

# the OECD OBSERVER

The "Crises"  
of Development

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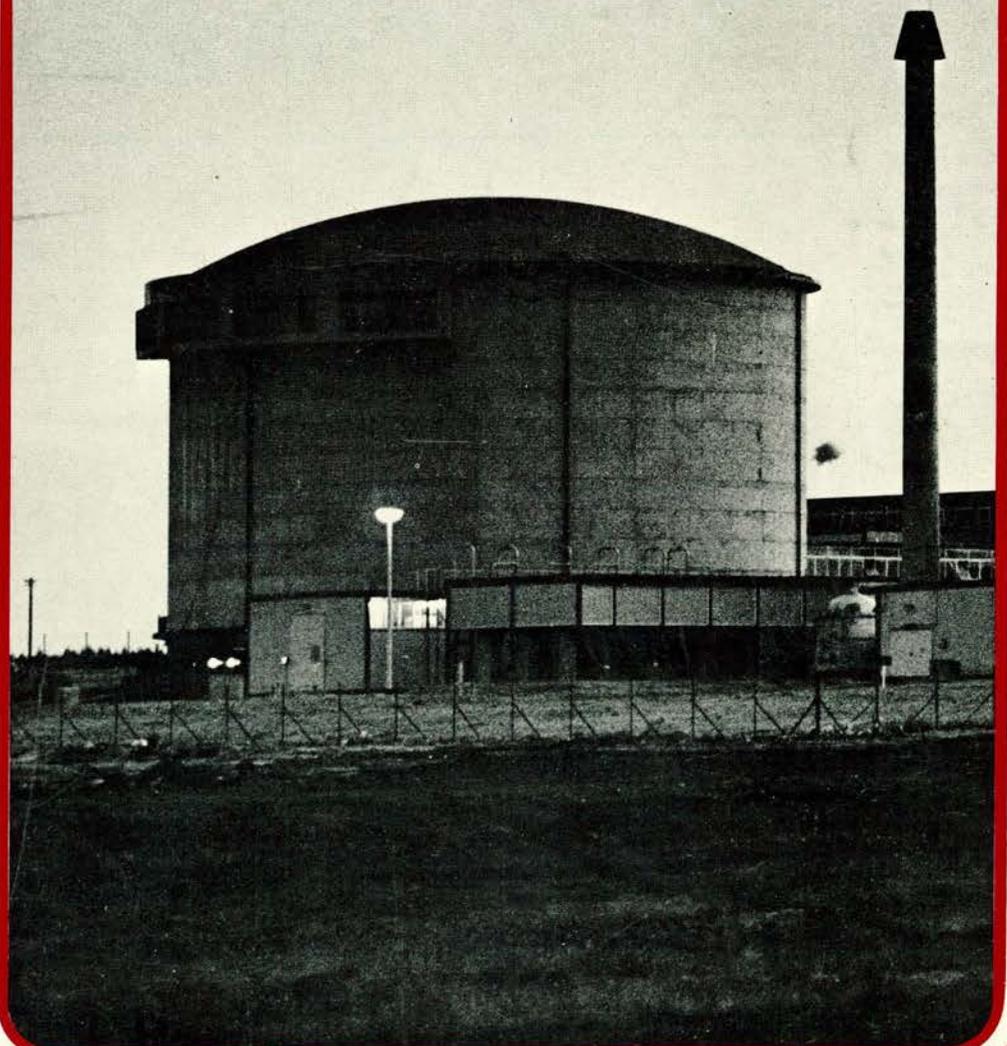
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Combatting Pollution  
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for OECD's  
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# the OECD OBSERVER

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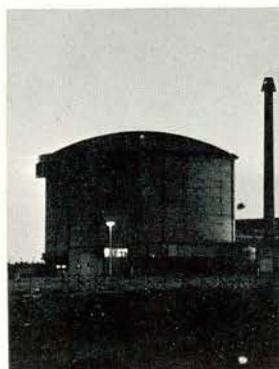
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## CONTENTS

THE "CRISES" OF DEVELOPMENT <i>by Edwin E. Martin, Chairman of OECD's Development Assistance Committee</i>	3
OECD AND THE ENERGY PROBLEM	7
OECD RECOMMENDS REDUCTION OF MERCURY EMISSIONS	9
EMPLOYMENT POLICY IN FRANCE	10
POLLUTION CONTROL IN THE PULP AND PAPER INDUSTRY	13
TAXATION OF COMPANY PROFITS - AN ASSESSMENT OF POLICY OPTIONS	16
CHANGING ROLE FOR OECD'S NUCLEAR ENERGY AGENCY	19
THE ADVENT OF MASS HIGHER EDUCATION	27
INTERNATIONAL TOURISM : BRISK EXPANSION	31
THE IMPACT OF THE AUTOMOBILE ON THE ENVIRONMENT	35
AT OECD	39
NEW OECD PUBLICATIONS	42



COVER : The Dragon Reactor Hall. The Dragon Project is an important joint undertaking of OECD's Nuclear Energy Agency.

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# THE "CRISES" OF DEVELOPMENT

by  
*Edwin M. Martin,*  
*Chairman of OECD's Development Assistance Committee*

**C**omment on the development partnership has been putting increasing emphasis on "donor fatigue" and on disillusionment in the poorer countries and a determination on their part to get along without aid. The situation is often summed up as being a "crisis of development".

I do not think the facts support the existence of this "crisis". An important task of DAC is to exchange information about trends in public attitudes toward the developing countries. This information indicates that, seen over a period of years, the charge that support for development is waning in the industrialised world is valid only for the volume and terms of aid of the United States. The considerable decline in recent years in the percentage of GNP disbursed as official development assistance by Germany and Japan appears to have been due more to special conjunctural difficulties than to any decline in public support for aid though both must be watched closely. Nearly all donors other than the United States as well as the multilateral aid structure have in recent years undergone a series of changes designed to improve the quantity and quality of resources transferred, both public and private. Even in the United States, improvements have been substantial in all respects except volume and terms. With respect to trade matters, it is clear that here too the record of the past five years has on balance been positive, though not by much.

Nor is the suggested "crisis" atmosphere evident in developing countries. Many of their leaders make clear their preference for a more independent position, with development needs financed by their exports of goods and services and by private financial transfers over which they have full control. These are praiseworthy ambitions.

But such aspirations have nothing to do with present positions. All of their governments recognise that without aid they would have reduced prospects for achieving even moderate rates of improvement. In private bilateral discussions and in public UN debates the demand not just to continue aid but to provide more and more is the only voice to be heard. There is clearly no "crisis" in the developing countries concerning continued aid flows.

On the other hand there has been a growing loss of confidence

among donor governments—in international development institutions and, though less so, in the developing countries—in the development strategy which was widely accepted in the 1960's—giving priority to GNP growth and, because it seems to promote this most effectively, to the modern industrial sector. Faced by accumulating evidence that this strategy is leaving too many people in deep poverty, without jobs or employed unproductively and is accentuating already too great inequalities in incomes, an active search for alternatives has commenced. Both because it affects the most people and because of the urgent need to improve food availabilities, the most widely talked about change is to give a higher priority to rural development, including agricultural production.

The "crisis" arises in considerable part because the political power structures, especially in the developing countries, have responded with quite varied degrees of enthusiasm to the demand for income redistribution and the direct use of a larger share of public resources to reduce poverty. Moreover it is difficult to be sure how and how fast the resources of donors and recipients should be reallocated to achieve better results.

This might be called a "crisis", but if so, it is, to borrow a medical term "benign". To have recognised our mistakes and to be engaged in a vigorous debate on how to correct them is a necessary prerequisite to progress in any enterprise.

What, in my view, represents a real and critical "crisis" of development is the lack of full commitment to development co-operation. If we are to have any hope of building a world in which lack of resources does not prevent any person from having a decent minimum of opportunities, we must all give development a higher priority. Donors must make more aid available under more flexible criteria and take bold initiatives with respect to trade.

The reasons for the failure of government policies to be more forthcoming vary. In some cases it is only the priorities of the political leadership that count; in others mass public opinion or organised pressure groups operate, at least indirectly, to set limits to what is done. Their actions are based on their beliefs about the importance of development co-operation. It is therefore imperative to examine in detail the facts, the logic and the

political judgments on which the donor citizens, in or out of public office, support or oppose the development partnership.

## Should Developed Countries Do More for Development ?

### • *The Economic Interest*

Many believe that it is right and reasonable for the attention and resources of the richer countries to be directed primarily at their own problems—a new monetary and trading system, threats to the environment, urban slums, inflation and unemployment. In their view such critical issues as these must be given priority even though it means limiting aid appropriations.

I see three reasons affecting the economic well-being of donor countries, all of especial weight now, for altering the present low priority given to increasing help for developing countries. The first is that without the concurrence of the developing countries in the formulation, adoption and execution of a new and satisfactory international monetary and trading system, the benefits we look forward to for ourselves will not be secured.

Second, and even more vital, is the increasing degree to which the prosperity that we the donor countries are seeking through new international economic arrangements depends on raw materials—oil, many minerals and even over the longer term some basic foodstuffs—which can only come from developing countries. Unless they are, and see that they are, benefitting adequately from the international economic order, these countries will not have the capacity or incentive to help meet our urgent needs. As a result, our own prosperity, on which taking care of our slums, poverty and environmental problems depends, will risk stumbling into depression or inflation or both.

Thirdly, our prosperity also depends on a growing exchange of manufactured goods with the developing countries, theirs primarily labour-intensive, ours high-technology products. Without this exchange we will face problems of unemployed people and capital. This argues for strong growth of consumer demand and increased foreign purchasing power in the developing countries through capital transfers in the form of aid or private investment or lending.

Against this thesis that the better they do the better we do, some would argue that the cost to us of aid outweighs its benefits, but the facts show that aid given has amounted to only 0.2 per cent of the annual *increase* in our GNP as compared with 1960, when most of us thought of ourselves as rather well off.

### • *The Environmental Interest*

Widespread development progress is essential to creating support for the kind of actions, often drastic, that are essential if we are to preserve a decent environment for ourselves and for future generations. It is hard to persuade a half-starved man to worry about dirty air or water or to convince a family with no prospect of economic improvement that it has an incentive to plan its family size to achieve specific family goals. There are no goals except survival. Environmental problems can be better understood by people who enjoy minimum levels of health, nutrition and education.



*Edwin  
M. Martin,  
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OECD's  
Development  
Assistance  
Committee*

A recent criticism of aid is that by promoting the emulation of our industrial consumer societies, it will create unbearable pressures on the global environment, especially in view of the population explosion in the developing world. But the needs that one can hope to see filled in the developing world over the next few decades, even with much more aggressive and efficient development policies, will be limited for most of their peoples to the basic minimums which even in the spartan material conditions which may prevail in the late 21st century we would concede everyone should have. What is important is not to cut back on aid but to see that more of our and their resources are used to bring all their peoples up to this minimum and less of it to copying our more extravagant expenditure habits. Until this minimum threshold is reached, and until we begin to restrain at least the rate of growth of our own levels of material satisfaction, it would be dishonest to lecture them about co-operation in saving resources and restricting output to avoid pollution.

### • *The Political Interest*

At bottom the political interests which donors may expect from aid may be the most important of all, for what is at stake is world peace. A few countries have in the past found much of the justification for their help to developing countries in promoting exclusive political, economic or cultural ties. At the height of the cold war some hoped they could use aid as an instrument to line up combat teams of developing countries as if they were pawns, or at least to keep them out of the hands of the enemy.

Many of those who justified aid on these grounds are now disillusioned, charging that aid has not paid dividends, that developing countries are increasingly showing ingratitude and behaving with independence in choosing their friends, their foreign and domestic policies, their economic ties.

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But this was inevitable: the forces of nationalism will continue to grow until all developing countries feel that they have achieved the realities of independence with full liberty of choice and action. Then and then only will friendships and associations with solid foundations become possible.

An alternative objection to a political basis for development co-operation is that, even to the extent that development policies were able to make politically loyal friends, they are no longer needed. This seems to me to be an erroneous reading of the world political scene, for the greatest threat to continuing détente may well lie in disputes among or within developing countries. Helping them to feel that they are making progress towards their goals may reduce the likelihood of "hot spots" arising by lowering the level of their frustrations.

### • *The Humanitarian Interest*

It is not consistent with our beliefs, religious based or otherwise, that some people on this earth, just like ourselves except for the accident of where they were born, should live short lives, suffer throughout them the various pains of abject poverty and be deprived of any realistic opportunity to improve their condition. The greatest enemy of the humanitarian instinct is narrow nationalism, a long sacrosanct tradition which is pitted against the view of all mankind as equally human and equally deserving of decent lives.

Nevertheless people with humanitarian interests have attacked aid as doing recipients more harm than good. In some circles there is concern that aid is playing a major role in destroying existing value systems and the institutions which are consistent with them, often sophisticated and effective in their local situations. The assumption of this criticism is that the pre-colonial period in Africa and Asia or the pre-industrialisation era in Latin America were Golden Ages. Nothing could be farther from the truth.

The most vocal critics in the name of humanitarianism take the position that aid makes the rich richer and leaves the poor poor and politically weaker, strengthens and perpetuates oligarchic economic, social and political structures and delays the success of movements to create more equitable national societies.

While it might seem logical, this position is hard to prove. Substantial aid programmes from both industrialised and socialist countries have not been able to prevent political upheavals against the aided governments, violent or otherwise. And it is not aid that is responsible for making the rich richer but the nature of the development strategy adopted by the recipient country and the degree of priority given by it to social equality as a goal.

