map of the country and if so, how soon it was proposed to be done. The Committee also desired to know as to what were the areas which remained to be explored and the achievements of ONGC and OIL in finding oil in the country since the commencement of exploration activities by them. The Petroleum Secretary stated :

" We have produced an oil map of India. These are areas to be explored. This is a continuous activity. There are 28 basins/sub-basins in the country and all of them have been categorised. When the ONGC came into existence in 1956, at that time, the total production was 4,00,000 tonnes per year. From one single field in Assam, we do expect to produce about 21 million tonnes in 1982-83 and OIL's contribution is 3 million tonnes-both on-shore as well as off-shore. Of this, off-shore will be close to 13 million tonnes and the rest on-shore. They have discovered a number of fields in Gujarat, Assam and Nagaland. The Oil India has discovered a field in Arunachal Pradesh. Then there is the Bombay off-shore area."

1.34. In response to a query as to what was the average age of a well, the Petroleum Secretary stated :

" I will tell you that normal method all over the world. For instance, I will take the United States. They look at primary recovery from the reservoir which may turnout to be 15 to 20 per cent of the total oil in place. The primary recovery is 15 to 20 per cent of the total oil to be produced in a period of 10 years. Normally the ratio of production to recovery based on primary techniques is considered there. In Europe the period can vary from 10 to 15 years. We being conservative according to what we do, normally it will be 15 to 20 years depending upon the geological conditions. But this can be slightly misleading for two reasons. The first is, as I mentioned "based on primary techniques". It is 15 to 20 per cent of the net in place. It is quite evident that the technology of oil is advancing all over the world and therefore the total quantity of oil that one will be able to recover is increasing rapidly. "

1.35. Asked whether the same technology could be made use of on-shore, the Petroleum Secretary replied that " the technology is the same.

No difficulty, but it costs it costs more money ". The Petroleum Secretary further stated :

"It so happens that off-shore, the wells are much more prolific. So, this depends on the geological conditions. Secondly, we are discovering new oil fields."

The Petroleum Secretary further stated :—

"In fact we have got a Plan in the North-East to increase production which is currently above 5.6 million tonnes by about 1-1/2 million tonnes by the Eighties and even more than that if we find better results, the rate of production is somewhat higher and we find more fields. So, this is certainly possible, but particularly in the North-East it has to be coordinated and we have to pump more crude through the pipeline. In respect of on-shore Gujarat also, each year we are discovering new fields."

Foreign Collaborations

1.36. A non-official organisation has point out to the Committee that a couple of years back in response to global invitation by the Government, nearly 100 companies applied for oil concessions in India out of which only one company was awarded the contract.

1.37. During evidence the Committee asked the representatives of the Ministry as to what were the reasons for awarding the contract to only one company. The Committee also desired to know the latest policy of the Government in regard to inviting foreign countries to participate in the search for oil in the country. The Committee also wanted to know as to what had been the policy from time to time in the past. The Petroleum Secretary replied :—

"There is some misunderstanding. We put in an open advertisement in all the well-known national and international newspapers and journals inviting companies with the requisite expertise. In response to this, 67 companies responded; but on scrutiny of their expertise, it was found that many of them were neither here nor there. So, 35 companies were short listed and an invitation to offer bid for the area in which they were interested to participate was issued. As a result, a few offers were received and an agreement was entered into on March 26, last year (1982) with the Shival Chevron Oil which is an American oil company. They have already started exploration in Saurashtra. Certain oil companies did participate and did explore for oil in 70's. But when they found nothing they walked out. In 1980, Government decided that it would be advantageo-

us to invite foreign oil companies to supplement the efforts of the ONGC and Oil India. It is in response to this that this procedure and so on took place and we did sign a contract with that company last year. Progress in response to this will be known soon. We have offered interesting areas to foreign oil companies where we feel that our efforts genuinely require to be supplemented either because we do not have the technology or we do not have the expertise or we are not able to undertake this work. In the coming years. All the foreign oil companies expect that whatever areas we offer to them be interesting area. But we have also got to take into account these very basic problems. From financial newspapers you will see that the profitability in oil has declined. They do not have much money. Secondly, tax laws in the United States for exploration of oil have been altered. Until last year, American Oil companies could explore for oil outside the country and deduct that cost from their own profit and thereby save taxes. This law had been changed last year. Many American oil companies have said: this makes a very radical difference to overseas oil exploration activities. The second round of bid is in progress and we do expect to know the result very *soon*."

1.38. Asked whether it had been agreed to part with some oil as far as Chevron Oil Company of USA was concerned, the Petroleum Secretary replied:—

"The basic agreement is, as long as India is deficient in Oil and importing oil, they will sell to us. At the moment they are doing exploration. They have agreed to sell even their share."

1.39. Asked about the share of the Chevron Oil Company, the petroleum Secretary replied:—

"It is complicated. It may come to 20 per cent. The share is related to costs and profits. It could happen that their share of the total crude oil is 20 per cent. It would not be much higher than that. Whether it is 20, 10 or 5 per cent, they have agreed to sell it (to India) as long as India is importing oil."

1.40. In regard to a query that apart from this American firm whether agreements had been made with other firms also, the Petroleum Secretary replied:—

"There were agreements with other firms earlier in the past. They have walked out. Today only Chevron is in the field. Somebody has suggested that the terms that we have set are very stiff. This is totally untrue, absolutely untrue. Our contractual terms

compare with the contractual terms of any other country in the world. It is related to the actual expenditure. I do want to repeat it. There is a certain feeling as if we have deliberately set very stiff terms. This is not true. We have set fair terms; not merely that, the onus is on them to make an offer. We have only given the guidelines if they do not like our guidelines, there is nothing to prevent them from making alternative offers.”

1.41. Asked whether Shival Oil was working independently or under the supervision of the Department, the Petroleum Secretary replied :—

“Absolutely, in the sense that the ONGC is associated with all the work right from the start to ensure that work is done properly and that exploration is done as it ought to be done.”

1.42. The Committee enquired whether negotiations were going on with other companies also. The petroleum Secretary replied that “the second round of invitation is going right now. Within the next few weeks, we will evaluate bids and then we will determine whom to negotiate with.”

1.43. Regarding duration of contract with the Shival Chevron Oil, the Petroleum Secretary informed the Committee that “the total contract is for 22 years. In Phase I, in the first three years of the exploration stage, they have to do a certain minimum seismic work (5,000 Km) and they have to drill three exploratory wells at their own cost. After that they have the choice to go into phase II, in which case they have to spend at least 18 million dollars more and drill one or two more wells. If they find oil in any of these stages, they can opt to develop the field. The total life of the contract, including this, will be 22 years.”

C. Expertise and Equipment for Oil Exploration

1.44. The Committee asked the Petroleum Secy. whether the ONGC and the OIL had adequate expertise and specialised equipment needed for oil exploration. The Petroleum Secretary replied :—

“Both these organisations have very considerable expertise. Naturally new equipment and new techniques are being evolved each day and the ONGC and OIL do their very best to cope up with this and in this process they buy new equipment and new technology which they are able to do. They are able to train their people when they buy the equipment and expertise. We combine with the transfer of technology, to the maximum extent possible the training of manpower. The most important problem is the acquisition of equipment. We are glad that not merely are they acquiring equipment but Government has granted approvals for forward purchases—looking 5 years and 7 years ahead.

Simultaneously with this we are also encouraging manufacture of domestic equipment to achieve self reliance. A great deal of effort is going on and we are beginning to produce larger and larger quantities of the sort of equipment required for oil exploration and productions."

1.45. When asked by the Committee as to what the constraints were that hampered the exploration work, the Petroleum Secretary stated:

".....The biggest constraint is trained manpower. We have established institutes of training. Training is being accelerated but the problem is always adequate availability of trained manpower with requisite expertise. We are running and are running very fast.

Our second problem is conditions in certain areas—here I am talking specially of the North-East areas which are the most prospective areas for oil exploration and production. Conditions there in the last 2 years have certainly affected our efforts."

1.46. In response to a question by the Committee as to whether there had been cases where due to lack of attractive emoluments, engineers had gone to foreign countries, the Petroleum Secretary replied in the affirmative. The Committee then asked whether conditions of service were being improved to attract these engineers to return. The Petroleum Secretary stated that conditions matching those offered by foreign countries could not be created. However, the Ministry had paid sufficient attention to these. Emoluments and dearness allowance had been enhanced. The most pressing problem was the provision of housing facilities.

1.47. When asked by the Committee whether in view of the long distances to their places of work, officers had been given some special allowance, the Petroleum Secretary replied that the allowances had been settled. He further explained :—

"Officers who had not been entitled to go by air, they have been allowed; there are many other amenities and facilities which have been offered."

1.48. In regard to the housing problem, the Petroleum Secretary informed the Committee :—

"Now, the single biggest problem is in regard to Housing. We have made certain very ambitious schemes. We are establishing a new Housing Complex, for which we are setting apart quite sizeable an amount."

1.49. Oil exploration in the country is being done by two Public Undertakings viz. O.N.G.C. and OIL. In view of the need to augment the in-place geoeological reserve of oil and gas the exploratory activity has to be intensified

unfortunately there have been significant shortfalls in achieving the targets laid down in this regard, owing to a variety of reasons. The targets and achievements for drilling were 3,03,000 metres and 2,12,000 metres during 1980-81 and 3,64,000 metres and 2,99,000 metres during 1981-82 in respect of ONGC and 90,000 metres and 37,000 metres by 1980-81 and 1,08,000 metres and 64,000 metres by 1981-82 in respect of OIL. The Committee would not go into the working of these Public Undertakings. They would suggest to Government that the procedures for obtaining clearance of various authorities for undertaking exploratory work should be rationalised to cut down delay. Further as admittedly the drilling efficiency in the country is below international standards, the Committee desire that there should be adequate institutional support to the undertakings in the matter of manpower training and research which should be ensured by the Ministry. There has been admittedly under-estimation of rig months required to achieve the targets. There is thus need for more equipment of a sophisticated kind. The Committee recommend that the matter should be taken up with the DGT&D to explore the possibility of establishing adequate indigenous production of the equipment to meet the needs. In the long run though in the short run these have to be imported to the extent necessary so that the exploratory work may not suffer.

1.50. The Secretary Petroleum has sought to make a distinction between drilling for exploration and drilling for development. According to him, whereas in the latter case i.e., drilling for development, it is possible to fix firm drilling targets as the sub-soil conditions are already known, it is difficult to lay down targets in the case of exploration drilling. He, therefore, proposed to break up the targets in to that for development drilling and for exploration drilling and the target for the latter would be what he called "a figure of our best endeavours". The Committee would like this to be examined in consultation with the Planning Commission and physical as well as financial targets laid down clearly in future so that performance could be properly assessed.

1.51. The Committee have been informed that "there are advantages in having more than one organisation for exploration because ours is a very large country and purely from the point of view of management, there is an advantage in having more than one organisation." The Committee agree with this view. They, however, note that there is no clear demarcation of areas of operation of ONGC, OIL and others who are inducted into this field. They suggest that on the basis of the oil map the country can be divided into a number of zones earmarking each zone for an autonomous undertaking and for this purpose the existing public undertakings could be split up.

