Crisis and Conflict in "Organisation of Petroleum Exporting Countries" (OPEC) 1980-1985

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MASTER OF PHILOSOPHY

RANBIR KUMAR

CENTRE FOR WEST ASIAN AND AFRICAN STUDIES

SCHOOL OF INTERNATIONAL STUDIES

JAWAHARLAL NEHRU UNIVERSITY

NEW DELHI — 110 067,

INDIA

1986

JAV. AHARLAL NEHRU UNIVERSITY

CENTRE FOR WEST ASIAN AND AFRICAN STUDIES SCHOOL OF INTERNATIONAL STUDIES

Telegram : JAYENU

Telephones: 652282

661444 661351

New Delhi-110 067

21 July, 1986

CERTIFICATE

This is to certify that the dissertation entitled "CRISIS AND CONFLICT IN OPEC, 1980-85", submitted by Ranbir Kumar in fulfillment of six credits out of total requirement of Twenty-four credits for the Degree of Master of Philosophy (M.Phil.) of the University, is his original work according to the best of my knowledge and may be placed before the examiners for evaluation.

Dr. GIRIJESH PANT Supervisor

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		Pages
PREFACE		i- v
CHAPTER-I	CHANGING GLOBAL SCENE: A CHANGING PROFILE	1- 41
CHAPTER-II	STRUCTURAL BASIS OF CONFLICTS	- 42 - 73
CHAPTER-III	THE CONTEMPORARY CONFLICT:	74-106
CHAPTER-IV	OPEC'S INITIATIVES FOR CRISIS RESOLUTION	107-126
APPENDIX		127-128
CONCLUSION	·	129-134
BIBLIOGRAPHY		135-144

APPENDIX

LIST OF TABLES

Table	Title	Page
I	World Energy and Oil Consumption, 1900-74	5
II	World Petroleum Consumption, 1950-75	6
III	Total Free World Oil Consumption, 1973-83	9
IV	Decline in World Oil Demand by Area, 1965-8	4 10
V	World Oil Demand in Developing World, 1973-8	31 11
VI	Pattern of Fluctuation in Oil Demand in 1985	5 13
VII	Shares of Energy Sources in World Consumption, 1979-80	15
VIII	World Coal Consumption, 1971-81	17
IX	Total World Energy Consumption - Growing Share of Coal	18
X	Nuclear Energy Installed Capacity in 1973 and 1980	23
XI	Nuclear Power's Share in the Total Energy in Per cent 1973-83	27
XII	World OPEC Crude Oil Production and its Share	34
XIII	Production and Exports of Crude Oil - World vs OPEC	35
VIX	Crude Production from Non-OPEC Source - Excluding USA and Canada, 1973-83	37
VV	Crude Oil Production in OPEC Members, 1973-	84 3 8

Appendix contd.

XAT	North Sea Oil Production	39
XVII	Estimated Production, Density and Area of the OPEC Members, 1973-83	44
IIIVX	Growth and Structure of Production in OPEC Member Countries, Average Annual Growth Rate (in per cent)	50
XIX	GDP and Declining Share of Agriculture in OPEC Countries in 1965 and 1983	51
XX	Exports of Crude Oil and Refined Products among OPEC Members	54
XXI	OPEC Countries Revenues from Oil and Change in percentage in 1974-80 Change in percentage in 1980-84	56
XXII	Share of Crude Petroleum in Export in Percentage in 1970 and 1980	58
XXIII	Merchandize Trade - Export of Selected . OPEC Members, Share in percentage in 1965 and in 1982	59
XXIV	Export and Import of OPEC Members and Share of Industrialized Countries, 1978-84	61
VXX	OPEC Crude Oil Reserves in 1973-1985	63
IVXX	Qualities of Oil	66
XXVII	Selected Crude Oil Price in March 1981, 1982 and 1983	77
XXVIII	Spot Crude Oil Price (March 85 to March 86)	85
XXIX	OPEC Output, Members' Quota and Estimated Discrepancy	90
XXX	OPEC - Estimated Oil Revenues - 1977-84	95
XXXI	OPEC Production Quota	110

P_R_E_F_A_C_E

Organisation of Petroleum Exporting Countries (OPEC) is one of the most unique organisations. It has been the only organisation which could establish and demolish the myth of commodity power during the last decade. The contemporary oil crisis has placed OPEC at the threshold where it has started acting as a cartel defending the market share than the market price. It has also slide down in its performance. The The question, therefore, is whether this decline has been exogenous or endogenous. The present study is the humble attempt to study the organization during the crisis time.

The present dissertation deals with the various dimensions of the contemporary crisis faced by OPEC. The basic assumption, on which this study is based, is that developing countries has limited scope and despite having enormous raw commodity it cannot dictate the developed countries for a longer period in the present financial system. The high oil price in 1970s provided a high potential for the OPEC members to build a broad-based economic infrastructure but they failed to mobilize their oil revenues into productive and economic uses. On the contrary, their economy has become more dependent on oil revenues as well as on developed countries.

The study has been divided into four chapters. The first chapter entitled "The Global Oil Scene: A Changing Profile" suggests that it deals with the basic feature of oil market i.e. it is always in a state of flux. market has two parts - demand and supply side. In both the aspects, international oil market has witnessed a qualitative shift in recent times since the formation of OPEC. supply side is marked by the excess of supply, i.e. oil glut. So far, the oil market has been dominated by the tight supplies - be the oil companies or OPEC. Other feature of the supply side which has emerged recently is the diversification of oil producing countries. Now as many as 76 countries are producing oil and moreover, the emergence of non-OPEC oil exporters can be seen in this context. The new sources of energy or use of non-oil resource e.g. coal, nuclear, solar, biomass, tides etc. have changed the equation. On the demand side, the demand for oil has been declining in the recent years because of the economic recession, conservation policies and oil efficient techniques. A detailed study is made on these aspects with the help of appropriate data and tables.

The second chapter "Structural Basis of Conflict in OPEC" is more relevant as it deals with the various structures of the OPEC members which has been contributing in aggravating the conflict. A modest attempt is made to

cover all the heterogeneity of the members. The emphasis is made particularly on economic, social and political variables. It is a well known that all the OPEC members do not have the same set of structure and the organisation is lacking of substantial homogenities. In course of time when the oil environment is turning against the OPEC, these differences have emerged on the surface, which has posed a serious threat to the organization. However, one predominant trend common to all which has emerged since the last one decade is their increasing dependence on oil.

"The Contemporary Conflict: Nature and Dimension" is the basic thrust of this dissertation and it is discussed in the third chapter. This chapter covers the three basic aspects of the present crisis. First is the history of the contemporary crisis which starts from 1982 when for the first time OPEC realized the threat of the present crisis and adopted policy to defend itself. The second aspect of this chapter deals with the nature of the contemporary crisis. The nature of this crisis is qualitatively different from earlier one.

Now OPEC is facing a new challenge, i.e. to defend the oil price and its oil share in the market. Third aspect of the present crisis which is discussed in the third chapter is its impact on OPEC members. The decline in oil demand, the decline in oil output, the decline in oil price led to a dramatic

decline in their oil revenues which ultimately affected their economies adversely. With the help of various figures of the individual members the study is done to have a better understanding of the impact as a whole.

The last chapter discusses the OPEC's Initiatives to resolve the present crisis. An attempt is made to analyse a few relevant steps taken by OPEC in the wake of the current crisis. For a better understanding, these initiatives have been divided into two categories. First, is the organisation's policy on price and production quota, formation of various committees, ministerial monitoring committee etc. In other category includes the cooperation sought from non-OPEC oil producers to resolve the present crisis.

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New Delhi, July 20, 1986.

RANBIR KUMAR

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CHAPTER I

GLOBAL OIL SCENE: THE CHANGING PROFILE

The history of Organisation of Petroleum Exporting Countries (OPEC) of the last twenty five years suggests that the global oil environment has played a decisive role not only in creating conditions for its birth in 1960 but also in shaping its growth and evolution in the subsequent years. In contemporary time when OPEC is facing a crisis of unprecedented kind, threatening its very survival, the global oil context remains the critical contributory factor. Therefore, in understanding and analysing the conflicts and crisis faced by OPEC today, it will be relevant to make an appraisal of the global setting, its changing dynamics and ramification on the efficacy of the organisation in resolving the crisis.

The contemporary global oil scene reflects a qualitative shift since the formation of OPEC. It is marked by excess of supply-glut. So far, the global oil scene has been dominated by the supplies - be the oil companies or OPEC but today it is the demand side which is influencing the price and output of oil. This shift has, however, not emerged overnight. To understand the cause and nature of the shift and the relative position of OPEC, it will be necessary to go into

the details of the aggregate profile. Both the demand and supply side of the global oil scenes show a change. The demand for oil has shown a decline in the recent years caused by the recession, conservation policies and oil efficient.

On the supply side, new sources of energies, use of non-oil supplies have changed the equation. In addition, the new technology, especially in transport and storage sector has further contributed to the shift.

Global Oil Consumption

Though oil was discovered in 1859 at Pennsylvania, ¹ it became the major source of energy replacing coal only after the Second World War. During the 19th century the consumption of oil was restricted primarily, for kerosene, for lightening, for heating and for lubricants. But the beginning of the present century witnessed an extraordinary proliferation of the uses of petroleum and with the introduction of petro-chemical industries, it has acquired central position in energy consumption. There is hardly any sphere of human activities into which petroluem has not entered to play a significant role. ²

Until 1900, the contribution derived from oil and gas was negligible as it was mere 8 per cent but after the Second World War the oil consumption rose sharply. For example, by 1929, the petroleum accounted for one third of US

¹ The credit of discovery of oil goes to Edwin Drake.

² Fand Rouhani, A History of OPEC (New York: Praeger Publishers, 1977), p. 36.

energy and by 1952 it accounted for about two-third of total US energy consumption and this trend kept on going in the following years. In case of the rest of the developed countries lacking the autoboom of the US, lagged far behind in oil consumption but after the Second World War it rose dramatically. This increasing use of oil can be seen by the fact that in 1950 oil and gas increased their share to 34 per cent and by 1960. the year when OPEC came into being, it rose up to 44 per cent. The contribution of oil and gas steadily increased to 57 per cent in 1968 and reaching 63 per cent by 1972. By 1970, western Europe and Japan were using petro-fuels for two-third of their energy consumption while in US it accounted over three-fourth of the energy consumption. It is significant that centrally planned countries have moved much more slowly in shifting from coal to oil than did the western developed countries despite the fact that the former countries' total energy consumption increased more than three-fold in 1950-70 period. In case of developing countries, before the Second World War most of these countries were colonies and had no political freedom and economy was in the hand of colonial power. So, virtually they had no industry and oil consumption was negligible. But most of the countries gained independence in 1950s and chose an energy policy in line with their goals to develop economy. Adoption of

³ Rene G. Ortiz, <u>Journal of Energy and Development</u>, vol. 4, no. 2, spring 1979, p. 199, on "The World Energy Outlook in 1980".

such policies led to the growth in oil consumption. Within the last 50 years while world energy consumption has risen fourfold, world consumption of oil has risen by a factor of sixteen.

The growing trend of oil consumption with periodically growth rate is given in Table I. In the beginning of this century oil as a percentage of total cumulative consumption was only 1.3 per cent. While its share rose to 37.6 per cent in the period 1967-74 of cumulative oil consumption. In the same period cumulative oil consumption by the period 1900-1913 was 451 million of metric tons which rose to 13,472 million of metric tons in the period of 1967-74. The table also suggests that in 1900 the oil consumption was 21 million of metric tons which touched 2,511 metric tons in 1974. Another important trend of Table I shows that the high yearly growth rate of 3.01 is minimum while 8.09 is maximum which is fairly higher than average growth rate of world energy consumption.

In the Table II, world petroleum consumption is shown between 1950 and 1975 to illustrate that growing oil consumption is found more or less universal in both the worlds. While in world excluding the centrally planned economies (USSR, Eastern Europe and China) it rose to 2,239 millions of metric tons in 1975 from 436 in 1950, in OECD countries, it rose from 368 to 1.804 millions of metric tons in 1975.

Table I
World Energy and Oil Consumption, 1900-1974

Year	World Energy consumption (million of metric tons of oil or the equivalent	Yearly Growth rate	Oil Consumption (million of metric tons)	Yearly growth rate	Cumulative oil consump- tion by period (millions of metric tons)	Cumulative Consumption (million of metric tons)	Period as a percen- tage of total
1900	5 3 2 ₎	<i>I</i> ₁ ,	21 7			•	ن -
1913	9455	4.52	ر 57 ₇	7.98	451	451 <u>.</u>	1.3
1929	1,190 }	1.45	179	7.41	,1 . 645	2,096	4.6
1957	1, 260	0.72	227	3.01	1,592	3 , 68 8	4.4
1950	1,750}	2,56	438	.5.19	4,070	7,758	11.4
	2 (72)	5.23	4	8.09	4,674	12, 432	13.0
1958	2 , 6 3 2)	4.69	816	7.35	9,917	22 , 349	27.7
1967	3,9765		1,551 ³	,		-	: <u>.</u>
1974	5, 579	4.96	2,511}	7.12	13,472	35,821	37.6

Source: John Chessture and Keith Pavitt, Social and Technological Alternative for the Future Energy Scene Policy, reprinted in Noreng Cystein, Oil Politics in the 1980s (New York: McGraw Hill Book Company, 1978), p. 32.

Table II

World Petroleum Consumption - 1950-75

(In millions of metric tons)

Year	World	WECC*	OECD	
1950	4 7 8	436	368	
1960	1,051	907	753	
1970	2, 281	1,948	1,608	
1973	2 , 789	2,355	1,949	
1975	2,742	2 , 239	1,804	

^{*} WECC means - World Excluding the Communist countries.

Source: International Petroleum Encyclopedia, 1977, pp. 392-3.

heavily dependent on oil for their energy consumption. This dependency on oil has been due to a number of factors. In brief, the first and most obvious is the finding of enormous cheap oil reserves in the Middle East in the thirties and forties of this century. Before the formation of OPEC, the oil companies enjoyed the monopoly over oil market which helped them to influence the energy consumption in favour of oil. They used to supply oil at very low price. Moreover, oil has the distinct advantage due to its versatile nature compared to coal. It is relatively clean, is transportable and allows consumer considerable flexibility. 4

Another notable feature of growing oil consumption was that most of the oil consuming countries had become heavily dependent upon imported oil. Since oil distribution is not even, oil moved intercountry through inter-regional trade. At this juncture, the oil importing countries had no incentive to explore oil as they used to get it at very cheap rate. Moreover the international oil companies have been largely successful in blocking or slowing oil exploration in the oil importing underdeveloped countries. Such trend prevented the

⁴ Qystein Noreng, Oil Politics in the 1980s - Patterns of International Cooperation (London: McGraw Hill Book, 1973), p. 21.

⁵ Michael Tanzer, Energy Crisis - World Struggle for Power and Wealth (New York, 1974), p. 112.

diversification of oil exploration and it was mostly limited to the Middle East countries.

The upward swing in oil consumption received a set-back in 1973 and 1979 when the oil price was increased by almost four-fold and double respectively touching a pack of \$ 35 barrel. This phenomena of rising oil price affected all the oil importing countries which could be seen in the import of their energy but causing balance of payment crisis with the oil price hike, the financial system was faced with a major change in world current account imbalances. The industrial economies as well as oil importing developing countries witnessed deficit in 1974.

Consequently, all the oil-importing countries tried best to reduce their oil consumption. They got a tremendous success in reducing their dependency on oil by 1980. Although the growth in energy demand still exists, but comparatively at lower rate and oil failed to maintain the same relationship between energy growth and oil consumption rate as used to be happened before oil price hike. Other sources of energy — coal, nuclear, solar, biomas etc. — and their market position is getting strengthened and substituting for oil. Another factor is conservation efforts and greater efficiency of oil utilization which led to lower oil consumption. Exploration of indigenous sources of energy is also a factor, but all these aspects will be discussed later on.

The declining oil consumption is summarized in Table III giving the trend of energy growth as well as the share of oil. It is evident from the table that the share of oil as percentage of the energy came down from 54.5 per cent in 1973 to 46.91 per cent in 1983.

Table III

Total Free World Consumption

(million tons oil equivalent)

Year	Total Energy	Oil	Percentage of oil	
1973	4,272	2,330	54.5	
1980	4,696	2,348	50.0	
1983	4, 586	2,149	46.9	
	· ·			

Source: Petroleum Economist, vol. 52, no. 10, October 1985, p. 368.

However, this decline in oil consumption has not been universal as Table IV shows. Table IV which has been composed with geographical consideration, suggests a significant fact that drop of oil demand is confined to the industrialized countries. In 1979 the oil demand was at peak in North

Table IV

Decline in World Oil Demand by Area

(including refinery and international aviation)

million barrel dollar

Area	1965	1973	1979	1983	1984
North America	12.5	18.6	19. 8	16.2	16.4
West Europe	7.8	15.0	15.0	12,2	12.2
Japan	1.7	5.6	5.5	4.4	4.9
Rest of free world	4.6	8.4	8 .9	12.0	12.2
Free world total	26,5	47.6	51.2	44.8	45.7
Communist Bloc	4.6	9.4	12.9	13.2	13.2
Total	31.1	57.0	64.1	58.0	59.9

Source: B.P. Statistical Review of World Energy, reprinted in Petroleum Economist, August 1985, p. 277.

America, Western Europe and Japan touching 19.8, 15.0 and 5.5 million barrel dollar respectively which reduced to 16.2, 12.2 and 4.4 million barrel dollar respectively in 1983. As a total of the world oil demand was reduced to 58.0 million b/d in 1983 from a peak of 64.1 million b/d in 1979. On the contrary, the rest of the free world shows the rise in oil demand as it increased to 12.0 million b/d in 1983 from 8.7 million b/d in 1979.

The growth in oil demand in developing world can be seen in detail in Table V. The table makes it clear that there

Table V
World Oil Demand in Developing World
(million b/d)

Area	1973	1979	1980	1981	
Latin America	2.9	4.1	4.2	4.2	
Africa & Middle East	1.5	. 2.7	2.9	3.0	
Indian Subcontinent	0.6	0.8	0.8	0.9	
Other Area	1.2	1.9	2.0	2.0	
Total non-Industrial	6.2 •	9.5	9.9	10.1	-

Source: E. Stanley Tucker, "World Oil Consumption", Petroleum Economist, September 1982, p. 354.

constant increase in the non-industrialized countries as a total oil consumption in developing rose up to 10.1 million bd in 1981 from 9.9 million b/d in 1979. The growth of oil consumption is evident in case of Latin America, Africa and Middle East and other Asian countries during this period. According to MEES (vol. 29, no. 3, 28 October 1985), the growing oil demand is much higher in Arab world as it rose to 1,978 thousand b/d in 1983 from 780 thousand b/d in 1975 and from 1,503 thousand b/d in 1980. In terms of percentage of the world oil consumption, Arab world oil consumption rose to 3.41 in 1983 from 1.41 per cent in 1975, and 2.41 per cent in 1980 and from 3.21 per cent in 1982. Like other developing countries, such trend is also true in case of India.

This has been largely due to the fact that these countries did not have much oil substitutes option. Moreover, being at the lower stage of development these had little choice and means to pursue an effective policy of conservation. The significance of conservation in reducing oil consumption is estimated by a study in case of the OECD countries. It is calculated that consumption in OECD countries fell between 1979 and 1984 by about 7 million b/d which is estimated to be half

^{6 &}lt;u>Times of India</u> (New Delhi), 1 February 1986.

The recent petrol hike in India has been justified in the wake of rise of oil consumption of petroleum products which increased from 30 million tonnes in 1979-80 to 38.5 million tonnes in 1984-85. Moreover, the official press release concedes that the rate of consumption has exceeded 7 per cent.

attributed to the efficiency of fuel utilization and the other half of the displacement of oil by other sources of energy. 7

After a steady decline of oil demand for four years, it was in 1984 that the demand structure seemed picking up. This improvement as estimated by British Petroleum (BP) is almost 4 per cent, reaching at 7,202 million ton in 1984 from 6,943 million tons oil in 1983. There is certainly a modest rise in oil demand in 1984 as it rose to 59.9 million b/d in world from 58.0 in 1983.

However, 1984 modest rise in oil demand appears to be temporary. The latest figure of 1985 (as estimated by IEA) shows a fluctuation in oil demand and supply. But as a whole there is definite decline in oil demand. Table VI provides the pattern of fluctuation in oil demand in various quarters of 1985. This table suggests that in the first

Pattern of Fluctuation in Oil Demand, 1985

(million b/d)

	IQ	IIQ	IIIQ	IVQ	Year 1985
World Oil demand	47.3	43.9	44.9	46.5	46.6

Source: MEES, vol. 29, no. 15, 20 January 1986, p. A5, based on OMR Reports published by IEA.

