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WORLD ENERGY DEVELOPMENT PROBLEMS

An Address by the Honourable Mark MacGuigan, Secretary of State for External Affairs, to the McGill University Students' Society Students' Conference on Energy, McGill University, Montreal, February 11, 1981

It sometimes comes as a shock to realize that the major impact of what we have come to call "the oil crisis" began less than a decade ago. For even in that relatively short span of time a number of critical events have occurred which impinge directly on the energy situation the world faces in 1981. Today, I should like to begin by reviewing briefly a number of steps in that historical development.

The first dramatic event occurred late in 1973, and took the form of reduced production and a selective embargo against certain countries by the Arab oil-exporting countries. This action resulted in the rapid quadrupling of world prices. In the period 1976 to 1978 the international oil market was relatively stable and real oil prices actually declined. But, as you know, social and military events in the Middle East in the past two years have interrupted oil exports, first from Iran and more recently from Iraq. In each case, these countries were then the world's second largest oil exporters. Although other producers increased production, the production decline in the Middle East was followed by further increases in the price which, in the past 18 months, has climbed approximately 180 per cent. As a result, oil today accounts for one-eighth of the value of all international trade.

It is important to recognize that the profound effects of the events of the Seventies are symptomatic of the growing dependence of the world economy on energy resources – particularly oil. To understand the degree of dependency, we only have to recall that, in 1960, the world economy not including countries in the Soviet bloc and China, relied on crude oil for 43 per cent of their energy consuption; by 1978 crude oil accounted for 55 per cent of energy consumption. The problem is further complicated if we consider that in this same period energy use in developing countries more than tripled. Even so, the developed industrial countries, whose energy use did not quite double in that period, were the most voracious consumers, and in 1980 consumed 89 per cent of the world's energy.

Oil reserves

To understand the present dilemma we have to view it against the background of oil supply. In 1960, it was estimated that there were just in excess of 302 billion barrels of proven recoverable oil reserves. By 1978, estimates had more than doubled to 650 billion barrels. But while estimated reserves had more than doubled, oil consumption in the same period increased by more than two-and-a-half times. Accordingly, by the end of 1978, total proven recoverable reserves amounted to supplies lasting only 29 years at the current rate of consumption. This does not mean, of course, that the world is about to run out of oil in less than three decades, since new reserves will continue to be found. But it does mean that the scarcity value of oil has been increasing and will continue to do so unless consumption and oil production trends

are changed significantly.

Another reason for concern is the narrow distribution range of known reserves. Ninety per cent of them are located in only 14 countries. In addition, outside the Middle East, the Soviet Union holds the largest known oil reserves. But there are growing doubts that the U.S.S.R. can maintain production levels to meet its needs as well as those of Warsaw Pact allies. Hence, the possibility arises that certain of these countries, for the first time, could become significant purchasers on the international market during this decade. Responsible political leaders must be concerned when so few precious eggs are in so few baskets, during an age when virtually no part of the globe has been immune to drastic political, social and military change.

Radically restructured market

Coincident with the changes in supply and demand dynamics, has been a radical restructuring of the international oil market. Until a decade ago, more than 90 per cent of the oil traded internationally was controlled by a very few, very large private companies — the seven sisters as they have come to be called. By the beginning of the Seventies, however, an increasing number of smaller independent companies became more significant in the international market. Changes were further accelerated by the events of 1973-74. A number of governments in producer countries assumed legal ownership of their petroleum resources and imposed controls over production and pricing. Increasing amounts of oil were marketed through inter-governmental agreements, a number of oil-importing countries themselves have created state-owned oil companies to conduct oil-marketing transactions and, as we pointed out earlier, there was the increasing role of the small independent companies, often as third parties. As a result of these changes in market structure, which are still under way, less than half of the internationally traded oil is now controlled by the major companies.

