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THE POLITICS OF OIL: A VIEW FROM NORWAY

Ladies and Gentlemen,

It is a great honour and pleasure for me to speak to such a distinguished audience. At the same time, it is with a sense of humility that I assume the role of lecturer at my old alma mater.

This year the world's population passed the 5 billion mark. Careful assessments suggest that the global population could stabilize somewhere between 8 and 13 billion some time in the next century. The supply of energy required to meet the needs of tomorrow in a world free of poverty will be enormous. Our success in providing adequate supplies largely depends on our present policies. One aspect is clear: we cannot multiply today's patterns to serve a world economy five to ten times as large as the present one. Such a course of action would rapidly deplete our petroleum reserves and destroy the global environment.

In the industrialized countries we have long taken for granted that energy would be available in sufficient quantities to permit us to realize our social and economic aspirations. Until the early 1970s ever increasing supplies of cheap energy were among the main factors behind economic development and progress in the world. That supply situation is not likely to ever come back. Still, future global economic development is crucially dependent on increasing the availability of energy.

We face the great challenge of finding sustainable energy pathways. By this I mean safe, dependable and environmentally sound energy production and consumption patterns.

The primary sources of energy today are mainly non-renewable, i.e. natural gas, oil, coal and conventional nuclear power. Renewable sources are widely used, and include hydro power, geothermal, solar and ocean energy, and fuelwood, on which 70 per cent of the people in developing countries depend. In theory all the various energy sources can contribute to the worldwide energy mix of the future. However, each source of energy has its own economic, health and environmental costs, benefits and risks - factors that interact strongly with other national and global priorities. While energy choices in the 1950s and 1960s seemed rather straightforward, and were for the most part directly contingent on production costs, these other aspects have become increasingly important. In order to achieve sustainable development in the future, we must now be much more careful, looking more to the future when we make our choices.

The global character of energy supplies, and the challenges facing us as regards the use of energy create new imperatives: Every nation should implement domestic and international energy policies that duly reflect the importance of energy to the environment and to general economic and political development. Progress in the world of today and tomorrow will be fundamentally dependent on our ability to cooperate despite differences in culture and political systems and the narrow interests of individual nations.

In order to find solutions of benefit to us all energy policies must be based on what could be called the principle of mature behaviour among nations. In point of fact, however, this is really in the self-interest of all nations.

International aspects are important as regards my own country's energy policies. As you know, Norway is a relative newcomer as an oil and gas producing country.

"You can disregard the possibility of there being oil on the continental shelf off the Norwegian coast". This was the considered expert opinion which the Norwegian Government received in 1958. Eleven years later the first commercial oil discovery was made at what was to become known as the Ekofisk Field. By 1975 Norway was a net exporter of oil, and two years later Norwegian natural gas was being pipelined to Great Britain and Central Europe.

Rich in maritime tradition, Norway quickly adapted to its new situation and pioneered sophisticated petroleum technology for use under strenuous conditions, right on the doorstep of the European markets.

Our traditionally open economy provided a good basis for dealing with new challenges and opportunities. Close to 50 per cent of our national earnings had originated from exports. The petroleum discoveries gave new dimensions to Norway's internationalization.

In recent years the expression "energy country" has frequently been used to characterize Norway. I think it fits well. For almost a century our abundant supplies of electricity based on hydropower have been the driving force behind our industrialization. Last year about 15 per cent of our gross national product and 27 per cent of our export earnings came from the petroleum sector. In 1985, before the fall in oil prices, the figures were 20 and 40 per cent, respectively.

Last year our combined production of energy reached 1.5 million barrels of oil equivalents a day, which is more than four times the total Norwegian energy consumption. Production of crude oil accounted for somewhat less than 900,000 barrels a day or about 60 per cent of total energy production. Natural gas comprised about 30 per cent, while production of electricity, previously our most important energy source, now makes up about 10 per cent of the total, though it has increased in real terms. Due to our rich endowment of hydropower resources, our energy consumption pattern is highly atypical. This 10 per cent

hydropower share covers our total electricity consumption, providing the basis for our vital energy-intensive industrial sector. About 90 per cent of our petroleum production is exported. Norway's oil production at today's level could last for about 30 years based on proven reserves, while proven gas reserves could last for about 100 years.