Lastly there are people deeply concerned about poverty in the developing countries who hold the view that aid has been given largely to promote the special interests of the donors and urge that it be stopped until it can be based on the real interests of the developing countries.

Admittedly self-serving goals have played a considerable role in the policies of most aid donors. This is not a justification for stopping aid. To eliminate aid until it can become completely neutral is a counsel of perfection of the sort that is apt to kill the patient before the remedy has been found. Whatever the guiding influence on the selection of recipients, the value of aid need not be reduced if the cumulative effect is reasonably balanced out as among countries or corrected by multilateral aid. And, given the present political climate in most developed

countries, the belief by public opinion that the geographical distribution of their aid does serve their own national objectives undoubtedly makes more aid available and on better terms.

The impact of donor-oriented objectives on the purposes for which aid is given and the irrelevant strings sometimes attached to it may or may not materially reduce the contribution to development. But it would no doubt be useful if developing countries would more often feel able to say "No" and mean it when a donor proposes to finance a particularly inappropriate project or attach extraneous conditions.

So long as country aid programmes remain important we must continue the effort which DAC has been making for some years not only to increase greatly the volume of aid but also to persuade its Members to choose countries and projects in accordance with professionally accepted criteria rather than to promote narrow national interests.

## Is Progress Possible ?

One can be convinced that a major increase in development co-operation is essential and still oppose action, or at least be apathetic, because of fears that significant progress cannot be achieved regardless of the scale of our effort. Many believe the task is too big, the problems too complex, the unknowns too numerous, the commitment of developed and developing countries too feeble and they cite the record to date as confirming their view: the number of people living in deep poverty has not declined; disease, ignorance, malnutrition, political corruption, disorder and even violence are almost as widespread as ever.

These critics may be right: history is full of great disappointments. But as of now I believe strongly that a careful comparison of the magnitude of the obstacles to be overcome with the progress so far registered gives justification for optimism and continued strong support.

One view is that there is no progress because donors have committed gross errors involving conspicuous waste of large sums of taxpayers' money. But in appraising the efficiency of the donor effort one must keep in mind what it was reasonable to expect in light of the innate complexity of social change and the novelty of the whole idea of one group of countries helping another group of countries to accelerate the rate of modernisation of all sectors of their societies. As a result of these two factors, many mistakes have been made by donors.

For example, until recent years the view was widespread, even among people who should have known better, that due to our remarkable progress in science and technology all that was needed was a massive effort of technological transfer. This has proved quite wrong.

We also took for granted that GNP growth, largely concentrated in the industrial sector, would bring with it automatically full employment and the eradication of poverty as it had seemed to do for us. We failed to remember that, during our period of early industrialisation, population growth was slow, technology quite labour-intensive, emigration relatively easy and there was no competition from already highly industrialised societies or restriction by them on access to their markets. We also overlooked how badly many people lived in the early period of our industrialisation.

We assumed that the greatest service we could do their people was to give them the chance to enjoy schooling like ours, and

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ours now, not structured as it was say 100 years ago; developing countries welcomed this but it was probably the farthest from what they needed.

It occurred to few that the reductions in mortality we were bringing their peoples would cause a dramatic and harmful population explosion. Why? Because we had never had to deal with this phenomenon: our drastic fall in mortality rates occurred after we had reached levels of education, incomes and urbanisation that provided the motivation and ability to control family size by individual choice.

But we *have* learned major lessons from our errors and have a new concern to do better on each of these points. We have clearly gone the farthest on the population issue, but readjustment of programmes is proceeding rapidly on the others as well. The question now is not whether policies and programmes should change but how they should change and how fast it can be done.

Whether donors have made more or fewer mistakes or learned from them more slowly than has been the case in other human activities, I find impossible to document. I, for one, find no basis for believing that our experience has been so bad that we should abandon the whole business until we can do better. The problems which would result from a period of total neglect would be even more difficult.

As to the performance of the less developed countries themselves, it too must be seen in relation to reasonable expectations of what might have been accomplished given the nature of the enterprise. Anyone who knows much about what has been happening in developing countries over the past decade must admit that many mistakes have been made and many resources wasted. But how can we expect them to be suddenly wholly rational, mechanical instruments for utilising their resources and ours, especially ours, with complete error-free efficiency given our own modern history of waste and inequity?

In addition the developing countries have had to operate under a considerable variety of special handicaps, unique to them.

Developing countries possess cultures with long histories, often much longer than our own, whose highest esteem has often been reserved for spiritual qualities or ideas rather than action, aesthetics rather than precision—values which slow progress in organising efficient economic production.

Another of their handicaps is that we have preceded them on a road they would like to travel, at least part way and in the process have created obstacles. Whatever the net effect of colonialism on the development of those countries which were under alien rule, it left them at independence with inappropriate governmental structures and highly distorted economies; and many of the same problems, especially in the economic field, also afflicted those countries which escaped political colonisation.

Since independence, our power position has permitted us to impose restrictions on them to a degree which we never had to face. Our highly progressive tariffs on processed agricultural products are but one example of our trade restraints. Our multinational corporations have helped the developing countries in many ways but have also been able to exercise a degree of economic and sometimes even political influence which has impeded their freedom to develop as they wished. The outlet for surplus population or unhappy minorities to improve their lives by emigrating which we enjoyed is open to them in only a limited way.

However, it is our example which has created the most problems.

The trap has been baited by our so evident prosperity and power. The temptation to copy is almost irresistible in the hope that by duplicating our society and institutions, all the rest will more or less automatically become available to them. Anything less than our latest innovation is viewed as second class and demeaning. As with all attempts at instant copying of human institutions this one left them with our forms, divorced from the essential spirit.

The worst results are from the simultaneity of this effort to copy. Our own history is one of uneven advance, now in this sector, now in that, which gave ordinary people a chance to get used to innovations, technical and otherwise, something that is not easy for any of us.

As if these were not problems enough for the leadership of developing countries, governments have been pressed by their peoples to achieve almost immediately a clear national unity and identity. They see around them a world full of strongly nationalistic, often even aggressive societies. Unless they are able quickly to establish and defend their national interests, they fear for survival. It is no wonder then that as progress in fulfilling the extravagant promises of pre-independence days falters, peoples shift from one formula to another, or one élite to another, in a constant search for the key to their "Promised Land". The surprise is that there has not been more bloodshed, more chaos, more confusion of ends and means to divert our and their resources from rational development purposes.

Our knowledge of science and technology have undoubtedly helped the developing countries solve many problems quickly and cheaply, but it is easy to exaggerate the benefits. It has often provided socially inappropriate and nearly always expensive answers to production problems. It has made even token modern military establishments enormously expensive.

In light of the difficulties resulting from our position of superior power and wealth and the degree of poverty in capital and human resources with which the developing countries started, I conclude that their performance has been sufficiently acceptable, in light of reasonable expectations, to justify increased co-operation. I do not believe one can claim that the partnership should be abandoned as a hopeless venture. Progress is being made.

It is true that there was excessive optimism about how inputs of money and technical assistance would automatically improve living conditions, cut unemployment and reduce inequalities. It may well be true that at the end of the First Development Decade there were more people in developing countries living below some imagined poverty line than ten years earlier. If so, each of them represents a failure by the world community. However, since the population of developing countries increased during this period by over a third, there is little doubt that there has also been a large increase in the number of people above the poverty line, and it would be right to take some credit for this. The population explosion itself reflects nothing but improved health conditions—being alive rather than dead is usually considered an improvement in "living" conditions.

Despite such progress, the "crisis of goals" reflects the realisation that priority just to economic growth will not "cure" poverty fast enough and is likely to worsen income inequalities as it did in our countries in the last century. It is hard, however, to see how abandoning the development effort now will improve the lot of a single peasant or urban slum dweller. Rather we are challenged by their poverty to do more and better with the great wealth, material and intellectual, that we possess.

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# ***OECD and the Energy Problem***

*Complex problems emerging in energy and related fields transcend national frontiers and have wide-ranging economic and social implications. They present a new challenge for governments of Member countries. To help them meet this challenge, OECD which has long been concerned with energy problems is carrying out an urgent reassessment of energy prospects between now and 1985—with some glimpses beyond. A number of the Organisation's Committees will contribute their expertise to this study so as to take into account the broadest possible range of relevant factors—the complex interrelations between energy and the environment, the impact of the changing energy situation on balance of payments structures and on the relations of OECD countries with the developing world, the role of technological innovations in meeting new requirements, and the possibilities for more rational use of energy and other factors that could affect supply and demand within this time scale.*

*The inputs of the Committees will be integrated into a common framework by an interdisciplinary team of the Secretariat under the guidance of a senior consultant (see inset) who will prepare by the end of 1974 a report setting forth alternative policy options. The following article describes the background of the study and the work that has been undertaken.*

**O**NE of the determining factors of the present energy situation is the changing position of oil which presently accounts for about 60 per cent, 75 per cent and 45 per cent of the energy supplies of OECD Europe, Japan and North America respectively. Although Europe and Japan have traditionally depended on imports to supply the bulk of their needs and Canada has imported some oil as a matter of convenience, the United States has been largely self sufficient. But now, because of continuing high demand and the levelling off of production, the US is becoming a major importer of oil for the first time in its history: recent official estimates suggest that US oil imports will run as high as 50 per cent of requirements by the early 1980's. This new source of demand is expected to intensify competition for oil on world markets resulting in higher prices and greater concern with security of supplies.

The repercussions of this change are complex. For example, the increase in prices can be expected to have an impact on the general price level of OECD Member countries and on their payments balances. And the counterpart of higher oil imports by OECD countries both in volume and in value terms would be an increase in the revenues of oil producing countries which could greatly increase international capital flows in unpredictable ways and affect the workings of the international monetary system. As to developing countries without oil reserves, they could be in a difficult situation if the capacity of developed countries to supply assistance is diminished by the same forces that increase the cost to the Third World of importing the energy necessary for development.

**T**HE oil importing countries would like to diversify their sources of supply, both as to type of fuel and its origin, and are making substantial efforts in this direction. But multiple problems arise, some of them over a longer time scale, with respect to alternative sources of energy as well. Thus, for example, natural gas discoveries have been spectacular in recent years, but in quantitative terms the supply is limited:

roughly a fifth of present energy needs are now supplied from this source, and the proportion is not expected to increase as demand for energy rises during the 1970's. And natural gas prices can be expected to rise too, at least in the US, if only because they have been held to artificially low levels which has discouraged exploration and exploitation and stimulated rapid growth of consumption and exhaustion of reserves. Moreover the reserves of both natural gas and oil are limited, though there is no consensus on how long they might last.

Coal is abundant, particularly in North America and Australia, and can be expected to come into greater use over the next years but large scale mining of coal presents certain environmental hazards: a recent headline in a US monthly magazine asks "Shall We Strip-Mine Iowa and Illinois to Air Condition New York?". And the defacement of the landscape which results from this type of mining is only one of the environmental concerns connected with coal: air pollution is another problem since as yet no inexpensive way to remove the sulphur from coal has been found. Even with greater reliance on coal some governments think that there is a real danger of an "energy gap" by the mid 1980's.

**O**NE key question is whether nuclear power can fill this "gap". Earlier optimistic estimates of its development are being questioned in some quarters partly because of doubts about the availability of low cost fuel supplies—particularly enriched uranium—and the investment necessary to provide industrial capacity on a sufficiently large scale.

Another problem associated with nuclear energy is that atomic power plants have already been the object of public opposition, sometimes in court. More generally a new concern with environmental hazards resulting from energy production, transport and use is making itself felt. Ecological arguments have been invoked to halt the building of pipelines, the use of giant tankers and the construction of conventional power plants on the banks of rivers (thermal pollution has become one focus of interest).

Severe problems are associated with such alternatives to importing oil as obtaining it from shale (massive amounts of a talcum powder-like waste material are created by one process) and offshore drilling which may pollute waters and destroy beaches and recreation areas.

Thus environmental considerations are exerting a new and powerful constraint on decisions about how to supply energy and whether to supply it to the extent that market forces would dictate.

**O**ECD's study will of course draw on the work of its Energy and Oil Committees which are concerned with such matters as the cost and availability of the various forms of energy, diversification of sources of supply, demand developments, and formal arrangements between OECD governments to come to each others' aid in the event of shortages of supplies. (These arrangements are now being reviewed as a result of suggestions made at OECD's Ministerial Council last June.) These two Committees will also contribute to the longer term energy study in specific ways. Thus for example, *ad hoc* groups dealing with supply and demand for coal, natural gas and electricity have been set up.

But because of the complex ramifications of the problem, the study has enlisted the co-operation of other specialised Committees as well. OECD's Nuclear Energy Agency is reexamining its projections and exploring the measures that would be necessary to advance the present timetable for atomic energy (see page 19).

OECD's Environment Committee, which has already carried out a number of studies relating to the energy problem, has set up an expert group to examine in systematic fashion the constraints on energy policy exerted by environmental considerations and to examine the feasibility and cost of overcoming these constraints. In some areas the work has progressed far enough for guidelines to be developed.

**M**ANY promising solutions to energy problems lie beyond the scope of existing technology, and OECD's Committee for Scientific and Technological Policy will be examining the main trends of research and development in the field of energy and in a second phase perhaps bringing together groups of countries or institutions to exchange experience or coordinate their efforts.

As to new sources of supply, for the immediate future the focus of interest is on improved methods of liquefaction or gasification of coal, methods of extracting oil from shale and tar sands, and better techniques of deep sea drilling combined with more effective oil pollution safeguards. But for the longer term the task will be to encourage more revolutionary developments in production and conversion of energy for which the lead time in terms of R and D is such that there is a need for accelerated action now. Among the many possibilities being explored, along with MHD and nuclear fusion, are the large scale use of geothermal and solar energy, the use of hydrogen on a large scale as a secondary source of energy or liquid ammonia for application in small "packets" in transport and other mobile uses.