But apart from the changes of the past decade in the supply-demand balance and in market structures, other broader considerations made price increases for oil inevitable. The trend is likely to continue through the remainder of this century. In reviewing these other factors, I would point out, first, that it is important to recognize the dimensions of the problem. Experts in the field believe that the oil remaining to be produced is equivalent to at least five times as much as has been produced thus far in the world. And so the problem is not that the world is rapidly running out of oil; the problem is that we are running out of easily accessible and easily extractable oil. From now on, an ever larger proportion of the oil we use will come from fields where development and production costs will be much higher. We will, for example, require the application of relatively costly secondary and tertiary recovery techniques. In addition, much of the oil will come from areas which are presently remote or from under the ocean where difficulty of access will push up production costs.

New resources

I think it is also true that in the coming decades increased oil production will not be sufficient to meet our energy needs. We will have to learn to use energy much more efficiently and to rely proportionally less on oil. Canada's national energy program, which my Cabinet colleagues will discuss with you during the conference, is designed to achieve this objective at home. Internationally, for the remainder of this century

the industrialized countries must rely increasingly on natural gas, thermal coal and electricity generated both by conventional hydro and nuclear reactors. In the latter part of this century, and into the next, new and renewable energy technologies such as bio-mass, geo-thermal and tidal power should make a large contribution to meeting our energy needs.

But this transition will not be easy. We know from experience that the lead times for developing and using new resources and technologies are long. We know, also, that the capital investment requirements are massive. In Canada alone, during the present decade, more than $250 billion in energy investment will probably be needed.

There is growing international recognition that planned and far-sighted co-operation is essential. A number of steps have already been taken in this direction. The International Energy Agency (IEA), which was created in 1974, is an important forum for steadily increasing co-operation among most industrialized countries. In recent years, in the Economic Summit meetings, leaders of industrialized countries increasingly have turned their attention to energy problems and goals. At the Venice Summit last year, for example, the participants agreed to an elaborate program of measures for the long-term restructuring of our energy economies, and a high-level group has established to monitor programs over the coming decades.

But how effective have our actions been to date? I think the data are somewhat encouraging. During the 1960s, primary energy consumption in industrialized countries grew at a rate of more than 5 per cent a year. Since 1976, however, this growth rate has been reduced to less than 2 per cent a year. In addition, energy imports into developed countries in 1978 were scarcely more than in 1973, and oil imports had been reduced in fact, to levels lower than in 1973. There are other encouraging signs that real progress is being made, at least in industrialized countries. We know that during the Sixties energy consumption increased at rates equal to or greater than increases in economic growth. But since 1976, energy consumption has grown at only about half the rate of economic growth. Finally, if the goals set by the Economic Summit partners and members of the IEA are met by 1990, the contribution of oil to the energy requirements of developed countries will have been reduced from the present 52 per cent to about 40 per cent.

Third World hardest hit

But in the context of the North-South relations, countries in the Third World face energy problems even more serious than our own. As one example, in the period between 1950 and 1976, commercial energy use in the developing countries increased by more than seven times. By contrast, they increased only three times in the industrialized countries during that period. It comes as something of a shock to realize that in the past year oil imports of developing countries will have cost them more than $60 billion in scarce foreign exchange. The hardest hit are those developing countries which in recent years had made considerable progress in developing the non-agricultural sectors of their economies. Only ten countries account for 74 per cent of the net oil imports of all of the developing countries. But the potential damage to these developing economies resulting from rising costs of commercial energy can have an impact beyond solely their foreign-exchange losses. For example, they have great implications for agricultural development — the bedrock for most developing country

economies — through their effect on the price of fuel for tractors and irrigation pumps, and by pushing up the cost of fertilizers.

In sum, energy-related problems threaten to bring widespread human suffering in many countries, to worsen the economic plight of the poorest countries, and to dampen the economic prospects of those countries where economic progress was being achieved. It is quite evident that a greater effort will be needed in resolving the problems of these countries. This will involve greatly improved co-operation among developed countries, oil-exporting developing countries, and oil-importing developing countries.

The present effort by industrialized countries to reduce their own energy consumption can result in more energy being available for developing countries, and possibly in a reduction of the rate of energy cost increases. In addition, several of the members of the Organization of Petroleum Exporting Countries (OPEC) have established development assistance programs, and some exporters are making oil available to importing developing countries on concessional terms. One example of this is a joint action taken by Mexico and Venezuela to provide oil at concessional rates to Central America and Caribbean countries.