The only significant petroleum reserves in Western Europe are those in the North Sea basin. The Norwegian reserves comprise about 35 per cent of known crude oil and 50 per cent of natural gas reserves in Western Europe. Today total production from the North Sea is equivalent to about 25 per cent of total European energy requirements. It is in our interest, and I believe also in the interest of our partners in Western Europe, that those reserves are effectively developed and used.

Norway's position as a petroleum exporter has been achieved in a short period of time. Current production and all the fields coming on stream in the near future are the result of discoveries and development decisions made during the 1970s and early 1980s. Oil production capacity may gradually increase to 1.6 million barrels a day in the 1990s, depending on development decisions in the years to come. Increases in the Norwegian production will take place parallel to an expected decline in production on the British shelf.

The rise in our production to date has taken place parallel to the decline of market shares for the OPEC countries. From 1980 to 1985 OPEC's market share was reduced from 60 to 35 per cent. During this period Norway became an oil producer of the same magnitude as a medium-sized OPEC-exporter, representing 2 per cent of world oil production.

These facts and figures depict Norway's unique position. We belong to the community of Western industrialized nations. We have common interests and cooperate actively in the International Energy Agency (IEA). We have the resources necessary, and we have expressed our political desire, ability and willingness to make positive, substantial and reliable contributions to the

security of our trading partners' energy supplies. At the same time, as a producer and exporter of oil, we also share many common interests with other oil exporting countries in and outside OPEC. In a global energy perspective we see challenges that must be resolved through global cooperation across traditional economic and political affiliations.

To be able to play a positive and stable role in the global energy picture, and to avoid becoming too dependent on the petroleum sector, we have decided to deplete our petroleum resources on a moderate and long term-basis. In the light of technological, climatical and ecological challenges on the Norwegian continental shelf, we will remain, like most petroleum producing areas outside OPEC, a high cost area. Consequently Norway's position and its ability to perform its role as a reliable long-term supplier of energy largely depend upon stable and reasonably higher oil prices.

The importance of the oil sector to our economy, together with the high capital cost involved, speak for taking a long-term view in our policies. About 20 per cent of the proven oil reserves on the Norwegian continental shelf have already been produced. According to the production plans, 75 percent of the remaining proven oil reserves will have been produced by the end of this century. This clearly illustrates the need for continued exploration in order to secure stable activities into the next century as well.

Allow me to offer some illustrations of the importance of prices to our own economy. The expansion of the petroleum sector in Norway has been a focus of interest in our country. In the early 1970s it was argued that maintaining activities at the present level would be like putting too many eggs in one basket. Although a moderate policy was chosen, some argued that a small economy like ours would be highly vulnerable to developments in the international oil market. That point was indeed clearly illustrated last year when, over the course of a few months, oil prices dropped from about \$30 to about \$10 a barrel. Considering that in 1985 the oil sector constituted 20 per cent of our

national product and 40 per cent of our export earnings, Norway faced a severe economic situation. Income equal to \$7,500 per family per year would have vanished overnight if prices had stayed at about \$10 per barrel. A foreign trade surplus of 5 per cent of the GDP in 1985 turned into a deficit of about the same magnitude in 1986. We could not meet this situation by relying on foreign borrowing, hoping for an early rise in prices. We had to adopt a range of austerity measures and we will continue our efforts to stabilize the economy.

But that was only part of the situation. Had prices continued at the low 1986 level, further development on our continental shelf would have been put in jeopardy, entailing even more undesirable results for our national economy and for future petroleum supplies from Norway.