Research and development could contribute as much to reducing the demand for energy as to increasing its supply by making the transformation, distribution and consumption of energy more efficient—in short by encouraging more rational use.

**T**HIS emphasis on rational use will be at the forefront of the OECD study. The Organisation's Energy Committee has already investigated the problem of how improved

insulation in the construction of homes could diminish energy needs for both heating and cooling and will now be investigating possibilities for more rational use on a broader front. Work carried out for the Environment Committee has shown how a change in travel habits could affect energy consumption and how better allocation of energy resources could help to solve the pollution problem (for example use of low sulphur-content fuels in urban areas where sulphur dioxide levels are already dangerously high). Other examples of the ways in which energy could be used more efficiently include the recuperation of heat created by electric power generation, more efficient use by certain industries, and a shift to smaller automobiles.

Finally, Working Party Three of OECD's Economic Policy Committee is examining the possible implications of the changing energy situation for the payments balances of Member countries and for the international monetary system. This work will be of great value to the long term assessment of energy prospects.

**P**ARALLEL to the studies of these Committees will be the work of a multidisciplinary Central Unit of a kind new to OECD. The primary task of this Unit will be to make a series of projections of the demand for energy (which will depend in part on the impact of price developments for which a number of hypotheses are to be examined) and the supply, both overall and for each sector (oil from conventional sources within and outside of the OECD area, new oil sources such as shale and tar sands, natural gas, nuclear energy, coal, etc.). The emphasis will be on highlighting critical problems rather than carrying out a comprehensive review. The initial set of demand and supply cases will be based on work already carried out by the Energy Committee and on the assumption of unchanged policies of Member governments, but at a second stage the various ways in which government action could affect supply and demand will be outlined on the basis of the sector work in the Committees described above. Finally these elements of flexibility will be integrated into a series of policy strategies open to OECD governments and the final report will be submitted through the Energy Committee to the Council of the Organisation.

**T**HIS thorough and systematic analysis of the complex energy problem in relation to overall economic and social objectives, is intended as a contribution to the development by OECD Member countries, both individually and collectively, of constructive solutions which would remain out of reach to countries acting competitively rather than in co-operation.



*Heading OECD's study is Dr. Hans K. Schneider, Germany, Director of the Institute for Energy Economics at the University of Cologne, Chairman of the Energy Committee for the Land North-Rhine-Westphalia, Deputy Chairman of the Advisory Council of the Federal Ministry for Economic Affairs and Chairman of the German Economics Association. "Instead of each nation making its own policies as they have in the past" says Dr. Schneider "there are mutual advantages in international co-operation. If we succeed in finding better ways of working together in the energy field, we may succeed in finding better ways to co-operate in general because economic policy, trade policy and the development of science are all involved in the energy problem."*

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# OECD

## *Recommends Reduction of Mercury Emissions*

**O**ECD's Council has just recommended that governments of Member countries reduce all man-made emissions of mercury into the environment to the lowest possible levels. Priority is given to the elimination of alkyl mercury compounds (methyl and ethyl mercury are the two presently in use) which are the most toxic forms of mercury and which can also be absorbed by fish and plants and transmitted via the food chain so as to present a health hazard to man. Ecological disturbances to fish and bird populations are also a major concern. Other forms of mercury, including inorganic forms, are covered by the Recommendation as well, in part because they can be converted into methyl mercury in the environment.

The immediate targets of the OECD Recommendation are the elimination of alkyl mercury compounds in agriculture (methyl mercury is used as a fungicide to preserve seed grains) and of all mercury compounds from use in the pulp and paper industry and the maximum possible reduction in the discharges of mercury from mercury-cell plants producing caustic soda and caustic potash in the chloralkali industry. Governments have agreed that it would be useful to exchange information through OECD on the quantities of mercury used or discharged for these purposes as well as total national consumption and, more generally, on measures taken to implement the Recommendation.

This OECD Recommendation opens the way for further concerted action to control the emission of mercury and for an investigation by OECD's Environment Committee of the types of action that would be most appropriate, including the possibility of recommending maximum limits for mercury in discharges or in products.

The Recommendation will be transmitted to the United Nations' specialised agencies such as the World Health Organisation, and the Food and Agriculture Organisation which have been actively working on the problem of mercury, and in particular, evaluating the safety of drinking water and foods from the point of view of mercury contamination.

This action by OECD's Council follows an intensive series of

studies by OECD's Environment Committee, and its Sector Group on Unintended Occurrence of Chemicals in the Environment, on the occurrence and risks involved in mercury use by industry and agriculture and of measures taken in OECD countries to control mercury use and emission into the environment (1).

Individual governments have already taken measures to reduce mercury emissions. In general, action has been possible under existing laws without the need to seek special authority, and mercury has been controlled as a toxic material under laws dealing with the use of pesticides, the discharge of waste (through sewers, or directly into lakes or rivers), under legislation concerning food and drugs and fisheries and more recently under legislation permitting administrative action on environmental pollution.

A number of solutions to the problem of mercury emissions have been found. Thus for example alkyl mercury compounds used in agriculture can be replaced by alternative compounds (2). The same is true for mercury used in the pulp and paper industry which can also have recourse to alternative processes. The chloralkali industry too can turn to other processes in the long run but it is also practical, with modern methods, to reduce the mercury content of effluents.

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(1) *These reports, "Control of Mercury Use and Emission, the experience of Japan, Sweden, Canada and the United States", "Mercury Use and Social Choice" and "The Biological Impact of Mercury" are to be published shortly along with the text of the Council's recommendation in a volume entitled Mercury and the Environment: Studies of Mercury Use, Emission, Biological Impact and Control.*

(2) *The use of alkyl-mercury compounds for rice seed treatment has hitherto been permitted in Japan. However administrative guidance is at present extended by the government to ensure suspension of the production of alkyl-mercury compounds with a view to discouraging their use.*

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# EMPLOYMENT POLICY IN FRANCE

*“The OECD procedure of reviewing the employment policies of Member countries provides the opportunity for exchanges of views and comparisons of experience, and I am glad that today these will be taking place in connection with France.” These were the opening words of the statement which the French Minister for Labour, Employment and Population (Joseph Fontanet) made to the Manpower and Social Affairs Committee of OECD concerning the study of French employment policy (1).*

*The study is one of a series of country reviews by the Committee on national employment policies, the aim of which is to make the specific experience of the country under review available to all Member countries. The examination of French policy was conducted by two senior government officials, one from Belgium, the other from the United States. The article that follows is a summary of their conclusions.*

**F**rench employment policy has been undergoing a series of fundamental reforms for some years. It is true that these reforms reflect a deliberate political will, but they have also been a response to the pressure of rapidly changing events. The increasing exposure of the French economy to foreign competition has been accompanied by a greater sensitivity to fluctuations in general economic activity at a time when, owing to the process of industrialisation, the diminishing proportion of agricultural and non-wage-earning jobs has been increasing the labour market's vulnerability.

Demographic expansion and the sharp rise in school attendance have had the simultaneous effect of increasing the number of young people arriving on the market and changing their attitudes to some types of employment. For at the very time that fresh difficulties were being encountered in achieving full employment, changes in the mental attitudes of all categories of workers were leading them to demand a “better job”.

## **Towards a New Approach**

The reforms recently introduced superseded those which had been introduced immediately after the war in a context of resolute dirigisme. In the interval, the political climate had changed fundamentally and some of the legislative arrangements and regulations had fallen into disuse. Thus, the transition was made from direct intervention to joint action, calling in most cases for agreement and collaboration between the social partners. However, while agreement is usually reached at the highest level, collaboration on the operational level is not always achieved, since it calls for quite fundamental changes in mentality and attitudes, not only on the part of management and unions but also within the administration.

This new approach and the difficulties arising from it may be illustrated by the reforms introduced in two major areas of employment policy: security of employment and vocational training. The Inter-Industry Agreement on Employment Security, signed

in February 1969, provides for the establishment of joint employment committees for each industry at national or regional level. The function of these committees is to keep track of employment trends and see that all appropriate steps are taken to facilitate redeployment and retraining where necessary. They also have to establish liaison with the authorities so as to ensure that all workers concerned are able to benefit fully from the facilities and services provided. This is a point to note, for in France, as in many countries, facilities for assistance (especially in regard to labour mobility) are seldom used owing to lack of information about them.

The 1971 Act on continuing occupational training in the context of permanent education establishes the principle of entitlement to training, which all wage-earners can now claim. By making it possible for workers to take time off from work during working hours, or for long periods with remuneration approaching normal wages in order to train, the Act opens the way to developments with as yet unforeseeable implications for employment policy and industrial relations, not only at national, sectoral or regional level but also in the firm itself and in the working environment.

How this legislation is implemented will depend on how the main actors involved—government, employers and trade unions' play their respective parts. So far as the authorities are concerned, the OECD examiners consider that it might be necessary to reorganise the official aid system and to define more clearly the criteria for the use of aid, primarily in order to arrive at an objective assessment of the scale of the effort to be made by beneficiary firms. The examiners also think it would be desirable to improve the efficiency of the official training machinery. A move has already been made in this direction with the aim of giving greater flexibility to the management body of the “Formation Professionnelle des Adultes” (adult vocational training) and making it more adaptable to the requirements of time and place. But it will still be

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(1) *The Manpower and Social Affairs Committee discussed French policy in May 1970 on the basis of the examiners' report. The complete report, now published, includes later information provided by the French authorities.*



*The right to training for all wage earners is now established by law; a school for aviation mechanics at Villegenis.*

necessary to convince the education authorities, in technical education and especially in the universities, that their participation in continuing training is not a foregone conclusion and that they will have to adapt themselves to entirely new tasks and techniques.

Where employers and unions are concerned, the rank and file must follow their leaders in order to give practical effect to the principles established at the top, for instance by formulating training programmes for firms after discussion with representatives of the staff. What is involved, in fact, is the atmosphere in firms, together with the view taken by managers and union leaders concerning the function and content of training—a subject for concrete negotiation and no longer one of ideological conflict.

## **Counter-Cyclical Action**

The examiners note that it will be interesting to see how practical effect is given to the French Government's expressed intention to use the new facilities for continuing training to combat cyclical slackness, by developing the training courses organised by the public authorities and also by encouraging firms to provide training for some of their employees at times when their work force is not being fully utilised owing to a slowdown in production. This

approach represents the first application of a principle advocated by OECD (2) and revived by the Intergroup on occupational training under the Sixth Plan, namely that the active use of training as a means of adaptation, in addition to measures to raise the social status of those concerned, could be one of the original features of French economic policy under the Sixth Plan (1971-1975).

This approach should be compared with the experimental measures to assist young people with employment difficulties, especially when starting their working life. It is a question of encouraging firms to employ young people not immediately able to fill vacant posts and to give them prior training, the State bearing part of the cost.

## **The National Employment Agency**

Analysing the machinery for taking action on the labour market, the Employment Commission for the Sixth Plan has ascertained

(2) *OECD OBSERVER*, No 43 (December 1969).

that this machinery is now divided among a large number of institutions, which sometimes entails a divergence of aims and often a dispersion of decision-making centres and resources.

The complexity of the procedures is partly due to the large number of reforms introduced since the 1960's. But it probably also reflects the conflict between the traditional functions of the administration, which formulates legal texts in accordance with existing administrative structures, and the growing need to provide services for those actually concerned.

To resolve this conflict, France has chosen to confer on the Agence Nationale pour l'Emploi (set up in 1967 and expanding rapidly) the status of an official institution with more flexible management than a traditional administrative agency but not fully autonomous as regards the choice of activities undertaken or their financing. This compromise was called into question when the Sixth Plan was being drawn up, but the position was left unchanged owing to the reluctance of the employers' and workers' organisations to take any direct part in running the Agency.

Experience gained in OECD countries shows that an employment service (using the term in its widest sense) can only have a real effect on the labour market insofar as it manages to convince possible clients that it is something other than a public institution designed to help the most disadvantaged among them (workers and even employers).

Experience shows, moreover, that information on, and prospection of, the labour market go hand in hand with the action undertaken on this market. Most employment services confine their knowledge to one section of the manpower available (their clients seeking employment) and, as regards demand for manpower, are content to wait for employers to send in their job offers or at best to contact some of them. As a result, the essential feature of the market, namely the jobs to be found in firms, escapes the notice of the service.

The Employment Commission became aware of the need for a better knowledge of the "internal" market of firms and put forward two suggestions for making it easier to meet this need. First it suggested that, as an example, the aid granted to firms or industries should be subject to certain conditions in regard to information about the numbers currently employed and forecasts of the work force, preparation of recruitment plans, upgrading and training schemes. In fact, the possibility of extending employment agreements ("conventions") to those firms receiving the regional development premium is now being studied.

The Commission's second suggestion was that exchange of information and the circulation of data on experience in the various aspects of personnel management should be encouraged. The Agence Nationale pour l'Emploi was invited to play a part in this, especially with regard to advice for small and medium-sized businesses. A service has been set up for this purpose and will start operating in 1973.

## Foreign Manpower

The establishment of the Agence Nationale pour l'Emploi may make it possible to bridge the gap made by the lack of any appropriate machinery for managing the national labour market. This deficiency is the main cause of an anomaly that has arisen with regard to the introduction of foreign manpower: the special procedure of "regularisation" has tended over two decades to become the rule, while the statutory procedure supervised by the Office National d'Immigration has become the exception.