New formula needed

But these initiatives, laudable as they are, are unlikely to be adequate in resolving the problems of oil-importing Third World countries, and some more co-ordinated, collaborative formula will have to be found. The suggestion put forward by an OPEC committee last year that industrialized countries and members of OPEC should join together to establish an organization which could assist in energy development in developing countries reflects the growing awareness of the need for new types of international co-operation. Other approaches could also be considered and, in fact, some are now being explored. For example, the World Bank took an important step in January 1979, when it decided to expand its energy development program, and for the first time provided for financing by the World Bank of petroleum exploration in developing countries. It is at present planned to spend $13 billion on energy development between now and 1985, of which $4 billion will be invested in petroleum exploration and development.

In another initiative, the Venice Summit last year raised the possibility of creating an energy affiliate of the World Bank. Canada supports the creation of such an affiliate, since it could greatly facilitate the expansion of the Bank's energy development program, particularly if the governing mechanism were structured in a way which would take account of the extent of participation by members in the program activities of the affiliate. In fact, Prime Minister Trudeau recently discussed the possibility of a new affiliate with the leaders of several developing countries, including oil-exporting developing countries, and intends to pursue it at future opportunities, including this year's Economic Summit in Ottawa.

In addition, the United Nations Conference on New and Renewable Sources of Energy will take place in Nairobi next August. We are honoured to have with us today Mr. Enrique Iglesias, who is Secretary-General for this conference. The Deputy Secretary-General is a Canadian — Mr. Morris Miller. We have indicated our support

for this conference by contributing to the cost of the preparatory activities.

Canada's contribution

Over the years, Canada has provided considerable energy assistance to developing countries. In the decade ending in 1982, we will have provided $700 million in energy-related disbursements through the Canadian International Development Agency (CIDA). In the 1979-80 fiscal year alone, we provided about $100 million. These expenditures have been directed largely towards hydroelectrical power generation and distribution.

Some of you will also recall that under the provisions of the government's national energy program a new company is being created — Petro-Canada International. Its role will be to assist petroleum exploration in developing countries. Two hundred and fifty million dollars will be made available to Petro-Canada International over the next four years to be spent as development assistance.

In concluding, I want to suggest to you two additional ingredients that I believe will be essential if we are to make further headway in resolving difficulties in energy development on the international front.

The first is a better understanding of the complexities and dimensions of the over-all problem we are trying to resolve. This applies particularly to the general public, especially in the industrialized countries, which have a special responsibility, because they are by far the largest consumers of energy. As societies, we cannot afford either to panic or to be complacent; rather, we have to accept the difficult social and economic choices which are inevitable. This will mean modifying our social habits, the physical aspects of our homes, work-places and industrial processes as well as developing a new, complex array of human skills. Governments, corporations, scientists, voluntary organizations and interest groups will have to work effectively together.

I believe that the second essential ingredient is for governments themselves to dispel the confusion and misunderstanding that have so far surrounded much of the consideration of energy issues in the international sphere. National governments everywhere must accept the existence of differing perspectives, eschew confrontation, and develop a shared commitment to resolve energy problems in as non-disruptive a way as possible. Without this commitment, it is doubtful if our common economic, monetary, social and political structures can much longer withstand the kind of abrupt, unpredictable changes we have witnessed in the past few years.

In closing, I want to leave with you a consideration which I hope can assist you in your deliberations during this conference. For many reasons, Canada mirrors the world situation. Unlike most other countries, we have both energy-rich and energy-importing regions. And, as you know, we are trying to reconcile strongly divergent consumer and producer interests in an open, democratic way. I believe that on the international scene Canada's awareness of the potential for misunderstanding between consumers and producers gives to our perspective a distinctive, perhaps unique, character. I hope that our domestic experience and learning processes will help us bring to the international scene a viewpoint that is relatively uncluttered with stereotyped and entrenched views. If we can assist in that process, then we will have contributed to solving one of the modern world's most urgent problems. I wish you well in your deliberations which begin today, and hope that you, too, can contribute to this important process.

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