1.52 There are areas yet unexplored. It is necessary to supplement the efforts of the Public Undertakings in oil exploration. The Committee learnt that the current policy of the government is to invite foreign participation in

this venture. Recently, in March, 1982 contract has been signed with an American Oil Company. Shival Chevron oil. The life of the contract is 22 years. According to the terms of the contract if the oil is discovered by the foreign company, its share of the total production will not exceed 20 per cent. The Company has agreed to sell its share to India at international price so long as India is importing oil. The Committee are also informed that another attempt to invite further foreign participation is under way. While the Committee appreciate the need and welcome the Government's attempts in this regard, they would suggest that there should be a diversified foreign collaboration in this area and the contract period should not be unduly long. In this context the Committee wish to draw attention the advancing technology in regard to maximising recovery of oil. It should be ensured that we catch up with this advancement so as to maximise the utilisation of our resources.

D. Production of Crude Oil and Natural Gas

Production of Crude Oil

1.53. The actual production of crude oil in the years 1980-81 and 1981-82 and the planned production of crude oil for the years 1982-83 to 1984-85 has been indicated as follows :—

	1980-81	1981-82	1982-83	1983-84	1984-85
	(Figures in million tonnes per annum)				
ONGC	9.21	13.18	17.91	22.37	24.92
OIL	1.25	3.00	3.00	2.8	2.6
TOTAL	10.46	16.18	20.91	25.17	27.52

1.54. During evidence the Committee pointed out to the representative of the Ministry that considering that the refining capacity would be 45.55 million tonnes per annum by the end of the 6th plan period (1984-85), the crude oil production plan fell far behind. The Committee asked the Petroleum Secretary whether there was any deliberate policy of conserving crude reserves and importing crude to meet part of requirement and, if so, what was the rationale of such a policy. He replied :—

“The first point I will submit is that the production in 1984-85 is substantially more than what is contemplated in the Plan itself. According to the plan for 1984-85, it is 21.6 million tonnes. We are certainly going to do much more. Last year a reassessment of the reserves and the potential was made and it has become possible for us to Produce more crude oil than what was targeted in the Sixth Plan document itself. To give the figures,

the Sixth Plan documents production of 21.6 million tonnes. We now find that it will be possible for us to produce substantially more and this figure mentioned here reflects that, we have also got an increase in the reserves and we keep on exploring in that area. We are finding further small reservoirs. Therefore, it has become possible to continue the rate of production of 3 million tonnes for a longer period.

This has arisen substantially because the further discovery is made and the further potential of the reservoir areas is substantially higher than what was estimated at the start of the plan. While redefining the capacity at the end of 1984-85 as 45.55 million tonnes, the actual throughput in that year will be less because some of this coming right at the end. The actual capacity that will be in operation will be 40.18 million tonnes.

So far as the other question is concerned, the actual policy which was laid down some years ago is that we should maximise our potential for production of crude oil. How much we should produce is a matter that will be decided each year taking any aspect in to account including balance of payments position, etc. If I may again say, the effort is to establish the maximum potential in the shortest possible but how much we produce each year is then a matter of Government decision which will take in to account a variety of strategic aspects, the balance of payments and other aspects.

First of all, as I submitted, in 1984-85 the actual crude oil throughput will be related to a capacity of 40.18 million tonnes which is in fact the operational capacity. We will be in a position to produce around 28 million tonnes. From our point of view we must ensure that the production of 28 million tonnes is there. That is our task. We will see to it that that is there. The question arises: should we in fact be utilising the full 28 million tonnes potential and importing the balance in the next year or should we produce only 20 million tonnes and import the rest? What I was submitting was that this is a matter which is decided each year. It goes right up to the Cabinet Committee on Political Affairs. It can have a strategic implication. It may also take in to account the balance of payments and various other strategic aspects.

With regard to the point of conservation, if I may just deal with this question, there are two parts of conservation. one is how much crude oil one should produce. Technically the quantity of crude oil you can produce is related to the potential of the reser-

voir and the characteristics of that reservoir. Again in technical terms because this will take into account aspects like geology, water cutting, etc. provided we put in the equipment which is what we are doing, our responsibility is ensure that we can produce 28 million tonnes of crude oil in 1984-85 which is related to the correct method of exploiting the reservoir.

If you mean by conserving that you do not produce that much oil but store it up and only utilize the imported oil, the crude oil is there. You can take it out tomorrow if all the equipment is available. Therefore, that is the reservoir as such and there is the storage as such. Conservation can bedlt with in two parts which is having got the potential to produe 28 million tonnes and all the facilities for it, should be we produce 28 million tonnes or should we produce 26 million tonnes? Now this, I say, is a strategic decision because it involves balance of payments, and other things and each year this matter is put to the cabinet."

1.55. Asked by the Committee about the present position, the petroleum Secretary stated that "We are at the moment exploiting the Potential to the potimum and no more."

Production of Natural Gas

1.56. It has been stated that a production target of 5736 million cubic metres per annum of natural gas has been fixed for the last year of the Sixth Plan (1984-85)

1.57. During evideme, the Committee asked the representatives of the Ministry if programmes and projects had been drawn up to fully utilise the natural gas as per its production schedule. The Committee further asked whether there would still be gas which would be allowed to falre off and if so, what would be its quantum and could it not be put to any use. The Petroleum Secretary replied :—

"Gas comes out in two forms. One is associated gas. That is the gas which has to be inevitably produced because it come together with crude oil. There is a second type of gas non-associated gas. Composition is virtually the same. It is called free gas which is non.assocated gas. It is just a gas reservoir so that you can produce gas as you want it. There are very detailed plans for the use of both associated gas and free gas.. ... On-shore Gujarat the actual production is close to 2 million cubic metres a day. This is fully exploited and fully utilised. We have a number of units in Gujarat They are actually using this gas, like the Gujarat State Fertilizer Corporation, the Indian Farmers Fertilizers Corporation, the Baroda

Municipality etc.....Sometimes a little gas is flared. Suddenly, the Gujarat State Electricity Corporation comes up with a technical problem. It resorts to shut down. If it is associated gas, that will still be produced. In Gujarat no real flaring of the gas has taken place. This is in respect of associated gas. No free gas is being produced. These things are being used regularly. We have got a Complete set of who are our customers. There are major units designed to use our gas. There are big gas turbines. We have got only two choices; either curtail crude oil production to the extent it will conserve Natural Gas or flare it or re-inject that gas presently so that once and for all, there is no flaring. It is possible to come up with such a scheme in Assam: there are geological structures where it is possible to reinject the gas by use of high pressure compressors. In this way gas is compressed and re-injected. We have come to Bombay High. The compressor capacity is little more than four million cubic feet; all that is brought to Uran (Gujarat) and now this is fully utilised. In Bombay High the associated gas there is double of what it was originally expected to be. That Vatsbet is behind schedule. It is expected to start in the course of the next few years. Tata 500 M. W. will be commissioned in a few months. The State Electricity's plant will be commissioned. There will be no problem of Gas of Bombay High. Our effort is in the direction of seeing that we should not be taken by surprise. Suppose we find another oil field, we should not be caught by surprise. Upto the year 2004, we have got a plan. Area by area this will be completed. We will see that there is no flaring for all time. There are a number of reserves which we could have utilized. We have prepared many detailed schemes in this regard."

1.58 The Committee note that the actual production of crude oil in the country during 1980-81 i. e., the first year of the Sixth Plan period, was 10.46 million tonnes. The 6th plan envisages a production of 21.6 million tonnes during the terminal year of the plan viz. 1984-85. However, on a review of the production possibility, the target of production of 27.52 million tonnes per annum has been fixed for 1984-85. The Committee are glad to learn that this higher target was as a result of further discovery made and increased potential of the reservoir areas than anticipated at the start of the plan. Against this target the capacity for refining of crude oil expected to be achieved in the terminal year of the 6th plan (1984-85) is 40.18 million tonnes (equivalent to a through put of 36.73 m. tons.). Thus, the country will have to continue to import crude oil for meeting a part of the requirement (nearly 9 million tonnes) of our refineries. While the Committee would urge that exploratory and deve-

lopmental activities should be stepped up to establish greater production possibility to match the refining capacity, they would advise that the extent of actual exploitation should be determined with a long term perspective though adjustments could be made in short term depending upon the balance of payment position and other relevant factors. An exercise in this regard may be made in association with Experts on petroleum economics.

1.59 The production target for the last year of the 6th Five Year Plan (1984-85) for natural gas has been fixed at 5736 million cubic metres per annum. The Committee are informed that a plan of utilisation of natural gas has been prepared. They would, therefore, like the Department of Petroleum to ensure the implementaion of the plan for utilisation of natural gas in coordination with the Ministries and State Governments concerned. The Committee would await the mechanism evolved for coordination in this respect.

Whereas it is possible to adjust production of non associated gas according to the demand, the Committee wish to stress the need to conserve the associanted gas also. In this connection they note the possibility of reinjecting the gas which could not be immediately utilised. The Committee desire that suitable schemes should be drawn up for this purpose early so that flaring of gas could be stopped.

CHAPTER II

REFINING AND DISTRIBUTION OF PETROLEUM PRODUCTS

A. Refining of Crude Oil

Production and Capacity Utilisation

2.1. It has been stated that in 1980-81 the installed refining capacity in respect of 11 refineries in the country was 31.80 million tonnes. With the commissioning of the Mathura Refinery in 1981-82 by March, 1982, this capacity has increased to 33.3 million tonnes as against the target of 37.8 million tonnes by 1981-82. This shortfall in capacity installation was due to slippages in the commissioning of the Mathura Refinery project. However, it is expected that during the year 1982-83, the installed capacity would be 37.8 million tonnes which is expected to go up to 40.18 million tonnes in the terminal year (1984-85) of the 6th Plan period when the expansion on projects of Madras Refinery and Visakha Refinery would be completed.

2.2. As regards capacity utilisation, it is indicated as 81.19% in 1980-81. The Ministry have stated that utilisation could have been much better but for the bottleneck in supply of crude to the refineries in the eastern region, as a sequel to the agitation in Assam. However, in 1981-82, the percentage of capacity utilisation is indicated as 90.51%.

2.3. During evidence, the Committee asked the representative of the Ministry to indicate the maximum capacity utilisation which could be attained. The Petroleum Secretary stated :—

“The actual capacity to be completed in the year 1984-85 is 44.55 million tonnes. Some of the increased capacity is coming at the end of the year. If you take the annual capacity in 1984-85 it is 40.18 million tonnes. The actual capacity operation expected is 91 per cent of the actual capacity available for the year. Therefore, the actual expected crude throughput is 36.73 million tonnes. The actual target in the plan is 35.34 million tonnes. Much depends on power supplies. It would range from 35.34 to 36.73 million tonnes. On the whole, we have done slightly better than the target”.

2.4. In regard to a query by the Committee as to why figures of three types had been given the Petroleum Secretary stated :—

“First of all, there is the 6th Plan document. The actual capacity to be completed by the end of 1984-85 is 45.55 million tonnes. The actual target of production of petroleum in the country is 36.34 million tonnes. The other figure is the actual capacity achieved at the end of the 6th plan, which will be 45.55 million. Some of the increased capacity is coming at the end of 1984-85. If you take the full year 1984-85, we expect that the achievable crude throughput capacity is 40.18 million. Normally we operate on the basis of 91 per cent of the actual capacity. that is what we aim to achieve. The actual crude throughput will be 36.73 million tonnes”.

2.5. Asked further whether this capacity could be augmented beyond 40.18 million tonnes if the technology was rationalise and made more sophisticated. The Petroleum Secretary replied :—

“In the expansion we are using more sophisticated technology like microprocessors and instrumentation. In fact, it is something very sensitive and we have to train a large number of people”.