⁷ See MEES (Vol. 28, N-50, September 85, P. 38).

⁸ E. Stanley Tunker, "World Oil Demand", Petroleum Economist August 1985, p. 277.

⁹ The IEA International Energy Association does not expect

quarter of 1985 the world oil demand was 47.3 million b/d which is higher than all the subsequent quarters of 1985.

But we year 1985 shows 46.6 million b/d oil demand, which is certainly lower than previous year's demand. In this way, the modest rise of the oil demand in 1984 does not seem to be a permanent feature in this goil glut market.

From the above analysis, two trends can be seen in world oil consumption since 1980. First, undoubtedly, there is overall decline in oil consumption and it is likely to continue in the future. Secondly, this decline of oil demand is not universal. It is notable that in the developing countries there is no sign of decline in oil consumption. On the contrary, it has been growing. Since the lion share of oil is consumed by industrialized countries, it is their pattern of oil consumption which will continue to dominate the global oil market trend.

Discovery and Development of Non-Oil Sources of Energy

If the cheap oil replaced coal in the forties and fifties of this century, the escalating oil price had induced the discovery and development of new sources of energies.

Footnote 9 contd.

expect any growth in OECD oil demand in 1986 as per the January issue of its <u>Oil Market Report</u>. From 1986 the IEA has reduced its estimates of OECD from 34.1 million b/d to 34 mn b/d.

Substitution of oil by alternative resources has been the principal item in the research agenda of the energy industry. Apart from the non-renewable resources of energy - coal and nuclear - renewable energy - solar, biomas, winds, tides - have got a major breakthrough and these new entities are being replaced by concentrating much more on renewable energy. Certainly their growing contribution in the energy, which is likely to grow, has been eroding the global oil demand.

Table VII shows the shares of the different energy types in the world total primary energy consumption in 1979 and 1980 when for the first time oil consumption declined dramatically from the preceding years's level.

Table VII

Shares of Energy Sources in World Consumption

	1979	1980	Change in percentage
Oil	45.06	43.61	- 1.45
Gas	18.10	18.57	0.47
Coal	28.72	29.36	0.64
Nuclear	2.23	2.43	0.20
Hydro	5.89	6.04	0.14
	•		

Source: OPEC Annual Report, 1980, p. 25.

The table suggests that in one year period, all other sources of energy gained at the expense of oil, coal attaining the highest share growth, i.e. 0.64 per cent.

A brief appraisal of the rise of non-renewable and renewable sources of energy in the recent years will help in appreciating the shift in the energy against the oil.

Coal

Oil's most active competitor is coal and it has been in use for about thousand years. Although during the present century coal's dominant place has been firmly taken by cheap oil, but now situation has changed drastically due to inordinate rise in oil price. During the seventies OPEC's price raising activities led to the conviction by many countries that dependence on oil must be reduced and for the rest of this century world's energy users are expected to place increasing reliance on solid fuel. 10

To have a better understanding it is desirable to review the pattern of coal consumption. In 1900 the contribution derived from coal in world energy was 89 per cent. In 1950 it declined to 59 per cent; in 1960 it was 49 per cent; in 1972 its share declined to 31 per cent, and in 1977 it was only

¹⁰ E. Stanley Tucker, "Growing Dependence on Coal", Petroleum Economist, vol. 52, no. 11, November 1985, p. 347.

30 per cent. 11 During this period the rate of increase in oil and gas consumption was unprecedented as it increased from 8 per cent in 1900 to 62 per cent in 1977. It is surprising that rate of growth in oil and gas consumption is more than the rate of growth in energy demand while reverse is true with coal whose downfall was beyond expectation.

But tide turned in favour of coal in late seventies and early eighties when escalating oil price was at its path and economies of coal mining and processing changed abruptly. In the oil crisis phase, coal began to assert itself and now it is on regaining path of old times. Table VIII shows the growing coal consumption in late seventies in early eighties

Table VIII

World Coal Consumption (million tonnes oil equivalent)

Source: Annual Report, OPEC, 1981, pp. 20-21.

Jource: Allima	T Icebe	10, 01	20, 19	οι, ρ ρ	- 20-2	1.0		
Area	<u>1970</u>	1972	1974	1976	1978	<u> </u>	1980	1981
North America	364.4	331.8	347.8	364.8	374.4	414.2	429.9	429.2
Latin America	10.2	11.3	13.1	15.2	15.2	16.0	16.6	16.9
Wes tern Europe	292.4	246.9	249.2	249.3	248.7	259.8	266.2	264,4
South Asia	51.7	54.6	56.8	62.5	67.2	74.9	82.2	88.7
Africa	41.4	42.5	40.4	46.7	53.3	58.1	62.2	67.1
South East As	^{ia} 31.9	35.5	38.0	3 9.8	47.2	55.1	55.2	57.2
Japan	62,6	57.1	63.9	59.9	54.0	50.4	57.6	63.2
Total world	858.1	801.8	833.5	863.1	888.2	958.6	1001.1	10.18 2

Total world 858.1 801.8 855.5 865.1 888.2 958.6 1001.1 1018.2 (excluding CPE)
Total world 1640.9 1638.2 1694.7 1790.2 1879.3 199.1 2020.9 2007.2

¹¹ Rene G. Ortiz, "The World Energy Outlook in 1980", <u>Journal of</u> Energy and Development (New York), vol.4, no. 2, spring 1979.

almost in all areas, the coal consumption has been rising since late seventies. From table IX, it is evident that while oils share is on decline, coal's share shows a steady growth. Coal in 1973 contributed only 18.7 per cent of the total energy in the world but rose to 21.9 per cent in 1983. Of course, such enhancement of coal's share has taken place at the cost of oil.

Table IX

Total World Energy Consumption Growing Share of Coal (million tonnes oil equivalent)

Year	To	tal energy	Coal	Coals %	Oil	0il's %
1973		4, 271	80 0	18.7	2,358	54.5
1980	1.	4,696	950	20.2.	2,358	50.2
1983		4,586	1,003	21.9	2, 149	46.9

^{*} Excluding CPE countries

Source: Peter Lymbery, "Oil Falling Market Share", Petroleum Economist, October 1985, p. 368.

There are certainly a few other favourites which enhance the future for coal. The world's coal reserves is much larger than those of oil and gas reserves. According to an estimate, coal reserves are sufficient for two hundred

years at current rates of production. 12 Other advantages is that these reserves are widely distributed. The latest comparable estimation is made by world energy conference (Survey of Energy) which puts the world's proved recoverable reserves of coal as 946 billion tonnes aggregate while the oil and gas proven reserves are just 275 billion tonnes coal equivalent. The figure certainly suggests that world's coal resources is ample to meet the energy demand in future. This is relevant in changing energy patterns of consumption considering the fact that oil is expected to exhaust in most of the countries by the first quarter of the next century.

A study of energy consumption in the last ten years in the world shows that consumption of coal has increased more than 20 per cent, the equivalent of 7.2 billion tonnes of oil annually. But in contrast to its remarkable growth in the fifties and sixties oil demand shows a net rise of only 3 per cent or more than 2.8 billion tonnes. In the same ten years coal consumption rose by 29 per cent to almost 4.1 billion tonnes equivalent to almost 2.2 billion tonnes of oil. 13

The latest IEA forecast reports that coal's share will rise from 25 per cent to almost 30 per cent by the year 2000. 14

¹² E. Stanley Tucker, "Growing Dependence on Coal", Petroleum Economist, vol. 52, no. 11, November 1985, p. 397.

¹³ Ibid., p. 296.

¹⁴ Ibid., p. 397.

Many experts express doubt whether coal market can raise its share in the near future. They hold the opinion that coal may lose even its present share of energy market. Their main objection is environmental problems, high cost of coal mining, high transportation cost etc.

Despite a few reservations, it is expected that coal consumption will increase in future especially in developed countries which have the technology to convert coal more economic and more useful. There are various forecasts in support of this trend. A latest forecast for 2000 year is made by Chevern Corporation's Economist (San Francisco) who used to survey world energy. The conclusion of 20 pages detailed study is that oil will continue to lose its ground in view of the strengthened competitive position of coal and planned increased in nuclear power. In a totally changed situation, it is true that coal has been supplanting oil steadily since 1979.

Nuclear Energy

The increasing realization that the world's easily exploitable resource oil is gradually nearing exhaustion led to the new areas of research and development works in the nuclear field. The nuclear energy which was unknown in pre-

¹⁵ Petroleum Economist, August 1985, p. 297.

¹⁶ Peter Lymbery, "Oil Falling Market Share", <u>Petroleum Economist</u>, vol. 52, no. 10, October 1985, p. 368.

Second World War now has emerged as a force to be reckoned. Despite the fact that nuclear development is still in infant stage, but within a short period of time, it has yielded a marked success. It is evident from the fact that in 1973 there were 107 nuclear reactors in 11 countries producing just over 4000 mw which increased to 253 nuclear reactors spreading in 22 countries producing just under 13,600 mw. 17 The more rapid growth has been recorded after 1980. At the end of 1984, there were 345 nuclear power plants with total capacity of 220 GW(e) operating in 26 countries. 18 Moreover, there is sufficient evident that this growing trend will be continued in the near future. 19

However, the share of nuclear in world energy is negligible so far but its share in commercial energy consumption has been increasing. It is evident from the fact that its share in world, primarily commercial energy consumption rose to 3.5 per cent in 1983 from 3.2 per cent in 1982 while it is estimated that in 1984 it would be 3.9 per cent.

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¹⁷ Abdul Aziz Al-Sowayegh, Arab Petro Politics (London: Croom Helm, 1984), p. 189.

Vladimin, "Nuclear Power Status and Prospects", Petroleum Economist, vol. 52, no. 10, October 1985, p. 360.

¹⁹ According to an estimation the total nuclear units will be 509 with producing 371 GW(e) by 1990. This estimation is based on the consideration of those reactors which are currently known and are under construction.

²⁰ Vladimin Baun, n. 18, p. 360.

Moreover, the problems with nuclear industry has its own limitations. Its development is confined to only a few developed countries which is evident from table X. For example USA has 70 nuclear plants in 1980 operating which increased to 90 in 1983. But the recent development shows a good trend that is diversification. The use of nuclear energy has been growing even in the developing countries, i.e. Argentina, India, Pakistan, Thailand etc. Now more than two dozenscountries have the nuclear power reactors. Moreover, it is expected that more countries will join in this category.

Another problem with nuclear energy is that it needs more sophisticated technology and expertise which is not possible for many countries. Moreover nuclear plants have very high fixed costs which makes it uneconomical in comparison to oil and coal. Now, priority is being given to improvement of technologies and managements so that its cost may be reduced. Another vital drawback with nuclear in the environmental problems and forceful anti nuclear opinion in public. Under such heavy reservations it is not expected that nuclear power will provide any substantial portion of energy consumption.

Table X

Nuclear Energy: Installed Capacity in 1973 and 1980

Country	1973		1980	
	Number	Capacity MW	Number	Capacity MW
Argentina	-	-	1 -	335
Belgium	-	-	3	1,664
Bulgaria	-		2	816
Canada	6	2,512	11	5,494
Czechoslovakia	-	-	2	800
West Germany	6	2,143	14	8,606
Finland	-	-	3	1,740
France	10	2,818	23	1,540
GDR	2	5 1 0	5	1,694
India	-	-	4	809
Italy		-	4	1,382
Japan	5 .	1,749	24	14,994
Netherland	-	-	2	498
Pakistan		-	1	125
South Korea	_	-	1	564
Spain	3	1,073	. 3	1,073
Sweden	1	440	8	5,515
Switzerland	3	1,006	4	1,940
Taiwan	-	-	2	1,208
UK	28	5,330	3 3	6,980
US '	34	19,776	7 0	51,550
USSR	9	2,775	33	12,616
Total	107	40,112	253	135,812

Source: Abdul Aziz Al-Sowayegh, n. 1', 0. 190.

Contrary to these reservations, nuclear power's share in the total energy has been growing. Such growing trend is evident in table XI. US shows its growth from 1.2 per cent

Nuclear Power's Share in the Total Energy
(in percent)

	1973	1983	
US	1.2	4.6	
Western Europe	1	7.1	
Japan	1	7.7	
·			

Note: Japan's share of nuclear power in 1973 was less than 1 per cent while in 1983 effort was being made to get 7.7 per cent.

Source: Journal of Energy and Development, vol. 10, no. 2, spring 1985, p. 23.

in 1973 to 4.6 per cent in 1983. In case of Western Europe, it has increased remarkably as it increased from 1 per cent to 7.1 per cent during the mentioned period at the same time Japan has witnessed a growth from less than 1 per cent in 1973 to 7.7 per cent in 1983. In another latest cautious forecast²¹

²¹ Forecast is made by Institute for Energy Economics at the University of Colange (West Germany).

it is stated that in the free world in the period 1983-1990 nuclear energy would outplace by far any other energy sources with yearly increase of 8.6 per cent while total primary energy consumption is expected to grow only by 2.4 per cent.

To sum up, although the future of nuclear energy is uncertain buts its growing share at the cost of oil cannot be ignored.

Emergence of Renewable Sources of Energy - Solar, Biomass, Winds, Waves, Tides etc.

There are other forms of energy sources which have emerged recently due to oil prices escalation in the seventies and now are replacing oil. These are solar, winds, waves, tides, biomass, etc. The specific feature of these forms of energy is as clean, renewable and limitless. All of these have a potential prosperous future for mankind but at this stage they are at the stage of infant and just emerging. Just a decade before, the human resources devoted to renewable energy in industrialized countries were scarce. It is true that renewable energy is unlikely to have a large quantitative impact on energy balances during this century but renewable technologies have contributed qualitatively to furthering our knowledge of energy.

²² Abdul Aziz Al-Sowayegh, n. 17, p. 189.

solar energy is comparatively a new source of energy but its growth is recorded unprecedented. Although solar energy is expected to grow at around 14.5 per cent per annum, its contributions to the total energy is negligible, i.e. no more than one third of 1 per cent. 25 There are a few favourites of solar energy. Its application in developing countries has most promising future, particularly in the area of rural development. Another quality is that solar energy is renewable and abundant in quantity spreaded over all parts of the world. It is safe and non-polluting. It can be used in both active and positive system in residential and commercial buildings for heating or cooling. It is now being used in photovoltaices 24 for remote location and in spare satellite.

Despite these bright prospects solar energy has its own limitations. First, it is not economical. The appropriate solar energy technologies are capital intensive. The present cost of a barrel of oil equivalent derived from solar is about \$ 1,030 in USA. However extensive research is being done to reduce its costs. Due to high cost, its development in the developing countries is negligible. About half of

²³ Mahjooh A. Hussanain, "Future Prospect for Alternative Source of Energy", Journal of Energy and Development, vol. 10, no. 2, spring 1985, p. 236,

²⁴ Photovaltaics is a method by which direct conversion of sun light into the electricity is done.

world's production of solar cells took place in USA, 40 per cent in Japan, and 20 per cent in Western Europe. Another limitation with solar energy is its dependence on cloudy and geographical location. Moreover, its utilization is limited to day hours only.

Wind is other renewable source of energy which has been growing. Wind power was once regarded as relic of the past.

Now, serious research on this subject is being carried out on a fairly large scale and its contribution to the total energy consumption cannot be ignored. In a study it is claimed that a decisive turning point in wind power utilization being approached and it is estimated in the early part of the next century many nations might well be in a position to obtain between 20 and 30 per cent by this solar.

But, so far, most of the pioneer works on wind power has been done in the developed countries especially in USA. In USA, a varieties of big prototype machines have been successfully developed and partly put into the services. The world's first multi magawatt wind farm consisting of three mw wind-mills started breeding electricity in Washington in 1981. Federal Wind Energy Programme has been introduced in

²⁵ An extensive study on wind power is done by Christopher Flavin in his book <u>Curcial Wind Power</u>

USA to encourage the wind power. As a result more than 90 utilities (private and public enterprise) are currently engaged in one or another way in wind power projects potentiality which looks promising. Other developed countries have started introducing wind energy. Two 3 mw plants are due to come into operation in West Europe by 1985 -- one in Sweden, other in West Germany. But it will take time in its proliferation in the third world.

winds energy has greater potentiality in the world as in most parts there is sufficient strong and frequent wind which is most suitable for commercial exploitation but there are certain limitations. It is full of irregularity and unpredictability. Environment objection is there as it is mostly constructed in hill-top and beauty places. Another problem lies with land as it requires much land. Calculation shows that a hundred mw winds power will require some 4 to 5 sq. km of land.

Another substitute for oil is biomass. Biomass is a renewable source of energy mostly derived from fuel wood and agricultural waste. Biomass is the most useful in developed as well as developing countries. Now with the help of technologies and expertise, necessary infrastructure is being developed to increase biofuel. Fuel wood which was mankind's main source of useable energy in the past and now once again has been getting foothold in all parts of the

world even in highly developed industrial region with the technological developments. Other caution is ecological balance which must be kept in mind. that biomass is the most useful for the rural development. According to an estimate the biomass covers some 15 per cent of the world energy demand. ²⁶

Conservation Policy

The energy conservation policy pursued by both the developed and developing world, although in different way, has had very crucial impact on the oil demand. The oil embargo of 1973-74 caused immediate concern over the vulnerability of oil importing countries which resulted in a shift of emphasis of the problem. They pursued a policy of energy conservation to reduce the dependence on imported oil. Such emphasis was never witnessed before 70s as they were getting cheap oil.

Originally, energy conservation was conceived as a mean to restore to consumers a measure of control over the oil market but today it has a broader meaning aiming at the wise and equitable use of expensive and scarce fuel. An Economist admits that each barrel of oil served through

B.A. Rahmer, "Energy Potential of Biomass", Petroleum Economist, November 1982, p. 457 and Petroleum Economist, no. 10, October 1982, p. 421.

improved efficiency is exactly equal to an extra barrel of oil produced and efficient use of energy is in many cases less expensive than developing new energy sources. 27

The first major step regarding oil conservation was the establishment of International Energy Agency (IEA) by the Council of OECD in November 1974. It was designed to develop an international cooperation on energy question. Since IEA has been playing a major role in field of energy conservation, it would be necessary to discuss a few important steps taken by the IEA or other OECD countries.

IEA introduced "International Energy Programme", first time in 1976 to reduce the dependence on oil by strengthening the measures of energy conservation. The IEA published a book in 1976 with the title Energy Conservation in IEA, 1976. This book, in brief, contains an analysis of different energy use among OECD countries and provides a lot of recommendations on the energy measures. It is stated that "the fact that countries with similar per economic output use very different amounts of energy indicates the flexibility of energy use and thus conservation potential. 28 With such

²⁷ Michael Gargious, "Potential Price - Induced Fuel Conservation with Change", Journal of Energy and Development, vol. 6. August 1981, p. 61.

²⁸ Reprinted in <u>Journal of Energy and Development</u>, by S.A. Van Vactor, "Energy Conservation in the OECD Progress and Result", vol. 4, spring 1978, p. 243.

remark, the book received a remarkable success becoming the guideline of further work on Energy Conservation.

IEA introduced the "International Energy Programme" in 1976 to accelerate the conservation measures. The Research and Development Committee of IEA started vigorous efforts instituting many projects for energy conservation especially in building complexes, heat, pumping etc.

Moreover, the IEA provided a few recommendations i.e. energy price level, taxation of individual fuel, mandatory efficiency requirement on fuel appliance i.e. car and like others, subsidies for energy conservation etc. Moreover the IEA set a specific target for oil import, a 2 million b/d reduction next year.

By mid seventies the energy conservative policy gained a momentum in all the oil importing countries, particularly in Japan, USA, France, UK and other developed countries. It is not possible to deal with all these countries individually, but the measures taken by a few countries in the context of energy conservation needs special mention.

In the field of energy conservation, Japan achieved a remarkable success in late seventies. Japan which witnessed the annual growth rate of oil import over 20 per cent in 1960s and having limited domestic energy supplies, faced an acute problem after 1973-74. The Government adopted a Basic Direction of General Energy Policy in 1975 and set an

energy saving target of 9.4 per cent by 1985. In brief, following are the important measures adopted by Japan for the purpose of energy conservation. These includes - discouragement of the development of energy intensive industries, annual report on fuel consumption by industry, administrative guidance to fuel use, financial assistance by Japan Developing Bank for conservation, preferential taxes and insurance rate for fuel application limited scheme to provide financial assistant for better insulation etc.