Would it not be logical, the OECD report asks, for the Agency, which is responsible for balancing supply and demand on the domestic labour market, to take a more active part in such activities at international level? Better integration of the two functions would make it easier to simplify the procedures. Such integration would be easier if the Agency became more autonomous, which would by no means exclude maintenance of the right to supervise and provide general guidelines for immigration policy, which is of course the Government's responsibility.

Where reception structures are concerned, the report raises the question whether the existing arrangements could usefully be integrated with the policy followed in connection with the introduction of foreign manpower. Admittedly, the same Ministry is responsible for both kinds of action, but there is still some uncertainty concerning the choice between two possible methods: adjusting the recipient (reception structures) to the contents (the roughly three million foreigners), or fixing the number of admissions in accordance with the capacity of the present infrastructure.

## New Forms of intervention

The OECD examiners found that the French employment policy authorities were aware of the limits of an "active manpower policy in the strict sense" and of the fact that labour market problems could not be resolved solely through conventional measures, such as maintenance of income in periods of unemployment or retraining, and immediate adjustment of the manpower supply to firms' requirements.

The Employment Commission for the Sixth Plan emphasised that these problems call for institutional development. Then it would be possible to coordinate a large number of official measures taken in connection with general and short-term economic policy, industrial policy, education, regional development, and so forth. Experience, confirmed by the findings made when the Fourth and Fifth Plans were assessed, has shown that well-devised plans run the risk of being stillborn if they have to be implemented by a number of different administrative bodies.

France has recently experimented with methods which break with tradition insofar as they aim primarily to establish a network of specific relationships around relatively simple instruments which are not institutionalised. This can be illustrated by two complementary examples, namely the "Comité interministériel de la formation professionnelle et de la promotion sociale" (Interministerial Committee for Vocational Training and Social Betterment) and the "Comité interministériel de l'Emploi" (Interministerial Committee for Employment). These two bodies comprise roughly the same members of the Government, and each has a standing group of senior officials representing the ministerial departments concerned.

It has been stressed on the French side that the system of coordination that has been established can be successful only if at the same time there is a change in the mental attitudes adopted by the various administrative bodies concerned. It is a matter of ceasing to regard employment problems as secondary and giving them the same importance as is now attached to other government activities. This is seen to be particularly necessary at a time when full employment is being eroded.

If France really wishes to avoid having to choose between unemployment and inflation, it has to combine two lines of action: a short-term policy that pays more attention to employment problems and a management of the labour market that will lessen the irregularities in the growth pattern and mitigate their effects.

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# POLLUTION CONTROL IN THE PULP AND PAPER INDUSTRY

*The OECD countries account for some 80 to 90 per cent of worldwide production of pulp and paper. The industry is a heavy user of water (up to 70 per cent of total consumption in some countries), and discharges massive tonnages of residual waste into the environment. OECD's Environment and Industry Committees have created a Joint ad hoc Group on Pollution by the Pulp and Paper Industry. Its particular assignment is to evaluate present conditions of pollution in this sector, as well as solutions adopted or planned in the different countries. Sixteen countries took part in the study (1).*

**A** typical mill, producing 500 tons of pulp per day, uses about 100,000 m<sup>3</sup> of water daily, which is equivalent to the consumption of a city of half a million people. In 1970, the quantity of water utilised by the pulp and paper industry in the sixteen countries taking part in the OECD study was nearly 22,000 million m<sup>3</sup>, approximately that of 100 towns. Ten million tons of residual wastes were discharged into the water by the pulp and paper industry in 1970. This included four million tons of suspended solids — fibre and bark residue, ash, lime, clay — and six million tons of oxidisable organic substances — lignin (not readily biodegradable), carbohydrates, organic acids, alcohols — commonly measured in terms of "biochemical oxygen demand", or BOD. All the products of the pulp and paper industry do not have the same polluting effect; the manufacture of sulphite pulp, for example, is responsible for more than 50 per cent of the total discharge of organic substances.

Not only water is affected. The air is also polluted by the pulp and paper industry, which emits particulates, odorous gases, and sulphur dioxide. Most air pollution problems are caused by sulphur compounds, sulphur being used in practically all stages of manufacture of chemical pulp; some one-third of the sulphur lost in the process is emitted in gases.

However, air pollution problems are, in general, limited to the vicinity of pulp mills. Air quality, therefore, receives less attention at international level than water quality, whose effects are felt across frontiers.

Soils are also polluted by great quantities of solid wastes: bark, lime, sludge, mud from water treatment plants, ash, paper waste. Attempts to reduce suspended solids presently being discharged along with waste water effluents will result in a parallel increase in the quantity of sludge to be removed, either in public dumps, as fill, or in some other fashion. This problem will assume increasing importance over the next few years.

## The Technical Aspect

Participating countries have submitted information on pollution abatement programmes planned for the coming years. By 1980, these should lead to a significant reduction in the pollution load caused by suspended solids and oxidisable organic residue as compared with the 1970 level; for the sixteen countries participating in the study the overall reduction should be in the region of 65 to 70 per cent.

The main problem is that of water pollution, by reason of the vast quantities of water used, and the volume of wastes discharged. Hence, the main emphasis in the development of pollution control technology (2) has hitherto been directed toward effluent treatment.

Such pollution control includes external measures such as waste water treatment plants, and internal measures which refer to specific technology introduced into the production cycle to reduce the quantity of pollutants to a minimum.

There has been a continuous decrease in the specific water use (m<sup>3</sup> per ton produced) with the passage of time. The mills appear to have lowered their water requirements per ton by more than a third during the last ten years. As a result, the total volume discharged into the receiving waters is not much greater, if at all, than it was ten years ago, when the total fibre production was approximately 60 per cent of present levels.

Optimal use of the various internal and external treatment technologies available, according to the report of the OECD *ad hoc* Group, could reduce the effluent pollution load to very low levels. An even greater reduction of pollution, at lower

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(1) "Pollution by the Pulp and Paper Industry", OECD 1973.

(2) *Advanced Pollution Abatement Technology in the Pulp and Paper Industry*, OECD, 1972.

## ESTIMATE OF DISCHARGES OF ORGANIC SUBSTANCES (BOD) IN 1970, 1975 AND 1980

(million tons)

	1970	1975	1980
Austria .....	167	159	101
Belgium .....	5	7	7
Canada .....	1 403	1 072	382
Finland .....	379	319	267
France .....	183	154	75
Germany .....	208	173	124
Italy .....	103	109	••
Japan .....	906	568	••
Netherlands .....	30	23	17
Norway .....	175	157	••
Spain .....	78	81	79
Sweden .....	520	259	179
Switzerland .....	13	3	4
Turkey .....	21	22	27
United Kingdom ..	64	53	52
United States .....	1 779	601	380
<b>Total .....</b>	<b>6 034</b>	<b>3 760</b>	<b>••</b>

*The figures for 1975 and 1980 take into account increased production forecasts. Direct comparisons between countries cannot be made, as certain of these were more advanced than others, in 1970, in their programmes of combatting BOD discharges.*

cost, might be possible as a result of research and development now being carried out in a number of countries. The Group anticipates that the results of certain of these research projects could radically alter present conceptions of effluent and emission treatment. The countries participating in the study all in all forecast a distinct reduction of the emissions of oxidisable substances (as illustrated in the tables opposite, which show BOD loads in 1970, 1975 and 1980). The example of the United States is indicative: increased production of pulp and paper between 1971 and 1980 is forecast as 20 million tons; in the same period the anticipated reduction of BOD emissions is 1.4 million tons.

### Government Action

In parallel with their technological efforts, most Member countries are seeking to provide themselves with legislative instruments and adequate regulations to combat pollution caused by the pulp and paper industry. In each of the countries studied, there exists basic legislation to protect the environment against pollution; in most cases, these laws are of recent vintage or in process of amendment. They must be periodically revised to meet new requirements and technological developments. The practical measures which ensue from the application of the water pollution laws in the various countries fall within one or another of the following systems :

- discharge fee: a tax, based on the amount of certain pollutants (in general organic matter and suspended solids) in the effluent, is collected from the industry which discharges waste water; the money is usually used to provide subsidies for the construction of treatment plants;

- case-by-case analysis: the discharge of waste water is assessed on a case-by-case basis according to certain criteria applied to the assimilative capacity of the receiving waters; the conditions for discharge may vary very considerably from case to case;

- uniform effluent standards: uniform national standards are fixed and applied to all discharges; usually, such standards are based on best practicable technology.

In many countries the present tendency is to use concurrently the case-by-case analysis and the uniform effluent standards; the latter represent a minimum level of treatment for all discharges. More stringent standards can be applied to deal with particular local conditions. Discharge fee systems are often used as transitional measures pending the attainment of an acceptable level of environment quality, or as a means to induce the polluter to undertake the necessary action. A more detailed study of these various systems is underway at OECD.

In general, current regulations are applied in their entirety to new mills from the outset of production; on the other hand, existing mills are given a period of grace which allows them to adapt to the requirements.

### Pollution Control Costs

Most of the sixteen countries have furnished detailed information on expenditures already authorised for pollution control, using 1970 as the reference year, and on the cost of applying further measures planned for the periods 1971-1975 and 1976-1980. These estimates deal only with mills operating in 1970. They take account of capital and net operating costs, allowing for savings from recovery of heat, chemical products, fibres, etc.

The study clearly illustrates that pollution control expenditures in practically all OECD countries are likely to increase considerably in the next few years. In many countries, these costs constitute a new and increasingly important factor in the economic health of many mills.

Forecasting on the basis of an average for all participating countries, the cost of pollution control will rise from about 0.5 per cent of the price of the product to 1.7 per cent in the paper industry and 2 per cent in the newsprint industry. Corresponding figures for sulphate pulp vary from about 1 per cent in 1970 to between 2.6 and 5.8 per cent in 1975. Data furnished by several countries would indicate still higher costs by 1980.

Pollution control costs are particularly high for semi-chemical and sulphite pulp. The major part of semichemical production is integrated with that of fluting, and the effects on prices are indirect. Pollution control costs for sulphite pulp are expected to rise from a level of about 2 per cent of product price in 1970 to nearly 8 per cent in 1975.

The use of sulphite pulp is increasingly being abandoned, usually in favour of sulphate pulp. The application of anti-pollution measures, and the ceiling placed on price increases by the possibility of substitution by sulphate pulp, will further aggravate the already difficult economic position of sulphite pulp and hasten the current trend in sulphite mills — the closure of less efficient mills and the conversion of others. Social problems may result, locally, from such structural changes. The study reveals appreciable differences between countries, not only in the amount of anti-pollution expenditures planned



*The principal environmental hazard caused by the pulp and paper industry is the pollution of water of which large quantities are used and discharged in the production process.*

up to 1980, but also in the timetable for implementing the regulations. Such disparities in pollution control costs may lead to shifts in the competitive position of different countries on the world market.

Generally speaking, it has been usual until recently for the pulp and paper industry to fund the total cost of pollution control. Since the coming into force of stricter regulations in most Member countries, many governments now subsidise these expenditures directly or indirectly.

The nature of government aid varies from one country to another; it may take the form of direct grants, tax reductions, or loans at a low rate of interest. The extent of government aid also varies from country to country, and such variations could have further repercussions on international competitiveness.

In many countries, government financial support for pollution control is considered as a temporary measure aimed at encouraging industry to accelerate its own pollution abatement programmes. Some countries justify such subsidies as needed

to restore the balance between old and new mills in terms of pollution-control costs, since such costs will account for a substantial portion of total short-term capital investment requirements to be met by already operating mills and because, due to its record of low profitability, the industry in many countries may find it difficult to obtain the necessary capital, even for productive investments.

Most of the countries are engaged in research and development into methods of controlling water and air pollution. The cost of this work is usually shared between industry and government, in proportions which differ greatly from one country to another, as do the procedures used. However, the expenditures under this heading are not negligible (depending on the country, they vary between US\$ 0.09 and US\$ 0.34 per ton of production) and they are additional to the cost of applying abatement measures. In comparison with the cost of research proper, the amounts which will have to be spent on development and full scale testing of new control methods are considerable.

# TAXATION OF COMPANY PROFITS

## An Assessment of Policy Options

*During the last ten years many OECD countries have changed (or contemplated changing) their systems of taxing corporate profits—and often in contrary directions. The question of which system to adopt remains an important policy issue in many countries and this has led OECD's Committee on Fiscal Affairs to make a detailed assessment of the advantages and disadvantages of the various options open to governments and of their policy implications, both domestic and international. Detailed analysis of the taxation systems in force in OECD countries and the reasons for their adoption is incorporated into a forthcoming publication "Company Tax Systems in OECD Member Countries" (1); the following article highlights the main questions involved.*

**U**nder the so-called separate or classical system, which is practised in ten OECD countries, the corporation tax on company profits is regarded as a completely different tax from the personal income tax which shareholders have to pay on dividends received. Accordingly under this system, little or no tax relief is given to the shareholder to take account of the fact that the profits out of which he has been paid have already borne corporation tax (2). Under the separate system companies have a tax incentive to retain rather than distribute their profits and investors a tax incentive to prefer bonds to shares. Governments wishing to modify this bias have done so through two different approaches:

- Taxing the company's distributed profits at a lower rate than retained profits (the split rate system).
- Giving a tax credit to the shareholder for part of the tax paid by the company on the profits it distributes (the imputation system).

Within these broad groupings there are numerous variations (see chart). In particular distributed profits may not be taxed at all at company level, as in Greece, or the shareholder may get credit for *all* the tax paid, as has been proposed in Canada and Germany, but nowhere put into effect.