2.6. When asked whether it was the maximum capacity, the Petroleum Secretary confirmed that, that was optimum capacity available.

New Refinery Projects

2.7. It has been stated that apart from the on-going schemes, the following proposals also are under consideration to be initiated during the Sixth Plan period :

- i) Two new grass root refineries with a total capacity of 12 million tonnes per annum near Karnal and Mangalore.
- ii) Expansion of Haldia Refinery by 3 million tonnes per annum.
- iii) Expansion of HPCL Bombay Refinery by 2 million tonnes per annum

2.8. During the evidence, the Committee inquired of the Petroleum Secretary about the latest position in regard to these proposals and by what time these were likely to be finalised. The Committee also inquired of the institutional arrangement to operate the Refineries near Karnal and Mangalore. The Petroleum Secretary replied :—

“So far as the first two grass root refineries of 6 million tonnes each in Kamal and Mangalore are concerned, we expect to have the feasibility report within the next six months, possibly by June. So far as the Haldia refinery is concerned, we have received the feasibility report. But, simultaneously, a few altern-

atives are being looked into to try to improve the economic viability. We expect the Haldia refinery expansion feasibility report to be completed in the next three months. The costs are going to be very high. So, we are looking at the alternatives. Which is the more optimum alternative will be decided in the next four weeks or 3 months. There are many alternatives for the product mix.

The third one has been approved in October last year. It is already in implementation. It is expected that this 2 million expansion will be reached by the middle of 1985.

Regarding the last part, it is under consideration. By the time the feasibility report is ready, it would be decided. The institutional arrangement will also be made simultaneously”.

2.9. Asked whether these projects would be completed by the end of 6th plan period, the Petroleum Secretary, stated that most of the expansion projects would be completed by the end of the 6th plan period but Karnal and Mangalore refineries will spill over to the 7th Plan period.

2.10. The Committee pointed out that if the Refineries were based near the centres of production, there would be less expenditure for bringing the raw material to the refineries. The Committee, therefore asked whether this aspect had been kept in view while selecting the sites for the new refineries projects. The Petroleum Secretary stated:

“The economics of where a refinery should be located has to take several things into account. Availability of crude is only one factor. The second factor is the market. *Prima facie* we might think that it should be near the crude oil location. But if you look at the total economics, you will find that if the market is far away, then the economics tilts in favour of the market-oriented location. This is called the investment planning exercise. This exercise was carried out and, based on that exercise, these locations were finally demonstrated as being the most economic for them.”

Adaptability of Refineries to various types of crude oils

2.11. A non-official organisation in a memorandum has represented to the Committee :—

“Refineries are built taking into account the type of crude it would process. Some modifications may be attempted in the area of “adaptability” of refineries to newer crudes like Bombay High or other new finds so that if any particular refinery is shut down for any reasons, other refineries can take on to process.

A point in fact is when the BPC Refinery was on strike, Bombay High Crude was difficult to process either at Cochin Refineries or Madras Refineries".

2.12. During evidence, the Committee asked the representatives of the Ministry for their views in the matter. The Petroleum Secretary stated :

"I think there is a misunderstanding. When the BPC Refinery was on strike, Bombay High crude was used in Cochin Refinery. In Madras Refinery there is a lubricating oil manufacturing plant and Bombay High crude, or for that matter any domestic crude oil is unsuitable for manufacture of lubricating oil."

2.13. The Committee asked the witness whether it would be assumed that all the refineries in the country would be able to refine indigenous crude oil irrespective of its source of production. The witness replied that it could be done upto a point. Wherever we happen to have a plant manufacturing lubricant oil (which is basically the Madras Refinery, HP Refinery, Bombay and Haldia Refineries) for that quantity of lubricant oil which these plants can manufacture we have to import crude oil.

2.14. The Committee note that the crude oil refining capacity in the country which was 31.80 million tonnes in 1980-81 is targetted to go up to 45.55 million tonnes in the terminal year of the 6th Plan viz. 1984-85 but as some capacity would come up at the end of that year, the over all refining capacity in that year is expected to be 40.18 million tonnes. The actual crude throughput would however be 36.73 million tonnes as against the plan target of 35.34 million tonnes. As the demand for the petroleum products in 1984-85 has been estimated to be 45.5 million tonnes, the actual refining capacity would fall short of the need substantially. The Committee are of the view that the import of petroleum products should be kept down to the minimum necessary to meet unforeseen contingencies and the country should be self-sufficient in refining, if not in crude production, soon. The Committee would like this end to be achieved at least during the 7th plan.

2.15. The Committee have been informed that for augmenting the actual refining capacity a large personnel have to be trained in the sophisticated technology. The Committee recommend that suitable training facilities should be augmented and adequate funds should be provided.

2.16. The Committee note that setting up of two new grass root refineries with a total capacity of 12 million tonnes per annum near Karnal and Mangalore is under consideration and that the projects are expected to be commissioned during 7th Plan. The Committee desire that there should be no delay in the project formulation and clearance in these cases. They suggest that the implementation and operation of each of the projects could be entrusted to a new public undertaking.

2.17. The Committee agree that the location of a refinery cannot be decided only by the nearness to the crude availability and that this factor has to be balanced with the market orientation. They accordingly recommend that there should be a fair dispersal of refineries in all the regions of the country and in deciding the location of new refineries this approach should be adopted.

B. Distribution of Petroleum Products

Distribution Plan

2.18. It has been stated that the distribution of petroleum products is on the basis of a monthly Supply and Distribution Plan for the following month drawn up by the Oil Coordination Committee after taking into consideration the availability and the requirements of different petroleum products for each Zone, each State and for the major consumers.

2.19. During evidence, the Committee asked the representatives of the Ministry, the base on which the monthly requirements were assessed and whether any nonofficial view-point was also ascertained at the time of drawing up the Supply and Distribution Plan. The Petroleum Secretary replied :—

“The annual demand estimates are made each year by the oil companies sitting together with the Oil Coordination Committee and these are also discussed in the Department of Petroleum and in the Department of Economic Affairs. This is an assessment of what is likely to be the demand for petroleum products in the next year...All the customers including the Ministry concerned are also summoned to estimate what is the likely demand for these petroleum products. Here I would like to submit that today there is no allocation system for any petroleum product except for kerosene. For diesel oil there used to be a quota, but there are no quotas now. It is meant to be a free supply now and anybody can buy whatever he likes and it is our duty to see that the quantities are available except in the case of kerosene where there is an allocation system. The monthly requirements are assessed taking into account the overall demand and we have also developed certain indices to indicate what are the likely variations in each month. It is not just overall annual demand. It might vary from month to month and season to season.”

2.20. Regarding ascertaining of non-official view point, the Petroleum Secretary stated :

“There is no non-official view point which is in fact taken into account except that this question of supply of Kerosene Oil is discussed with the State Governments.”

2.21. The Committee pointed out that when there was power shortage and too many power cuts throughout the country, the demand for diesel and kerosene must be going up very high. The Petroleum Secretary replied :—

“Yes, This is much more than what they wanted earlier...there are certain events which nobody can really predict in advance, but our own task is to see that the product is available and further supplies are being rushed in wherever they are required.”

2.22. The Committee pointed out to the witness that artificial shortages of diesel and kerosene could be manipulated by withholding supplies leading to black marketing. When asked how such a situation could be avoided, the witness replied :—

“...quite apart from the oil companies people, we are also in close touch with the Civil Supplies Department and the moment we come to know that there might be an unprecedented demand ahead, we immediately rush supplies in order to ensure that there are, in fact, no shortages. I am not saying, therefore, that in no case does any shortage ever occur, It might happen. Right now in west Bengal, as you know, we have two trade unions. There is a recognised trade union and there is a minority trade union. Violant scuffles started between these two, the result of which is that operations have been interrupted and...shortages have arisen. We are touch with the West Bengal Government and our Minister is in touch with the Chief Minister and the Governor there and I am also in touch with the officials there. We are really trying to avoid all the difficulties and trying to rush in time supplies even by trucks which is very expensive. We do endeavour to do our best by being in very close touch with the Civil Supplies Commissioners of the State Governments.”

2.23. In reply to a query from the Committee as to what steps had been taken to check malpractices like black marketing and adulteration indulged in by retailers, the witness replied :—

“Because of a variety of complaints that we had received we have issued a market discipline guidelines to all the Oil Companies which have to be followed scrupulously. It lays down what checks are required to be undertaken and what action has to be taken forth with.”

2.24. The Committee drew the attention of the witness to the inadequacy of the retail outlets in certain areas and asked as to what criteria were adopted to sanction new outlets. The witness replied :

“...Coming to the question of policy, there is a very detailed scrutiny done as to where the retail outlets and gas agencies should be established. A roster is formed. In addition, if one finds that there is a particular market which is large and which has been overlooked, we have ways by which the roster can be altered, wherever there is a justification for altering it.”

The witness further elucidated :—

“So far as the rosters are concerned, these rosters have nothing to do with the dealer...These rosters are prepared on the basis of market surveys as to how many retail outlets there are and how many more are justified.”

Allocation of Kerosene

2.25 The Department of Petroleum have stated that for purposes of allocation of Kerosene, the year is divided into 3 blocks viz., Summer (March-June), Monsoon (July-October), and Winter (November to February). Uniform monthly allocations are made for each of the blocks based on seasonality of demand and other factors.

2.26 In addition to the regular allocations, *ad hoc* allocations are also made to meet various contingencies like natural calamities, festivals, shortages of LPG etc.

2.27 During the evidence, the Committee asked the representatives of the Ministry how the allocations to States/Union Territories were determined. The petroleum Secretary stated :—

“...The policy that has been followed is that during summer and monsoon, there is 5% growth over the allocation in the corresponding year. During the winter; there is a similar 5% growth of sales or allocation, whichever is high. In addition to these allocations, *ad hoc* allocations are made whenever there are abnormal features like floods or drought and festivals, etc.”

2.28 Asked to explain the role or responsibility of the Department of Petroleum in regard to the distribution of Kerosene within the State/Union Territories, the Petroleum Secretary stated :—

“This is basically the responsibility of the States and of the Union Territories to whom allocations are made. They allocate this for particular districts, etc.

So far as we are concerned in consultation with the State Governments, we see that there are timely supplies. We do whatever we can through wholesalers and retailers, etc. the wholesalers are selected by Oil Companies. Retailers are appointed by the state Governments.”

2.29. In a subsequent note, the Ministry clarified the position further as follows :—

“The Ministry makes the overall allocation of kerosene to the States/Union Territories. The detailed distribution to each revenue district is made by the State Govt./Union Territories concerned based on their own respective assessments, and the distribution plan is drawn up by the State Govt./Union Territories in consultation with the Oil Industry Members. Great emphasis had been laid in meeting the demand of kerosene in the rural and remote areas of the country. Some of the specific actions in this regard are as follows :—

- (i) The net-work of kerosene wholesalers is being increased in the country. For the years 1982-83, 270 wholesale dealerships have been planned. Besides, retail points are also being strengthened by the State Civil Supplies Departments under the point 17 of the New 20-Point Programme.
- (ii) Special emphasis is being laid on the supply of Kerosene to the hilly and inaccessible areas. The matter has already been discussed with the representatives of the States of Jammu & Kashmir, Himachal Pradesh and U.P. and oil industry and measures identified for implementation include :
 - (a) Conducting detailed survey for assessment of kerosene requirement down to the village level.
 - (b) Opening of more wholesalers and retail points, if necessary.
 - (c) Establishing proper linkage of various areas with wholesale retail points ;
 - (d) Opening of more company operated depots;
 - (e) Increasing storage capacity with wholesalers and retailers, particularly those not located on roadside and those in the interior and supplying kerosene in tanks/drums.
 - (f) Rationalisation of allocation to various districts, block-wise as done by the Centre and fixing a minimum level for each district and giving *ad hoc* allocations, on special requests to meet specific contingencies.
- (iii) In other locations also efforts, are being made to improve the supply of kerosene by augmenting the storage for kerosene with the wholesale dealers.
- (iv) On account of hilly terrain and long distances involved in Hilly States, the transport cost is very heavy. The concerned

State Govts. have been advised to consider subsidising the transport cost of kerosene in these areas. In the North-Eastern region subsidy in the transportation cost of kerosene to the extent of 5 paise per litre is already being given."