France too, adopted similar extensive programme for the energy conservation. Following measures have been adopted: The Government conducts energy conservation awareness campaign and circulates information of new energy saving technique, a special tax on the excess consumption of heavy fuel oil, demonstration and subsidies for new technique, public information and education campaign, restriction on advertisement which may encourage energy consumption, provision for free information on fuel efficiency technique, improved traffic law, Research and Development on transport design, rules for thermal insolation etc.

Other developed countries i.e. USA, Germany, UK equally took initiative for the conservation on a broad basis. There are two general methods of energy conservation i.e. reduction of energy consumption by making

it more expensive. 29 With the help of taxation, energy consumption may be reduced by encouraging and subsidizing the development of various methods of saving energy through technological progress. As a result of adoption of conservation policy at world-wide, the oil demand has witnessed a steady decline.

Emergence of non-OPEC Supply

Of the various factors affecting the supply side particularly in the context of present crisis, it is the emergence of non-OPEC supplies of oil that has been the key factor at least in the short run. OPEC acquired the commanding power by the beginning of seventies providing as much as 55 per cent of world production and supplying 87 per cent of global demand. This overwhelming share provided OPEC adequate power to influence the price structure. The following tables illustrate the OPEC power.

²⁹ Most of the developing countries are forced to increase the oil price to conserve, the oil. The recent petroleum hike (February 1986) by the Indian Government may be seen in this context.

Table XII

World OPEC Crude Oil Production
(1,000 b/d)

	1973	1975	19777	1979	1980	1981
OPEC	30,988.5	27, 192.7	31,253,0	30,928.8	26,878.4	22,490.1
Non-OPEC	24,531.8	25,000.0	28,609.4	31,818.6	32,861.7	33.749.9
World	55,520.3	52,831.9	59,862.8	62,747.4	59,740.1	56,240.0
OPEC Share	55.8	51.5	52,2	49.3	45.0	40.0
Non-OPEC share including CPES	44.2	47.3	47.8	50.7	55•0	60.0
Non-OPEC share (excluding CPE)	26.9	24 . 5	28.8	31.5	30.8	34.0

Source: Annual Statistical Bulletin, 1981, reprinted in Annual Report, OPEC, 1981, p. 33.

Table XIII

Production and Exports of Crude Oil - World vs OPEC

(1,000 b/d)

	World	OPEC	% of Total
1973			
Production	55,802.5	30,988.5	55.5
Export	31,569.2	27,547.2	87.3
1975			
Production	53,384.0	27,155.0	50.9
Export	28,519.3	24,063.9	84.4
1977			
Production	59,862.8	31,253.4	52,2
Export	32 , 3 1 4 , 5	27,641.1	85 . 5
1979			
Production	62,747.4	30,928.8	49.3
Export	33,835.0	26,838.5	79.3
198 1			
Production	56,240.0	22,490.1	40.0
Export	26,548.0	18,431.2	69.4

Source: Annual Report OPEC, 1981, p. 125.

The Table XII makes it clear that OPEC's share in world oil market has been declining since 1973, as it came down to 40 per cent in 1981 to 55.8 per cent in 1973. While during this period non-OPEC both excluding and including CPE shows an unprecedented growth in its share in the world oil production. In the case of former it rose from 26.9 per cent in 1973 to 34.0% in 1981. While in case of latter the growth of share during this period is 44.2 per cent to 60.01 per cent in 1981. The table XIII indicates the declining share of OPEC in terms of production as well as in export. In 1973, the OPEC's export was 87.3 per cent which declined to just 69.4 per cent in 1981. Another remarkable feature of this declining share in export is that it shows a constant decline since 1973.

Table XIV suggests a unique trend in the global oil market, i.e. growing crude production of the non-OPEC oil producing countries. The main non-OPEC oil producing are UK, Norway, Mexico, Brazil, where output has been growing in low oil market. It is important that in 1973 the output of all non-OPEC was 3,995 (thousand b/d) which increased to 11,107 (thousand b/d) in 1983. In this period the most significant development is the emergence of North Sea oil. In 1973 the UK and Norway were producing only 35 (thousand b/d) which increased to 2,937 (thousand b/d) in

Table XIV

Crude Production from non-OPEC Source (excluding USA and Canada) (1,000 b/d)

Year	UK & Norway	Mexico	Africa excluding Egypt	Egypt	India and Brazil	All others	Total	
1973	35	550	270	255	322	2,563	3,995	
1974	35	640	310	230	330	2,525	4,070	
1975	221	805	293	295	350	2,630	4,532	
1976	524	930	217	332	358	2,729	5,091	
1977	1,055	1,050	321	4 1 8	37 8	2,792	6,014	
1978	1,451	1,330	333	484	399	2,907	6,904	
1979	2,004	1,616	355	525	444	2,998	7,942	
1980	2,174	2,154	401	635	387	2,942	8,693	
1981	2,338	2,554	432	690	534	2,944	9,492	
1982	2,620	3,003	461	710	672	2,982	10,448	. 37
1983	2,972	2,953	526	726	819	3,111	11,107	
Chang 1973-8	е 83							rifection (They and
	2,937	2,403	+256	+471	+497	+548	+7,112	

Source: Middle East Economic Survey, vol. 28, no. 14, 14 January 1985, p. 15.

Table XV

Crude Oil Production in OPEC Member Countries, 1973-1984

(1,000 b/d)

	1973	1975	1977	1979	1980	1981	1982	1983	1984	-
Algorio		982.6			1014.9		704.5		-	
Algeria	1097.3					79 7. 8		•	695.0	
Ecuador	208.8	160.9	183.4	2 14.2	204.9	211.0	198.3	237.5	256.1	
Gabon	150.2	223,0	222.0	203.4	174.5	151.4	155.1	155.4	157.4	
Indonesia	1338.5	1306.5	1686.1	1590.8	1575.7	1604.2	1324.8	1245.3	. 1280. 1	
Iran	5860.9	5350.1	5662.8	3167.9	1467.3	1315.9	2391.3	2441.7	2032.4	
Iraq	2018.1	2261.7	2348.2	3476.9	2646,4	897.4	1012.1	1098.8	1221.3	
Kuwait	7020.4	2084.2	1969.0	2500.3	1663.7	1129.7	824.3	1054.1	1053.0	
Libya	2174.9	1479.8	2063:4	2091.7	1830.0	1217.8	1136.0	1104.9	1077.9	
Migeria	2054.3	1783.2	2085.1	2302.0	2058.0	1439.6	1287.0	1235.5	1326.0	
Qa tar	570.3	437.6	444.6	508.1	471.4	415.2	332.0	269.0	325.3	
Saudi Arabia	7596.2	7075.4	9199.9	9532.6	9900.5	9808.0	· 6463 . 0	4539.4	4079.1	
UAE	1532.6	1663.8	1998.7	1830.7	1701.9	1502.3	1248.8	1149.8`	1069.0	
Venezuela	3366.0	2346.2	2237.9	2356.4	2165.0	2102.3	1695.0	1800.8	1695.5	Ö
Total	3 0928.5 2	7155.0	31253.4	30 298 . 9	26879.2	22598.6	18942.2	16992.3	16330.5	

Source: Middle East Economic Survey, vol. 29, no. 11/12, 23-20 December 1985.

1983. In case of Mexico it increased from 550 to 2,403 thousand b/d in 1983. Falling oil prices have so far had little impact on the attraction of non-OPEC oil producers especially on North Sea and Mexico which is evident from Table XVI. The oil price continued to decline since early 1982 and still it is continuing, but this period of North Sea oil has witnessed tremendous growth. It creased from 2,687 thousand b/d to 3,401 thousand b/d in 1984:

Table XVI

North Sea Oil Production (thousand b/d)

	1982	1983	1984	مسيدية
UK	2, 121	2,358	2,576	
Norway	530	654	746	
Denmark	34	43	46	
Netherland	2	203	33	
	2,687	3 , 08 7	3,401	

Source: Petroleum Economist, April 1985.

Taking all the considerations and figures of
Tables XIII, XIV and XV suggest that the recent OPEC's output
has declined tremendously. On the other hand, non-OPEC oil
producers have witnessed a tremendous growth. Such growth of
non-OPEC countries are certainly being taking place at the cost
of OPEC which is losing the market share rapidly.

From the above analysis it is clear that the world oil scene shows a qualitative shift both at the demand and supply side. The shift has deteriorated the position of OPEC. Consequently. OPEC had been trying to regain the control by regulating the supply side. For the first time, OPEC has introduced ceiling in March 1982. Having failed to retain its share OPEC has changed its strategy. Instead of defending the price line it is interesting in ragaining its market share even at the cost of slashing down the price. In doing so the OPEC is facing a series of constraints emanating from the conflict of interests among its members. This is not for the first time that OPEC members have conflict of opinion. In fact, from the day of inception, OPEC has been facing conflict situation, but so far. it has been able to resolve it but this time it is finding it difficult because the global context is today qualitatively different. It is not a boyant global demand but a situation of demand recession. Thus with the change in the global scenario dominated by recessionary spell, the

structural differentiation among the thirteen members seems to have increased. To appreciate the linkage between them it would be desirable to look at the structural base of the conflict among the OPEC countries.

. . . .

CHAPTER II

STRUCTURAL BASIS OF CONFLICTS IN OPEC

An organization of thirteen sovereign states --OPEC -- belonging to the developing countries. is bound to face conflict situation. Therefore, it is not surprising if the history of the OPEC is marked by the recurrence of conflict. Yet the fact remains that the organization has been able to resolve most of the conflicts though not always to each member's satisfaction. The current conflict situation that the OPEC is facing, however, poses a new challenge because this conflict situation has emerged out of crisis at the global level which in turn, has been sharpening the differences among the member countries, thereby the crisis itself. In other words, both crisis and conflict are enforcing each other. appreciate the efficacy of OPEC and its potential to resolve the conflict-situation among its members, it would be relevant to look at it at structural perspective.

The structural basis of conflict emanated from the diverse nature of the economics, political, social and strategic complex of the member states and the corresponding expectation from the Organization. At the basic level the function of the OPEC is to aggregate the interest of the members. Today when

OPEC is finding it difficult to aggregate the common interest, it becomes imperative to find out the constraints. In this context it would be relevant to investigate whether over the years the adversity and the heterogenity has enhanced or got reduced, because with the widening of the diversity the task of finding a common denominator becomes difficult.

The most relevant structural differential of OPEC members can be seen in the context of their size. From the Table XVII it is clear that territories of OPEC members have huge differences. For example, Qatar and Kuwait have the smallest size of territory while having just 22 thousand and 18 thousand sq. km respectively while on the other hand there are a few members who have more than hundred times of territory in comparison to Kuwait and Qatar. Algeria and Saudi Arabia have privilege of being the largest size member. Close to the size of the territory, the strategic importance is attached. strategic importance varies from region to region. For example. the geo-strategic importance of Gulf-region is well known in In other words, the Middle East occupies a unique geographical position as is lying between and linking the three continents - Asia. Africa and Europe. Other members who are

¹ Most of the OPEC members belong to the Middle East region, i.e. Saudi Arabia, Kuwait, Qatar, UAE, Iran, Iraq, Algeria and Libya.

Table XVII

Estimated Population, Density and Area of the OPEC

Members, 1973-83

OPEC Member	Area 1000 sq. km.	Populat mid-1973	ion mid-1983	Densi (per sq 1973	
Alg eria	2,382	15.7	20.6	7	88
Ecuador	284	6.7	8.2	25	34
Ga bon :	268	5	1.1	2	7
Indonesia	1,904	132.5	155.7	70	83
Iran	1,648	31.6	42.5	19	24
Iraq	438	10.4	14.7	24	32
Kuwait	18 -	.8	1.7		9
Libya	1,760	2.1	3.4	1	2
Nigeria	924	79.7	93.6	86	96
Qatar	22	.17	• 24	8	
Saudi Arabia	2,240	8.0	10.4	4	4
UAE	418	.3	1.2	1	15
Venezuela	912	11.3	17.3	12	18

Source: Annual Statistical Bulletin, OPEC 1973 and World Developmental Report 1985 and Europe Year Book, 1985.

outside of this region, have their own strategic importance. Indonesia's strategic importance is evident from the fact that it is regarded as a door step for Far East. Each member has its own perception of strategic security and such conviction leads to a conflict situation in the formulation of policy within the organization.

The study of the certain basic demographic feature may be relevant to show the growing structural differentials. as a whole is a good example of extreme heterogenity. Table XVII. consists of size of territory, population and density of two points of time -- 1973 and 1983 - of the OPEC nembers. It is evident from the table that most of countries have witnessed drastic change in their population between 1973 and 1983. Almost all the members' population showed growth. The most populous members i.e. Nigeria and Indonesia have more acute population problem than what they had been facing in 1973. This density increased from 86 to 96/sq. km and 70 to 83 km respectively. To the contrary, there are a few OPEC members whose density is still less than 10% sq km i.e. Saudi Arabia, Libya, Gabon, Kuwait etc. How can one compare Indonesia with its 150 million inhabitants or Nigeria with 90 million of the tiny member Qatar having population of 244 thousand only. whole the table shows that all the members can be put roughly into two categories. The one category which could be easily identified is the less populous state. In this category most of the Gulf states come i.e. Saudi Arabia, Kuwait, Qatar, UAE

∠per

∠per

Apart from Gulf states, Algeria and Gabon may qualify for this category. On the extreme side, other category is of most populous countries i.e. Nigeria, Indonesia and others.

Other feature of these inhabitants is the disproportionate population with higher degree of ethnic identification. Most of the people are Arabs and belong to the Muslim community. The dominance of this community in OPEC is well known fact. Apart from Muslim communities there are a lot of minority communities which cannot be ignored. In this category, Christian (majority of Roman Catholic), Druze, Jews, Buddhist, and Hindus are well known. Another feature is complex relationship within the various communities. Even within the Muslims, the infighting between Shia and Sunni is marked in the organization members. The frequent conflict between Arab and non-Arab adds another dimension in this context.

Another variable which exerts a profound influence on the functioning of the organisation is pluralistic nature of culture of the OPEC members. Each member of organization is guided by its own cultural legacy. Such cultural legacy includes belief, attitudes, ideas which is marked by the high degree of pluralism. Although the OPEC is dominated by Arab culture as most of members belong to the Arab world, but

² Many people see Shia-sunni conflict as the basic factor in continuing war between the two principal OPEC members -- Iran-Iraq.

there are a number of countries which are totally outside the Arab influence. i.e. Venezuela, Ecuador, Indonesia etc. Iran has a quite different culture, having long history of glorious Persian culture. Other prominent members Libya and Algeria, belong to the Megharib culture. Such diverse culture within a single organisation is a unique in itself.

Inherent heterogeneity of the OPEC members is also reflected in terms of language and religion. It is true that most of the OPEC countries have the Arabiclanguage. As many as seven members have the Arabic as official language. But there are other linguistic groups within the organisation. English, Spanish, Kurdish, Bhasa Indonesia, and Persian are the main languages of the members. Apart from these main languages, there are indefinite number of local dialects. Linguistic dimension plays a crucial role and provides the opportunity of interest with each other which ultimately may lead to resolve a conflict situation or to aggravate conflict.

To sum up, the growing awareness of all the heterogeneity with the course of time among the members contribute in aggravating the conflict.

³ Megharib culture denotes the specific set of culture of North African countries. Libya, Algeria, Morocco, Tunisia and Egypt countries belong to this Megharib.

⁴ Bhasa Indonesia is a form of Malay language which is the principal language of Indonesia. English is the official language of Nigeria while Spanish is the official language of Ecuador and Venezuela.

The most sensitive and effective aspect of structural heterogeneity among the OPEC member states is reflected in their economic make up Prior to the oil price rise the level of differentials among the OPEC member was a negligible and was manageable. But with the course of time, these economic variations have become more sharpen and has posed a serious threat to the survival of the organisation.

be divided into broad categories. In the first category, the structure of economic development of the member states is included, while proven oil reserves, quality of oil and oil revenues may be included in other category. Here a detailed study of both the categories will help in understanding the contemporary conflict situation being faced by the organisation. Moreover, it is not possible to discuss all aspects of each and every member, but efforts will be made to cover all the basic features which is relevant in this context.

Before the discovery of oil most of the OPEC member states had the tribal economy. It is especially true in case of the Gulf States. This basic component of economy was limited to fishing, pray and other tribal activities. Only a few states had the developed economy, i.e. Iran. 5 Iraq,

⁵ Iran or Persian state has a long tradition of craft industry and its trade with other countries is well known in ancient time. Moreover, Persian state was a part of ancient civilization.

until the discovery of oil had hardly any developed industries. The same case is with Libya who despite the large size of territory, cultivable land is restricted to certain districts near or along coast. So far the Arabian peninsula is concerned before 1940, the region was possibly the poorest in all the Middle East. Other African OPEC countries were under the colonial rule and their economy was subservient to the imperialist power.

with the discovery of oil and the advent of petrochemical industries the economy of the OPEC members have transformed completely. The escalating price provided unprecedented wealth to the oil producing countries. Such escalating price started in 1973 and continued up to the end of the last decade. A striking feature emerged from the oil price hike, i.e. their dependency on oil revenue and not only for the economic growth but for survival of economies. In this regard tables XVIII and XIX are relevant.

Table XVIII suggests that a few basic trends of economic development among the OPEC members. The average annual growth rate is taken of the two periods of 1965-73 and 1973-83. While GDP's average growth rate shows a general decline in the later period i.e. in case of Saudi Arabia, it declined from

⁶ Middle East and North Africa (Europa Year Publication, 1986), p. 22.

Table XVIII

Growth in structure of Production in OPEC Member Countries Average annual Growth rate (Percent)

	GD	5	Agric	xul ture	Inc	lustry	Manufa	cturing		vices
	1965-73	7 3- 83	65-73	7 3- 83	65-73	73 - 83	65-73	73 - 83	65-73	73-83
Algeria	7.0	6.5	2.4	4.3	9.1	6.4	10.4	12.6	5.3	7.1
Ecuador	7.2	5.2	3.9	1.9	13.9	5.0	11.4	8.9	5.1	6.5
Gabon										
Indonesia	8.1	7.0	4.8	3.7	13.4	8.6	9.0	12.6	9.6	9.0
Iran	10.4	-	5.2		10.5	•	-	acia	12.7	-
Iraq	4. 4	***	1.7	glash	4.8			-	5.1	•
Kuwait	5.1	1.4		9.1	ecs	-4.3	cine	ene .	ches	_
Libya	7.7	3.0	11.5	6.5	6.6	- 4.3	12.4	11.4	13.4	14.7
Nigeria	9.7	1,2	2.8	-1.9	19.7	0.3	15.0	10.7	8.8	4.1
Qatar										
Saudi Arabia	11.2	6.9	2.6	6.6	13.3	3.9	10.6	8.0	8.3	12.9
UAE	•••	10.8	-	era	-	-	**	-	-	***
Venezuela	5.1	2.5	4.5	2.6	4.1	1.5	5.7	3.7	6.0	3.1
						•				

Source: World Developmental Report, 1985.

GDP and Declining Share of Agriculture in OPEC Countries in 1965 and in 1983

OPEC Member	GDP (mil	lion dollars)	Agricultur	e's sha re in %
or Eo Manber	1965	1983	1965	1983
Algeria	3, 170	47,200	15	6
Ecuador	1,150	10,700	27	14
Gabon	 ,	-		~
Indonesia	3,630	78,320	59	26
Iran	6,170	. 	26	
Iraq	2,430	-	1 8	-
Kuwait	2, 100	21,330		1
Libya	1,500	31,360	. 5	2
Nigeria	4 , 1 90	64,570	53	26
Qatar	-	, ', 	-	-
Saudi Arabia	2,300	120,560	8	2
UAE	•••	27#520	-	. 1
Venezuela	8 ,29 0	8,170	7	7

Source: World Developmental Report, 1985.