Development of the Troll Field, a field that alone could sustain our present level of gas production for 50 years, and other new fields, would have been postponed if estimates of future prices had remained low. The result would have been a dramatic fall in oil production from about 1.2 million barrels a day to 0.5 million barrels a day over a few years in the mid-1990s. Our natural gas production would have shown about the same decline, and the market for construction and offshore services would have suffered serious blows. The transition back to a non-petro economy would have been rather painful. Equally important, it would have taken many years before successful exploration would have led to the development of new projects. Rebuilding the petroleum sector in Norway would have been expensive. It is difficult to see how we could have maintained our role as a stable petroleum producer and supplier of energy in the face of risking wild fluctuations similar to those we have experienced in the recent past.

Thus Norway has a clear interest in stable and reasonably higher oil prices. We also believe that this is in the interest of the global economy. Crude oil prices which reflect the long-term value of oil would facilitate planning for continued economic growth and would thus benefit consumer and producer

countries alike. We are aware that many countries experienced some short-term economic benefits from the low prices last year. Having suffered balance of payment problems and inflationary pressures during the 1970s, it is understandable that importing countries welcomed the immediate benefits of a drop in oil prices.

It does not seem, however, that the price drop has produced the stimulus to economic growth that was predicted a few years ago. Within the IEA Norway has stressed the need to focus more on the negative effects of low oil prices on the energy security of member countries than on the short-term economic benefits. Low prices discourage investment in exploration and development. They will lead to lower indigenous production and increased dependence on imports from the outside. In the OECD countries, investments in the petroleum sector fell by 30 per cent last year. This is out of line with the objectives behind the IEA which is to promote the development of domestic resources. As you know, the decline in investments hit the oil industry here in the United States particularly hard.

Due to the fact that most of the proven oil reserves are concentrated in the Middle East and that most of the consumption takes place in distant markets, energy security will most certainly be an important issue in the decades ahead. By the late 1990s, it is not unlikely that as much as 3/4 of Western oil trade will originate in the Middle East.

From being a rather small petroleum producing country, simply adjusting to the events which took place in the oil market during the 1970s and early 1980s, the growth in our production has given Norway a more significant and influential role. It became clear that the dramatic developments in the oil market in the mid-1980s required a careful rethinking of our petroleum market policy.

In general this was the background to the Norwegian Government's decision last year that Norway should contribute to stabilizing the international oil market at a reasonably

high price level. Of course, with only 2 per cent of the world oil production, Norway, despite its increasing importance, can only exercise limited direct influence on the oil market. Thus, any Norwegian measure presupposes that other oil exporting countries also take realistic measures to stabilize the market. Our impression is that the psychological impact of our new direction in policy was important in itself, and helped in the process of creating sufficient strength among oil exporters to influence the market. Norwegian production control measures are unilateral in character and limited in time.

The Norwegian Government regarded the decisions taken by OPEC in Geneva last fall as important steps towards stabilizing the market. With due regard to the market situation and our national interest, the Government decided to withdraw 80,000 barrels a day from the crude oil market during the two last months of 1986. We chose to do this by refining royalty crude oil and storing the oil products as permanent emergency preparedness stocks.

In January this year the Government decided to prolong our measures by reducing crude oil production by the equivalent volume for the first half of 1987. In July the measures were extended for the rest of the year. This reduction does not mean a reduced total production volume, but rather a reduction in the rapid growth that would otherwise have taken place. The measures effectively defer production to what is expected to be the more needy 1990s.

So far we are satisfied with the results of the efforts to stabilize the oil market.

It is important to Norway that OPEC pursue a moderate and responsible policy. The present pricing policy is recognized by most parties as responsible, taking due regard for both producer and consumer interests.

It is Norwegian policy to maintain good bilateral relations with other oil producing countries in and outside OPEC. We do

not have any formalized relations or agreements with the organization, and we do not adhere to their present fixed price system. Norway is firmly anchored in the community of Western industrialized nations. As an oil-exporting country, we also share interests with oil-exporting countries outside the group of our traditional partners. Therefore Norway is in a position to make endeavours to bring about the discussions between oil-importing and oil-exporting countries which are necessary if stable and predictable conditions in the oil market are to be secured. Norway intends to contribute to global energy policy interrelations based on greater contact and deeper mutual understanding between oil-exporting and oil-importing countries.