Transportation of Oil.

2.30. It has been stated that "to overcome transportation and distribution bottlenecks, several schemes are in hand which will considerably improve the operational capacity."

2.31. During evidence, the Committee inquired of the Petroleum Secretary about the salient features of schemes to overcome transportation and distribution bottlenecks. He replied :

"The main measure that we are attempting to implement is increasing the storage capacity in depots, installations, etc. at various places, specially in areas where there are problems of transport. I might add that, a few months ago, another Rs. 60 crores of investment has been approved for the erection of additional storage capacity in depots. We are working out further schemes for the future.

The second aspect is that. The latest product pipeline which will go from Malliarh all the way to Jullundur has been commissioned. This eases the transport problem. The expansion of the pipeline capacity from Gauhati to Siliguri has also been completed.

The third aspect which we are looking into is the possibility of also pumping LPG through product pipeline. We are looking into the technical part of it. This can alleviate the problem of transporting LPG. I cannot say whether technically we will find it feasible. If it is found feasible, then it will be exceedingly useful.

The fourth is, we are already working with the Central Inland Water Transport Corporation to try and see how we can maximise the use of barges and waterways wherever these are available. We have already started moving a considerable amount from Haldia to Budge Budge by barges because this has proved to be an other way of augmenting the total transportation."

2.32. The Committee asked the Petroleum Secretary what remedial measures were taken by the Ministry when delay occurred in the transportation of kerosene through Railways because of accidents. The witness replied that "if there is any difficulty in the transportation of kerosene by railways due to railway accident, immediately we move by road without

charging any extra price. In further, particularly in areas where there are problems of railway transportation...additional depots/storage capacity is being erected."

Pilferages and Short Supplies

2.33. The Committee referred to the large scale pilferages worth crores of Rupees from the pipelines in Madras and Baroda and wanted to know the steps taken to arrest these pilferages or thefts, and the action taken against the authorised dealers to whom stolen goods were sold. The Petroleum Secretary replied that one case came to the knowledge of the Ministry and immediately supplies to the dealers had been suspended.

2.34. The Committee asked the representatives of the Ministry that fuel, diesel or petrol was supplied through tankers in some of the areas particularly kutch and supply had been found to be less than that loaded at the place of departure. The Petroleum Secretary replied :

"There have been CBI raids. They have been stopping on the way and oil was being skimmed up. On CBI raids they had been arrested. We have set up vigilance organisation to find out whether there have been such happenings."

2.35. When asked whether there was any arrangement for measurement of stock in the Depots, the Petroleum Secretary replied that "there is a double check."

He further explained :

"In order to ensure right product and right quantity in the tank, it is measured. The retail owner is expected to have it tested through a dip check.

Whenever there is any complaint, there are raids. For the last few months we had raids, on many outlets. There is a complaint register. Complaint can be written there. If there is any complaint from any consumer he can ring sales representative or depot manager and his telephone number has been given. It has been propagated in the newspaper, TV, etc. Special groups have been formed to do the very best and to investigate any complaint and take action."

2.36. Asked whether there had been complaints from the dealers, the Petroleum Secretary replied in the negative.

2.37. The Committee then asked that when the retail consumers received the commodity such as kerosene oil, some of the dealers put the oil with such a great pressure that there was a lot of foam with the result less quantity was supplied to the consumers. The petroleum Secretary stated :

“This is what we have advertised that if any consumer has any complaint he will not merely write it in the register but mention the name of the oil company to the officer to whom he should immediately make a complaint. Every complaint will be investigated properly.”

2.38 In regard to short supply of LPG in the cylinder the Petroleum Secretary submitted that “if there is any complaint that the gas in the cylinder is less, the whole cylinder will be replaced at no cost.” He further informed the Committee that for checking weight of the gas in cylinders digital electronic devices were being tested.”

Market Survey for setting up Retail outlets

2.39 It has been stated that a Market Survey was conducted in 1980 “to assess the potential of putting up Retail Outlets (both Regular and Low Cost) for the next 5 years.” The survey covered “to the extent possible all the unrepresented Taluka/Tehsil Headquarters, Block Headquarters, NCAER identified viable clusters, interior markets and also Krishi Mandi Headquarters.” The industry, it has been stated, is now planning to put up retail outlets in such identified locations during 1982-83 and onwards.

2.40 During evidence, the Committee asked the representatives of the Ministry as to who organised the survey and as a result of the survey how many new Retail outlets, Regular and low cost, had been identified. The Committee further asked whether there was any rigid earmarking of areas of operation by each nationalised oil industry. The Committee also desired to know how it was ensured that the cost of distribution was kept down to the minimum and whether any study had been undertaken in this regard. The Petroleum Secretary replied :

“The survey was organised by the Oil companies in consultation with the State Governments and the Union territories. Further more, the National Council for Applied Economic Research did a broad study of clusters of diesel consumption so that this matter was also taken into account.

Another 1618 retail outlets will be given in the next year. A very high proportion almost 40% of this will be low cost outlets. There is no rigid earmarking of areas of operation. But so far as retail outlets are concerned, volume and distance norms have already been circulated. Efforts are made that cost of distribution is brought to the lowest and distribution is from the nearest depot. Nearest depot supplies retail outlets irrespective of the Company.”

2.41. Asked how long would it take to open outlets in Tehsil and block Headquarters, the Petroleum Secretary replied:—

“I may mention that during the last 18 months, 726 retail outlets have already been selected. Letters of intent have been issued. During the next two or three years, there will be 959 outlets..... I would say that apart from this programme, we have added as many as 83 outlets on receipt of particular recommendations from the MPs and MLAs which have been studied.”

Low cost/utility Retail Outlets

2.42. Department of Petroleum have stated that to meet the requirement of agriculturists in remote areas (*i.e.* pocket of consumption having no retail outlets within a radius of 10 Kms) the need for putting up “low cost outlets/utility outlets” was felt and accordingly the minimum volume of business for opening such outlet has been fixed at 25 Kl. per month (instead of 80 Kl. per month in other cases).

2.43. During evidence, the Committee asked the representative of the department that out of 12215 Retail Outlets in operation as on 1.4.1982, how many were in the category of “low cost/utility outlets”. The Petroleum Secretary stated:—

“The actual number of low cost outlets, as on 1.2.82, was very small, only 75. There is a very big push. We had a meeting early last year. There were many problems which were resolved. From now on almost 40 per cent of the outlets will be low cost outlets. In the next two years, out of a total of a little over 900 outlets, as many as 430 will be low cost outlets. So, there is a very big push on the low cost outlets.”

The Petroleum Secretary further stated: —

“These are generally for high speed diesel oil in the rural areas where the total sale would be of the order of 25 Kl. per month. There is low cost because the facilities there are limited. Basically, it meets the HSD requirements of the local areas.”

2.44. when asked as to what the difference was between the low cost outlets and other outlets, the Petroleum Secretary explained: —

“Basically these low cost outlets comprise of very simple facilities; probably only one tank, quite often a hand operated pump, because electricity is not generally available in the rural areas. There may be a very small office, a very small bunk. The total cost is as little as it can be. Basically, it is to meet the diesel requirements of the agriculturists around that area at the lowest cost.”

2.45. Explaining the difference in investment on the regular and low cost outlets, the Petroleum Secretary stated that “the general estimate is that

for a low cost outlet the total investment is about 1/3 of what it would be for a regular outlet.”

New LPG Connections

2.46. The Department of Petroleum have stated that “enrolment of additional customers was started in February, 1981 and during the period February, 1981 to March 1982 about 11.5 lakh new domestic LPG customers have been enrolled.....For 1982-83, it is planned to enrol 14 lakh new LPG domestic customers.”

2.47. During evidence, the Committee asked the representatives of the Ministry whether the enrolment of customers was free from limitations as to their number, area of outlet-wise. The Committee also asked whether the enrolment of customers was subject to both availability of equipment, commissioning of distributors and other restraints. The Committee also wanted to know the difficulties being experienced in this regard and the ways being devised to overcome them. The Petroleum Secretary stated:—

“The main difficulty has been the availability of cylinders, to an extent pressure regulators and valves. But basically it is the availability of cylinders. When we had the programme, we had simultaneous discussions with the DGTD about the total number of cylinders actually likely to be available in 1982-83. We have problems in the procurement of cylinders. The actual availability of cylinders has turned out to be slightly lower than what has been anticipated by the administrative Ministry looking after this industry. One of the major problems has been power cuts on the manufacture of LPG cylinders. We have been in touch with State Governments and we have been trying to have these people exempted from power cuts. However, there may be a slight shortfall and we are also trying to encourage further production of gas cylinders and the oil industry has placed 3 years orders on the cylinder manufacturers including potential cylinder manufacturers so that further capacity may come up.”

2.48. When asked as to why should not the Department of petroleum have its own factory to manufacture cylinders, the Petroleum Secretary replied that “we have got one factory coming up in Gujarat which ought to be ready in April-May.”

2.49. The Committee asked that some of the areas did not have gas agencies. The Petroleum Secretary stated :—

“We are appointing new distributors.”

2.50. It was pointed out to the witness that there were complaints that

those who wanted to have gas connections did not get the same. The Petroleum Secretary stated :—

“This is of course true. The demand is going to exceed what is available there.

Here we have a limitation. There is a total availability in the country and it of course requires a very large investment. There is a lot of further production coming along. There is going to be an increase of 25 to 30 per cent each year. With this, I hope the position will be better but I will not be able to say that everybody will be able to get all the LPG he requires.”

2.51. The Committee asked that while in big cities people had been given two cylinders, this facility had not been extended to other cities, the Petroleum Secretary replied:

“This question of giving two cylinders was accepted only a few months ago. We are getting more cylinders. Our idea is that people who want two cylinders should be able to get them. You will have to bear with a little because we need a lot more cylinders.”

2.52. The Committee pointed out that gas agencies were being allotted on the basis of 1000 connections for a population of 1 lakh and this number was hardly sufficient to meet the demand. The Petroleum Secretary stated:

“First of all because of problems of this nature we have asked all the oil companies to combine their registrations and allotments are done in the presence of the State Government representatives themselves and the State Government officials in fact sits there and does the allocation. This is just the start. The gas distributors in cities of let us say of a population of a lakh and a half, will have connections of 2500 consumers. And more than one distributor is being put up wherever there happens to be potential also.”