There has been a great deal of switching between these systems in the last ten years (see table). Thus for example the United Kingdom moved from a kind of imputation system to the separate corporate tax in 1965, the same year that France made the switch in the opposite direction; and in 1973 the UK switched back again.

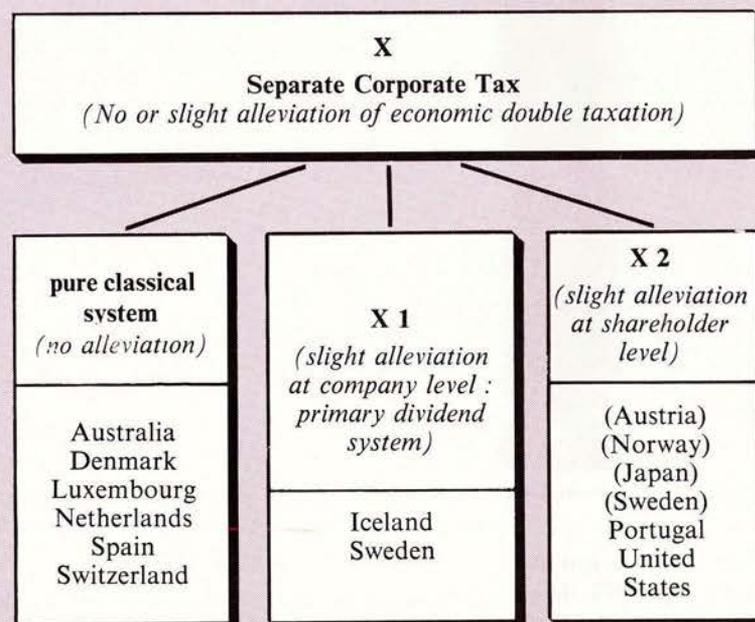
### The Domestic Effects

Though questions of neutrality, equity and administration all play a part, the most important factor governing the choice of a company

(1) In addition to the general analysis there is a description of the schemes in force in France, Germany, Ireland, Spain, the United Kingdom and the United States and of how these countries treat dividends paid across frontiers.

(2) This is sometimes known as "economic double taxation" but opinion is divided as to whether the term is appropriate.

#### 1. TYPES OF



*Brackets indicate subsidiary features of the regime in the country concerned, but the diagram conceals the fact that the substance as distinct from the form of the system depends on the amount of tax relief. Thus, for example, while the primary dividend can be regarded as a mild form of the split rate, if there is little difference*

tax system is whether or not it enhances the quantity and quality of investment. And the argument that it does has been advanced for each of the major systems at various times.

One school of thought argues that a system in which there is economic double taxation of profits (the separate system) encourages corporate investment by the fact of giving companies an incentive to retain and reinvest earnings (self-financing). Against this it has been argued that survival of the fittest does not necessarily mean survival of the fittest, that efficient allocation of economic resources as well as increased investment can better be encouraged by stimulating the equity markets and that this should be done by lightening the burden on the shareholder (whether by reducing the tax rate on distributed profits or by granting a tax credit to shareholders).

The detailed analysis of OECD's tax experts shows no conclusive proof that either approach is more efficient in terms of promoting investment. And it seems likely that other tax factors, such as levels of personal income tax and capital gains tax and terms of double taxation treaties have more influence on investment decisions than the system of company taxation. Indeed it is because income taxes have become increasingly higher over recent years

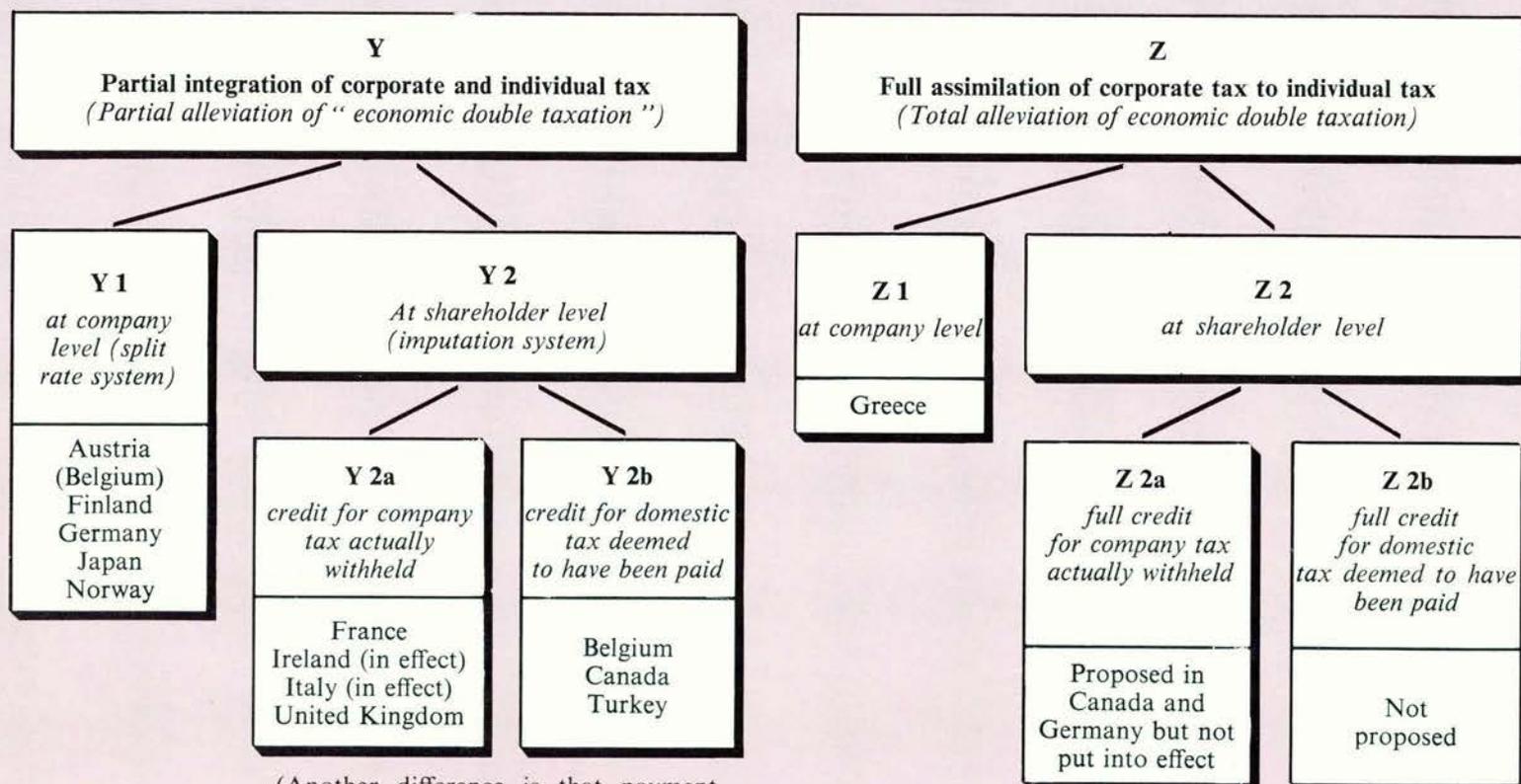
that the question of economic double taxation has come to the fore as an issue in OECD countries.

It cannot be said that one system is better than any other, the experts conclude. It depends on the objectives of the government and the overall economic context of the tax system. France, Germany and the United Kingdom have taken the approach of relieving some of the present burden of taxation on company profits paid out as dividends. On the other hand Spain, given the need to increase self-financing and the relatively low level of corporate taxation, finds the separate system more appropriate to her needs while in the United States the separate system has encountered little opposition, pressure being concentrated instead on reducing the rate and taxable base.

If a country chooses to reduce the total tax burden on distributed profits, the report concludes, both the split rate and imputation systems have certain advantages and disadvantages. The split rate has greater simplicity and preserves more clearly the distinction between corporate and personal income tax while the imputation system benefits shareholders directly and only those shareholders normally subject to income tax.

(continued on page 18.)

## F COMPANY TAXATION IN OECD MEMBER COUNTRIES



(Another difference is that payment may be made to the taxpayer under Y2a but not under Y2b.)

between the two rates of a split rate system (e.g. Japan, where maximum rates are 36.75 per cent for undistributed and 26 per cent for distributed profits) the system may be regarded in practice as closer to X1 than Y1. Similarly, if the credit under the imputation system is relatively modest (e.g. in Canada it was

20 per cent of the taxable dividend) it approaches an X2 system in substance. On the other hand if relatively slight alleviations are given both at company and shareholder level (e.g. Sweden), the system might in substance be regarded as closer to Y though it remains formally X.

## The International Context

But company tax systems also have an impact on foreign investment, both direct and portfolio, and international considerations are increasing in the choice of governments as to which system should be adopted. For example the European Communities are hoping to agree on a harmonised system because it is believed that the existence of different systems affect capital flows.

Considered by itself, the separate tax system is neutral with respect to international capital flows since resident and non-resident investors are treated alike. And if the separate system were to exist in a world of separate systems, the flow of profits and hence of investment would not be affected by the choice of tax systems as such, though it would of course be influenced by varying levels of tax, by withholding and repatriation practices and by many factors having nothing to do with taxation.

But if, as is true in the real world, the separate system in one country coexists with a system in another country which gives tax relief for distributed profits, the resident of the country with the separate tax system will have an incentive to invest in countries which give such relief providing he benefits from these provisions, while there will in general be a disincentive to flows in the opposite direction.

A country with a split rate system would, other things being equal, tend to attract non-resident investment because the lower rate for distributed profits automatically applies to non-resident portfolio investment and to direct investment in the form of subsidiaries. Branches of foreign firms do not, however, get the benefit of the lower rate.

Under an imputation system, the tax credit on dividends is not automatically extended to non-residents and hence discrimination

against foreign investors may be involved. In fact the only countries with this system to give relief to non-resident investors are France and the United Kingdom and then only to portfolio investors from countries with whom France and the United Kingdom have tax treaties which provide for such credits.

Governments having split rate or imputation systems do not give tax relief to residents who invest abroad as the purpose of such relief is usually to make investment at home more attractive. In this context it is logical to give relief to non-residents who invest in the country giving relief rather than to residents who invest abroad.

Tax systems also may affect governments' share of revenues from international investment. Thus for example when the government of the United Kingdom changed tax systems this year, one of the factors which led it to prefer the imputation system to the split rate system is that under existing patterns of bilateral tax treaties, where each of the two countries levies the same rate of withholding tax on dividends paid abroad, the split rate system involves a sacrifice of tax revenue from international investment.

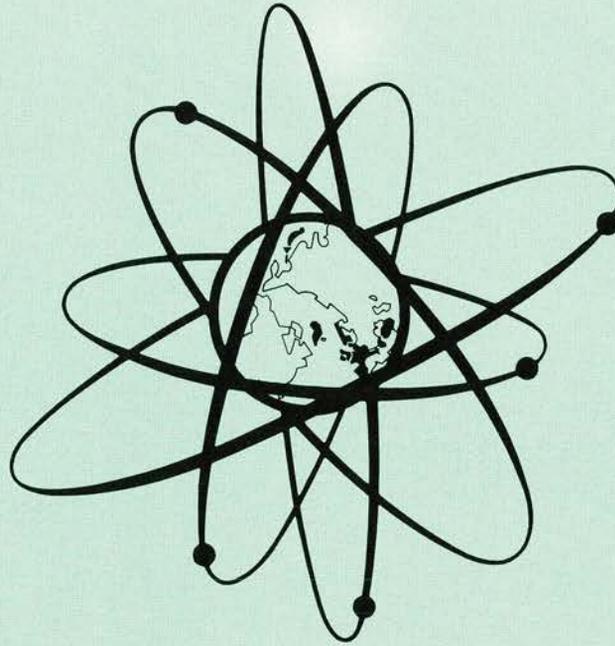
## Further Action

A number of the issues raised in the report of OECD's tax experts are being taken up in OECD's Fiscal Affairs Committee:

- A Working Party on Double Taxation is exploring how far international friction due to the coexistence of different systems can be resolved through bilateral tax treaties.
- A newly formed Working Party on Multinational Enterprises will be looking at the effects of the different systems on direct investment in the context of a larger study of the tax position of such enterprises.

### *Changes and Proposed Changes in Taxation Systems*

1962	Neumark Report recommends split rate system for EEC.	1970	EEC Consultant report recommends separate system as harmonised EEC system.
1965	United Kingdom replaces former imputation type system by separate system.	1971	United Kingdom announces intention to replace separate system by either split rate or imputation system.
1965	France replaces former separate system by imputation system.	1971	Germany announces possibility of replacing split rate by full integrated imputation system.
1966	Carter Report recommends that Canada adopt fully integrated imputation system to replace present partial imputation system.	1971	Canada proposes to adopt a more extreme version of the imputation system (33 $\frac{1}{3}$ per cent instead of 20 per cent credit).
1968	Austria replaces former separate system by split rate system.	1972	United Kingdom adopts imputation system to come into effect in April 1973.
1968	Netherlands renounces its intention to abandon separate system.	1972	Ireland puts out discussion paper recommending adoption of an imputation system.
1968	Italy proposes to replace its schedular system by separate system.	1973	New proposals expected from EEC Commission on harmonised EEC system.
1970	Norway replaces separate system by split rate system.		



# **CHANGING ROLE FOR OECD'S NUCLEAR ENERGY AGENCY**

With the rapid increase in energy demand, recent years have seen growing emphasis on the inter-relationships between the various forms of energy production and consumption, and on their consequences for the human environment and "standard of life" in both the short and long terms.