We believe that it is not only in Norway's self-interest to pursue such interrelations in our foreign and petroleum policy. Orderly conditions and operations are significant for global economic development, and important if oil is to be exploited in an environmentally sound manner. We believe that this policy serves the best long-term interests of all countries.

In the present situation Norway can look to the future with more confidence than we could only a year ago. The oil companies seem genuinely interested in continued participation as we proceed with the development of the Norwegian continental shelf. Prices, together with changes in the Norwegian petroleum taxation system and reduced costs, have brought about enough exploration and development to secure a production level of more than 1 million barrels a day throughout most of the 1990s. Last year it was decided that foreign oil companies would not be required to carry the Norwegian Government's share in the exploration phase. The price of seismic packages was substantially reduced. The royalty was reduced to zero for future fields. Depreciation was allowed in the year of investment and the special tax was reduced from 35 per cent to 30 per cent. For future fields there will be a production allowance of 15 per cent.

I think it is fair to say that the Government showed flexibility in a situation which was as difficult for the Government as for the oil companies, and thereby helped produce a

positive climate. Long-term commitments and long lead times are characteristic of the petroleum activities on the Norwegian continental shelf. Cooperation with foreign oil companies has been and will continue to be a vital part of our policy. We expect that the oil companies will take the same long-term view and that their decisions will reflect the clear potential that exists in Norway.

But the greatest challenges still lie ahead of us, as exploration and development activities move into increasingly hostile and difficult areas. We must find technologically safe and cost-effective solutions to the problems posed by natural conditions as we penetrate increasing depths under severe climatic conditions.

The major area of future exploration is up North in the Barents Sea. The number of applications for licences indicates that the companies assess the potential there to be high. The Barents Sea is an area of considerable political interest. For Norway, a member of NATO and a neighbour of the Soviet Union, it is a major foreign policy objective to contribute to stability and predictability in the Northern areas. It is also in our interest and a firm policy objective that the exploitation of resources takes place in an orderly manner. It is also essential that the strictest and most modern environmental standards of our legislation be applied under such vulnerable Arctic environmental conditions.

One of the main objectives of Norwegian policy is that foreign and security policy interests along with fishing and environmental considerations, be prudently managed as petroleum activities move north and east on the Norwegian continental shelf.

A solution to the unresolved questions concerning delimitation of the Norwegian and the Soviet continental shelf in the Barents Sea would contribute greatly to stability and orderly management in these areas. Norway maintains that according to international law the delimitation must be based on the median

line. The Soviet Union maintains that the so-called sector line should apply. In the ongoing negotiations we have indicated our willingness to find a compromise, but so far the Soviet Union has not responded to this. Pending a solution to this question, Norway has adopted a positive attitude to supplying goods and services, in a commercial context and within the framework of Norway's international obligations, to petroleum activities on the undisputed parts of the Soviet continental shelf in the Barents Sea.

Let me now turn to natural gas developments. Almost half of Western Europe's proven gas reserves are on the Norwegian continental shelf. Norway has been exporting natural gas since 1977. In 1986 production exceeded 2.5 billion cubic feet per day. Our proven reserves can sustain today's level of production for about 100 years. Exploration activities are likely to expand these prospects. All Norwegian gas is exported - approximately one half to the United Kingdom and the other half to four countries on the European Continent: France, the Federal Republic of Germany, the Netherlands, and Belgium. Norway's gas exports correspond to about 11 per cent of gas consumption in Western Europe.

In 1986 about 50 per cent of the natural gas consumption in Western Europe was covered by indigenous production in the consuming countries. Net exports from the Netherlands and Norway supply another 25 per cent, while the Soviet Union, together with Algeria, covers the remaining 25 per cent.