2.53. When asked by the Committee what steps were envisaged to make gas available to rural people, the Petroleum Secretary replied that “transportation alone is going to involve fantastic cost.” He further explained:

“The experiment with 5 Kg. gas cylinder has already started. Then there is the problem of safety..... first we testing 5 Kg cylinder which is light enough to be taken on the back of a cycle. We are doing a thorough study of all the safety devices, particularly the pressure regulator.”

2.54. At present the Public Undertakings engaged in refining the crude are

also marketing petroleum products not only produced by them but also purchased from each other or imported. Here again there is no earmarking of areas of operation in regard to marketing. The Committee are not satisfied with the existing distribution arrangements. The Committee attach great importance to timely and equitable supply of petroleum products throughout the country. There are transport bottlenecks which call for greater storage capacity in various places, laying of pipelines not only for petroleum products but also for LPG, establishing adequate capacity for the manufacture of cylinders etc. The Committee, therefore, feel that marketing should be entrusted to separate public undertakings each for one zone of the country. This would make for more efficient marketing and creation of infrastructure therefor. The Committee would, therefore, like this question to be seriously considered.

2.55. The Committee have been informed that the monthly supply and distribution plan is drawn up by the Oil Coordination Committee. There is no allocation system for any product except for Kerosene in which case State Governments only are consulted. The Committee have stressed earlier the need for an effective demand management. They would suggest that the Ministry should devise a procedure of associating, in some manner, the representatives of non-official users of petroleum product in the supply and distribution plan.

2.56. The Committee have been informed by the Ministry of Petroleum that while the overall allocation of Kerosene oil to the States/Union Territories is made by the Ministry, the detailed distribution to each Revenue District is the responsibility of the State Government/Union Territory concerned. The District-wise distribution is based on the State Government's own assessment of the demand. Kerosene is one of the basic requirements of the common man. The Committee feel that the Central Government cannot absolve themselves of their overall responsibility in meeting the demand for kerosene in every nook and corner of the country. Since a shortage of kerosene in any part of country could be easily ascribed to failure on the part of the Central Government it is imperative that the Ministry of Petroleum should actively associate themselves with the formulation of distribution plan for each district and play a positive role in this regard. In order to make their role meaningful, they should have adequate data collected through independent demand surveys. The Ministry should also devise procedure for ensuring that the kerosene actually reaches the section of population for which it has been allocated and if any malpractices are noticed, these should be promptly brought to the notice of the State Government/Union Territory concerned for corrective action. In this context the Committee note the assurance given to them by the Ministry that great emphasis has been laid in meeting the demand of kerosene in rural, remote, hilly and inaccessible areas of the country.

2.57. The Committee take a serious view of the complaints that have come

to their notice regarding adulteration of petrol by cheaper material and use of short measures for delivery. The Committee would like the Ministry to see that effective ways and means to prevent them are devised such as introducing regular system of surprise visits to retail outlets, taking of samples of products being sold for analysis, checking of measuring equipments and taking prompt action to punish those found guilty of these malpractices.

2.58. Complaints registers and boxes and other devices available at present do not seem to adequately safeguard the consumer interest. The Committee feel that there should be some institutionalised arrangement for interaction of the oil industry with the consumer to safeguard the latter's interests fully. This could take the form of regional consultative councils or advisory bodies, the setting up of which should be considered earnestly.

2.59. The Committee have been informed that a market survey was conducted in 1980 to assess the potential of putting up retail outlets during the next 5 years and that the new retail outlets are being set up in locations identified by the survey from 1982-83 onwards. They also learn that 40 per cent of the new retail outlets would be "low cost/utility" retail outlets which are designed to cater to the requirements of diesel oil in the rural areas. In view of the fact that agricultural operations are gradually being mechanised thereby increasing the demand for diesel oil in the rural areas, the Committee desire the Ministry to see to it that concerted effort is made to satisfy the rural demand by setting up the proposed "low cost/utility" retail outlets in those areas. To begin with, retail outlets should be provided in all the Taluka/Tehsil headquarters, block headquarters and Krishi Mandies.

2.60. The Committee stress the need for extending the supply of LPG to rural areas which have been neglected so long. In this connection they would watch with interest the efforts being made to develop a 5 Kg. gas cylinder which will be more handy and easily transportable. Incidentally the Committee suggest that the facilities for the manufacture of cylinders of standard size as well as the smaller ones proposed now, should be established in the public Sector so as to overcome shortages and ensure quality.

CHAPTER III

ORGANISATION AND RESEARCH AND DEVELOPMENT

A. Organisational Matters

Functions of Department of Petroleum

3.1. The Department of Petroleum has, besides its normal functions as a Department of Central Government, the responsibility to oversee the functioning of as many as 15 Public Sector Undertakings, 3 subsidiary undertakings and 4 other organisations.

3.2. Asked whether the Department of Petroleum deserved to be upgraded as a separate Ministry with the existing Divisions being grouped into one or more separate Departments within that Ministry, the Petroleum Secretary stated during evidence as follows :—

“Within the Department, although it may appear that we have a large number of public undertakings and other organisations, we have set up certain institutional systems that enable us to discharge our responsibilities effectively without too much of an overload. We have a very important inter-industry committee called the Oil Coordination Committee. This meets every week..... .. This Committee is able to do a great deal of co-ordination between the different activities of the Petroleum enterprises.

Secondly, all our major undertakings have set up very effective management information systems which reduce the correspondence because we get very good data which prove exceedingly effective in monitoring. There are, of course a very large number of projects. But we have innovated and come up with a particular type of monitoring system which is very effective and very rapid and the purpose of that system unlike the other management information systems is to give advance warning as to what may go wrong so that each one of these things is identified very particularly so that the action we need to take becomes very clear. This way we have been able to attempt to discharge our responsibilities very effectively. Here also I would submit that very recently—about 4 months back—there has been a creation of a new Ministry - the Ministry of Energy which has now the Department of Power, the Department of Coal, the Department of non-conventional energy resources and also the Department

of Petroleum, it has helped in the formulation of a coherent energy policy.”

3.3. The Committee asked whether there should not be a separate Ministry of Petroleum and another Ministry for the three conventional resources considering that petroleum was becoming more and more important, especially the exploratory part of it. The Petroleum Secretary replied :—

“There are merits and demerits, both. In oil one of the most important things is not merely to produce more but also to greatly increase the efficiency in use and this is where the total concept of energy policy comes in.”

Decentralisation of Powers

3.4. It has been suggested in a memorandum to the Committee that the Department of Petroleum should restrict its function to laying down broad policies, leaving the operations to field organisations.

3.5. During evidence, the Committee asked the representative of the Department whether there was any scope for decentralisation of powers to the field organisations so that the energy of the Department was not frittered away on matters of minor details losing sight of important policy matters. The Petroleum Secretary stated :—

“A basic approach is needed to lay down broad policies and to ensure that these policies are carried out without entering into minor details. Similar action in this matter has been taken. The most important thing is the delegation of power to the public sector undertakings and also further delegation of power from the Chief executives of the public undertakings to lower down. As a result of this review, the financial authority to the public sector undertakings was raised from Rs. 5 crores to Rs. 10 crores. There has been an increase in the power to sanction expenditure. Government appointed a group to go into what further changes ought to be made to make public sectors much more effective. The recommendations of that group are before Government. I believe a decision on this is likely to be announced shortly.”

3.6. Asked whether increasing the financial power of public sector undertakings from Rs. 5 crores to Rs. 10 crores would lead to improvement in functioning, the representative of the Department stated as follows :—

“We are participating in the Board's meetings. Two representatives from the Ministry are represented in all the major oil companies. All feasibility reports involving investment decisions are discussed by the Committee of Board of Directors in which

we are present. All proposals for investment upto Rs. 10 crores in the major companies are scrutinised by the sub-committee of the Board of Directors in which Government Directors are represented. All the aspects are discussed threadbare before an investment decision is taken by the Board of Directors of the company."

Oil Coordination Committee

3.7. It has been stated that the Oil Coordination Committee was set up in July, 1975. It is composed of Secretary Petroleum (as Chairman) and the Chief Executives of Public Undertakings as Members. The functions of the OCC are supply planning, optimisation of industry operations, management of pool funds and undertaking of specific studies to improve operations and for future planning.

3.8. When asked about the reasons for constituting the OCC and whether it has been found useful, the Petroleum Secretary submitted in evidence :—

"This really came up as a result of the report produced by the Oil Prices Committee in 1975-76 and it was specifically their recommendation that there ought to be inter-industry committee of this nature which can basically look at crude oil production and imports, arrangements for the refining and there ought to be some norms for the refining then the question of marketing margins and pool accounts, etc. It really came as a result of that. They recommended that this type of group should be formed and their recommendation was accepted by the Government. We have certainly found it immensely useful and I think it has become a crucial body for coordinating the activities of this nature like allocation of crude oil, its transportation, refinery throughputs, planning shut-downs, distribution and marketing etc."

3.9. The Committee asked whether they had ever considered in the past the question of changing the composition of the body to include the user interests also. The Petroleum Secretary replied as follows :—

"In actual role of OCC, in what it actually does I would venture to suggest the consumer would not really have a role to play. There are certain other associations and organisations with which the OCC has a lot to do for instance, ports and harbours because the oil refineries have to receive crude oil through the ports. Therefore, there is a very close liaison between the OCC and ports and in fact ports Oil Advisory Committee has been set up in each port. There is very close coordination with the railways because proper distribution, marketing and refining

requires very close coordination with the railways. There are a number of other institutions and organisations of this nature and there has been very close coordination between the OCC and these organisations. I may just mention that we are considering a way in which in major markets there may be a much greater liaison with the users and we are actually considering a scheme of this nature and I hope we can take a decision on that soon because that is where the users or the consumers would have a very important part to play."

3.10. Pressed further to indicate the manner in which the users were associated in the distribution system, he stated :—

"As far as I understand, they are much more in the distribution and retailing of Petroleum products, LPG, etc. There are other things which we are contemplating right now. For instance, we have a complaints register now in every retail outlet so that if any consumer feels that he has not been dealt with properly or he has a suggestion to make or how to improve it, there is a register where he can record it. There is also a complaints Box everywhere. There are regular advertisements in the newspapers that if you have any difficulty, ring up this and this number. I do expect that there is room here to improve the cooperation between the consumers and the oil companies involved in marketing. Therefore we have got scheme which we are working out right now. We may have a very close cooperation in matters that affect consumer interests in all major markets in this country."

3.11. When asked if the views of local representatives of consumers were considered while awarding the agencies for Petroleum products so that the consumers had a better service, the Petroleum Secretary stated that "the scheme is precisely designed for that. Matters of this kind could be taken care of. Problems relating to location of gas agency and things like that could be resolved."

3.12. The Department of Petroleum has, besides other functions, the responsibility to direct and control as many as 15 public sector undertakings, 3 subsidiary undertakings and 4 other organisations. Although the Petroleum Secretary said during evidence that institutional and monitoring systems have been set up which enable the Department to discharge its responsibility effectively without too much of overload, the Committee feel that, in view of the importance of petroleum to the economy of the country, large financial commitments in the industry which is almost entirely in the public sector and the heavy workload involved in closely monitoring, appraising and guiding the activities of a large number of public undertakings under the Department,

there is need for rationalisation of the existing structure of the organisation. As a step towards rationalising the system the Committee would commend the idea of setting up holding companies with greater delegation of powers one each for (1) Exploration and Production of Crude (2) Refining and (3) Marketing of Petroleum Products, with a number of operating concerns under it. The Board of the holding companies could inter alia consist of experts in the relevant field so as to competently guide the operating concerns, whose accountability could be ensured by Government and Parliament through the holding companies. This would make for better coordination of the entire industry in the context of its rapid development.