In keeping with the evident requirement to consider the future of nuclear power in this context, the work of OECD's Nuclear Energy Agency (NEA) (1) is becoming progressively more closely associated with that of other services of the Organisation, notably those concerned with overall energy problems and with the environment. At the same time, with the advent of commercial nuclear power, activities related to nuclear safety, regulation and control are gradually acquiring greater emphasis in government programmes, and this trend is in turn reflected in the programme of the Agency. Factors underlying this reorganisation of effort, and the resulting modifications in the work of NEA, are discussed in the following article.

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*(1) The former European Nuclear Energy Agency (ENEA) originally set up by OEEC in 1957, became the OECD Nuclear Energy Agency (NEA) some eighteen months ago when Japan became its first non-European Member.*

**D**espite the current overwhelming preponderance of oil, coal and natural gas as primary energy sources, it is generally accepted that, by the end of the century, nuclear power is likely to be meeting about one half of the total electricity demand in OECD countries. This means that all aspects of nuclear power generation, including fuel production, construction of increasing numbers of very large reactor-powered generating stations, and fuel reprocessing after use (including management of the resulting radioactive wastes) may be expected over the coming years to become very big business indeed.

This progressive and increasingly rapid evolution of commercial interest is, of course, of very great significance to governmental authorities, both at national and at international levels. In particular, in many countries the past role of these authorities as virtually the sole promoter of power reactor development is now being shared with industry, while at the same time governmental tasks in the field of safety, regulation and control of nuclear energy have increased immensely both in volume and complexity. In addition, most national administrations are now involved in studies of the conditions for, and the consequences of, the large scale application of nuclear energy in order to draw up, or update, their nuclear power programmes in the best interest of their communities. Such studies must obviously embrace both technical and economic and social factors, and include not only national, but also international considerations.

It is not surprising that Member countries of the OECD's Nuclear Energy Agency, thus obliged to review their attitudes and actions in the nuclear energy field, should have welcomed a fundamental re-examination of the Agency's programme and priorities. Starting in mid-1971, this re-examination was completed a few months ago (when its recommendations were adopted by the OECD Council). Although its results were unspectacular, they fully confirmed an already developing tendency for NEA to devote its main efforts to policy issues in fields such as those referred to in the preceding paragraph, with somewhat less emphasis on the Agency's original role as a promoter of joint research and development work.

## NEA'S RE-ORIENTED PROGRAMME : BASIC PRINCIPLES

There is a ready tendency to assume that any organisation which has been established "to further the development of the production and uses of nuclear energy" (1) necessarily represents a vested interest and that its pronouncements must be viewed accordingly. In relation to questions of public health and safety, this can evidently become an impediment to acceptance. It is therefore imperative, as greater emphasis is given to these fields, to maintain the clearest possible distinction between activities concerned with regulation and control and those having more promotional objectives.

Fortunately, the fact that promotional activities are mainly concentrated in NEA's largely autonomous joint undertakings makes this requirement easy to achieve, but it is nevertheless important to keep it in mind.

On the other hand, it is also important not to diminish the *capability* of the Agency to promote practical projects such as the joint undertakings, even though this may be unlike the role fulfilled by any other part of the OECD.

The co-operation developed in these operational projects can provide an extremely valuable vehicle for the transmission of experience, especially in fields where impediments are not

created by commercial considerations. It is also to be noted that, particularly in the regulatory field, some operational work is a natural illustration of and complement to policy developments.

A further consideration results from the implications of nuclear power for the development of governmental (and intergovernmental) energy supply strategies, and for the resultant economic and social consequences. Both these aspects are of special concern to other parts of the OECD and it is therefore essential that the NEA programme should continue to include (as it has in the past) provision for appropriate contributions to any wider studies undertaken within the Organisation. This is currently particularly relevant to the overall study of future energy problems which was called for at the 1972 Ministerial Council Meeting, and which is to be submitted to the Ministers in 1974.

Finally, when in spring 1972 Japan became a full Member of the Agency (the first non-European country to do so) (2) this regularised a change, which had been becoming increasingly apparent for some years, from a "regional" body to one linked to the interests of countries of a certain *level of industrial development* in the nuclear field. This trend had been found to lead to increased calls for policy-oriented activities rather than work circumscribed by geographical limitations. Moreover, the recent expansion of the European Communities has changed the balance in Europe while the International Atomic Energy Agency (IAEA), which is a member of the United Nations family has continued to have major preoccupations with world wide relations concerning the peaceful applications of nuclear energy, particularly in relation to the Treaty for Non-Proliferation of Nuclear Weapons, and with the needs of developing countries. Thus, the time was evidently propitious for a redefinition of NEA's role, to relate it more particularly to the requirements of the industrial countries which are Members of OECD.

The combination of these various factors led to the conclusion that NEA's future programme should continue to combine work with a policy orientation and work having a more operational emphasis, with the former progressively absorbing a greater part of the overall effort. The programme will also continue to be a selective reflection of subjects lending themselves to intergovernmental co-operation, rather than any attempt to cover comprehensively the whole field of nuclear energy. This form of pragmatic approach will depend on the maintenance of the flexible working procedures which have evolved within the Agency, and which not only allow continual adaptation to changing circumstances, but in particular permit the termination of any activity once its useful life has been completed.

It is envisaged that this programme will fall into the following three main sections :

- safety and regulatory aspects of nuclear activities ;
- economic and technical studies on nuclear development ;
- technical co-operation and nuclear information.

## SAFETY AND REGULATORY ASPECTS OF NUCLEAR ACTIVITIES

The following objectives have been defined for the Agency's work in this field :

(1) *Statute of Nuclear Energy Agency as originally adopted in 1957, Article 1(b).*

(2) *Previously all the Agency's 18 full members were European : Austria, Belgium, Denmark, France, Germany Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, and the United Kingdom. Japan, Canada and the United States were associated countries.*

- (a) to promote the protection of workers and the public and the preservation of the environment;
- (b) to promote the safety of nuclear installations;
- (c) to make the necessary evaluation of the net risk/benefit to man and his environment from nuclear applications;
- (d) to promote harmonised legislation and regulations for nuclear activities;
- (e) to contribute to improved public understanding of the various aspects of nuclear development. Achieving these objectives, particularly in the field of legislation and regulation, should also contribute in eliminating unnecessary impediments to international trade.

### • *Radiological Protection and Public Health*

The harmonious growth of nuclear industry in the future depends to a large extent on the evolution and implementation of internationally-accepted standards for the radiological protection of man and his environment. Responsibility for this essential task within the Agency is entrusted to the *Committee on Radiation Protection and Public Health* (formerly "Health and Safety Committee"). This committee is composed of national representatives having responsibilities and competence in the various aspects of radiation protection and/or public health. It provides a forum for exchange of experience on broad policy issues in its field, reviewing on a regular basis the general trend of national radiation protection policies.

The Committee is required to keep all NEA activities under review from the point of view of radiation protection and public health, and to advise, in liaison with a second committee—the *Committee on the Safety of Nuclear Installations*—on risk/benefit evaluations and on priorities at the earliest possible stage each time particular types of nuclear application are being considered. The Committee is also responsible for the establishment of radiation protection standards to protect the public and workers in the nuclear field on a basis harmonised between Member countries, these standards being derived from the recommendations of the International Commission on Radiological Protection (ICRP), which are recognised throughout the world.

### • *Safety of Nuclear Installations*

Countries embarking on a programme of nuclear power require to establish effective regulatory machinery to which all proposals for the siting, design, construction, commissioning and operation of nuclear reactors and other installations and for associated activities may be submitted. Equally, they need either competent professional staff or access to disinterested advice to make the machinery work properly. These needs have presented and are presenting certain countries with difficult practical problems. Countries already operating licensing machinery have adopted a diversity of practices, based not only on differences in legal tradition but also on differences in technical practices: these differences not only present risks of undermining public confidence in licensing criteria, but can also create obstacles to international trade, particularly in nuclear fuels and equipment. In addition, achievement of a unified regime for nuclear third party liability requires a common outlook on the licensing of nuclear installations covered by this regime. Thus, it is as much in the interests of seller countries as of their customers to exchange experience on licensing practices and to reduce unnecessary regulatory obstacles to nuclear development.

To provide a forum for the necessary exchange of information between licensing authorities, research groups and other bodies interested in this work, a specialist *Committee on the Safety of Nuclear Installations* has been set up, the main task of which will be to review selected topics of nuclear safety technology and discuss their significance also from the licensing point of view.

### • *Radioactive Waste Management*

Radioactive waste management is one of the major problems associated with the development of nuclear industry. It is a characteristic of many of the outstanding problems in this field that they are amenable to effective solution only at international level, and for this reason NEA has already established an important programme of activities, including in particular a series of internationally supervised operations for disposal of low-activity packaged solid radioactive wastes in the deep Atlantic ocean. In addition, much work has been done — and is continuing — on the comparative evaluation of all available and proposed methods for the management of all forms of radioactive wastes of all levels of activity. In this connection it may be recalled that the United Nations Conference on the Human Environment, held in Stockholm in June 1972, adopted several resolutions advocating more intensive international co-operation on problems raised by radioactive wastes, and particularly the implementation of mechanisms to exercise overall and regional control of sources of marine pollution. The practical experience of NEA in this matter has contributed considerably to the preparation by the International Atomic Energy Agency of detailed proposals for such control.

### • *Public Understanding*

International co-operation in the field of radiation protection, safety of nuclear installations and radioactive waste management has already made an important contribution towards the achievement of effective protection of man and the environment against the hazards inherent in nuclear activities. Reinforced co-operation within the Agency should help to provide a uniformly high standard for such protection. Nevertheless, evidence is mounting in a number of countries that opposition to nuclear development is becoming stronger and more organised. This public disquiet may be regarded in one sense as a lack of confidence in the established regulatory mechanisms, and as such is a matter of concern to both national and international authorities.

Because the psychology of the people of different nations varies, while information media and regulatory processes also each tend to have their own national characteristics, it is usually preferable for national authorities to deal directly with problems of public reaction within their own frontiers. It follows that any contributions from international organisations should be designed to reinforce the efforts of national authorities (rather than to make any direct appeal to public opinion) and to encourage elimination of unjustifiable differences of practice which have the effect of undermining public confidence.

A particularly important contribution at international level can be made by the provision of objective and authoritative judgements on matters of public interest. A judgement which can be attributed to a respected international organisation often carries a great deal more weight with public opinion than if the same views were expressed by national authorities. It is this consideration which lends special emphasis to the desirability of maintaining and increasing public recognition and respect for NEA's autho-

ity and independence in this field. In order to do this, the Agency is launching an enquiry to identify the main problems of public concern over nuclear energy and its effects, and to assess their relative importance. These problems are then to be referred for authoritative advice to appropriate expert committees (notably the Agency's Committees on Radiation Protection and Public Health and on the Safety of Nuclear Installations) following which considered judgements are to be made available to help national health, licensing and other authorities who are called upon to issue public statements in this field.

### • Nuclear Law

The development and expansion of the applications of nuclear power, and particularly the increase of industrial and commercial involvement in these applications, pose numerous legal and regulatory problems. Not only does nuclear power involve comparatively novel and highly specialised technologies, but the

nature of certain associated risks—notably those concerned with radiation—is such that legal processes of the pre-nuclear era would be ill-suited for their regulation. (It is only necessary to consider the extreme difficulty, in the event of an illness developing which *might* have been due to radiation exposure many years previously, of establishing whether or not this should be deemed to be the case and if so whether the exposure was due to negligence and by whom.)

It is therefore not surprising that a special regime of nuclear law has been developed, founded on novel principles designed to reduce litigation and expedite judgements of practical validity—i.e. judgements capable of bringing real relief to plaintiffs without at the same time stifling both nuclear power production and the underlying nuclear industry.

The development of this special regime of nuclear law has, from the earliest days, been one in which the OECD's Nuclear Energy Agency has played a leading role. In particular, the concepts

## PARTICIPATION IN JOINT UNDERTAKINGS AND PROJECTS; COMMON SERVICES

		HALDEN	DRAGON	GAS-COOLED FAST REACTOR GROUP	EUROCHEMIC	FOOD IRRADIATION: INTERNATIONAL PROJECT **	NEUTRON DATA CENTRE	COMPUTER PROGRAM LIBRARY	ISOTOPIC GENERATOR STUDIES
Member Countries	AUSTRIA .....		•	•	•	•	•	•	•
	BELGIUM .....		• e	•	•	•	•	•	
	DENMARK .....	•	• e		•	•	•	•	•
	FRANCE .....		• e	•	•	•	•	•	•
	GERMANY .....	•	• e	•	•	•	•	•	•
	GREECE .....								
	ICELAND .....								
	IRELAND .....								
	ITALY .....	•	• e		•	•	•	•	
	JAPAN .....	•		•		•	•	•	
	LUXEMBOURG ....		• e						
	NETHERLANDS ..	•	• e	•	•	•	•	•	
	NORWAY .....	•	•		•	•	•	•	
	PORTUGAL .....				•	•		•	
	SPAIN .....				•	•	•	•	•
	SWEDEN .....	•	•	•	•	•	•	•	•
	SWITZERLAND ...		•	•	•	•	•	•	•
TURKEY .....				•	•				
UNITED KINGDOM		• e*	•		•	•	•		
Associated Countries	CANADA .....					•			•
	UNITED STATES	•				•			
	FINLAND .....	•				•			

\* In addition to "host country" participation.