In 1986 important new long-term natural gas sales agreements were concluded between the licencees on the huge Troll and Sleipner Fields on the one hand, and a consortium of gas companies in the present European Continental market on the other. Contracts for smaller volumes were entered into with Austrian buyers.

Gas contracts have long-term implications not only for the commercial parties, but in a foreign policy context as well. They require investments in infrastructure and have a life span that

links buyers and sellers together in a broader political, economic and security policy framework. We expect that buyer countries will see a close connection between the credibility of Norway as a dependable supplier of gas and Norway's credibility as a dependable political and economic partner.

The Troll/Sleipner gas contracts of last year open the way for major contributions to secure natural gas supplies to Western Europe. These gas fields will be linked to the Central European gas grid by two offshore pipelines and will be a cornerstone of the European gas industry by the turn of the century. Gas deliveries will start in 1993 and reach a plateau level of about 1.9 billion cubic feet per day by the turn of the century. The supplies will continue beyond the year 2020. Before the agreement expires the parties shall meet to decide whether to extend the contract. These substantial deliveries will tie Norway - a non-member of the European Community - closer to Europe politically and economically. The Norwegian Government welcomes the opportunities thus being created.

In Europe, increasingly remote sources of supply and lack of substitution possibilities in the short run are the basis for buyers' concern about security of supply. A buyer may diversify sources of supply, as has indeed happened in Western Europe during the late 1970s and early 1980s. Norway has the resources to make such substantial deliveries on a long-term basis. Demands in Western Europe are already large and may be expected to grow moderately in the years ahead. The Norwegian reserves position does permit a substantial increase in sales. The market is the limiting factor.

In addition to the large gas consuming countries, other Western European countries too are in the process of introducing natural gas into their energy systems. Spain in the South and Denmark and Sweden in the North are developing their gas markets. The status of Norway as one of the few remaining non-consumers of natural gas will probably change, through the planned introduction of natural gas-based electricity production.

Natural gas has received significant international political attention in the 1980s. The conclusions reached by the ministers of the member countries of the International Energy Agency (IEA) in 1983 recognize that gas has an important role to play in reducing dependence on imported oil. Furthermore, the IEA noted the potential risks associated with high levels of dependence on a single supplier. Member governments are committed to diversifying the sources of future gas supplies with emphasis on indigenous OECD sources, encouraging the strengthening of their ability to deal with disruption, and encouraging the development of indigenous gas resources with particular reference to North America and the Norwegian Troll Field.

Let me underline that there has been little domestic political disagreement over the broader lines of Norwegian petroleum policy. Our depletion policy is moderate and long-term. A strong competent national petroleum industry has been built up and will be sustained. We appreciate the pioneering efforts of international oil companies on our Continental Shelf. International oil companies can expect to be awarded interesting tasks in the future as well, in close cooperation with Norwegian partners. Also with regard to goods and services, petroleum activity in Norway is open to foreign competition in pact with the international agreements to which Norway adheres.

Thus we expect and hope that Norwegian petroleum supplies and policy will be a stable and significant factor in the world's energy picture well into the next century. The 21st century is likely to become a transition period when oil will become more scarce and consequently a more valuable resource. Oil production outside the OPEC countries is expected to fall by the mid-1990s. As mentioned earlier, the USA and the Soviet Union are mature oil production regions, and so is the North Sea. Already within a few years the industrialized world will become increasingly dependent on oil supplies from the OPEC nations and other developing countries. Thus it seems obvious that the transition starting in the 1970s from the oil-intensive economies of the

1960s towards more energy-efficient and energy-diversified economies is likely to continue and indeed must continue.

It should not be denied that the oil industry is characterized by a production capacity which far exceeds the consumption demand. However, capacity level should not be the guideline to employ for a non-renewable resource where future needs must be taken into account. This could lead to a misinterpretation of future energy balances and an overexploitation of petroleum resources.