Variations in the Budgeted and Actual Expenditure

3.13. A perusal of the figures of Budgeted and actual expenditure during the last 5 years furnished to the Committee by the Department of Petroleum indicates that there has been a large scale variation in the Budget estimates, the revised estimates and the actual expenditure. Some examples of variations are as under :—

Grant No.	Major Head	Year	Budget estimates	Revised estimates	Actual Expenditure
70	523	1977-78	25792.45	11826.40	9476.52
70	523	1978-79	9157.84	3373.19	2457.33
70	523	1979-80	7347.62	7482.74	1106.44
69	523	1980-81	1000.75	1844.49	980.01

3.14. During evidence, the Committee asked the representatives of the Department that although the variations had been explained whether it was not possible to project the budget/revised estimates in a more realistic manner to avoid major variations. Secretary Petroleum replied :—

“At the outset I will admit there is scope for improvement in some of the years at least. But there have been certain reasons which could not be anticipated and which have led to the large scale variations in many of these cases..... There have been small variations on account of progress in expenditure of the company concerned with the setting up of new refinery projects. There have been slippages and delays due to failure of suppliers.”

3.15. The Committee have observed from the statement of budgeted and actual expenditure during the last five years furnished by the Department of Petroleum that there have been large shortfalls in actual expenditure against the provisions made in the budget estimates running into, at least in one case more than Rs. 163 crores. Although various reasons have been adduced for

the shortfalls in expenditure, Secretary Petroleum admitted during evidence that "there is scope for improvement in some of the years at least." The Committee would like the Department to carefully scrutinise the proposals for expenditure for inclusion in the budget estimates and resist attempts at over-budgeting. There should be a continuous monitoring of the cash flow and bottlenecks observed should be attended to promptly. At least at the time of preparation of revised estimates, realistic figures should be arrived at included in the revised estimates.

B. Research and Development

3.16. The Department of Petroleum have described the R & D activities in the field of petroleum as follows :—

Institutions engaged in R & D in Petroleum

3.17. The organisations that are engaged in the research & development activities in the field of petroleum refining and related matters in the country at present are the Indian Institute of Petroleum (IIP) Dehra Dun; the Indian Oil Corporation R&D Centre, Faridabad; some of the regional research laboratories, Engineers India Limited, New Delhi, various IITs and a few university centres. Engineer India Limited which is the Government owned consulting engineering company does not have their own laboratory facilities and is mostly engaged in the conceptual design and engineering aspects; its experimental research work carried out in the IIP and the laboratories of IITs, Universities, etc.

Regional Research Laboratories

3.18. The regional research laboratories, particularly at Jorhat and Hyderabad, conduct R&D work in developing processes for utilising elected refinery products and develop chemicals for use in crude oil production, transportation and refining. The IITs and University centres, conduct some R&D work in this field, on specific projects, basic and fundamental in nature, sponsored by oil industry.

Indian Institute of Petroleum, Dehra Dun

3.19. The Indian Institute of Petroleum at Dehra Dun was established in 1960 to provide technical backing and R&D base to the growing petroleum industry in the country. Except for a brief spell of two years from April, 1978 to January 1981, the Institute has been under the Council of Scientific and Industrial Research (CSIR). The main objectives laid down are :—

to undertake research and development work on processing and utilisation of crude petroleum and its products and natural gas and in the field of petrochemicals;

- to compile information on the production and utilisation of petroleum, natural gas and their products and petrochemicals;
- to conduct market surveys and techno-economic studies;
- to train personnel for the oil and for petrochemicals industries and for IIP; and
- to assist the Indian Standards Institution in formulating standards for petroleum products and petrochemicals.

3.20. The Institute started functioning in September, 1960 as a wing of the Central Road Research Institute, New Delhi and shifted in stages to its own premises in Dehra Dun during 1963-1965. The project Division of the Institute is located at Delhi.

Some of the main R&D work carried out by the Institute at present relate to technical and demand studies, resources valorisation and development, development of certain refining processes, study of performance and end utilisation aspects of fuels and lubricants, development of petroleum based chemicals, polymers, and proteins.

IOC's R&D Centre at Faridabad

3.21 The IOC's R&D centre at Faridabad was approved by the Government in September, 1971 and work started at the site in the middle of 1973. The centre was set up with the primary objective of developing know-how for the manufacture, blending formulation and marketing of lubricants, greases and speciality products.

3.22. The R & D Centre supplies formulation know-how for all the products blended and manufactured at the IOC's three blending plants at Bombay, Calcutta and Madras. It is responsible for the quality of lubricants and assists the marketing organisation in solving the problems in the use of these by customers. All the raw materials required for the manufacture of various lubricants are characterised by the R&D Centre and purchase specifications issued to IOBL/Marketing Division.

3.23. The Department has further stated that in order to hasten the process of acquiring experience in research methodology and techniques in the development of various lubricants, a Technical Assistance and Collaboration Agreement was signed with M/s Castrol. UK in February, 1976. This agreement was terminated by M/s Castrol with effect from 19-2-79 after three years of operation. During this period, IOC acquired considerable technical knowledge and confidence in developing various lubricants from their components.

3.24. The R&D Centre also works for and on behalf of Petroleum Conservation Research Association (PCRA) as well as in support of IOC's

own Marketing Activities, on projects which lead to optimum use of petroleum products or conservation thereof. Further it collaborates with national laboratories like IIP, CRRI, CFRI, in respect of certain projects like Oil from coal, de-oiling of slack wax, refineries process developments study of different grades of bitumen for different climatic zones in India.

3.25. Additives form an important ingredient in the formulation of lubricants. Lubrizol India Limited, a collaboration unit between Lubrizol Corporation of USA and Government of India started manufacturing these additives in 1969. Under the Technology Transfer Agreement signed in 1979 Lubrizol Corporation agreed to assist LIL in the transfer of know-how for development and evaluation of these additives. A research Laboratory started functioning and is now being expanded to include engine testing facilities to enable LIL to absorb the technology in a short period.

R&D Activity of ONGC

3.26. According to a note from the Department, the ONGC has been carrying out research and development work mainly through its three research Institutes viz. Keshav Dev Malaviya Institute of Petroleum Exploration, Dehra Dun; and Institute of Reservoir Studies, Ahmedabad. There is a constant and consistent interaction between the operational projects and the Institutes at all levels from the planning stage to the accomplishment of the projects for improving the efficiency, economy and productivity in the ONGC.

R&D by OIL

3.27. The Department have stated that Oil India Limited continuously carries out research and development in various fields connected with its activities such as studies of Low Solids, Mud, Modified Lignite as Drilling Mud Additive, High Density Oil Base Mud, Paraffin Inhibitor, Flow Improver for pipeline Transportation of Waxy Crude. Crude Oil Enrichment, etc. with the object of improving the efficiency, economy and productivity of their operations.

Oil Industry Development Board

3.28. The Oil Industry Development Board (OIDB) was set up on 13th January, 1975, under Section 3 of the Oil Industry (Development) Act, 1974. The functions of the Board involve rendering of financial and other assistance for the promotion of all such measures as are in its opinion, conducive to the development of Oil Industry in all its facets. Funds required for the above purpose, after due appropriation by Parliament, are received from the Central Government out of the proceeds of cess, levied under Section 15 of the Act on indigenous crude oil after deducting from it the expenses of its collection and are credited to the Oil Industry Development Fund created for this purpose under section 18 of the Act.

3.29. During evidence the Committee asked the representative of the Department the basis on which the institutions and projects were selected for financial assistance by the OI DB. The Petroleum Secretary stated as follows :—

“Investment proposals, of course, are formulated by each enterprise. They are examined by the Board of Directors of the Public Enterprises. Then it is seen whether they are within the purview of the Board itself or not. If it is higher, then it goes to the Expenditure Finance Committee which Committee is chaired by the Finance Secretary. That is with a ceiling of Rs. 10 crores and above Rs. 10 crores, there is the Public Investment Board. There after, there is the Cabinet Committee on Economic Affairs... Once these investment proposals have been approved, the Planning Commission, the Department of Petroleum and the Ministry of Finance sit down to see where the resources will come from. It is here that the OI DB comes into picture because there is a cess fund available. As a part of the Annual Plan exercise and also the revision exercise taken during the year, a decision is taken as to which schemes should be put up to the Board for funding by the Board.”

3.30. Explaining further the powers of the OI DB, the Petroleum Secretary stated “it has full powers to the extent there is money. It has full powers from the point of view of giving loans or grants. But these schemes have to be approved in the first instance in the usual way. It is much more a funding mechanism in order to see that right things happen and promotion takes place.”

3.31. Asked whether the Board had any system of inspection and periodical evaluation of the project assisted by it to ensure that the money made available by it was being properly and fruitfully, utilised, the Petroleum Secretary stated :—

“.....We do definitely have a system of inspection. For instance, 49 grants were given for research in the area of oil exploration and these are being evaluated by the Joint Adviser (Energy) in the Planning Commission..... a group is already evaluating the functioning of the Petroleum Conservation Research Association. Generally speaking, we choose people from outside the Department to conduct this type of study. The actual review is conducted by the OI DB to see how effectively has the work been done, whether it has met the objectives for which the grants were given and what changes ought to be made for the future ”

3.32. Asked whether the inspection and periodical evaluation of the projects was being done by the Board or by the Department of Petroleum, the Petroleum Secretary stated :—

“It is put to the Board because it is the Board’s grant, not the Department of Petroleum’s grant. The Board is a separate institution although it is serviced by the Secretariat in the Department of Petroleum. Therefore, these independent evaluation reports will go to the Board as such. The OADB’s loans and grants are in two parts. One is a loan to enterprises to meet their investment requirements. These investments are evaluated not merely by the Companies but by the Auditors General also. These reports are also put before the OADB. Even then there are specific grants for research schemes and I just mentioned that these are being evaluated throughly by independent people and their evaluation report will include their recommendation as to what improvements are necessary. Whatever suggestions they may have will go straight to the Board.”

Economy in Fuel Consumption

3.33. The Committee pointed out to the Petroleum Secretary, during evidence that cases had come to their notice where trucks carrying goods to long distances were, after unloading the goods at their destination, not allowed by the local transporters’ unions to reload and carry goods on their backward journey and, as a result, the trucks were forced to return empty involving unnecessary wastage of fuel. Commenting on the problem the witness made a mention of the National Permit Scheme which was in operation for the last 5 or 6 years.

3.34. The Secretary (Shipping and Transport) was summoned by the Committee and asked to indicate the action proposed to be taken by his Ministry in this regard. He stated in evidence that he had already discussed the matter with the truck operators and another meeting with them had been convened on 9th February, 1983 to discuss their problems. According to him, Government were also planning to set up a forum where the problems of truck operators could be discussed. He also informed the Committee that a meeting of Transport Development Council had been fixed for 25th March, 1983 at which this problem would be highlighted.

3.35. In a subsequent written note, the Shipping and Transport Ministry have clarified the position further as follows :—

“.....in the meeting held on 9th February, 1983, this matter was taken up. The meeting was attended by representatives of all segments of transport industry including transport operators and vehicles manufacturers. Transport Commissioners of some

States were also present. All India Motor Transport Congress, Indian Roads and Transport Development Association represented transport operators.