11.2 per cent to 6.9 per cent, while in Libya it came down from 7.7 per cent to 3.0 per cent. But the degree of decline is not the same in all the members. But agriculture average growth rate shows a quite different trend between those periods. Algeria and Saudi Arabia have shown a remarkable growth in agriculture average annual growth rate as it shot up from 2.4 per cent to 4.3 per cent in case of former and 2.6 per cent to 6.6 per cent in latter country. On the contrary, most of the countries have witnessed a steady decline in agriculture average annual growth rate between the above mentioned period. For instance, Ecuador, Indonesia, Libya have witnessed the decline from 3.9 per cent to 1.9 per cent, 4.8 per cent to 3.7 per cent and 11.5 per cent to 6.5 per cent respectively.

tremendous growth in GDP and declining agriculture share in GDP. The decline of agriculture share occurred at the cost of oil. In other words, declining contribution of agriculture to GDP led the dependence on oil revenues. The importance of petroleum industry in Saudi Arabia is evident from the fact that in 1965 the agriculture contribution to the GDP was 8 per cent which declined to only 2 per cent in 1983. In Kuwait, the dependency on oil is more apparent as agriculture contribution to GDP in 1983 is just 1 per cent and moreover the Kuwait has only 0.1 per cent of land are

arable. In case of Algeria, Indonesia, there is sharp decline in the percentage of agriculture contribution. It declined to 6 per cent from 15 per cent and to 26 per cent from 59 per cent during the above period. Such declining tendency is also present in Nigeria and Libya. To the contrary, Venezuela shows constant/in terms of share of agriculture to the GDP in 1965 and 1983.

_trend

Import-Export Trade Structure

One of the factors of the basis of structural conflict in OPEC may be traced back to the export-import structure of the OPEC members. Most of the OPEC members do not have the same structure of export and import. Moreover in the course of time, it seems that these structural basis kept on sharpening. Here, it is necessary to study the various aspects of trade of the OPEC members to have a better understanding. With the help of various tables such studies can be made easy.

Table XX shows the degree of fluctuation in terms of exports of crude and refined products in OPEC members. All the members tried to increase the crude oil export after 1973 oil crisis but they received a severe setback after 1979 oil shock. Major OPEC countries were forced to reduce the export. Algeria's export cut down from 10,296 thousand b/d in 1979 to 616 thousand b/d in 1984. During this period Saudi Arabia export declined dramatically to 3,651.9 thousand b/d, from a

Table XX

Exports of Crude Oil and Refined Products from OPEC Members

(Thousand barrel per day)

	1973	1975	1977	1979	1981	1983	1984	
Algeria	1,028.7	939.6	1,065.0	1,029.6	723.6	552.0	616.0	
Ecuador	197.1	146.1	139.1	142.8	122.8	137.3	166.1	*
Gabon	132.5	211.9	192.5	179.1	138.4	116.1	151.0	
Indonesia	1,167.3	1095.1	1,472.9	1,224.6	1,148.3	986.5	1,068.2	
Iran	5,424.0	4886.1	4,986.3	2,579.6	808.1	1,816.1	1,586.0	
Iraq	1,933.3	2096.3	2, 203.1	3,309.4	800.0	786 .7	917.0	
Kuwait	2,847.3	1943.9	1,938.1	2,506.7	1,094.6	958.7	1,024.7	
Libya	2,209.5	1478.6	2,034.2	2,050.6	1,124.6	1,016.1	7 88 . 0	
Nigeria	1,993.1	428.3	2,044.1	2, 234. 1	1,271.8	951.5	1, 114. 1	
Qatar	570.3	6931.8	410.3	501.6	404.2	285.1	378. 5	
Saudi Arabia	7,346.3	6931.8	8,949.8	9,193.3	9,498.9	4, 197. 1	3,651.9	
UAE	1,522.1	1661.4	1,992.8	1,818.3	1,476.7	1,138.0	1,096.3	
Venezuela	3,150.1	2086.2	1,963.9	2,093.9	1,746.1	1,477.0	1,508.7	
Total OPEC	29,521.1	25623.6	29,392.1	24,860.7	20,354.1	14,420.2	14,267.5	•

Source: Middle East Economic Survey, vol. 29, no. 11/12, 23-30 December 1985.

peak of 9,630 thousand b/d. Kuwait's export of crude oil declined to 1,024 thousand b/d in 1984 from 3,309 thousand b/d in 1979. But there are a few countries whose export shows a steady growth or remains constant in above period. But in this category only small member countries, i.e. Ecuador, Gabon, come. Influence of such minor members on the OPEC as a whole is negligible.

There is a corresponding relationship between the oil export and oil revenues. The declining of export, in general, leads to a decline in oil revenues. But there is no similar patterns of decline of oil revenues. In comparison to 1980, OPEC members have witnessed a tremendous decline in their oil revenue in 1984.

Table XXI shows two significant patterns. First is growth of oil revenues of the OPEC members from 1974 to 1980 and other is decline of oil revenues in 1984 from 1980. Moreover, change in terms of percentage between 1977-80 and 1980-84 has been shown. This changing pattern is more relevant to understand the trade structure of oil. Between 1974-80, oil revenue of the total OPEC increased to 316 per cent. But in this period there are a few members where growth in oil revenue is more than this average. Saudi Arabia's growth is 452 per cent and Iraq's is 457 per cent. However, Gabon's growth is more than one thousand per cent. But its role is insignificant.

Table XXI

OPEC Countries Revenues from Oil (million US dollars)

	1974	1980	1984	Change in % 1974-80	Change in % 1980-84
Algeria	3, 299	12,500	9,700	378	- 77
Ecuador	4,414	1,394	1,600	336	+ 114
Gabon	173	1,800	1,400	1,040	- 77
Indonesia	1,364	12,859	10,400	942	- 80
Iran	17,822	13,500	16,700	- 75	+ 123
Iraq	5,700	26, 100	10,400	457	- 39
Kuwait	6,543	17,900	10,800	273	- 60
Libya	5,999	22,600	10,400	376	- 40
Nigeria	6,654	23,405	12,400	351	- 52
Qatar	1,451	4 , 795	4,400	330	- 91
Saudi Arabia	22,574	102,212	43,700	452	- 42
UAE	5 , 536	19,500	13,000	352	- 66
Venezuela	9,271	16,344	13,700	176	- 83
					-
Total	86,800	274,909	158,600	316	- 57

Source: Middle East Economic Survey, vol. 29, no. 11, 23-30
December 1985.

Iran, as an exception, has witnessed a decline of 75 per cent which is certainly due to change in the regime. As a whole most of the members' revenues growth increased more than 300 per cent.

In a comparison of year 1980 and 1984, oil revenues, the table XXI gives a quite different trend. That is general decline in oil revenues. OPEC as a total has witnessed 57 per cent decline in 1984 from 1980. With the exception of Gabon and Iran, almost all the member's oil revenues declined but in various degrees ranging from 91 per cent in case of Qatar to 42 per cent in Saudi Arabia and 40 per cent in Libya.

Table XXII reflects a very significant aspect of
the structure of export. It is well known fact that most of the
OPEC members' trade is dominated by the oil export. But there
is considerable variation in the share of crude petroleum in
export. The Table XXII makes a study of this aspect in a
given time of 1970 and 1980. It is evident from the table that
most of the OPEC members' share of crude petroleum is more than
90 per cent in 1980. Iraq, Libya, Nigeria, Qatar, Saudi
Arabia, UAE have the share of crude petroleum more
than 90 per cent. Others members share is more than 53
per cent. But in 1970 the situation was quite different.
A comparative figure of 1970 and 1980 shows that all the
members share of crude oil in export increased. For example,
Algeria's share increased from 66 per cent to 82 per cent.

Table XXII

Share of Crude Petroleum in Export (in percentage)

OPEC Members

OPEC Member	1970	. 1980
Alg eri a	66.01	82,38
Ecuador	• 44	55.43
Gabon	40.93	87.95
Indonesia	29.24	53.24
Iran	74.85	91.10 ^a
Iraq	94.22	98.07 ^b
Kuwait	79.27	69.10
Libya	99.92	99 . 63 ^c
Nigeria	58.12	94.84 ^d
Qatar	96.21 ^e	92 . 93 ^d
Saudi Arabia	82, 25	94.82
UAE	96.33	94.61
Venezuela	61.97	63 . 47

a = 1977

Source: UNCTAD 1984 Supplement, A Handbook of International Trade and Development.

b = 1978

c = 1981

d = 1979

e = 1972

Indonesia's share increased from 29 to 53 per cent. In case of Nigeria and Saudi Arabia it increased from 58 to 94 and from 82 to 94 per cent respectively.

The figures in Table XXIII indicate a general trend, i.e. the rise in the share in percentage of the merchandise export of OPEC members. Only exception is Kuwait whose share of merchandise export was 98 per cent in 1965 and

Merchandize Trade - Export of Selected OPEC
OPEC Members' Share in percentage in 1965 and 1982

	1965	1982	
Algeria	57	99	
Ecuador	2	64	
Indonesia	43	85	
Libya	98	99	•
Saudi Arabia	98	99	
Kuwait	98	87	
Venezuela	97	97	•

Source: World Developmental Report, 1985.

declined to 84 per cent in 1982. Algeria, Ecuador and Indonesia showed a remarkable growth in the share of merchandize export

increasing from 57 to 94, 2 to 64 and 43 to 85 per cent respectively. Other notable feature is that Algeria, Libya and Saudi Arabia's share of merchandize is 99 per cent. It means that all these countries now are heavily dependent on the merchandize export for the Balance of Trade. There is no need of explanation that merchandise export in these countries is totally based on petroleum and petro products.

The tremendous growth in oil revenue has provided the golden opportunity for the OPEC members to follow an independent policy of trade to make themselves free from the Western industrial countries, but it did not happen. Table XXIV gives a clear picture that OPEC's trade is maximum with the developed countries. But in export and in import, the dominance of the industrial countries is evident. Their dependence on the industrial world is still there. But there is a considerable difference of the degree of this dependency. Their linkage with the industrial countries is more or less same. There is no more fundamental structural change and it is expected to remain the same even in future.

The various aspects of trade in the given table (XXIV) shows that there is a considerable elements of structural conflict in the OPEC organisation. The two most important factors which emerged from the analysis is that their dependence on oil export with various degrees continued to remain a fact

Table XXIV

Export and Import of OPEC Members and Share of Industrial Countries

Member	In Million US Dollars				In per cent share of Industrial Countries			
	Export		Import		Export		Import	
	1979	. 1984	1979	1984	1979	1984	1979	1984
Algeria	9,865	11,851	8,403	10,395	95.1	92.2	87.4	82.6
Ecuador	21,078	2 , 6 2 8.7	599.	7 1,744	46.1	67.0	79.0	71.0
Gabon	18,492	2,050.9	5,321	7,622	61.7	77.2	91.7	88.0
Indonesia	15,579	21,881	7,226	13,880	76.0	75.0	65.0	65.0
Iran	18,428	15,136	8,873	18,860	7 9.0	66.0	72.0	65.0
Iraq .	20,275	9,681	9,868	9,806	55.0	37.0	76.0	60.0
Kuwait	18,404	10,569	5,198	7,641	60.0	46.0	72.0	72.0
Libya	16,085	10,519	5,311	6,869	87.0	73.0	81.0	74.0
Nigeria	17,222	14,304	10,273	7,059	84.0	73.0	84.0	70.0
Saudi Arabia	58,652	42,654	24 , 257	33,368	75.00	59.00	79.0	79.0
UAE	13,652	17,636	6,971	7,030	76.0	62.0	71.0	72.0
Venezuela	14 , 1 <i>3</i> 0	15,428	9,618	6,843	63.0	65.0	85.0	83.0

Source: Direction of Trade Statistic Year Book, 1985.

and other is OPEC members' dependence on industrial countries for export and import. Other important point which has emerged that OPEC members structural differential is more acute today than what used to be half or a decade earlier.

Oil Reserve and Quality of Oil

The oil reserve and its life expectancy is a most crucial factor for OPEC members today. Now each member is forced to think of past oil period. once oil policy is shaped by its known oil reserve. It is well-known that each member has its own oil reserves.

Table XXV consists of figures of oil reserve of 1973, 1981 and 1985 of OPEC members, year of production at 84 level and the share of OPEC members' oil reserve of total in 1981. All these aspects help in understanding the possible basis of structural conflict. The very structure of the oil reserve is not the same. There are a few countries who have the larger share of oil reserve. Saudi Arabia, and Kuwait have share of 38 and 15 per cent in 1981. On the other hand, Gabon, Qatar's share is less than 1 per cent. Such differential cannot be ignored in studying the conflict.

Other relevant figure in table XXV is the life expectancy of oil. This life expectancy varies from 9 years in case of Gabon to 267 years in Kuwait, Saudi Arabia

Table XXV

OPEC Crude Oil Reserves (million barrels)

	1973	1981	1985	Year of production at the level of 1984	Percentage share of reserve of 1981
Algeria	7,640	8,080	9,000	40	1.9
Ecuador	5,675	850	1,400	16	0.2
Gabon	1,500	480	5 1 0	9	0.1
Indonesia	10,500	9,800	8,650	13	2.2
Iran	65,060	57,000	48,500	. 35	13.1
Iraq	31,500	29,700	44,500	100	6.8
Kuwait	72,750	67,730	90,000	267	15.5
Libya	25,500	22,600	21,100	57	5.2
Nigeria	20,000	16,500	16,650	32	3. 8
Qatar	6,500	3,434	3 , 350	24	0.8
Saudi Arabi		167,850	169,000	102	38 . 4
UAE	25,500	32, 176	33,000	-	7.4
Venezuela	14,000	19,888	25,840	41	4.6 .

Source: Annual Report OPEC, 1981 and Middle East and North Africa, 1986.

⁷ Here two things are notable. First, proven oil reserves do not demote total oil which is placed but only that proportion of oil which is explorable with available technology at present price. Other is oil reserves subject to wide margin of error depending with supply data.

Iraq, and UAE. Their oil production will last more than hundred years. Their interest is bound to be in conflict with those members who have the marginal oil reserves and whose oil may exhaust by the first quarter of the next century. Taking into account these figures it may be concluded that Gulf states are the most favourites. Other members are relatively weak and may face odd challenge in future. For those states whose economy is dependent on oil for the greater part of their economy, the first consideration must be its oil reserves, their size and the rate of depletion. Such consideration makes more acute problem today.

It is seen that those OPEC members who have the limited oil reserves with shorter life expectancy, are generally in favour of price maximization, e.g. Libya, Algeria, Nigeria. On the contrary, OPEC members with high life of expectancy of oil output support the policy of fair market share in the global oil market. It is evident from the decision of December 1985 OPEC oil ministerial meeting when Saudi Arabia and Kuwait advocated the policy of securing a fair market in the oil market while other hardliner e.g. Libya and Algeria strongly argued for price maximization and its stability. Other impact of this oil reserve can be seen that those whose oil

[/]ed., 8 Gerald J. Mangone, /Energy Politics of World (New York, 1986), p. 167.

reserve is expected to exhaust in near future, hesitate to take a bold step due to anticipation of the fearful day - the day when oil runs out. In case of small members whose reserve is bound to exhaust by the beginning of the next century they have become passive in the organization, i.e. Gabon and Ecuador. In this way, the perception of the OPEC members differs to a larger extent, depending on the year of production level.

Earlier, there was no consideration of the oil structure but now the quality of oil has become a bone of contention and has posed a serious threat to the organization. In fact, as a result of various qualities of oil their determination of official price is more acute than earlier. During the period of price escalating members were least worried of the qualities of oil. There are three qualities, e.g. Saudi Arabia, light, heavy and medium. But there are more than two dozens of oil qualities which demand special attention.

The various qualities of oil which are mentioned in table XXVI below show the basis of conflict inherent in the quality of oil. Each member wants that price should be maximum of its quality of oil.

Table XXVI

Qualities of Oil

Member	Qualities of Oil
Algeria	Saharan, Blend, Zarzaitine
Ecuador	Oriente
Gabon	Mandfi, Gamba
Iran	Light, Heavy
Iraq	Barrah, Kirkuk
Kuwait	Export
Libya	Brega, Zuintinia, Eariz
Nigeria	Bonny Light
Qatar .	Dukkan, Marine
Saudi Arabia	Light, Medium, Heavy, Berry
UAE	Murban, Zakum, Umm, Ghaib
,	

Source: OPEC Bulletin, May 1984.

Political Structure

It is relevant to take note, in brief, the political structure of the OPEC members at general level. It is relevant in the sense that policy is formulated by the decision-makers who derive the legitimacy from the political structure and their functioning cannot be separated from the political process. Moreover, the changing political regimes have the direct influence on the functioning of the organization. Within the organisation it is generally seen that members having similar set of political ideology forms a lobby and functions as an interest group. Such happening is a common phenomenon in the history of OPEC.

In fact, OPEC members present a classical example of heterogeneity of political systems. There are a few members who have the absolute form of monarchy i.e. Saudi Arabia, Qatar, UAE, Kuwait, while a few members have adopted democratic structure, i.e. Ecuador, Venezuela, Indonesia. On the contrary revolutionary, military regime are too found in the organization. Libya qualifies in the former category while Nigeria comes in the latter category. Iran has a unique political Islamic Republic after the Shah regime. In fact, the distinction between revolutionary or radical regimes and more traditional or more conservative is frequently withdrawn. In the history of OPEC, generally, it is seen

the regulations are radical and socialist leaning. While the Monarchies are more conservatives with much private wealth. 9

In the context of ideological dimensions, there is a sharp division in the organization. Although most of the members are adherent to the Islamic ideology, a few members i.e. Libya, have the Socialist ideology at least in theory. Coup d'etre is a common phenomena in some of member countries. Nigeria has witnessed coup twice within five years and still it is under military regime. Conflict between republicans and monarchism, democrats and military dictators, between those who have socialist outlook and who have conservative attitude may be traced in the organization. 10 Libya, Iraq and Algeria are republican and they have better understanding among themselves. Gulf states have the absolute monarchial form of political system and this may be one factor behind their unity.

The emergence of concept of nationalism in the islamic world within the organization has an adverse effect on the other communities. A minority community identified

Russell A. Stone, OPEC and the Middle East - The Impact of Oil on Societal Development (New York: Praeger, 1977), p. 5.

¹⁰ Formation of Gulf Cooperation Council (GCC) by six monarchian states under the leadership of Saudi Arabia may be seen in this context. Its main purpose is to prevent the republican wave. Other members are Kuwait, Qatar, Bahrain and UAE.

either by linguistic or religion or by others have become more conscious of their national character. Each member is now more conscious of its national interest, particularly at the time of conflict situation. Such conscious national interest may aggravate at the time of deepening the crisis.

To sum up, the above mentioned various structural dimensions play crucial role in the functioning of the OPEC.

Moreover, it is notable that these dimensions are getting more differentiated with the time.

Emergence of OAPEC and GCC

One of the most significant development which took place within a decade of OPEC's birth is the formation of OAPEC - Organisation of Arab Petroleum Exporting Countries. 11 OAPEC was established to safeguard the interests of members and to determine ways and means for their co-operation in various economic activities in petroleum industry. Many scholars consider it as parallel organisation to weaken the OPEC. The OPEC is shaken by movements of OAPEC launched by Arab countries. 12

¹¹ OAPEC members are: Algeria, Behrain, Egypt, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, Syria, Tunisia and UAE.

¹² Abdelkader Maachou, OAPEC (London, 1983), p. 13.

The emergence of OAPEC is the result of a specific situation to serve a specific purpose. Following the 1967 Arab-Israeli war, the Arab chiefs summit conference at Khartoum rejected the idea of oil boycott. To the contrary, they took the decision to use the oil revenues in the service of Arab goals. They appealed that oil exporting countries would use their oil to enable those Arab states which are exposed to aggression. The basic motive behind the OAPEC is to show the Arab unity and to use oil as a diplomatic instrument for the welfare of the Arabs. The political use of Arab oil was institutionalized in January 1968 with the formation of OAPEC.

The relationship between OPEC and OAPEC is governed by clause 3 of the OAPEC which says that provision of this agreement shall not deemed to effect those of agreement of OPEC and the parties (OAPEC) of the agreement shall be bound by the ratified resolution of OPEC and shall abide by them even if they are not members of OPEC. The main purpose of inclusion of such provision is to avoid disagreement with their OPEC Partner. There is certain amount of continuing interdependence between both the organisations but they have different

¹³ Stone, n. 9, p. 5.

goals and motivation as well as composition. The main purpose of OPEC was to ensure price stability while OAPEC concerns with Arab cooperation and unity. The comparison of OPEC comprises countries from a wide range of geographical area, ranging from Africa, Latin America, Middle East and Asia, while OAPEC consists of exclusively of Arab oil producing countries having certainly a regional bias.

Taking into consideration these aspects, there is little doubt of the possibility of clash of interest with each other. For Arab countries of all political hues seems to be comfortable in OAPEC and ready to support whole-heartedly. 14 Another observable fact is owing to increasingly exhaustion of oil reserves in OPEC member (non-Arab OPEC countries) and if the current trend continues, more or less OPEC will be reduced to the Arab countries.