Policies should be guided by the need to conserve oil for future generations and by concern for the environmental impact of burning fossil fuels.

Governments have a clear responsibility here. Considering the expected scarcity of oil in the longer run, this energy source should as far as possible be saved for use in vital sectors and where it is difficult to find alternatives. In practice this means that oil should be used for non-energy purposes and for the rapidly growing transport sector. In most countries the price of oil eventually determines the price of alternative energy sources and has a considerable impact on the energy mix. Consequently, prices should be allowed to increase above the level of cost for alternatives in the boiler and heating sector, and be high enough to ensure continued improvements in energy conservation.

In view of the inevitable shortages of oil to come, the achievement of a smooth transition into the future without the kind of price shocks experienced in the 1970s and their severe effects on economic growth, employment and inflation, is a tremendous challenge. Volatility, whether in the energy markets, currency or financial markets, increases risks, reducing the outlook for entrepreneurial and government planning and investment. It may also induce growth in the mis-allocation of economic resources.

Furthermore, the era when it was possible to assume that the environment had an unlimited capacity to absorb contamination and other damage caused by human activities is gone forever. Our ability to live and cooperate with our fragile ecological system has become increasingly important. There has been a growing realization among national governments and in multilateral institutions that it is not possible to separate economic development issues from environmental issues. In several cases the harm caused to our environment and well-being by the production and use of traditional goods and services far outweighs the benefits gained from consumption of these goods.

This year the World Commission on Environment and Development, which was set up by the United Nations, issued its report after 900 days of work. It has been my privilege to chair this independent commission, whose report will be considered by the General Assembly of the United Nations for the first time this fall. The report, entitled "Our Common Future", is a document of political consensus. It is the result of a broad process of analysis, learning and debate. Commissioners from 21 countries, developing and developed, oil-exporting and oil-importing, managed to reach unanimity.

It is not a scientific report, but it has had the benefit of the best available scientific evidence and minds.

The Commission noted the decisiveness of energy supplies to economic development and the fight against poverty. Energy consumption is, however, also the source of our most serious environmental problems: acidification of forests and lakes, warming of the atmosphere, deforestation in the Third World and the danger of radiation. The Commission stressed the importance of energy policy decisions taking place on an environmentally sound basis.

Differences in energy consumption between the North and the South are vast. On the average, a person in the industrialized world uses 80 times as much energy as a person in Southern Africa. More than half of the world's population rely on

fuelwood for cooking, light and heat. A safe and environmentally sound energy programme that will sustain human progress into the distant future is clearly called for. To achieve this goal, new dimensions of political will and international cooperation are required.

The Commission found that while developing countries will need much more energy to continue to develop, we in the North should strive to stabilize our energy consumption. A low energy future is our only viable option. This need not mean shortages. Some energy studies indicate that we can reduce our consumption by up to 50 per cent and still obtain the same benefits. This would be possible if nations would make energy efficiency the cutting edge of their energy policies.

In order to ensure the necessary investments in energy conservation and in the development of alternative sources of energy, the Commission recommends that oil prices be stabilized at a reasonable level and that new mechanisms for encouraging dialogue between consumers and producers be explored.

Renewable, not yet developed sources, will have to play a more dominant role. Far more funds must be allocated to research in new and renewable sources. Broad international cooperation is needed to direct, guide and fund the large-scale research necessary.

I have endeavoured to highlight some of the priorities in the field of energy described in "Our Common Future". The task which the Commission set out to accomplish was to make an analysis of the global situation and recommendations about the actions required to change the present unsustainable trends and policies.

The Commission is sounding an alarm, but it does not paint a gloomy picture of the future. Quite to the contrary: We believe that human resources and ingenuity, our capacity to address the issues in a responsible concerted manner, have never been greater and that we can indeed solve both energy and

environmental problems in a new era of economic growth - an era in which economy and ecology are merged at all levels of decision-making and where there is a more equitable distribution of wealth within and among nations.

Thank you for your attention.