As to the existence of the problem of trucks requiring or being compelled to perform empty return journeys, its extent and reasons, representatives of truck operators observed that this had been a recent phenomenon and that too, at only a few places, mainly owing to the desire of the local truck owners to ensure adequate business for themselves. In a situation of reduced total freight offering due to general recession in the economy, some truck operators appear to be trying to compete with each other, each one trying for obtaining the hire. The problem has been said to be rather localized depending on the strength of local unions, with whose help truck operators seem to get business. It was held that with improvements in the quantum of freight offerings, the problem should shrink. But realizing that the practice adopted by some operators was not in the larger interest, representatives of All India Motor Transport Congress promised to ask their State-level branches to go to various centres to investigate the matter and wherever necessary to advise their members to desist from any unhealthy practice like preventing the truck of other State from getting freight on return journey."

3.36. Answering a question on improvements affected in the quality of petroleum products to increase fuel efficiency, the Petroleum Secretary said :—

"Thirty years ago there were two grades of kerosene—superior and inferior kerosene. Now there is no inferior kerosene. It has been replaced by superior kerosene..... There are several other cases where improvements are possible. I first mention motor spirit. We are today marketing 83 octane motor spirit. We have already decided and we had detailed discussion with all the automobile motor car manufacturers that if we improve the octane of gasoline from 83 to 87 it will give better results. The decision has been taken. By first of September we expect to replace 83 octane by 87 octane.....

But this requires a very detailed discussion with the motor-car manufacturers because they have also to do their part.....

All the old motor-cars will also be able to use it with a very minor modification in the carburettor. There should be a saving of 3% at least in motor spirit consumption.

Similar improvements are planned in lubricating oil. In fact, some action has already been taken. You will see in the service stations the multilubricating oil which increases the efficiency."

3.37. A variety of institutions in the country are undertaking research, fundamental and applied in the field of Petroleum. The Committee feel that it is time that an assessment of the research potential and the achievement be made so as to suitably strengthen these institutions by, if necessary, entering into foreign collaboration. This should be entrusted to a high powered review Committee which should *inter alia* recommend the quantum of funds needed and the system of funding.

3.38. The Committee have been informed during evidence that from next September, the octane number of motor spirit would be raised from 83 to 87 which will bring more efficiency in consumption and result in saving of fuel to the extent of at least 3 per cent. The Committee would watch the developments in this regard with interest and would like to be informed of the results in due course. The Committee would expect similar effort in upgrading lubricating oil to reduce consumption and improve efficiency.

3.39. The Committee are alarmed at the reports that in certain areas the trucks bringing loads from outside are not allowed by the local transporter's Unions to reload and are forced to perform empty return journey involving colossal waste of fuel. The Committee learn from the note of the Ministry of Shipping and Transport that they have merely brought this fact to the notice of the representatives of transport operators at a meeting convened by them in February '83 and have left the matter to be sorted out by the transporters themselves. The Committee would desire the Department of Petroleum and the Ministry of Shipping and Transport to have a thorough probe made into the matter as the practice is not only hampering smooth transport operations all over the country but also causing unnecessary waste of costly fuel. The Committee hope that the practice would stop forthwith.

CHAPTER IV

PRICING OF PETROLEUM PRODUCTS

Retention Price Concept

4.1. The Department of Petroleum have stated that the pricing of petroleum products in India has evolved primarily on the basis of the Report of the Oil Prices Committee (OPC) accepted by the Government in two stages. The interim and the final recommendations of the OPC were accepted for implementation by the Government replacing the previous import parity pricing, through the Government Orders dated 14.7.1975 and 15.12.1977.

4.2. The Refining, Pipeline Transportation and Marketing and Distribution costs from the main constituents in the price build-up of petroleum products. The OPC formulated a pricing structure on the "Retention Price Concept" duly assessing the costs and also a reasonable rate of return on the capital employed separately for the above activities.

4.3. On this basis, ex-storage or ceiling selling prices are evolved for the major petroleum products like MS, HSD, Superior Kerosene, LDO, FO, etc. at primary pricing points. To these prices the Railway freight is added to arrive at the various inland Depot prices. Subsequently, transportation cost, octroi, Sales-tax, Dealers' Commission and other local levies, if any, are added to arrive at the Retail selling prices of products like SK, HSD, MS and LDO.

4.4. During the evidence, the Committee asked the Petroleum Secretary as to what was the meaning of retention price. The Petroleum Secretary replied :—

"The retention price is the price of crude oil plus a margin for which there are specific norms, so that if you do lesser, there is a penalty; if you do better, there is a bonus. It gives you the ex-refinery price. There are specific norms laid down for the refinery throughput starting off from the ocean loss. If the ocean loss is more than that, you will not get any compensation for that. There is a production pattern, which is optimal. If you do better than that, you will get a bonus; if you do less than that, you will suffer a loss. Similarly if the fuel and losses are more, you will not be compensated. That is how you get the ex-refinery price. Ultimately, you get the selling price after Storage and distribution and marketing margin. For each particular area there are specific norms laid down by the Oil Pricing Committee in 1976. These norms are reviewed in case there is a further technological improvement. This is how, the Oil

consequent to the various factors. Any price increases, are decided by the Government at appropriate levels after a very careful consideration of all relevant factors. The price increases which are absolutely necessary to keep the oil industry in a viable position are decided upon and the price increase is fixed on the indices as recommended by the OPC. While doing so, due consideration is also given to the socio-economic aspects which may warrant price increases on a selective basis with regard to certain products of a sensitive nature."

Pricing as Instrument of Control on Consumption

4.16. One of the reasons for a substantial increase in the price of petroleum products with effect from 11th July, 1981 has been stated to be "the need to moderate the growth of demand for petroleum products and to promote their economic and efficient use."

4.17. During evidence when asked whether the aforesaid objective of reducing consumption by raising the prices of petroleum products had been achieved, the Petroleum Secretary stated :

".....the rate of growth has been moderated. In the Sixth Plan the estimate of the rate of growth of demand was 9% compound per year. Planning Commission did recommend that action will have to be taken to moderate this rate of growth. The action taken has brought down the rate of growth to about 6% compound. It has been significantly brought down."

4.18. The Committee note that according to the policy of the Government for oil price revision, a part from other relevant factors "due consideration is also given to socio-economic aspects which may warrant price increases on a selective basis with regard to certain products of a sensitive nature." In view of the fact that the petroleum industry is mostly in the public sector and there is no competition, the Committee expect that Government would ensure that the consumer does not pay for the inefficiency of the industry. Further the Committee feel that the socio-economic objectives that Government have in mind cannot be entirely realised by means of pricing alone. In any case there should be a periodic review of the extent of achievement of these objectives so that if necessary other measures could be taken to realise the objectives fully.

NEW DELHI,

April 24, 1983.

Vaisakha 1, 1905 (S)

BANSI LAL

Chairman,

Estimates Committee.

APPENDIX

STATEMENT OF RECOMMENDATIONS/OBSERVATIONS

Sl. No.	Para No.	Recommendations
1	2	3
1.	1.48	<p>The demand, Production and Imports of Petroleum products during 1980-81 were 30.8, 24.1 and 7.3 million tonnes. According to the 6th Plan these are expected to go upto 45.5, 35.3 and 10.2 million tonnes. Thus substantial imports at a heavy cost in foreign exchange will persist indefinitely. The Committee note there are divergent estimates of demand of Petroleum Products by the Indian Institute of Petroleum, Oil Coordination Committee and the Working Group on Energy Policy. The Committee desire that the methodology of demand assessment should be rationalised. In view of the economic implications, there has to be an effective demand management to conserve the use of Petroleum Products by pricing and other devices, maximise their efficiency, develop alternate sources of energy etc. The expected savings under each category should be spelt out as targets in 7th Plan. A machinery to coordinate this should also be evolved. Incidentally the Committee suggest that diesel rail traction being energy saving compared to road transport, this capacity should be augmented rather than of road transport.</p>
2.	1.49	<p>Oil exploration in the country is being done by two Public Undertakings viz. O.N.G.C. and OIL. In view of the need to augment the in place geological reserve of oil and gas the exploratory activity has to be intensified. Unfortunately there have been significant shortfalls in achieving the targets laid down in this regard, owing to a variety of reasons. The targets and achievements for drilling were 3,03,000 metres and 2,12,000 metres during 1980-81 and 3,64,000 metres and 2,99,000 metres during 1981-82 in respect of ONGC and 90,000 metres and 37,000 metres by 1980-81 and 1,08 000 metres and 64,000 metres by 1981-82</p>

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in respect of OIL. The Committee would not go into the working of these public Undertakings. They would suggest to Government that the procedures for obtaining clearance of various authorities for undertaking exploratory work should be rationalised to cut down delay. Further as admittedly the drilling efficiency in the country is below international standards, the Committee desire that there should be adequate institutional support to the undertakings in the matter of manpower training and research which should be ensured by the Ministry. There has been admittedly under-estimation of rig months required to achieve the targets. There is thus need for more equipment of a sophisticated kind. The Committee recommend that the matter should be taken up with the DGT & D to explore the possibility of establishing adequate indigenous production of the equipment to meet the needs in the long run though in the short run these have to be imported to the extent necessary so that the exploratory work may not suffer.

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The Secretary Petroleum has sought to make a distinction between drilling for exploration and drilling for development. According to him, whereas in the latter case i.e., drilling for development, it is possible to fix firm drilling targets as the sub-soil conditions are already known, it is difficult to lay down targets in the case of exploration drilling. He, therefore, proposed to break up the targets into that for development drilling and for exploration drilling and the target for the latter would be what he called "a figure of our best endeavour". The Committee would like this to be examined in consultation with the Planning Commission and physical as well as financial target laid down clearly in future so that performance could be properly assessed.

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The Committee have been informed that "there are advantages in having more than one organisation for exploration because ours is a very large country and purely from the point of view of management, there is an advantage in having more than one organisation". The Committee agree with this view. They, however note that there is no clear demarcation of areas of operation of ONGC, OIL and others who are inducted into this field. They suggest that

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on the basis of the oil map the country can be divided into a number of zones earmarking each zone for an autonomous undertaking and for this purpose the existing public undertakings could be split up.

5. 1.52 There are areas yet unexplored. It is necessary to supplement the efforts of the Public Undertakings in oil exploration. The Committee learnt that the current policy of the government is to invite foreign participation in this venture. Recently, in March, 1982 contract has been signed with an American Oil Company, Shival Chevron Oil. The life of the contract is 22 years. According to the terms of the contract if the oil is discovered by the foreign company, its share of the total production will not exceed 20 per cent. The Company has agreed to sell its share to India at international price so long as India is importing oil. The Committee are also informed that another attempt to invite further foreign participation is under way. While the Committee appreciate the need and welcome the Government's attempts in this regard, they would suggest that there should be a diversified foreign collaboration in this area and the contract period should not be unduly long. In this context the Committee wish to draw attention the advancing technology in regard to maximising recovery of oil. It should be ensured that we catch up with this advancement so as to maximise the utilisation of our resources.