Such concept of regional co-operation inspired the gulf states to form a Gulf Cooperation Council in 1981. The four OPEC members -- Saudi Arabia, Qatar, Kuwait and UAE --

¹⁴ Mangone, n. 8, p. 36.

¹⁵ GCC was established in 1981 by six Arab States - Saudi Arabia, Kuwait, Qatar, UAE, Bahrain and Oman. The last two members are not the members of OPEC. Its activities cover all the aspects, viz. economic, political, cultural, defence etc.

are the members of this organization. With the formation of GCC Saudi Arabia has emerged as undisputable leader among the Gulf states. Moreover, the Gulf lobby has become stronger within the OPEC.

opec fund for international development which was established by an agreement signed by all OPEC member countries in Paris in 1976, is another change in the structure of the OPEC. However, the OPEC fund for international development stands for cooperation and assistance. Its main objective is to reinforce financial cooperation between OPEC member countries and other developing countries through the provision of financial support. Emergence of such fund, it seems, with the collective action of the OPEC members will provide the opportunity of coherency in OPEC members. But the growing experience shows increasing bases of conflict in OPEC. In addition, it has started to finance some projects completely of its own, resulting in generating the competitive instinct.

Apparently, the structural differences among the OPEC members have increased during the last one decade. However, one predominant trend, common to all has been their increasing dependence on oil. Therefore, their economies have become sensitive to oil price and revenue. So long OPEC could contribute decisively in influencing the oil price, the member states could agree to minimise their

differences and they did respond to the mediating role played by the OPEC. However, today with the declining strength of OPEC to defend the oil price, thereby to ensure adequate finance to the member countries, the organization seems to be losing its efficacy behind which lies the structural differences of the member states.

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CHAPTER III

THE CONTEMPORARY CONFLICT: NATURE AND DIMENSIONS

The contemporary crisis which is threatening the very survival of the OPEC, is quite different in character. It is distinct in its origin, nature as well as in dimensions. The present chapter will be an attempt to analyse the nature of contemporary crisis and conflict in the background of the global context and structural make-up of the OPEC given in the preceding chapter.

Historical Background

Historically speaking, the origin of the present crisis can be traced back to the year 1980 when for the first time, the market started apprehending the possibility of glut. During two decades of its existence though OPEC could assert decisively only in the seventies (after ten years of existence), the organization for the first time felt a threat of losing control over the oil prices in 1980. With the outbreak of Iran-Iraq war, the two founding members of the organization, it was expected that the market would experience a spurt due to the withdrawal of the oil production which was about 4 million b/d. This did not happen, suggesting that the market was already

having excess of supply. 1

The unpredictability of the market can be seen by the fact that it behaved contrary to the projects made by some experts. That by mid eighties OPEC supply would not be able to meet the global demand, hence the importing countries should maximise the domestic production by investing in oil exploration.

In the oil history of over hundred years, it is only with the beginning of the present decade that the market has been experiencing glut. Even, in 1973, when the oil price was increased almost fourth time, the demand showed either steady growth or remained constant. In such situation OPEC's output went on increasing throughout the seventies.

In 1982 OPEC realized the alarming proportion of the situation. While the global oil profile was no longer in their favour, Saudi Arabia refused to discuss production rates at thetcrucial juncture. Moreover, despite the recovery

Pierre, Tenzian, trns by Michael Pallis, OPEC: Inside Story (London, 1985), p. 28.

² See Middle East Economic Survey, vol. 27, no. 1, 16 April 1984.

Saudi Arabian oil Minister, Yamani, refused to discuss production rates until a unified structure of official prices, with agreed differentials, has been established. See Petroleum Economist, May 1981, p. 187.

of Iran-Iraq, Saudi Arabia continued to maintain production at the level fixed as compensation of Iran-Iraq withdrawal.

According to an estimate, Saudi Arabia single handed created a surplus of 2 to 3 million b/d during first quarter of 1981.

Other most important factor was growing North Sea oil output in 1981. With the use of additional development of North Sea, British production increased by 7.4 per cent in the first quarter of 1981.

Excess of supply of crude inevitably made spells the price weakness. This became apparent in the spot market in 1981. In fact, the oil industry has never been able to hold the price at times when the supply is abundant. This is what happened in 1981 and 1982 when the structure of prices had been in disarray, with generally no accepted market price and no rational system of differentials.

The disarray in the crude oil price is evident from XXVII which shows selling price (state selling price) and spot price of three different years, i.e. March 1981, March 1982 and March 1983. The table makes it clear that in March 1981

^{4 &}lt;u>Dawn</u> (Karachi), 29 May 1981.

⁵ Ibid.

Table XXVII

Selected Crude Oil Price in March 1981, 1982 and 1983 (in dollar)

Quality of oil	1981		198	32		1983		
	price t	ffec Spot ive price ate	Selling price	g Effec- tive date	Spot price	Selling price	Effec- tive date	Spot price
Arabian light 340	32 1.1	1.80 37	34	1.10.81	28.75	34	1.10.82	28.15
Iranian light 34°	37 1.1	.80 37.2	25 32	-d o -	26	31, 20	1.7.82	26
Algerian Blend 440	40 1.1	.81 38.5	io 37	1.1 .82	32	35.50	20.3.82	-
Nigerian Light 37°	40 1.1	.81 38.5	0 36.50	-do-	31	30.02	1, 2,83	28,50
British Forties 35°	39.25 1.1	.81 38.5	0 37	9.2.82	30	30.50	-do-	27.50
Norway Eurofisk 42°	37 1.1	-81 38.5	0 35.75	-do-	30	31	-d o-	28

Source: Petroleum Economist, vol. 48, no. 3, March 1981; 6 3 vol. 49, no. 3, March 1982, vol. 50, no. 3, March 1983.

the crude price was at its peak. Even the spot price of certain categories of oil was more than official price, i.e.

Arabian Light 34, whose spot price was \$ 37 per barrel while official state selling price was \$ 32. But in March 1982, the market was deteriorated, that its spot price was reduced to \$ 28.75 per barrel, while state selling price was \$ 34. Such deterioration is found in almost all kinds of crude oil but at various degrees. In March 1983, the situation had become more worse as spot price continued to decline. From the table, it is clear that in case of Iranian light, it was the worst case.

Another significant development in early 1982 was
the decline of non-OPEC official price. The British National
Oil Corporation (BNOC) reduced its North Sea crude oil price
by \$ 1.50 a barrel on 8 February 1982. Further the announcement
on 1 March 1982 by the British to cut oil prices by \$ 4 a barrel to
\$ 3.1 put serious pressure on OPEC. Another development
was the price reduction announcement by Mexico by \$ 1.50 barrel
to 2.50 barrel which was to be effective from 1 March 1982.

In the background of such developments the \$ 34 price was becoming almost impossible to hold leading to "price war" within the OPEC members. Venezuela, Iran, Nigeria reduced their prices at different levels. Iran cut short in desperate for funds to wage its war against Iraq, three times for a total of \$ 4 a barrel. 6 Nigeria was another OPEC

⁶ Indian Express (New Delhi), 12 March 1982.

member who felt enormous pressure from the British for reduction of crude oil price.

Against the background of a depressed market situation the 63rd Extraordinary Conference was held in March 1982 in which a general understanding was approached. According to this understanding the total output ceiling of OPEC would be 18 million b/d for the sake of market stabilization. At the same time the Ministerial Monitoring Committee was set up to analyse the market developments and to recommend necessary measures to be taken. However, such measures were proved inadequate for the OPEC to regain the market control.

Crude oil market has been experiencing a down

trend throughout 1982 but it had become more acute in the

beginning of 1983. The failure of OPEC in January 1983

consultative meeting, the spot price began to fall sharply.

Such depressed spot market prompted many OPEC and non-OPEC

oil producers to reduce the market. By February 1983, Egypt

reduced the crude prices by a total of \$ 2.75 a barrel.

Soviet Union, too, reduced the price for its urals crude

by \$ 2.15 a barrel. Surprisingly, BNOC, which had been

resisting the pressure but was forced to announce on 18 February

1983 that it was proposing a reduction of \$ 3 a barrel. With

such decision, many oil exporting countries announced the

reduction of oil price including a few OPEC member. Following

the UK's decision Norway announced a crude price reduction

by \$ 3.50 a barrel. The most serious development was the

Nigeria's announcement of price reduction following the British's decision. Nigeria reduced the light price by \$ 5.5 a barrel just \$. 0.5 a barrel below the new price of BNOC's. 7

In the midst of prevailing such chaos in market and low global oil profit, the most controversial of OPEC conference was held in London in March 1983. It was a landmark in the history of contemporary crisis as it was the first systematic attempt to regulate the oil production and to reduce the oil price on the line of market realities. At the eve of meeting it was widely believed even members were convinced that further reduction in price was imminent. Saudi Arabia decided to give up the role of defending the lunchmark price and surprisingly Yamani anounced before London conference that "I see no way out of a price reduction. It is only way out but it is bitter medicine...If no decision is taken by OPEC, matter will be left to individual members to act at will."

After discussions and negotiations of unprecedented length, the general agreement came out which included the price reduction and the quota system for the OPEC as well as for the individual member. However, in March 1983 London

⁷ Annual Report, OPEC, 1983.

⁸ Quoted from "OPEC Inside Story", p. 314.

conference was the first major step to retain the market in their control, but such measures were not adequate and OPEC found itself in great trouble in the following time.

Nature of the Contemporary Crisis and Conflict

The nature of the contemporary conflict and crisis in OPEC is quite distinct in character. The basic feature of the present conflict may be traced back to the oil glut or excess' of supply and decline of oil demand in the world. Now, in a buyer's oil market the OPEC remains no longer a force. Unlike the oil crisis of the past decade which threatened the industrialized countries, the contemporary has threatened the OPEC. The OPEC members' conflicts have become apparent in such a situation and at the same unmanageable for OPEC. To have a better understanding of the present crisis, it is relevant to look into two most vital aspects i.e. oil price and output.

The immediate result of the excess of supply led to the sharp decline in oil prices which, in turn, baffled OPEC members. On the price issue a major crack seems to have developed in the solidarity of the organisation. This is reflected in the recent haggling among the OPEC members regarding a price cut. The world oil market is periodically rocked by price fluctuation and a wild speculation about impending collapse of the petroleum organisation. In early seventies,

the OPEC managed to quadriple the price of crude oil and maintained the high price throughout the decade. In 1979, the price of oil touched a peak of \$ 35 a barrel but OPEC failed to maintain the same price structure in the beginning of eighties. In 1981 and 1982, there was a sharp decline in spot oil market, as a result OPEC was found to change its strategy. First, OPEC tried its best to maintain the price structure by adopting a coordinated ceiling of OPEC oil output. It was decided in March 1982 OPEC conference in Vienna that the total output ceiling would be 18 million b/d. Such celing price was not enough to curb the market and the spot market continued to decline. In the wake of such deterioration the London OPEC conference was held in March 1983 when the first time oil price was reduced by \$ 5 a barrel. The price of crude was reduced to \$ 29 a barrel from \$ 34 a barrel.

But this reduction was not sufficient and after a slight improvement in 1984, the beginning of 1985 showed a good deal of chaos in oil price. The reduction of oil price by a few non-OPEC oil producers forced the OPEC to reduce the further oil price. In the 73rd extraordinary OPEC conference which was held in Geneva on 26-30 January 1985, it was decided to introduce a new price structure. But there was a sharp division of opinion among OPEC members on the issue of new price structure. A unanimous decision on this issue could not

have reached even though the majority of the OPEC members agreed to have a further cut in their oil price. Under this new price structure official average price was reduced by \$\$ 2 a barrel. They also decided to give up the system of setting a bench mark price for crude oil and the abandonment of the Arabian Light as OPEC marker. At the same time the differentials of \$\$4 a barrel between Arabian Light and Arabian heavy has been narrowed to \$\$2.5 a barrel.

The meeting of the OPEC conference which was held on 22 July 1985 at Geneva sharpened the conflict within the organization. Members of the organisation agreed at full meeting to differ huggling over output ceiling and concentrated on pricing. As a result, it was decided to cut prices slightly for certain grades of crude oil but again it was not whole—heartedly accepted by all the members. Iran, Libya and Algeria who reflected the last January's cut in official prices of light crude, appeared to resist official price reduction in principle. In practice they have had to offer heavy discounts to sell out. 10

In 73rd Geneva OPEC conference which was held in January 1985, out of 13 OPEC member, 9 agreed to a price cut only. Algeria, Libya and Iran objected the new price structure while Gabon abstained.

¹⁰ International Herald Tribune, 26 July 1985.

The Geneva agreement of July 1985 did not enable the OPEC to strengthen its position in the international oil market. The failure attributed not merely to price and production issues but deterioration in OPEC's power and influence has been brought about by more by the failure of the member countries to abide by the organization's rule. 11

By the end of 1985, the OPEC was placed in very bad shape. The failure of the 75th extraordinary conference held in Vienna on 3-4 October 1985, on the redistribution of quotas of individual member on the line of market realities forced OPEC to change its strategy. The OPEC conference which was held in Geneva in December 1985, decided to introduce a new strategy to survive. After a marathon discussion, this Geneva meeting ended with an agreement "to secure and to defend a fair share for OPEC in world oil market". This is no universally acceptable meaning of this phrase and different members have interpreted it in a different ways.

There is no doubt that new strategy adopted by the OPEC led to the collapse of crude oil price and virtually a "price war" between OPEC and non-OPEC started. This price war is evident from Table XXVIII. From the table it is evident that in the last week of March 1986, price of crude

¹¹ Times of India (New Delhi), 30 July 1985.

Table XXVIII

Spot Crude Oil Price

(March 85 to March 1986)

Weak Average	North Sea Brent Blend in per barrel US \$	
March 1985	28.28	
Ap ril 1985	28.18	
May 1985	26.89	
June 1935	26.58	
July 1985	27.01	
August 1985	27.44	
September 1985	28,13	
October 1985	28.82	
November 1985	30.03	
December 1985	26.75	
January 1986	20.85	
February 1986	15.35	
March 1986	11.85	
April 1986	10.55	

Source: Hindu (Madras), 8 April 1986.

touched unbelievable bottom when it dipped below \$ 10 per barrel, for the first time in almost a decade. Price between 1985 to March 1986 showed a dramatic decline in spot oil price.

Another aspect of the contemporary crisis may be understood in terms of output issue. Falling oil price is not the only factor baffling the organisation. The adoption of coordinated oil output ceiling with individual quotas system shows another bone of contention in the recent times. Under the pressure of oil glunt OPEC has adopted a new strategy, i.e. total output celing for the OPEC as well as the individual quota. Such policy was never witnessed in the history of OPEC. It is only since 1982 that such policy has been being introduced. Adoption of such policy added a new dimension in the conflict in OPEC members. It has now become an uphill task for the organisation to reach at an unanimous agreement on the ceiling issue. Moreover the ceiling output is a matter of revision time and again depending on the oil market developments. quota was modified in March 1983 in London OPEC conference when it was fixed at 17.5 million b/d. This quota was thoroughly revised in October 1984 when it was reduced to 16 million b/d. Even this ceiling was proved not sufficient to strengthen the OPEC power in the oil market which is evident from the recent developments of the market.

In a buyer's market the only way to jack up prices is to cut supplies and this scrap of economic wisdom is not news in OPEC circle, but the practical application is too difficult. 12 Such difficulties had been sorted out so far with unprecedented length of talks and negotiations. There are two major roadlocks that stand in the way of any solution to the current impasse First is the determination of OPEC's production ceiling in total and other is the division of the overall OPEC output ceiling in terms of individual national These profound differences of approach have made themselves divided into various interest groups. The first group is led by Saudi Arabia who holds that only realistic remedy for the present crisis lies in a reasonable expansion in line with the last December OPEC decision of OPEC's market share at the expense of non-OPEC as part of a global OPEC non-OPEC accord on regulation of production to restabilize today's chaotic market. The second group is tripple alliance of Iran, Libya and Algeria (hard liners) who reject the defence of fair market share strategy as being too costly for the OPEC countries and want, if possible, with the help of friendly non-OPEC but if necessary alone, must again shoulder the burden of the volume cutbacks required to stabilize

^{12 &}lt;u>Petroleum Economist</u>, vol. 53, no. 5, May 1986, p. 186.

the market and proposed further cut in output. Third group consisting of Indonesia, Nigeria, and Venezuela, who appreciate the logic of defence of fair market share but clearly have no intention for confrontation with non-OPEC especially North Sea oil.

In a nutshell OPEC members can be broadly grouped (taking into consideration the present trend and position taken by member states) as (1) price war strategists led by Saudi Arabia and Kuwait, mainly who are advocating an all out pricing, & the other oil producers like North Sea oil and Mexico, whose costs are relatively higher; (2) production restraint strategists i.e. Iran, Algeria and Libya who advocate a sharp cut in OPEC output to shore up prices in the face of lower market demand and (3) group as cautious groups e.g. including Indonesia, Venezuela, Nigeria etc. who do not want a policy of confrontation with non-OPEC countries, particularly with North Sea oil.

The magnitude of the crisis could be better appreciated by looking at two important trends. First is the dramatic

/put change in out/between 1979 and 1985 individual quota (which was modified in November 1984) and second, which is more important is the lack of adherence to the cut ceiling by the member countries.

While the first factor has placed the OPEC member states in a critical juncture, the second factor raises the question of OPEC's effectiveness and suggests prevailing indiscipline and

choas within the organization. The given data in the Table XXIX suggests that between 1979 and November 1984 quota, while there was an overall cut of 48 per cent, in total OPEC oil output, if we take into consideration the recent OPEC's decision of OPEC to reduce the quota 14 million b/d it comes around 55 per cent. Such huge downfall in OPEC output in very short time is really unprecedented. It is also clear that this dramatic downfall has taken place in all the OPEC members but with variation. A few countries, e.g. Iraq, Kuwait, Libya and Saudi Arabia have witnessed downfall more than 50 per cent.

Other notable feature which this table makes clear is the prevailing discrepancy within the organization. The figures show that as many as eight member state countries have been producing excess of quota. What is perhaps more alarming from the point of functioning of OPEC as an organisation is the high element of discrepancy between the quota allotted by the OPEC and actual production which they used to produce. The figure given in the table regarding actual output of OPEC members is a matter of considerable fluctuation but at least it shows an important trend. Since Saudi Arabia has been playing the role of 'swing producer' as it voluntarily chose in March 1983 to make more effective and to minimise the overproduction (Saudi Arabia is producing 2.5 million b/d as against sanctioned 4.3 million b/d), otherwise the situation would have been more worse.

Table XXIX

OPEC Output, Members' Quota and Estimated Discrepancy

(in million barrel day)

OPEC Members	Output in 1979	Quotas fixed in Nov 1984	Downfall in % in terms of quota & output in 1979	July 1985 output as estimated by MEES	Variation in % in terms of quota & present output
Algeria	1.153	. 663	- 43.5	•6	- 9.8
Ecuador	.214	. 183	- 14.50	. 2 8	+ 53
Gabon	. 203	. 137	- 32 . 5	.15	+ 9.48
Indonesia	1.59	1 . 1 89	- 15.16	1.2	+ .925
Iran	3.167	2.3	- 27.39	1.8	- 21.73
Iraq	3 . 476	1,2	- 68	1.2	constant
Kuwait	2.5	•95	- 62	•9	- 5 . 26
Libya	2.091	•99	- 52	1.1	+ 11.11
Nig eri a	2 . 3 02	1.3	- 22 . 45	1,45	+ 11.53
Qatar	. 508	. 28	- 44	•3	+ 7.14
Saudi Arabia	9.532	4.343	- 57 . 33	2.5	- 42.56
UAE	1.830	• 95	-48.1	1.05	+ 10.5
Venezuela	2.356	1,555	-22.9	1.6	+ 2 . 89

Source Middle East Economic Survey, vol. 28, no. 4, November 1984, and no. 32, May 1985.

The basic elements of the contemporary crisis lies in OPEC's failure to agree on pricing and production rate for much of the years in 1980s. It has become an uphill task for the organization to determine the output ceiling for each member state and price rate for crude oil. The members do not want to lose their output share as their economy does not permit to go beyond a point. Their economy based on oil revenues pose a serious threat to the organisation.

on the demand side, there seems to be every prospect of a decline throughout 1980s from 1979 level. So OPEC is likely to be placed in more difficult time and it appears doubtful that OPEC will come over on these two issues. It is interesting to note that OPEC members had a long coordinated policies of their production and pricing before the 1980 when there was tight demand. But now they have started infighting and divisive forces are becoming sharpen. The prevailing indiscipline within organisation has pushed the OPEC in a very critical juncture. In fact, the consistant violation of past OPEC production guidelines by some members contributed in no small measure to the oil glut which has pushed prices down to their present low level. 13

¹³ The Statesman (New Delhi), 25 March 1986.