\*\* Together with (through IAEA) Brazil, Hungary, Israel and South Africa.

e = participation through Euratom.

governing nuclear third party liability, which now form the basis of nearly all national legislation on the subject, were first endorsed at the international level by the Agency-sponsored Paris Convention on Third Party Liability in the Field of Nuclear Energy, signed in 1960 by 16 Member countries. This Convention came into force on 1st April 1968; it is now operative in nine countries (3), substantially influences the national legislation in many others, and is open to accession by all Members of OECD.

Nuclear legislation is of course also concerned with the legal application of radiation protection standards and other safety criteria relating to the production and use of nuclear energy and of radioactive materials. These matters are in general dealt with on a national basis by the authorities concerned, but internationally NEA, in collaboration with other interested bodies (notably the IAEA) is concerned with efforts to harmonise national regulations so that what is accepted in one country will not conflict with provisions in another, and will not hamper international trade.

## ECONOMIC AND TECHNICAL STUDIES ON NUCLEAR DEVELOPMENT

As already mentioned, the Agency's programme over the years has been gradually influenced by the increasing limitations in the scope for intergovernmental co-operation in nuclear energy research and development, mainly caused by the growing significance of commercial considerations. NEA's current programme is therefore concerned more with examining the economic and other factors at work in the further growth of nuclear energy than with seeking to exert direct influence on the choice between the technical options which are available. Within this programme preference is given to studies and projects which lie mainly in the realm of governments and which, at the same time, lend themselves to participation on the part of a maximum number of Member countries.

### • *The Demand for Nuclear Energy*

The OECD Council, meeting at Ministerial level in May 1972, decided that a global assessment of longer-term energy trends and problems should be carried out by the Organisation, aiming at recommendations that might assist in the formulation of energy policies, in their domestic and international aspects. As nuclear power will be making a significant contribution towards securing adequate energy resources in future, NEA will play an important part in this study.

While the great long-term potential of nuclear power for increasing the security of energy supplies is recognised, realisation of this potential depends on overcoming a number of identifiable impediments, a process which can be facilitated by international co-operation. For this reason the programme of NEA is increasingly governed by such considerations, and in particular includes the following subject matters:

- evaluation of the economic factors of special significance to nuclear industrial development, and relating them to the economic situation foreseen during the coming years;
- exchanges of objective information concerning the supply and demand for nuclear fuel and the associated industrial capacity;
- studies of regulatory questions likely to impede the expected growth of nuclear power.

Matters such as these, particularly the first two, lend special significance to the work of the Agency's *Study Group on the Long-Term Role of Nuclear Energy* (NELT), which in recent years has given particular attention to assessments of uranium

resources, production and demand. This work, which has been undertaken in close collaboration with IAEA and has thus permitted the assembly of data covering the whole non-communist world, is continuing with the object of improving the reliability of the data as a basis for the long-term planning of the uranium mining industry (4).

## TECHNICAL CO-OPERATION AND NUCLEAR INFORMATION

### • *Reactor Development*

By its sponsorship of the Halden and Dragon Projects, set up in 1958 and 1959 respectively, the Agency has given continued support to these two successful examples of international co-operation which have made a direct contribution to the development of power reactor technology.

The *Halden Project* (at Halden, Southern Norway) was originally concerned mainly with the physics and chemistry of the boiling heavy water reactor system, with particular reference to coolant flow and heat transfer during boiling. More recently, increasing emphasis has been placed on the use of the Halden reactor installation as an experimental test facility for power reactor fuels, and this has been accompanied by the development of highly sophisticated systems of in-core instrumentation, data monitoring and processing equipment. The Agreement governing the Halden Project has recently been extended until the end of 1975, with the participation of public institutions and private industry of nine OECD countries. As in the past, NEA will continue to be closely associated with the Halden Project and make available to it supporting advisory services.

The *Dragon Project* (at Winfrith, S.W. England) was set up to design, construct and operate a high temperature gas-cooled reactor experiment. The project's activities have since evolved, with the substantial financial participation of Euratom, towards encouraging the introduction of this reactor system. The interest in the system is such that the Project has been extended a number of times, most recently to March 1976. As in the case of the Halden Project, NEA will continue to associate closely with and support the Dragon Project so long as the Signatories wish the Project to continue.

Although the Dragon Project has been highly successful from the technical point of view, it is now apparent that its exploitation might have been facilitated if manufacturing industry and utilities had been more closely involved from an early stage. This point has been given particular attention in the establishment in 1971 of a *Co-ordinating Group on Gas-Cooled Fast Reactor Development*. This Group now involves nine Member countries, is specifically developing co-operation with a similar body established by industry, and is open to accession by other Member countries able and willing to contribute to the Group's work. The mode of operation of the Group is to carry out a co-ordinated programme of work, involving exchange of information and of staff, to determine in due course whether large-scale development of this potentially important power reactor system should be undertaken in collaboration. The interest of this Group lies not only in its technical potential but also as an example of a new concept in multi-national co-operation. (continued on page 24)

(3) Belgium, Finland, France, Greece, Norway, Spain, Sweden, Turkey, United Kingdom.

(4) This work has resulted in a series of reports on Uranium Resources, Production and Demand, the most recent of which was published by OECD only last month (September 1973).

## • *Reprocessing of Irradiated Fuel*

Eurochemic, the European Company for the Chemical Processing of Irradiated Fuels, came into existence in July 1959 on ratification of an international Convention signed in December 1957. The original objectives of the Company were to develop the technology of nuclear fuel reprocessing; to train specialists in this technology; and to provide fuel reprocessing facilities in Europe for countries not having their own capacity (initially only France and U.K. were so equipped).

Since 1966 the Company has operated a small but highly flexible reprocessing plant at Mol (Belgium). However, during recent years increasing nationally-owned capacity in large (and hence more economic) installations has brought into question the value and usefulness of this plant, and Eurochemic has recently decided to terminate its commercial reprocessing activities by mid-1974. The main task ahead will then be the treatment and storage of the considerable amounts of medium and high level radioactive wastes resulting from the eight years operation of the plant. This, as well as the possible decommissioning of certain of the plant facilities, will yield new and useful experience.

## • *Radiation Applications*

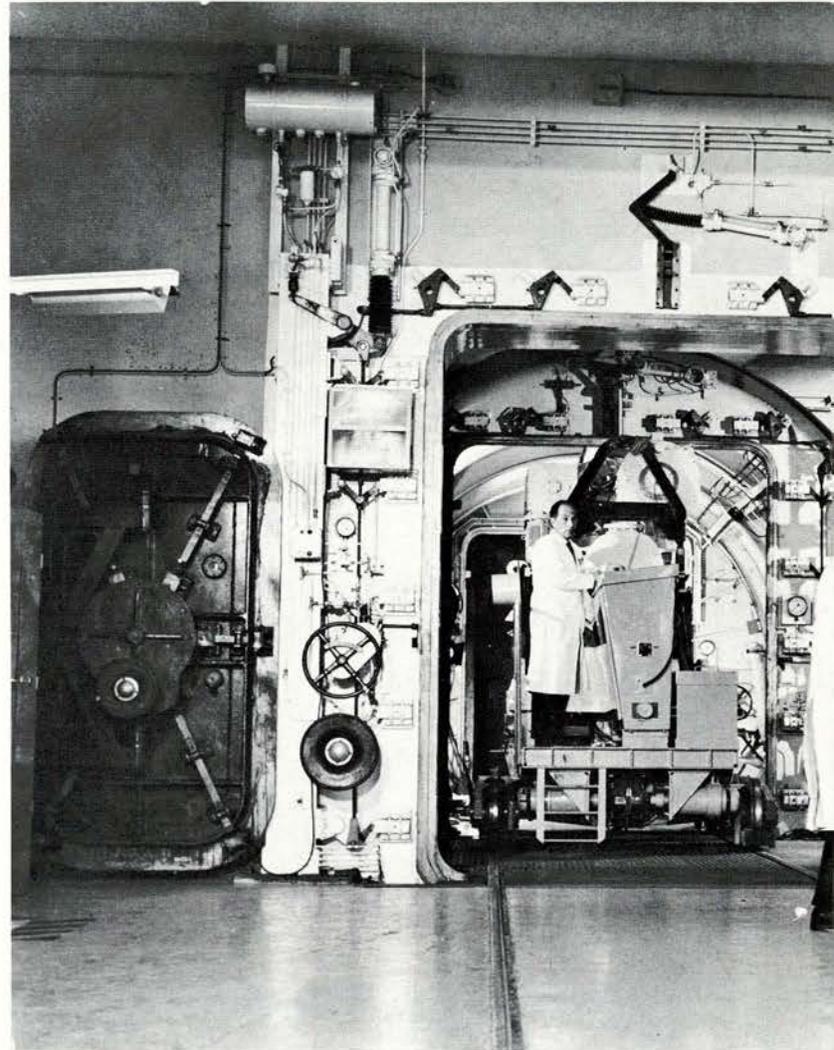
The preparation, distribution and application of radioisotopes has expanded rapidly in recent years, and although their marketing and distribution is now conducted on a commercial basis, there remain certain aspects of their application which lend themselves to inter-governmental co-operation, particularly in matters traditionally dependent on support from public funds.

It was partly in this sense that NEA, in collaboration with IAEA and FAO, sponsored the establishment in January 1971 of a new *International Project in the Field of Food Irradiation*. The Project now involves 22 countries. The purpose of the Project is to carry out programmes of wholesomeness testing on selected food products treated by irradiation, together with investigations into the methodology of wholesomeness testing. The programme is evolved in close consultation with national health authorities and WHO, for whom the organisation of the work on an international basis is one of the most effective assurances of objectivity in the results. The Project Secretariat is provided by NEA.

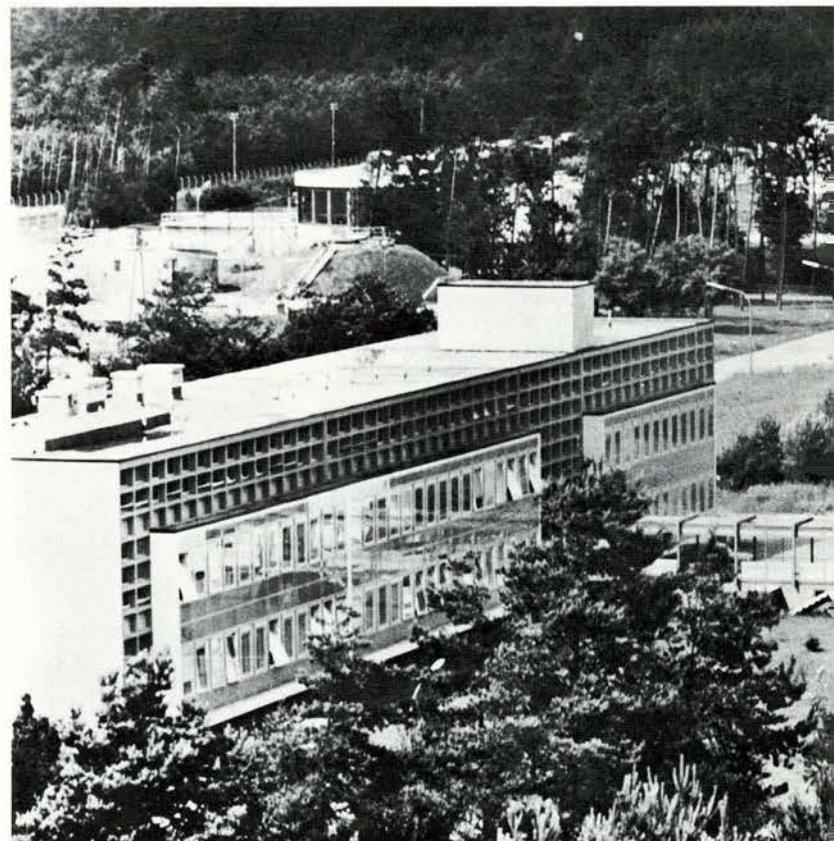
In a different field of radiation application, the Agency has for some years been concerned with the development of miniature batteries based on isotopic generators and using static conversion systems. Interest has also been extended to larger generators based on dynamic conversion systems and having applications at remote or inaccessible sites. Within this programme of work, NEA has sponsored since 1967 a specialised Study Group, now supported by eight Member countries, to collaborate in a programme of research and development. From this collaboration has emerged a successful design for a cardiac pacemaker, which has since been implanted in human patients. The Agency's future efforts in this field will in particular concentrate on the safety regulations governing this and other applications of isotopic generators.