6. 1.58 The Committee note that the actual production of crude oil in the country during 1980-81 i.e., the first year of the Sixth Plan period, was 10.46 million tonnes. The 6th Plan envisages a production of 21.6 million tonnes during the terminal year of the plan viz 1984-85. However, on a review of the production possibility, the target of production of 27.52 million tonnes per annum has been fixed for 1984-85. The Committee are glad to learn that this higher target was as a result of further discovery made and increased potential of the reservoir areas than anticipated at the start of the Plan. Against this target the capacity for refining of crude oil expected to be achieved in the terminal year of the 6th Plan (1984-85) is 40.18 million tonnes (equivalent to a through put of 36.73 m. tons.). Thus, the
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country will have to continue to import crude oil for meeting a part of the requirement (nearly 9 million tonnes) of our refineries. While the Committee would urge that exploratory and developmental activities should be stepped up to establish greater production possibility to match the refining capacity, they would advise that the extent of actual exploitation should be determined with a long term perspective though adjustments could be made in short term depending upon the balance of payment position and other relevant factors. An exercise in this regard may be made in association with Experts on Petroleum economics.

7. 1.59 The production target for the last year of the 6th Five Year Plan (1984-85) for natural gas has been fixed at 5736 million cubic metres per annum. The Committee are informed that a plan of utilisation of natural gas has been prepared. They would, therefore, like the Department of Petroleum to ensure the implementation of the Plan for utilisation of natural gas in coordination with the Ministries and State Governments concerned. The Committee would await the mechanism evolved for coordination in this respect.

Whereas it is possible to adjust production of non-associated gas according to the demand, the Committee wish to stress the need to conserve the associated gas also. In this connection they note the possibility of reinjecting the gas which could not be immediately utilised. The Committee desire that suitable schemes should be drawn up for this purpose early so that flaring of gas could be stopped.

8. 2.14 The Committee note that the crude oil refining capacity in the country, which was 31.80 million tonnes in 1980-81 is targetted to go up to 45.55 million tonnes in the terminal year of the 6th Plan viz. 1984-85 but as some capacity would come up at the end of that year, the overall refining capacity in that year is expected to be 40.18 million tonnes. The actual crude throughput would however be 36.73 million tonnes as against the plan target of 35.34 million tonnes. As the demand for the petroleum products in 1984-85 has been estimated to be 45.5 million tonnes, the actual refining capacity would fall
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short of the need substantially. The Committee are of the view that the import of Petroleum products should be kept down to the minimum necessary to meet unforeseen contingencies and the country should be self-sufficient in refining, if not in crude production, soon. The Committee would like this end to be achieved at least during the 7th plan.

9. 2.15 The Committee have been informed that for augmenting the actual refining capacity a large personnel have to be trained in the sophisticated technology. The Committee recommend that suitable training facilities should be augmented and adequate funds should be provided.
10. 2.16 The Committee note that setting up of two new grass root refineries with a total capacity of 12 million tonnes per annum near Karnal and Mangalore is under consideration and that the projects are expected to be commissioned during 7th plan. The Committee desire that there should be no delay in the project formulation and clearance in these cases. They suggest that the implementation and operation of each of the Projects could be entrusted to a new public undertaking.
11. 2.17 The Committee agree that the location of a refinery cannot be decided only by the nearness to the crude availability and that this factor has to be balanced with the market orientation. They accordingly recommend that there should be a fair dispersal of refineries in all the regions of the country and in deciding the location of new refineries this approach should be adopted.
12. 2.54 At present the public Undertakings engaged in refining the crud are also marketing petroleum products not only produced by them but also purchased from each other or imported. Here again there is no earmarking of areas of operation in regard to marketing. The Committee are not Satisfied with the existing distribution arrangements. The Committee attach great importance to timely and equitable supply of petroleum products throughout the country. There are transport bottlenecks which call for greater storage capacity in various places, laying of pipelines not only for petroleum products but also for LPG, establi-
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shing adequate capacity for the manufacture of cylinders etc. The Committee therefore, feel that marketing should be entrusted to separate public undertakings each for one zone of the country. This would make for more efficient marketing and creation of infrastructure therefore. The Committee would, therefore, like this question to be seriously considered.

13. 2.55 The Committee have been informed that the monthly supply and distribution plan is drawn up by the oil Coordination Committee. There is no allocation system for any product except for Kerosene in which case State Governments only are consulted. The Committee have stressed earlier the need for an effective demand management. They would suggest that the Ministry should devise a procedure of associating, in some manner, the representatives of non-official users of petroleum products in the supply and distribution plan.

14. 2.56 The Committee have been informed by the ministry of Petroleum that while the overall allocation of Kerosene oil to the States/Union Territories is made by the Ministry, the detailed distribution to each Revenue District is the responsibility of the State Government/Union Territory concerned. The District-wise distribution is based on the State Government's own assessment of the demand. Kerosene is one of the basic requirements of the common man. The Committee feel that the Central Government cannot absolve themselves of their overall responsibility in meeting the demand for kerosene in every nook and corner of the country. Since shortage of kerosene in any part of the country could be easily ascribed to failure on the part of the Central Government it is imperative that the Ministry of Petroleum should actively associate themselves with the formulation of distribution plan for each district and play a positive role in this regard. In order to make their role meaningful, they should have adequate data collected through independent demand surveys. The Ministry should also devise procedure for ensuring that the kerosene actually reaches the section of population for which it has been allocated and if any malpractices are noticed, these should
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be promptly brought to the notice of the State Government/ Union Territory concerned for corrective action. In this context the Committee note the assurance given to them by the Ministry that great emphasis has been laid in meeting the demand of kerosene in rural, remote, hilly and in accessible areas of the country.

15. 2.57 The Committee take a serious view of the complaints that have come to their notice regarding adulteration of petrol by cheaper material and use of short measures for delivery. The Committee would like the Ministry to see that effective ways and means to prevent them are devised such as introducing a regular system of surprise visits to retail outlets, taking of samples of products being sold for analysis checking of measuring equipments and taking prompt action to punish those found guilty of these malpractices.
16. 2.58 Complaints registers and boxes and other devices available at present do not seem to adequately safeguard the consumer interest. The Committee feel that there should be some institutionalised arrangement for interaction of the oil industry with the consumer to safeguard the latter's interests fully. This could take the form of regional consultative councils or advisory bodies, the setting up of which should be considered earnestly.
17. 2.59 The Committee have been informed that a market survey was conducted in 1980 to assess the potential of putting up retail outlets during the next 5 years and that the new retail outlets are being set up in locations identified by the survey from 1982-83 onwards. They also learn that 40 per cent of the new retail outlets would be "low cost/utility" retail outlets which are designed to cater to the requirements of diesel oil in the rural areas. In view of the fact that agricultural operations are gradually being mechanised thereby increasing the demand for diesel oil in the rural areas, the Committee desire the Ministry to see to it that concerted effort is made to satisfy the rural demand by setting up the proposed "low cost/utility" retail outlets in those areas. To begin with, retail outlets should be provided in all the Taluka/Tehsil headquarters block headquarters and Krishi Mandies.
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18	2.60	<p>The Committee stress the need for extending the supply of LPG to rural areas which have been neglected so long. In this connection they would watch with interest the efforts being made to develop a 5 kg. gas cylinder which will be more handy and easily transportable. Incidentally the Committee suggest that the facilities for the manufacture of cylinders of standard size as well as the smaller ones proposed now, should be established in the public Sector so as to overcome shortages and ensure quality.</p>
19.	3.12	<p>The Department of Petroleum has, besides other functions, the responsibility to direct and control as many as 15 public sector undertakings, 3 subsidiary undertakings and 4 other organisations. Although the Petroleum Secretary said during evidence that institutional and monitoring systems have been set up which enable the Department to discharge its responsibility effectively without too much of overload, the Committee feel that, in view of the importance of petroleum to the economy of the country, large financial commitments in the industry which is almost entirely in the public sector and the heavy workload involved in closely monitoring, appraising and guiding the activities of a large number of public undertakings under the Department, there is need for rationalisation of the existing structure of the organisation. As a step towards rationalising the system the Committee would commend the idea of setting up holding companies with greater delegation of powers one each for (1) Exploration and Production of Crude (2) Refining and (3) Marketing of Petroleum Products, with a number of operating concerns under it. The Board of the holding companies could <i>inter alia</i> consist of experts in the relevant field so as to competently guide the operating concerns, whose accountability could be ensured by Government and Parliament through the holding companies. This would make for better coordination of the entire industry in the context of its rapid development.</p>
20.	3.15	<p>The Committee have observed from the statement of budgeted and actual expenditure during the last five years furnished by the Department of Petroleum that there have been large shortfalls in actual expenditure against the provisions made in the budget estimates running into, at</p>

least in one case more than Rs. 163 crores. Although various reasons have been adduced for the shortfalls in expenditure, Secretary, Petroleum admitted during evidence that "there is scope for improvement in some of the years at least." The Committee would like the Department to carefully scrutinise the proposals for expenditure for inclusion in the budget estimates and resist attempts at over-budgeting. There should be a continuous monitoring of the cash flow and bottlenecks observed should be attended to promptly. At least at the time of preparation of revised estimates, realistic figures should be arrived at and included in the revised estimates.

21. 3.37 A variety of institutions in the country are undertaking research, fundamental and applied in the field of Petroleum. The Committee feel that it is time that an assessment of the research potential and the achievement be made so as to suitably strengthen these institutions by, if necessary, entering into foreign collaboration. This should be entrusted to a high powered review Committee which should inter alia recommend the quantum of funds needed and the system of funding.
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7. The International Book Service, Deccan Gymkhana, Poona-4.
8. The Current Book House, Maruti Lane, Raghunath Dadasji Street, Bombay-1.
9. M/s. Usha Book Depot, 585/A, Chira Bazar Khan House, Girgaum Road, Bombay-2.

10. M & J Services, Publishers, Representatives Accounts & Law Book Sellers, Bahri Road, Bombay-15.

11. Popular Book Depot, Dr. Bhadkamkar Road, Bombay-400001.

MYSORE

12. M/s. Peoples Book House, Opp. Jagannathan Palace, Mysore-1.

UTTAR PRADESH

13. Law Book Company, Sardar Patel Marg, Allahabad-1.
14. Law Publishers, Sardar Patel Marg, P.B. No. 77, Allahabad—U.P.

WEST BENGAL

15. Granthaloka, 5/1, Ambica Mookherjee Road, Belgharia, 24-Parganas.
16. W. Newman & Company Ltd., 3, Old Court House Street, Calcutta.
17. Mrs. Manimala, Buys & Sells, 128, Bow Bazar Street, Calcutta-12.

DELHI

18. Jain Book Agency, Connaught Place, New Delhi.
19. M/s. Sat Narain & Sons, 3141 Mohd Ali Bazar, Mori Gate, Delhi.

20. Atma Ram & Sons,
Kashmere Gate,
Delhi-6.
21. J.M. Jaina & Brothers,
Mori Gate,
Delhi.
22. The English Book Store,
7-L, Connaught Circus,
New Delhi.
23. Bahree Brothers,
188, Lajpatrai Market,
Delhi-6.
24. Oxford Book & Stationery
Company, Scindia House,
Connaught Place,
New Delhi-1.
25. Bookwell,
4, Sant Narankari Colony,
Kingsway Camp,
Delhi-9.
26. The Central News Agency,
23/90, Connaught Place,
New Delhi.
27. M/s. D.K. Book Organisations,
74-D, Anand Nagar (Inder Lok),
P.B. No. 2141,
Delhi-110035.
28. M/s. Rajendra Book Agency,
IV-D/50 Lajpat Nagar,
Old Double Storey,
Delhi-110024
29. M/s. Ashoka Book Agency,
2/27, Roop Nagar,
Delhi.
30. Books India Corporation,
B-967, Shastri Nagar,
New Delhi.

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