Impact of the Contemporary Crisis on OPEC Member States

The impact of the contemporary crisis on OPEC members is manifold and crucial for the survival of the organization. The reversal fortunes, since 1980 has strained the finances of the member countries, forced most of them to draw down their foreign assets and severely tested their loyalty to the organisation. The recent "price war" is beyond financial reasons. The geo-political impact of the oil price collapse is immense and unpredictable. Hence to have a better understanding of the present crisis, it is desirable to consider in detail its impact on the individual states which in turn helps in aggregating the crisis. The nature of domestic compulsion reflects in the decision of the organisation and no member can go beyond a limit.

This aspect has important implication on all the OPEC countries which belong to the developing world and their dependence on oil is a well known fact. The OPEC countries through the organisation managed to quadruple the price of crude oil in a short period and maintain the high price up to the beginning of the present decade. Two clear cut trends emerged from such developments. First, high crude oil prices flooded them with petro-dollars and second, its dependence on oil revenue further intensified.

¹⁴ The Time, 14 April 1986, p. 32.

The high oil price provided a high potential for the CPEC members to build a broad-based socio-economic infrastructure with a view to generating a substantial long-term real economic growth. But in most of the cases this has not happened and almost all the OPEC countries failed to mobilize their oil revenues into productive and economic uses or to build an infrastructure of their own. The lack of commitment on the part of the relevant government, the absence of prudent planning, a tremendous increase in conspicuous consumption, frequent use of petro-dollars for cosmetic developmental project -- all these have resulted in a situation where the economy could neither build a strong base for itself nor more in the needed direction. ¹⁵

when there is a continuous inflow of money without any significant economic development as it happened in most of the OPEC countries, the natural outcome is extensive imports, particularly of luxury goods and expensive items. So with the end of coming petro-dollar, soon, they find themselves in a balance of payment deficit and they are forced to borrow heavily from the developed countries and international organization and ultimately discovering that they are trapped in heavy debts. This is true with the most of the OPEC countries particularly for those whose dependence on oil is of much degree.

¹⁵ Bangladesh Observer (Dhaka), 1 February 1985.

The oil price tremor in the beginning of 1986 have once again demonstrated the element of uncertainty in the oil market. A drop of crude oil price from \$ 28 a barrel to \$ 10 in a few months cannot occur without perverse effects. The low level prices are as unbearable for the world economic-financial and political balance as were previous high levels. High while the US media felt that the impact of lower oil prices would be both good and harmful. As the oil crisis of the post-decade threatened the developed countries of the West, the dramatic price drop has greatly reduced the flow of billions of dollars from oil consuming countries to the oil producers. But the same plunge could also deal a death blow to the developing countries which had built their economies and their dreams on oil revenues.

OPEC Revenues Decline

Drop in oil demand and drop in oil prices led to the dramatic drop in oil revenues of the OPEC member states.

Oil revenue position may be viewed in total perspective since 1980 when the combined oil revenues of the thirteen member: reached a peak of almost \$ 280 billion. The oil revenues have fallen from \$ 280 billion in 1980 to an estimated \$ 152 billion in 1984.

¹⁶ Petroleum Economist, vol. 53, no. 5, May 1986, p. 176.

¹⁷ Economic Times (New Delhi), 4 April 1985.

Table XXX

OPEC - Estimated Oil Revenues
(billion US dollars)

	974	1979	1980	1981	1982	1983	1984
Saudi Arabia	22.6	57.5	102.0	131.2	76.0	76.1	43.7
UAE	5.5	12.9	19.5	18.7	16.0	12.8	13.0
Kuwait	7.0	16.7	17.9	14.9	10.0	9.9	10.8
I ran	17.5	19.1	13.5	8.6	19.0	21.7	16.7
I ra q	5.7	21.3	26.0	10.4	9.5	8.4	10.9
latar	1.6	3.6	5.4	5.3	4.2	3.0	4.4
Nig er ia	8.9	16.6	25.6	18.3	14.0	10.1	12.9
Libya	6.0	15.2	22,6	15.6	14.0	11.2	. 10.4
Alg eri a	3.7	7.5	12.5	10.8	8.5	9.7	9.7
enezu el a	8.7	13.5	17.6	19.9	16.5	15.0	13.7
Indonesia	3.3	8.9	12.9	14.1	11.5	9.9	11.2
Gabon	-	1.4	1.5	1.6	1.5	1.5	1.4
Ecuador	-	1.0	1.44	1.5	1.2	1.1	1.6
	90.5	195.2	278.8	252.9	201.9	160.9	158.9

Source: Petroleum Economist, vol. 53, no. 7, July 1985, p. 236.

Shell International Petroleum. ¹⁸ From this table it is evident that almost all the OPEC member countries had to face the shortage of oil revenues. The combined current account balance of OPEC which remained surplus during the decade ending 1980-81 has become deficit during the last three years. For the first time the organisation witnessed a deficit of 18 billion dollar in the balance of payment in 1982 compared to positive balance of 115 billion in 1980. In other words, OPEC as collectivity became capital borrower from capital entity. Since 1982, OPEC has seen three successive current account deficit, as detailed below:

1982	-	\$	23	billion
1983		\$	26	billion
1984	_	₫ \$	18	billion

Three years' cumulative deficit (1982-1984) aggregated around \$ 67 billion. This deficit by 1986 would rise to \$ 116 billion. 19 However, if we take into consideration the recent price war, the estimate must be more. It is important to notice that deficit which was earlier confined to only a few countries like Nigeria, Indonesia etc. can be found today in case of the richest of the rich, the kingdom of Saudi Arabia.

¹⁸ Petroleum Economist, vol. 53, no. 7, July 1985, p. 236.

¹⁹ Economic Times (New Delhi), 17 April 1985.

Sharp decline in oil revenue forced most of the OPEC countries to cut their developmental expenditure, reduce imports, withdraw subsidies of consumer goods and have several other belt-tightening steps. In the process, most of the OPEC states have been devoid of any real growth rates per capita income have fallen and inflation rates have risen unprecedented, consequently led to the acute problem of unemployment.

According to a study made by Solomon Bros, the 8 poor-OPEC countries group, in order to balance in current accounts in 1985 would have to contain imports to a level of 36 per cent below the 1982 peak. The significance of the decline in the oil trade on the development pace of the OPEC can be understood by looking at its impact on some of its members.

The sharp fall in oil prices seems likely to change in fortunes and would be a severe test for most of country's stability. Saudi Arabia is one of the richest member of the organization with almost one-fourth oil reserves and less population but the present crisis has posed a serious threat not only to its economy but also its regime. In the year 1981, the total revenue received from oil was 131.1 billion which was highest in Saudi Arabia. The sharp decline in oil output as well as in price reduced oil revenues in 1984 -- \$ 43.7 billion, and according to an estimate made by MEED²⁰ this will reduce to

²⁰ Middle East Economic Digiest (London), May 1986.

as little as \$ 25 billion. Even if this estimate is on higher side. The fact remains that Saudi Arabia no longer enjoys the financial solvency like the preceding years. Analysts estimate the country's oil earning this year could be 50 per cent down on the 1985 figure of \$ 33.900 million.

In absolute term, it is the Saudi Arabia which is suffering most of the low price. In March 1983 London OPEC agreement, Saudi Arabia confirmed its position 'swing producer' adjusting output according to demand to maintain the OPEC price. But with falling oil demand for OPEC and overproduction by some OPEC members the Saudi Arabia was forced to considerable cut in its output of quota. But in the later half of 1985 Saudi Arabia became reluctant to perform such task. In Taib in June 1985, King Fahd was forced to warn the OPEC oil ministerial gathering that Saudi Arabia would raise output to 5 million b/d if OPEC price and production guidelines were not observed. Such drastic policy change led to collapse of oil price in the beginning of 1986 when oil price touched a lowest ebb of \$ 10 barrel.

Keeping in view the fact that crude oil is dominating sector in Saudi Arabia which contribute more than 85 per cent, the recent developments have placed Saudi Arabia in a state of financial constraints. Now, it is no longer capital surplus and its impact on budget is felt directly. For the first time since 1960s the Kingdom recorded a budget deficit in 1983-84

and since then, governments expenditure has been cut steadily and a big deterioration is bound in everywhere. The cutting of trade surplus to its lowest level for more than five years and cutting in public expenditure have been reflected in budget recently. The banking system in Saudi Arabia is reaching a crisis point with all institutions reporting drastically reduced profits. A lot of multi-national joint-venture are at the verge of pulling out. Despite such recession, the implication for the kingdom's balance of payments are not serious as they might have been, since strenuous efforts have been made in the past two years to cut back on imports, mainly by reducing public expenditure. 21

Such economic constraints of a major OPEC member is not a healthy sign for the organization. The domestic economic compulsion cannot be ignored and there is every possibility that Saudi Arabia may not go beyond a point in future which may lead to the pulling out of the organization.

Kuwait is another prosperous member of the OPEC whose per capita income was close to \$ 18,500 in 1984. The large oil revenues and imported manpower undoubtedly have played a decisive role in the present day prosperity of Kuwait as its economy is largely based on oil revenues.

²¹ Middle East Economic Digest (London), May 1986, p. 4.

After a decade of tremendous performance by oil, the beginning of 1980s has witnessed a curtailment in economic activities due to weak international oil market. In the past, Kuwait Authority had taken several steps to make the oil sector self-sufficient and fully integrated but the recent low price baffled plan programme. The obvious impact of recent fall in oil price on Kuwait economy is very wide.

The total exports which had risen to \$ 19.7 barrel in 1980 fell to \$ 9.7 barrel in 1982 and were placed at \$ 10.5 barrel in 1983. 22 However, in 1984 Kuwait's export was slightly better placed. One of the feature of Kuwait's trade policy is that imports have been successively lower than exports. However, even these trade surpluses have declined from the high level of \$ 13.2 barrel in 1979 to \$ 3.0 barrel in 1983.

Since Kuwait has invested substantial amount (according to an estimate more than \$ 90 billion) in foreign countries, this is providing substantial cushion for Kuwait's economy and Kuwait's current account has been in surplus despite lower oil prices.

The oil revenue in the budget 1984-85 (July-June) was projected to a show a growth of 4.5 per cent to total k.d. 2.9 billion as against k.d. 2.7 billion in 1983-84.

After Saudi Arabia, Kuwait is the only OPEC member who is not much effected from the lower oil price but the

²² Economic Times (New Delhi), 17 April 1985.

recent collapse in oil price certainly will have everlasting effect on Kuwait economy.

Iran, one of the founding members of the OPEC, has been fighting on two fronts, i.e. Iran's war with Iraq and other front is falling oil price. Iran has suffered a lot because of both. Iran's war with Iraq which is running in the 6th year is estimated to be costing the country \$ 300 million a month. Dependence of Iran on oil is evident from the fact that four-fifths of government revenue comes from oil and oil exports usually average 95 per cent of the total exports.

Iranians who at one time produced more than 5 million b/d, had been badly affected first by change in regime, and

/by then by Iran-Iraq war, and finally/the low oil price. The fall in oil prices has placed Iran in very bad position. Revenues have been lower in each of the last three years and during this period Iranian spending has hardly registered any step-up,

e.g. the spendings which were 3,728 billion Riyals in 1983-84 remained virtually unchanged at 3,770 billion Riyals but are proosed at a modestly higher level at 3,868 billion Riyals in 1985-86. Revenues have been lower in each of the three years with deficit - 1983-84: 960 billion, 1984-85: 515 billion, and 1985-86: 394 billion Riyals. In real terms the budgetary provisions have been declining which is reportedly unofficially 35 per cent while officially it is only 11.9 per cent rate of inflation.

But the government intelligently has been tackling the problem. The government has generally pursued deflation and policies to cut consumer demand in the name of war with Iraq. Initially, despite the war, the government made imports which suddenly shot up. According to an estimate made by Central Bank of Iran, imports rose from \$ 11.5 billion in 1979-80 to \$ 15.7 billion in 1980-81. In 1983-84 imports shot up by 40 to reach \$ 22 billion and Iran's trade deficit was around \$ 4 billion against surplus of \$ 6.3 billion in 1982-83.

economy has suffered a lot and has been facing an uphill task to maintain economic stability. Before its war with Iran, Iraq was economically one of the most promising member of the OPEC. Its crude oil revenues provided roughly 80 per cent to government revenues, 3/5 to the country's GDP and almost 96 per cent to its export earnings.

The oil production which in 1979 aggregated about 3.3 million b/d has been since declining or remained constant.

Because of the war damage and other problems, production is placed at lower than its OPEC quote of 1.2 million b/d which had remained unchanged from March 1982 to July 1985, although its crude oil reserves of 65 billion barrel is considered second largest in OPEC.

More than five years of war and declining oil price have drained Iraq's reserves, disrupted its development programme.

According to an estimate, war is costing about \$ 15 million a day. 23 According to certain estimates exports earnings had slumped to less than \$ 10 billion in 1983 against \$ 26.3 billion in 1983. The reduction in imports has been recorded unprecedented, as it fell to \$ 12.3 billion in 1983 from \$ 21.7 billion in 1982. The balance of trade has been jeopardized severely. From a peak of surplus of \$ 14.2 billion in 1979 the external trade was in deficit in 1981, 1982 and 1983 which aggregated \$ 24 billion. Even in 1984 and 1985, the trade deficit and current account deficit was expectedly persistent.

The result of such financial crisis led to the delayed, if not abandonment of several social prestigeous projects e.g. development of an international airport at Baghdad and Basara construction.

Libya, a most sparsely populated country, with a larger territory has been facing great economic challenges which have emerged from the current low price and low output. Libya's dependence on crude oil for its exports is almost 100 per cent. Rapidly rising oil revenues were the backbone of Libya's economic development before 1982. Oil revenues contribution in its GNP is more than 50 per cent. According to World Bank estimates, its per capita income in 1982 was \$ 8430 but it came down to \$ 7.500 in 1983 as demand for oil price fell.

²³ Middle East Economic Digest, vol. 29, no. 32, 10-16 August 1985, p. 22.

Libya along with Iraq were supposed to be the best market for construction and development activities till 1981 when its economy was at peak. Today both have fallen to bad days due to the oil glut in the international marekt.

The trade balance in Libya has been witnessing deficit. The trade surplus at about \$ 11 billion reached a peak in 1980 which was reduced by almost 50 per cent in 1981 as oil revenues declined. Further reduction in exports in 1982 led to the reduction in surplus. In order to retain the trade surplus, the imports had been reduced by almost \$ 2 million. In 1984, the imports remained constant at 1983 level. The total reduction in imports directly as the consequence of lower oil price was almost 1/4 between 1981 and 1984 while exports came down by 45 per cent. Libya's current account has been in deficit since 1981 and according to an estimate, in 1984 it was 82 billion while in 1983 it was about \$ 1.7 billion.

It was the oil price earnings in pre-70s which lifted the Indonesian economy out of turmoils and it was also the weakness of the oil prices since 1981 onwards which has placed Indonesia in worst crisis. Indonesia with the largest population within the organisation depends much more on oil revenues. The oil export earnings account for 1/5 of the country's GDP and almost 60 per cent of the exports.

Indonesia had a production quota of 1.3 million b/d in March 1982 which remained constant in March 1983 but was

reduced to 1.1 million b/d in 1984. While Indonesian oil exports have come down, its price also fell down considerably. As a result of the above adverse developments, Indonesia was forced to cut development expenditure since 1981.

As in the case of most of the OPEC members, oil accounts for bulk of export earnings as well as government revenues in Algeria. Oil revenue is considered as the backbone of government development activities. It is strange that Algeria has not felt the impact of decline in oil demand and oil revenues as much as has been experienced by other OPEC countries. The per capita income continued to increase and in 1983 it was estimated at \$ 2,400. But decline in oil prices reflects in the falling oil revenues. Total oil revenues at the end of 1980 when it was on the peak was \$ 3,773 million which had fallen to \$ 1,618 million by the end of November 1984.

Apart from the normal fall in oil price, Algerian economy has also suffered because of the quality of its oil which is much better than that of other OPEC countries and for which there is less competition in recent years. Its price is higher but now it is not getting so. Algeria preferred to step up production violating the OPEC quota limit.

with the declining oil price, the investment in expenditure in 1984 budget was cut back by 7 per cent. The exports earnings which aggregated \$ 13.05 billion in 1981 fell

to \$ 13 billion in 1984. Because of the higher earnings from gas and condensrate exports, the trade feficit is minimized. While external trade had remained in surplus at \$ 3.2 billion in 1984, but the current account in 1984 was in deficit at \$ 86 million.

In nutshell, Algerian economy is placed in comparatively sound position but uncertainty over the oil scenario has pushed its economy in very bad shape.

From the preceding analysis of the nature and magnitude of the crisis and its impact on the developmental pace, hence on the legitimacy of the ruling regimes it becomes clear that the Organisation has reached at a threshold. From 1960 to 1973, the Organisation was striving for taking over control on the production and price. From 1973 to 1980 it had made all efforts to defend its price line. In either situation the function of the Organisation was to respond to the external situation with little or negligible pontification to its members. In the contemporary crisis, for the first time it has to monitor and govern the behaviour of its member and so far it has tried to make any dent. It will be relevant to examine their initiatives in details. This will help in assessing the potential of the Organization in resolving the conflict.

CHAPTER IV

OPEC INITIATIVES FOR CRISIS RESOLUTION

The sharp fall in OPEC oil revenues and the shift of the external account from surplus to sizeable deficit and perhaps more significantly, the sharp fall in OPEC's share in total world oil production, as noted earlier, have ostensibly weakened its leadership in the market and its control over crude oil prices. As a result, today, OPEC is placed in a bad shape and has been facing unprecedented challenges. In this chapter, an attempt is made to examine the steps taken by OPEC in the wake of current crisis resolution. The Organization has been taking various steps from time to time to strengthen its position, since the day of its formation. However, here the study will be limited to those committees and steps which OPEC has taken to resolve the contemporary crisis.

Even before the emergence of the oil glut OPEC was quite aware of the need to strengthen its position. For this purpose a long-term strategy committee, under the chairmanship of Saudi Arabia's oil minister, Sheikh Ahmad Zaki Yamani, was set up in 1978. The terms of reference of this committee was to identify policies concerning the pricing of oil and the organisation's relationship vis-a-vis developing and the industrialized countries. Another step was the establishment of

their own news agency "OPEC News Agency" (OPECNA) in 1981. It was set up as part of a policy to strengthen the organization's dissemination of information. Moreover, the organisation has been studying ways to set up an institute of higher education to develop scientific and technological expertise. But these measures stand outside the pale of our study since these are of least relevance in the context of the contemporary crisis.

As a result of the pressure because of oil glut in the 1980s, OPEC decided to adopt an entirely different approach in dealing with these. This was reflected in the 63rd Extraordinary Conference held in Vienna (19-20 March 1982). The decision taken in this extraordinary conference has shaped the subsequent developments in the OPEC. This was the first time that OPEC took initiative in defence of oil glut. Acting in concert. the OPEC members decided to adopt a ceiling of 18 million b/d for total OPEC production. These were the two basic features of this general understanding of ceiling output. First, this ceiling level was effective for the second quarter of 1982 to be reviewed later on. It is pertinent to note that Saudi Arabia was not a party to the above agreement. 1 As Saudi Arabia had been following its traditional policy of formal dissociation from OPEC production programme but its production ceiling was assumed at a little more than 7 million b/d.

¹ Middle East Economic Survey, vol. 25, no. 27, 29 March 1982.

^{*} See Appendix.

Other vital result of this March Conference is the Ministerial Watchdog committee headed by the conference president Dr Mona Saeed Al-Otaiba of UAE. Other members included are: the oil ministers of Venezuela, Algeria and Indonesia. The main function of this committee was to monitor the market situation and to follow up the implementation of the Vienna decision (March 1982) on production and price. The committee is to meet periodically and to recommend the measures to be taken in accordance with the market development.

March 1982 OPEC conference set a landmark in the OPEC history as for the first time it adopted a broad production management policy. Such a drastic change in OPEC's policy was the result of the market developments which had placed considerable pressure on OPEC's pricing structure. OPEC members have had to evolve and adopt policies to cope with the cumulative effects of a continuing world recession. This has led to a marked cutback in oil demand — which has been accentuated by conservations and substitution measures and against a background of a study increase in new non-OPEC areas. In the midst of such developments, OPEC was forced to adopt a policy to stabilize oil price in international oil market.

OPEC output ceiling which was introduced first time in March 1982 was reviewed later on twice - once in March 1983 and other in October/November 1984. In the following table OPEC production quota is given:

Table XXXI

OPEC Production Quotas (thousand barrels a day)

	March 1982	March 1983	0ct-Nov. 1984
Saudi Arabia	7,150	5,000	4 , 353
Iran	1,200	2,400	2 , 3 00
I raq	1,200	1,200	1,200
Kuwait	800	1,050	900
UAE	1,000	1,100	950
Qatar	300	300	280
Venezuela	1,500	1,675	1,555
Nigeria	1,300	1,300	1,300
L i bya	750	1,100	9 90
Indonesia	1,300	1,300	1,189
Gabon	150	125	137
Ecuador	200	200	183
Algeria	_	725	663
Total ;	18,000	1 7, 500	16,000

Source: Economic Times, 17 April 1985.

London Conference (March 1983) - A Landmark in OPEC's Life

The London conference held in March 1983 is regarded a turning point in OPEC's life. The decision in London Conference has changed the course of OPEC's life and shaped the subsequent developments in oil international market. Before the London Conference, there were a series of meetings and consultations took place among the various members at various levels. In fact, Saudi Arabia took the initiatives to resolve the deadlock. The failure of extraordinary OPEC conference held in July in Vienna in 1982 and again the failure of Vienna OPEC conference 18-20 December 1982 forced OPEC members to go for a price reduction.

On the other hand, the global oil market had been becoming worse. The individual output ceiling was not binding on the members. The emphasis shifted during 1982 to voluntary restraints in the absence of any acceptable result which helped in aggregating the oil glut. After the OPEC consultative meeting in Geneva (23-24 January 1983) Ian Seymour, an oil export commented on OPEC in these words: "OPEC is in a very sorry position. It has no properly supported market price, no production programme and no price discipline."²

² Middle East Economic Survey, vol. 26, no. 16, 31 January 1984, p. A1.

The importance of the London conference lies in the fact that OPEC was forced to take defending measures against the odd situations. The outcome of this famous conference was totally different from the previous one. The whole thrust of OPEC's raison d'etre had always been to maintain and to increase oil prices which it performed successfully in the last two decades. The conception that a cut in prices under any circumstance was absolutely foreign to the organization's thinking. The same thinking was true with the OPEC members production programme. They never visualized that a day would come when they would be forced to cut the output and had to adopt a coordinated production scheme.

The agreement was reached after three weeks of gruelling negotiations culminating in a 12-day marathon of an unprecedented length, at London. An acceptable collective agreement on production and price was the result of urgency for solidarity and swift action to combat the contemporary situation in which OPEC was no longer the only actor. The agreement package consists of two approaches - price cut and production cut - to tackle the persistent market weakness that had been undermining of cohesion of organisation. The price and production agreement had been formalized in the shape of resolution and was introduced with immediate effect. This resolution may be studied in the following ways:

Price Cut

- (1) The OPEC official price of marker crude 34 Arabian Light was reduced by \$ 5 per barrel from \$ 34 to \$ 29.
- (2) The differential prices was to be maintained at the level which was decided in March 1982. A temporary exception is made for Nigeria.
- (3) OPEC members pledged that they would not reduce the agreed official price without prior approval of the organization.
- (4) Members were cautioned against non-OPEC oil producer countries activities.
- (5) In the resolution, certain specific prohibition had been adopted.
 - (a) Avoid giving discounts in any form.
 - (b) Refrain from dumping refined products on the world market at price which would jeopardize official price.
 - (c) Avoid selling crude oil direct or indirect on the spot market below the OPEC price.

Production Programme

Other part of the agreement was an overall ceiling of OPEC output and the allocation of a fixed quota to the member countries. The OPEC ceiling of 1982 was revised and it was fixed at 17.5 million b/d. Such ceiling was based on the

estimate of oil demand in 1983. Another feature was that no specific quota had been assigned to Saudi Arabia which is supposed to play the role of the 'swing producer' adjusting its output to make a balance after fulfilling quotas by other organization's members. It was also provided that national quotas was to be observed on a quaterly basis. In the preceding table, the quotas of the members is provided. So there is no need to maintain it again.

The Monitoring Committee

One of the basic features of this London conference was to strengthen the four-man Ministerial Monitoring Conference (MMC). It is notable that MMC was originally set up in March 1982 to monitor ill-fated production programme. The same composition of MMC continued with UAE oil minister Dr Mana Saeed Al Otaiba as the chairman while the oil minister of Algeria, Venezuela and Indonesia as its members. Its terms of reference had been strengthened and it was provided that MMC would continue its work in order to ensure full compliance by member countries.

To make more effective to deal with the MMC has been given enormous powers in London March 1982. Its terms and reference had been prescribed which covered almost all the aspects. Following are the terms and reference:

- (1) MMC is empowered to determine the factors that affect the level of demand for OPEC oil below or above the agreed output.
- (2) MMC has to observe the following up the production level of each member country in order to ensure compliance with the individual allocations.
- (3) MMC is to review market developments including non-OPEC producers and exporters in order to anticipate possible changes in supply, demand and price.

within a such terms and reference MMC occupies a key position in the recent years. These members used to meet periodically and its recommendations are considered by OPEC oil ministerial conference with a serious note. Up to December 1985

15 MMC meetings had been held and its reviews and recommendations have played a decisive role sometimes.

Failure of OPEC's Measures of London Conference

It was widely believed that with the adoption of more pragmatic and flexible approach as did OPEC in March 1983, OPEC is bound to bounce back but subsequent developments proved these measures as inadequate and futile. Even Saudi Arabian oil minister commented on the conclusion of the London conference: "I have a strong feeling that this will really work out and OPEC will be in the driver seat." A few oil

³ Quoted from MEES, vol. 26, no. 23, 21 March 1983.

exports described these measures as a revolution in OPEC's strategy. 4 The reactions of the agreement was mixed and varied ranging from gradual optimism to outright criticism. While oil consumer countries became happy, the oil exporters, particularly OPEC countries, suffered a lot. The annual loss to OPEC was put even higher (\$ 30 billion by an economist). The immediate effects of these measures prevented further chaos within the organisation and stabilized the oil market but later on these measures were considered as inadequate and failed to control the oil market as a result of OPEC position deteriorated further.

The main criticism levelled against the OPEC's London Agreement may be summarized as follows:

- (1) It was criticized on the ground that agreement is inherently unworkable and unstable because of differentials on uneven and out of line with traditional level.
- (2) The price cut of \$ 5 barrel is considered as inadequate to restore the OPEC's glory.
- (3) 17.5 million b/d as OPEC ceiling is not enough to make any decisive impression on global oil market.
- (4) The fate of the agreement lies on the individual members, particularly in the hand of Saudi Arabia who took the responsibility of 'swing producer'.

⁴ Ian Seymour is one who holds such view. See MEES, vol. 26, no. 27, 18 April 1983.

Anyway, the London conference failed at both fronts on price as well as on production scheme. This agreement was jeopardized by a number of adversities. The fundamental cause of OPEC's distress lay in the bare fact of the drastic decline in oil demand and competitive escalation by non-OPEC oil exporters, particularly from North Sea and Mexico. Above all the failure to observe their agreed points - upon price and production discipline on the part of OPEC countries themselves. In a buyer's market the practical application of output ceiling is difficult and it is more difficult in the context of raw commodity whose share in state's revenues is larger.

During 1983 the OPEC's was able to recover a little bit as the direct result of the London conference decision of price reduction and output cut. By the second quarter of 1984 the picture became clear that no longer OPEC would enjoy the fruit of London conference. Situation began to deteriorate rapidly as OPEC's oil demand continued to slide down. They had to face tought competition from non-OPEC oil producer. The realization was felt to revise the output ceiling on the line with the market realities.

By the end of 1984, it became necessary to reduce the 1983 ceiling, but it was not an easy job. The tensions within the organisation were high-lighted. A few members demanded a bigger quota while others expressed their dissatisfaction with the

status quo. OPEC meeting held in July 1984 was described as tough one and ultimate result was a stalemate. The thirteen oil ministers met against a background of weak demand, lowspot market prices and high stocks. the most obvious result as a stalemate at conference. 5 Another bone of contention was price v/s output. There was a sharp division within the organisation. Some members were in favour of reduction of output ceiling while others were in a mood to reduce the prices. At the same time the scenario emphasized the importance of OPEC solidarity. Apart from the general disagreement among members on several issues, two of its important members -- Iran and Iraq -were at war, in which they had been freely indulging in disruption of each other's oil production and exports. At the same time. official price was losing its credibility and members were least bothered to maintain the quota.

In such circumstances, the OPEC was forced to reduce its ceiling to 16 million b/d from 17.5 million b/d in the 71st extraordinary OPEC conference of October 1984 in Geneva. The reduction of 1.5 million b/d of total ceiling was done to prevent the oil prices. The OPEC conference of 28-29 October 1984, which had been called to raise the organisation's production ceiling was in fact forced to lower it by 15 million b/d in a desperate attempt to save oil prices from North Sea oil

⁵ Saudi Gazette. 4 July 1984.

turmoil. 6 In fact, the agenda of conference was drawn to raise the ceiling. 7 But such reduction in ceiling helped in halting the decline in prices but only for the time being.

Another measure taken by OPEC to resolve the contemporary crisis is the formation of Ministerial Executive Council - MEC - in 1984. The main function of this committee is to supervise and monitor internal discipline within the organisation on production and prices issue. The committee consists of three members and no more than five heads of delegation under the chairmanship of Saudi Arabian Oil Minister Sheikh Ahmad Zaki Yamani. MEC is endowed with wide powers to varify member states in compliance with OPEC decisions on price and production quotas. Such assignment given to MEC does not serve basic prupose as member states do not cooperate wholeheartedly. In the beginning of 1985, a committee of auditors - The Dutch and International KMG - was set up. It is a permanent mechanism to audit and varify production and export data from OPEC members.

In the 72nd OPEC extraordinary conference, the OPEC ministers decided to adopt a new scheme regarding price. The

⁶ Peirre Tenzian, OPEC Guide Story, 1985, p. 329.

⁷ By some sources, the demand for OPEC oil was estimated that time at 19 million b/d, so they envisaged raising their 17.5 million ceiling and work out in conference how the extra 1.5 million b/d should be shared out between them.

members had no other way but to make a shift in their strategy. In the meeting, the official took note of the falling demand for oil and the practice of undercutting OPEC prices by some members. Under the new price formula the official price would come down. What is more notable is that organization had done away with the system of setting a lunch mark price for crude. Another change was the abandonment of Arabian light as OPEC marker. At the same time the differential of \$ 4 a barrel between Arabian light and Arabian Heavy had been narrowed down to 82.50 and the average price of light Arabian would redduce by a dollar to \$ 2.8 barrel.

It is significant that such major decision was taken by a majority vote. Nine of OPEC's 13 members agreed to a price cut or realignment of differentials. Three members - Algeria, Iran and Libya - so-called hardliners objected strongly while Gabon abstained. However in the subsequent phase, they agreed to follow the official price at least in theory.

Further, the OPEC decided to lower the price marginally for certain grades of crude oil in the Geneva meeting held in July 1985. Members of the Organization agreed to differ haggling over production quotas so they concentrated on pricing. Again Iran, Libya and Algeria resisted official price reduction in principle, but in practice each has had to offer heavy discounts to sell out.

⁸ Economic Times (New Delhi), 10 February 1985.

⁹ International Herald Tribune, 26 July 1985.

Another significant development was the consideration of the proposal of OPEC Marketing Control Body in the conference. As explaining the nature of market control organisation, the OPEC president Subrota said: "it means an organisation would be involved in selling OPEC oil". 10 The Market Body is limited itself to sale of crude and the member countries would be expected to report to the organisation which would then use this information to advise on sale. However, setting of such body would be a landmark. It is significant that all members accepted in principle the idea of the new organisation and the technical committee had been working out these details. Another proposal put by Subrota, the chairman of the OPEC. which is to be discussed in the next meeting is as follows: "Instead of selling the price at one point, there will be a range of prices with maximum and minimum limits." 11 It is difficult to say how these measures will curb the oil market. Much depends on how these measures are formulated and implemented only time will say.

The next landmark in the context of resolving the contemporary crisis is the decision taken in December 1985

Geneva meeting. OPEC changed its strategy completely. Members agreed to "secure and defend for OPEC a fair share" of world oil sales. They set up a new committee of five members — Indonesia.



¹⁰ Financial Express (Bombay), 7 July 1985.

¹¹ Saudi Gazette (Ryadh), 5 November 1985.

Iraq, Kuwait, UAE, headed by Venezuela -- to study how OPEC could defend its market share and to make recommendations to a new ministerial meeting. The new strategy "to secure a fair share in oil market has been a matter of controversy. Different members have interpreted it in a very different way. 12 Surprisingly, officials are least concerned of what does it mean to others. The objective of such strategy may be to force non-OPEC producers i.e. UK, Norway and Mexico, to reduce their output.

Cooperation with non-OPEC Countries

In this section an attempt is made to study, in brief, the OPEC's efforts in seeking cooperation from non-OPEC oil producers in resolving the contemporary crisis. OPEC's desperate effort to regain control of oil market by diplomatic means is very significant but so far its achievement in this aspect is negligible. It had been argued frequently that non-OPEC exporters had taken the advantages of OPEC decision in the past and made considerable gains in times of rising demand before the beginning of the 1980s. Now, they should also

As the recent developments suggest that it was a 'price war' declared by OPEC to regain what it considers its rightful share of the oil market. Another interpretation is that it envisages price control strategy by doing away with production quotas for members. Whatever it may be, the result is disastrous as in April 1986 crude oil price touched \$ 10 barrel lowest in the last decade.

be ready to share part of the burden for the benefit of all when the global oil is reversed. No one would gain from competition which could result in a general price collapse. 13

The irony of the present situation is that non-OPEC oil exporting countries which once upon a time benefited from the OPEC price policies, now prefer to go their own ways. In a situation of oil glut since 1980, non-OPEC countries have acquired a dominant role. The share of non-OPEC has been increasing. are the days when non-OPEC countries were at the mercy of OPEC. Now, in one way it may be interrupted that OPEC is at the mercy of non-OPEC countries. In fact, it is the non-OPEC oil producing countries, e.g., Mexico, UK, Norway, Brazil, Egypt etc. who have been eroding the OPEC's share in the global oil market. Apart from Mexico, which is adopting a positive attitude to OPEC. all other producers are from outside OPEC. mainly. the North Sea, USSR, Egypt, Oman and other small producers, who have been systematically undercutting the OPEC price in order to maximize their sales and increase their share in a shrinking market. 14

OPEC has adopted all the methods to pursue non-OPEC countries ranging from warning to diplomatic cooperation including invitation to join the organisation. Warning to the

¹³ Saudi Gazette (Riyadh), 1 March 1984.

¹⁴ Fadhil Al-Chalabi, "OPEC's Policy of Oil Price - Defence and Current Market Weakness", MEES, vol. 28, no. 50, 23 September 1985, p. D7.

non-OPEC countries from time to time has become a common feature. Most of the warnings have been issued against the North Sea oil They call for output restraints in pursuit of price countries. and market stability. In early February 1985, UAE's oil Minister Mana Said-al-Oteiba, declared in an interview that "the price war on the oil market has actually started it that means that orices are left for the market to determine" and warned that non-OPEC oil producers, in particular, faced a destructive catastrophe. 15 By the end of 1985, there were clear signals of an oil price war directed against non-OPEC countries who were flooding the market to increase their respective share. Yamani. Saudi Arabia's oil minister, warned that if non-OPEC producers would not restraint their output, Saudi Arabia would flood the oil in the market to get its fair share. In fact, the OPEC's decision of December 1985 to secure and to defend its fair share in the oil market, explicitly shows that OPEC has taken harsh step against non-OPEC oil producing countries.

Other aspect to resolve the present crisis finds in seeking the cooperation from non-OPEC oil producers, OPEC, from time to time, calls for closer contact and cooperation among all exporting nations. Recently in an interview, Saudi Arabian oil minister declared: "All of us OPEC and non-OPEC oil exporters stand to benefit from oil market stability and will lose by instability," 16 and called for cooperation from

¹⁵ The Hindu (Madras), 8 April 1986.

¹⁶ Saudi Gazette, 1 March 1984.

non-OPEC oil producing countries. There have been diplomatic initiatives to persuade non-OPEC producers to cooperate in production restraints policy. Culmination of such efforts led to the participation of a few non-OPEC oil producing countries in the recent concluded OPEC meeting held in March 1986 in Geneva. Thowever, the result so far is insignificant and the hostilities between OPEC and non-OPEC have been widening. It is evident from the recent developments of 'price war' virtually which is against UK and Norway to teach them a lesson.

In evaluating the OPEC efforts to minimize the current crisis may be termed by and large as failure especially in seeking cooperation from non-OPEC oil countries. It is clear from the fact that UK and Norway are at record exploration and their output has been increasing. Falling oil prices have so far had little impact on the North Sea output. However, their exploration activities are not so recognized as in the Middle East. Even as a whole, the total non-OPEC output share has been growing smoothly despite OPEC efforts to curb it. The growing share of non-OPEC suggests that OPEC failed in their initiatives in pursuing cooperation from non-OPEC countries. The recent price-war is a clear indication of the hostilities between OPEC and non-OPEC countries.

¹⁷ In an attempt to patch together an agreement for ropping up the glut five non-OPEC oil countries along with 13 OPEC countries participated in Geneva (March 1986) meeting. These countries are: Egypt, Mexico, Malaysia, Oman, and Angola, who among themselves produce 4.5 million b/d.

As far as the efforts within the organization are concerned, there are very significant and vital changes in the functioning of the organization. These efforts are of so much importance that they have changed the course of action in recent years. But seeing the situation, these measures may be rightly ragarded as inadequate and insufficient.

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APPENDIX

List of Meetings of OPEC Conferences since March 1982 - Main Issues and Outcome

Number of meeting of the OPEC countries		Venue and date	Issues and Outcome	
1	63rd Extraordinary Conference of OPEC	Vienna, 19-20 March 1982	Reconfirmation of the price of the market crude. Introduction of the total OPEC output ceiling as 18 million b/d for the sake of stabilization of oil market. Establishment of Ministerial Monitoring Committee to review the market developments.	
2	64th Meeting of OPEC Conference	Quito (Ecuador) 20-21 May 1982	Review of the report of MMC and decision to keep the existing ceiling on total OPEC production.	
3	65th Extraor- dinary of OPEC Conference	Vienna, 9-10 July 1982	Review of the progress report of MMC on the market development and decision to suspend the deliberation.	
4	66th Conference of OPEC	Vienna, December 1982	Examination of the market situation and decision to take necessary steps to stabilize the market and to defend the price structure. Decision also not to exceed total OPEC output beyond 18.5 million b/d under any circumstances.	
5	67th Extraordinary OPEC Conference	London, March 1983	Reduction of the official price for the first time of the Marker Crude-Arabian Light 34° from \$ 34 to \$-29 per barrel. Maintenance of existing differentials among the various OPEC members. Establishment of a ceiling for total OPEC production of 17.5 million b/d within which individual members alloted individual quota. Saudi Arabia to act as 'swing producer'. Terms of reference was changed for MMC.	

of	mber of meeting the OPEC untries	Venue and date	Issues and Outcome	
6	68th meeting of the OPEC Conference	Helsinki (Fin- land) 18-19 July 1983	Examination of the report of MMC on the ${\tt Market\ development}$ in the light of the 67th conference decision.	•
7	69th meeting of the OPEC Conference	Genava, 7-9 December 1983	Reviewing the report on the market development. The conference confirmed adherence to the decision of the 67th extraordinary meeting of London in March 1983.	
8	70th confe- rence of OPEC	Vienna, 11-11 July 1984	Review of the MMC report on the market development. Decision to take necessary measures by all members to stabilize the market and to defend the oil price. Reviewed the means of enhancing cooperation between OPEC and non-OPEC oil producing countries.	
	71st OPEC conference	Geneva, 29-31 October 1984	Decision to cut the output ceiling by 1.5 million b/d and reduced to 16 million b/d in order to maintain the price structure.	
10	72nd meeting of the OPEC conference	Geneva, 19-21 and 27-29 Decem- ber 1984	The main issues which were discussed were the measures to police production and price discipline in member State.	
11	73rd Extra- ordinary OPEC conference	Geneva, 28-30 January 1985	The main outcome was the introduction of a new price structure with a marginal reduction. Decision was taken by majority vote.	
12	74th OPEC conference	Geneva, 22-25 July 1985	Review of the report of the MMC on the price differentials development with the market demand.	
13	75th Extra- ordinary mee- ting of OPEC	Vienna, 3-4 October 1985	Agenda of the conference was the redistribution of quotas of the members on the line of market realities but resulted in failure.	28
14	76th meeting of OPEC conference	Geneva, 7-9 December 1985	Review of the report of MMC, the conference decided to secure and to defend for OPEC a fair share in the world oil market consistent with the necessary income for member countries development.	

CONCLUSION

From the study of OPEC in the context of contemporary oil crisis, it appears that a transnational organization does not enjoy autonomy. Its capability to aggregate and promote the interest of its members primarily depends upon the context against which it has been conceived. It functions merely as catalyst. Therefore, it does not possess the strength to affect the complexion of the global power structure. OPEC in the second decade of its existence did create a myth of commodity power. But commodity power is not an autonomous variable. Essentially the global power lies with the structural base of the global system. Being a dependent variable, the efficacy of it depends upon the structural changes of the global power structure.

Viewed in the perspective, it is obvius that the global oil scene has undergone change due to the changes at the structural level. Similarly if the OPEC is finding it difficult to influence the oil policy of its members, it is primarily because OPEC members themselves have undergone the structural changes. These countries are today more critically integrated with the oil consuming countries of the West.

Their trade structure, clearly demonstrates that the dependence of OPEC countries on them. This dependence however is not confined to the procurement of commodities for consumption purposes

but even for the inputs required in the task of modernization of the economy - be it infrastructure, high technical industries or technology. In other words, the OPEC countries do not retain that freedom which they could exercise if the need be.

All the OPEC members are developing countries and all are dependent on oil. All the OPEC member countries have allowed themselves to become extremely dependent on oil revenues in the last decade. For some of of the OPEC members' oil export represents more than 99 per cent of their total exports. Saudi Arabia, Iraq, Libya and Qatar belong to this category. The rest of the members' share of oil export in total export is not less than 90 per cent.

If a raw material commodity i.e. oil could be a source of strength, it can also be the source of weakness which is evident today. OPEC, with the unprecedented price hike in 1973-74, was recognized as a dominant force to be reckoned. Moreover many exp erts viewed the OPEC as the 'beginning of an era of commodity cartels' and others termed OPEC as a threat from the developing world. But today with the qualitative shift in the global oil balance, OPEC lost its dominant position in the oil market. The organization is now less effective in terms of petroleum products, whose prices remain largely outside OPEC'c control.

No doubt, there were sharp differences among the OPEC members even when OPEC was at commanding height during seventies. But the organisation successfully played the role of aggregating their interest and their preceptions because of the global oil environment which was in favour of OPEC. Now, the structural heterogeneity of the organisation poses a serious threat to functioning of organization. How can one compare Indonesia having largest population with the organization (about 150 million) to the small state Qatar with its population less than two and half lakh. The most critical difference which appears to be growing inexorably greater. is gap between the size of the OPEC members' respective oil reserves and its life expectancy. By the first quarter of the next century eight of these thirteen countries would have negligible oil reserves or weak exporters of oil. Only Gulf state members will remain major exporters. No body can imagine what will be the shape of OPEC by that time. In terms of political heterogeneity, the parliamentary pluralist regime of a member state like Venezuela seems utterly at odds with the Saudi absolute monarchy. The senseless war waged by its two principal members -- Iran and Iraq - since September 1980, is another baffling for the organization. However, it is significant to note that war is still confined to only between Iran-Iraq at least in practice. Despite these conflicts all differences, the organization has survived so far. It is

certainly the organisation's extraordinary capacity to survive all the vicissitudes of the last quarter century.

Today when the complexion of global oil market has changed and with the increasing domestic pressure the apparent conflict that the organisation is facing is of maintaining the price structure and production quota and its readjustments on the line of market realities. Nevertheless. both these issues do not constitute the essence of the conflict. The essence of conflict lies in the increasing dependence of these members on oil. For them, oil is not merely a contributory factor to the GDP, but it plays significant role in the whole economy. Consequently, OPEC members are weakened by the current drop in world demand of oil as well as dramatic reduction in crude oil price. OPEC members are, today, badly coordinated and instead of efforts to overcome against the odds. they are squabbling among themselves to retain their respective share in the shrunken international oil market. The recent meetings of OPEC conference (since the adoption of quota system in 1982) have been dominated by such issues.

OPEC as an organization so far reflects it as strange and unique. No other international organization of any sort can claim to have gone through so many contradictory situations and yet survives. Organisation's uniqueness is

found as it encompassing character the Arab-Israel wars, war between the two founding members, revolutions and coup d'etat, dizzying leaps in the price of oil followed by equally dizzying falls, loudly proclaimed unity, endless splits, loudly proclaimed unity, endless splits and emergence of various lobby within the organisation 'production war', among members and the recent development of 'price war' etc. All these happenings have not affected OPEC's solidarity and remained firm and solid through the changing strategies i.e. quota system, price cut etc.

The most significant and persistent question within given these sizable divergences among OPEC members, is to ask whether there will still be an OPEC at the turn of century. Whether members are capable of withstanding the changes which have emerged recently. Despite a few reservations, answer may be yes keeping these two considerations - the proven oil reserve and low oil exploration costs. At the 1984 production level, the life expectancy of OPEC oil is about 70 years, as against only 16 years for the rest of the world. Other well known fact is that oil production costs are still very low in the OPEC countries compared to other non-OPEC oil producing countries. The recent drop in the price of oil has already posed a serious problems for many non-OPEC countries, particularly, in Alaskan and North Sea fields.

Summing up, it can be stated that OPEC in the contemporary crisis has contributed in resolving it in a limited way. It made a series of efforts which might not have restored the lost strength of it, but this certainly minimizes the conflict aggravation. The crisis to the extent is related to the structure of the global political economy, the organisation has very limited scope to play. But even as a marginal actor OPEC retains its relevance both for the new global oil regime and for its members.

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BIBLIOGRAPHY

(i) Books

- Adelman, M.A., World Petroleum Market (Baltimore: John Hopkins University for Resources for the Future, 1973).
- Al-Otaiba, Mara Saeed, OPEC and the Petroleum Industry (London: Croom Helm, 1975).
- Al-Sowayegh, Abdul Aziz, Arab Petro-Politics (London: Croom Helm, 1984).
- Anderson, Jack and Boyd, James, Oil: The Real Story Behind World Energy Crisis (London: Sidgwick and Jackson, 1984).
- Anthony, John Duk (ed), Middle East Oil Politics and Development (Washington, D.C.: Interprise Institute for Public Policy, 1975).
- Belelawi, Hazemi, The Arab Gulf Economy in a Turbulent Age (London: Croom Helm, 1984).
- Blair, J.M., Control of Oil (London: Macmillan, 1977).
- Blank, David, <u>Venezuela</u>: <u>Politics in a Petroleum Republic</u> (New York: Praeger, 1984).
- Chevaller, J.M., New Oil Stake, tr. by Ian Rock (London: Allen Lane, 1975).
- Cooper, Bryan, ed., OPEC Oil Reports (London: Petroleum Economist, 1977).
- Doran, Charles F., Myth, Oil and Politics Introduction to the Political Economy of Petroleum (New York: Free Press, 1977).

- Edens, David G., Oil and the Development in the Middle East (New York: Praeger, 1979).
- El Azhary, M.S., ed., <u>Impact of Oil Revenues on Arab Gulf</u>
 <u>Development (London: Croom Helm, 1984)</u>.
- El Mallakh, Ragai, ed., OPEC: Twenty Years and Beyond (Boulder: West View Press, 1982).
- and others, Petroleum and Economic Development:

 The Cases of Mexico and Norway (Lexington:
 Lexington Books, 1984).
- and others, <u>Capital Investment</u>: The Middle East The Use of Surplys Funds for Regional Development
 (New York: Praeger, 1977).
- , Waterbury, G. John, The Middle East Coming Decade (New York: McGraw Hill, 1980).
- El-Shabic, Mahmood A. and Borer, Peter, ed., Resources and Development: Natural Resources Policies and Economic Development in an interdependent World (London: University of Misconsin Press, 1980).
- Fallan, Nicholas, Middle East Oil Money and its Future
 Expenditure (London: Graapam and Trotman, 1975).
- Farid, Abdel Majid, ed., Oil and Security in the Arabian Gulf (London: Croom Helm, 1981).
- Fesharaki, Fereidum and Graek, David T., OPEC The Gulf and the World Petroleum Market A Study in Government Policy and Donstream Operation (Boulder: Westview Press, 1983).
- Field, Michael, <u>Hundred Million Dollars a Day</u> (London: Sidgwick and Jackson, 1975).
- Forbes, R.T., Studies in Early Petroloum History (Leiden: E.J. Brill, 1958).

- Ghosh, Arabeinda, OPEC: The Petroleum Industry and United
 States Energy Policy (Westport: Quorum, 1983).
- Hawdon, David, ed., Changing Structure of the World Oil Industry (London: Croom Helm, 1985).
- Hallwood, Paul and Sinclair, S.W., Oil, Debt and Development:

 OPEC in the Third World (London: George Allen & Unwin, 1981).
- Hershag, Z.Y., The Economic Structure of the Middle East (London: E.J. Buil, 1975).
- Hunter, Shireen, OPEC and Third World The Politics of Aid (London: Croom Helm, 1984).
- Jaidah, Ali M., An Appraisal of OPEC Oil Politics (London: Longman, 1983).
- Johony, Ali D., Myth of the OPEC Control The Role of Saudi Arabia (Dhahram University, 1980).
- Kerr, M.H. and Yassin, El-Sayeed, ed., Rich and Poor States in the Middle East (Boulder: Westview Press, 1982).
- Krauerchare, Ramon, The Saudi Arabia Economy (New York: Praeger, 1975).
- Levy, Walter J., ed., by Conant, Melvin A., Oil Strategy and Politics (New York: West View Press, 1982).
- Luciani, Giacomo, Oil Companies and the Arab World (London: Croom Helm, 1984).
- Maachou, Abdelkader, tr. by Melville, Antony, OAPEC and Arab Petroleum (Berger: Levranlt, 1982).
- Macell, H., Oil and Influence: The Oil Weapon Examined (London: IISS, 1975).
- Mikdashi. Zuhayr, The Community of Oil Exporting Countries:

 A Study in Governmental Cooperation (London:
 George Allen & Unwin, 1972).

- Nibelock, Tim and Lawless, Richard, ed., Prospects for the World Oil Industry (London: Croom Helm, 1985).
- Noreng, Qystein, Oil Politics in the 1980s Pattern of International Cooperation (New York: McGraw Hill, 1978).
- Pearce, Joan, ed., The Third oil Shock The Effects of Lower
 Oil Prices (Royal Institute of International
 Affairs, 1983).
- Rustom, Dankwart A., and Mugno, John F., OPEC: Success and Prospects (London: Martin Robertson, 1979).
- Sayigh, Yusif A., Arab Oil-Policies in the 1970s Opportunity and Responsibility (London: Croom Helm, 1983).
- The Economics of the Arab World (London: Croom Helm, 1978).
- Sampron, Anthony, Seven Sisters: The Great Oil Companies and the World they Shaped (New York: Viking Press, 1975).
- Stocking, George N., Middle East Oil: A Study in Political and Economic Controversy (London: Allen Lane, 1971).
- Stone, Russell A., ed., OPEC and the Middle East: The Impact of Oil on Societal Development (New York: Praeger, 1977).
- Tanzer, Michael, Energy Crisis World Struggle for Power and Wealth (New York: Month Review Press, 1974).
- nd the Underdeveloped Countries (New York; Praeger, 1977).
- Udovitch, A.L., ed., Middle East: Oil Conflict and Hope (Lexington: Lexington Books, 1976).
- Tenzian, Pierre, OPEC: The Inside Story, tr. by Michael Pallis (London: Zed Press, 1985).

(ii) Articles

- Adreary, Rubin, "OPEC Roots of Difference", The World Press Digest, no. 3, September-October 1984, pp. 20-30.
- A-Hussaini, Farook, "Experiment in the Pricing Strategy of OPEC Countries", Journal of Enrgy and Development, vol. 9, no. 2, spring 1984, pp. 337-44.
- Ahrani, M.E., "OPEC and the Hyperpluralism of the Oil Market in 1980s", International Affairs, vol. 61, no. 2, spring 1985, pp. 263-77.
- Al Janabi, A., "Determinants of Long Time Demand for Oil", Journal of Energy and Development, vol. 3, no. 2, spring 1978, pp. 377-85.
- Al Nasrawi, Abbas, "The Rise and Fall of Arab Oil Power",

 Arab Studies Quarterly (Massachusetts),

 vol. 6, no. 182, winter/spring 1984,

 pp. 1-12.
- Balogh, Thomas and Grahm, Andrew, "Problem of OPEC Surplus",

 Oxford Bulletin of Economic and Statistics,

 vol. 4, no. 3, August 1979, pp. 182-92.
- Doran, Charles F., "OPEC Structure and Cohesion", <u>Journal</u> of Politics, vol. 42, no. 1, February 1980, pp. 82-101.
- El Mallakh R., "OPEC: Issues and use of Supply and Demand", <u>Current History</u>, vol. 74, no. 4357, March 1978, pp. 125-38.
- and Khadim, Mihrren, "Capital-Surpluses and Deficits in Middle East: A Regional Perspective", International Journal of Middle East Studies (Cambridge), vol. 8, 1977, pp. 183-93.
- Fraussen, Herman, "Energy Demand and Supply in 1980s", Journal of Energy and Development (Colorado), vol. 6, no. 2, spring 1979, pp. 213-24.

- Gatley, Dermot, "Prospects for OPEC since year after 1973-77",

 European Economic Review, vol. 12, no. 9,

 October 1974, pp. 369-79.
- Hamilton, A.D., "New Challenges for OPEC", Middle East International, no. 56, February 1976, pp. 8-10.
- Healey, Davis, "Oil, Money and Recession", Foreign Affairs, vol. 58, no. 2, winter 1979-80, pp. 217-30.
- Hawley, David, "OPEC Fight for Market Share", Middle East Economic Digest, 14 December 1985, p. 6.
- Hartshorn, J.E., "OPEC and the Development of Fourth World Oil", Journal of International Studies, vol. 6, no. 2, Autumn 1977, pp. 102-77.
- Jabber, Parl, "Conflict and Cooperation in OPEC Prospects for the Next Decade", <u>Internal</u>
 Organization, vol. 32, no. 2, spring 1978,
 pp. 377-400.
- Jaidah, Ali M., "Downstream Operation and the Development of OPEC member countries", Journal of Energy and Development, vol. 4, no. 2, spring 1979, pp. 304-12.
- Kemezis, Paul, "Permanent Crisis Changes in the World Oil System", Orbis (Philadelphia), vol. 23, no. 4, winter 1980, pp. 761-84.
- , Strategic Digest, vol. 10, no. 8, August 1980, pp. 492-509.
 - Kwenne, Robert E., "Rivabous Connonance and the Power Structure of OPEC", Kyklos, vol. 32, no. 9, 1979, pp. 695-717.
- Levy, Walter J., "Oil Policy and OPEC Development Prospects", Foreign Affairs, vol. 57, no. 2, winter 1978-79, pp. 287-305.
- Mates, Leo, "OPEC Crisis", Review of International Affairs, vol. 36, no. 54, November 1985, pp. 9-11.

- McDonald, Paul, "OPEC which Way Now?" World Today, vol. 41, no. 11, November 1985, pp. 197-9.
- Morom, Theodore M. "Future: OPEC Wants Them", Foreign Policy, no. 25, winter 1976-77, pp. 56-57.
- Morgam, David R., "Fiscal Policy in Oil Exporting Countries, 1972-78", <u>International Monetary Fund Staff Paper</u>, vol. 26, no. 1, March 1979.
- Mossawar, Rahmani Rijan, "OPEC Multiplier", Foreign Policy, no. 52, fall 1983, pp. 136-48.
- Nagi, Mostafa H., "Development with Unlimited Supplies of Capital", The Case of OPEC Developing Economies, vol. 20, no. 1, March 1982.
- Namboodiri, P.K.S., "Limits of OPEC", IDSA, April 1976, pp. 271-2.
- Nasr, Faisal A., "Implication of the Recent OPEC Crisis", <u>Journal of Economic Issues</u>, vol. 18, no. 2, <u>June 1984</u>, pp. 483-92.
- Panayaton, Theodore, "OPEC as a model for Copper Exporter,
 Potential Gains and Cartel Behaviour", <u>Developing</u>
 Economics, vol. 17, no. 2, June 1979, pp. 203-19.
- Parra, Alirio A., "OPEC in a Longer Perspective", MEES, no. 49, 17 September 1984.
- Pindyek, R.S. "Some Long Terms Problems in OPEC Oil Pricing", Journal of Energy and Development, vol. 4, no. 2, spring 1979, pp. 254-72.
- no. 30, spring 1978, pp. 36-52.
- Powelran, John P., "The Oil Prices Increases: Impact on Industrialized and less Developed Countries", Journal of Energy and Development (Clorado), vol. 3, no. 1, Autumn 1977, pp. 10-25.

- Pennore, Edith, "OPEC's Importance in the World Industry", International Affairs, vol. 55, no. 1, January 1979, pp. 18-32.
- Razavi, Horrein, "Economic Model of Coalition", Southern Economic Journal, vol. 51, no. 2, October 1984, pp. 419-28.
- Sadik, Ali Tawbik, "Managing the Petrodollar Bonanza",

 Arab Studies Quarterly (Massechuttes)

 vol. 6, nos. 1-2, winter/spring 1984,

 pp. 13-38.
- Salacurre, J.W., "Arab Capital and Middle Eastern Developmental Finance", <u>Journal of World Trade Law</u>, (London), vol. 14, no. 4, July-August 1980, pp. 283-309.
- Samii, Masood V., "Oil Supply and Absorptives Capacity of OPEC: Reflection on into the Future", <u>Journal of Energy and Development</u>, vol. 6, no. 1, autumn 1980, pp. 72-85.
- Schmalensee, Richard, "Resource Exploitation Theory and the Behaviour of Oil Cartel", European Economic Review, vol. 7, no. 3, April 1976, pp. 157-79.
- Schulert, Alexander, "The Effects of the Increase in Oil Price and interest rates upon the developing Countries", Economics (Tulingen), vol. 29, 1984.
- Shaw, R. Paul, "The Political Economy of Inequality in the Arab World", Arab Studies Quarterly, vol. 6, nos. 1-2, winter/spring 1984, pp. 124-51.
- Tanzer, Michael and Zorn, Stephen, "OPEC's Decade: Has it made a Difference?" Monthly Review, vol. 36, no. 1, May 1984, pp. 31-43.
- Thompson, H.M., "Critical Political Economy in Focus for Middle East", International Studies (New Delhi), vol. 18, no. 2, April-June 1979, pp. 241-52.

Venouss, Devar and others, "OPEC's Goal and Strategies", <u>International Journal of Middle East Studies</u>, vol. 16, no. 2, May 1984, pp. 196-206.

Willett, Thomas D., "Conflict and Cooperation in OPEC: Some Additional Economic Considerations", International Organisations, vol. 33, no. 4, autumn 1979, pp. 581-7.

(iii) Annual Reports and Year Book

A Hand Book of UNCTAD

Annual Report (Organisation of Petroleum Exporting Countries, Vienna).

Director of Trade Statistics Year Book

International Petroleum Encyclopedia

Middle East Year Book

Middle East and North Africa (Europa Year Publication)
World Developmental Report

(iv) List of Periodicals and Newspapers

Arab Economist (Centre for Economic, Financial and Social Research and Documentation, Lebanon).

Arab World (Arab World Press Agency, Beirut - daily and weekly).

Economic Review of the Arab World (Bureau of Lebanese and Arab Documentation, Beirut).

The Economic Times (Bombay)

Economist (London)

International Journal of Middle East Studies (Cambridge, London).

Journal of Energy and Development (Boulder).

Kuwait Times

Middle East Economic Digest (London)

Middle East Economic Survey (Cyprus)

Middle East International (London)

Middle East Journal (Washington).

Oil and Gas Journal, (USA)

OPEC Bulletin (Vienna)

Petroleum Economist (London)

World Oil (Gulf Publication, Houston)

Saudi Gazette (Jeddah).

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