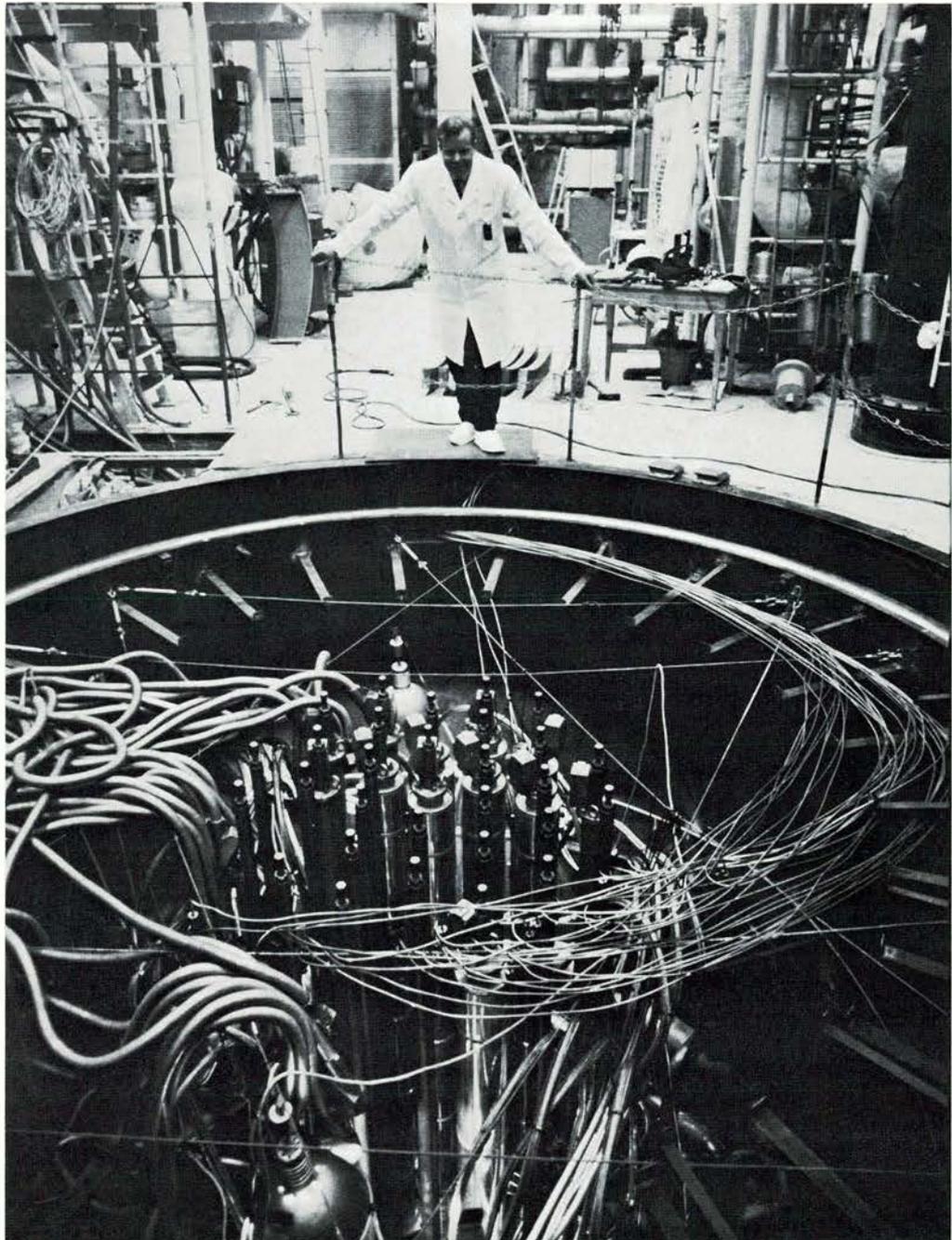
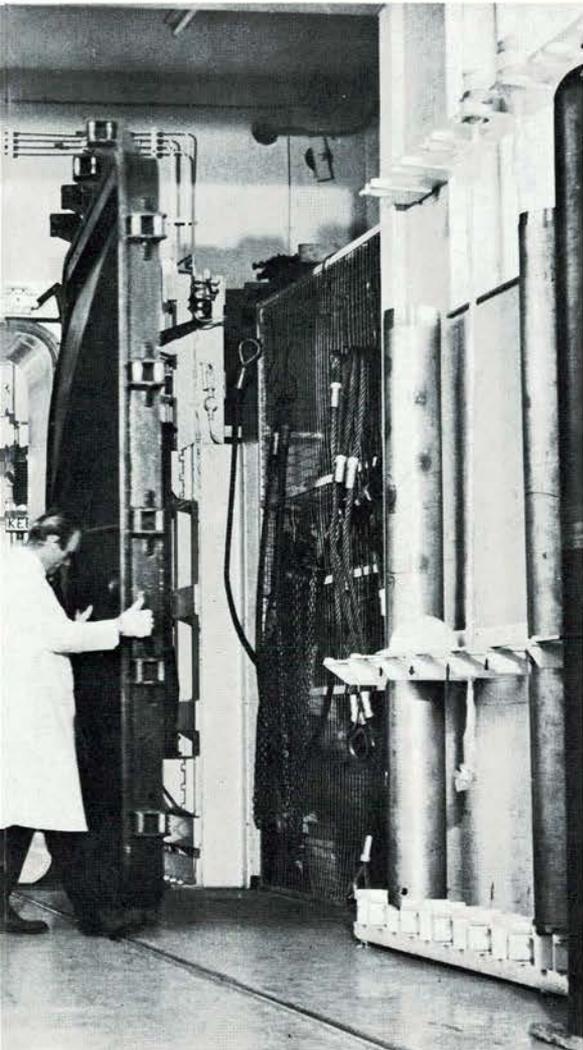
## • *Nuclear Information*

The generation of new scientific knowledge during the past thirty years has reached vast proportions: the nuclear literature alone is now growing at the rate of some 100,000 items each year. Creation of mechanisms for the efficient handling of this torrent of information has depended to a large extent on govern-

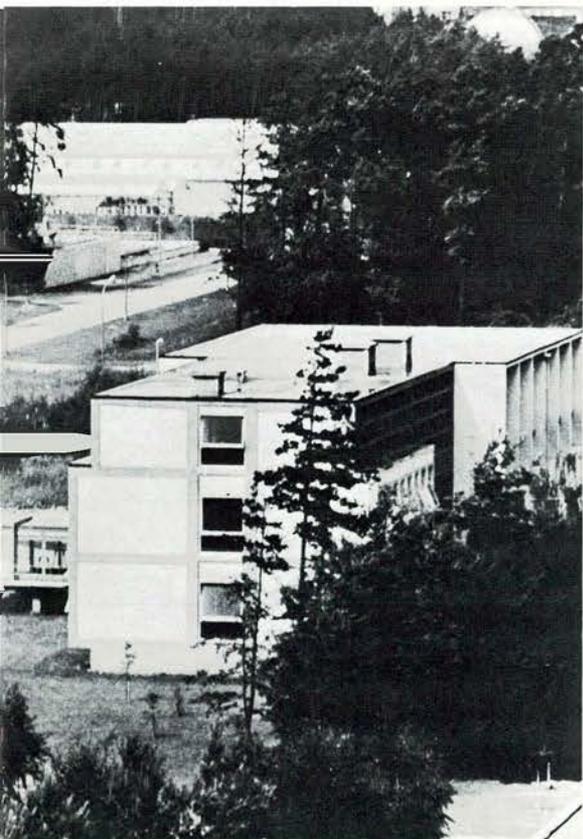


(Above). The OECD Dragon Reactor Project at Winfrith (UK): Vehicle air-lock Project: Headquarters building at Karlsruhe (FR Germany). (Above right): The of reactor vessel, showing fuel and control rods and instrumentation. (Below digital presentation of operating conditions.





entry to reactor. (Below): International Food Irradiation  
OECD Halden Reactor Project, (Norway): General view  
right): OECD Halden Reactor Control Room, showing



ment intervention and, at the international level, on the initiative of inter-governmental organisations.

At present, nuclear scientists and engineers are served by a large number of nuclear information systems. Three are of a high degree of sophistication and have acquired worldwide significance. They are Nuclear Science Abstracts (NSA) operated by the U.S. Atomic Energy Commission, the International Nuclear Information System (INIS) by IAEA, and the Euratom Nuclear Documentation System (ENDS). In this context, NEA has not attempted to initiate any further nuclear information system but has sought to develop complementary services and to encourage co-operation between Member countries to secure the best return from the existing systems. This work is continuing and expanding.

To stimulate the Agency's contribution in this field, it was decided in April 1971 that a new *Working Group on Nuclear Energy Information* should be set up. This now provides a forum for responsible documentalists and scientists to work out common approaches to practical questions and to explore improved data handling and transmission techniques which may have beneficial applications in the nuclear field.

### • Common Services

The Agency's main practical contribution in this field has been the establishment and operation, since 1964, of two Common Services: the *Computer Program Library* (CPL) at Ispra, Italy, and the *Neutron Data Compilation Centre* (CCDN) at Saclay, France. Both are typical examples of fulfilling a function complementary to the general information systems mentioned previously, which cannot provide the services they offer.

The CPL is supported by 14 Member countries and operates in close collaboration, on a reciprocal basis, with Centres providing similar services in the United States. It also provides services through IAEA to a number of other countries. The Library collects computer programs, undertakes confirmatory tests, usually on the computer of the Host Centre at Ispra, and issues copies on request to research centres, mainly in the participating countries. Most of the "active" programs are, in fact, requested and issued many times, and since each one represents a very large (and expensive) (5) amount of preparatory work, this multiple sharing of the results represents very substantial savings to the users.

The services of the CPL have always been in considerable demand, which has sometimes temporarily exceeded the Library's capacity. Adoption of increasingly advanced techniques, however, has enabled the services to expand almost continuously, and at present plans are being developed to widen the scope of programs dealt with, both in subject matter and by introducing a system for recording users' experience and comments concerning programs furnished by the Library.

Somewhat similar to the Computer Program Library in structure and objectives, the Neutron Data Compilation Centre (CCDN) is supported by 13 countries and now forms part of a worldwide network through liaison with similar Centres in the United States, the USSR and IAEA. Neutron data are essential elements in reactor design yet their accurate measurement is often extremely difficult and hence expensive. The network of which CCDN forms part has now accumulated 80,000 bibliographical references and about  $1\frac{3}{4}$  million numerical data; and any of this information can be "retrieved" rapidly from the

computerised storage systems through any of the participating centres. There is, however, a growing need for the vast quantities of "raw" data to be examined by experts who, taking account of the experimental methods used in measuring the data, together with other relevant factors, assess the reliability and accuracy of the data in comparison with the results of any other measurements available. This data evaluation work is currently performed with the help of—though not necessarily by—the data centres in the CCDN network. It will certainly expand and become increasingly important in future, necessitating novel techniques of storage, classification and retrieval to which the CCDN is already applying itself.

In addition to the CPL and the CCDN, which together employ a significant proportion of the staff of NEA, support is given to the work of two important *European-American Committees*. The European-American Nuclear Data Committee (EANDC) is concerned in keeping under critical review the existing state of knowledge of nuclear cross-sections and other constants, and recommending the most expeditious methods for repairing those gaps in knowledge which are of special significance to the nuclear programmes of the countries concerned. In addition, the Committee reviews equipment and techniques, research materials, nomenclature and data compilation, and recommends the holding of technical meetings and exchange of equipment and personnel where appropriate. Similarly, the European-American Committee on Reactor Physics (EACRP) is concerned to keep under critical review the state of knowledge in areas of reactor physics of general interest to the nuclear energy programmes of the countries concerned. The activities of these two Specialist Committees are closely related to the operations of the CCDN and CPL respectively. Both are dependent on NEA for Secretariat and certain other services.

## PAST, PRESENT AND FUTURE

The past two decades have seen nuclear power progress from a scarcely proven technology to one which is now commercially exploited in many countries on an ever increasing scale. However, although this demonstrates that the original scientific and technological problems have been resolved, a whole series of new—and in many ways less tractable—problems has taken their place.

The tasks confronting governments and inter-governmental organisations have similarly changed. Twenty years ago, when the idea of nuclear energy co-operation within OEEC was first mooted, the urgent requirement was to develop a new source of power to supplement, or even replace, uncertain supplies of fossil fuels, particularly oil. That new source is now confirmed and available, and the question today is how great a contribution, and how soon, nuclear power can make to meeting the overall energy demand.

Although there are differences of view on the answers to this question, which are indeed largely dependent on choices which governments and industry must make over the next few years, there is no alternative to growing reliance on nuclear sources if the growing energy demands of a growing population are to be met. Nevertheless, it is important for this increased nuclear capacity to be achieved without provoking undesirable social, industrial or economic conditions, and with constant regard for preserving and improving the human environment.

Thus, the new orientation of NEA's programme comprises an essential element in the Organisation's contribution to the solution of the energy problem in Member countries.

(5) A typical development cost for a modern program is of the order of \$ 100,000.

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# THE ADVENT OF MASS HIGHER EDUCATION

*All OECD countries are concerned with the directions which should be given to the development of their systems of post-secondary education in the 1970s and 80s, as they move into the stage of mass higher education. A central issue in the on-going debate around the complex problems which lie behind this concern is the setting up of new educational structures, or modifying existing ones, if the system is to respond more adequately to modern needs and objectives, those of the individual as well as those of society more broadly.*

*This was also the central theme of the OECD Conference on Future Structures of Post-secondary Education, which was held in Paris on 26th-29th June 1973, and attended by senior educational policy makers, including Ministers, from the OECD countries, together with members of the academic community and representatives of employer and employee organisations. Backed by extensive analysis and documentation prepared by the Secretariat and invited experts, as well as contributions by the national authorities in the Member countries, the Conference focussed its attention on both the overall issues involved in the structural transformation of the post-secondary sector and, more particularly, on four specific themes which had been identified as representing the strategic areas of measures to be taken, viz: Accessibility to Post-secondary Education and to Employment; Non-traditional Forms of Study; the Structure of Studies and the Place of Research in Mass Higher Education; and Planning, Costs and Finance. A full report on the Conference will be published later this year.*

*In the present article, George Papadopoulos, Deputy for Educational Affairs at OECD, records his own personal interpretation of the nature of the issues which formed the background to the Conference discussions.*

## The General Context

Behind the feeling of mounting uncertainty which prevails in most OECD countries about the future development of their higher education systems lie the strains generated by three main phenomena which have dominated the educational situation in the post-war period:

- the massive growth of individual, largely autonomous, demand for educational opportunities at higher levels, consequent on steadily rising incomes, both national and personal, and the generalisation of secondary education;
- the changing pattern of the employment structure, resulting from rapid technological change and the subtle mutations in the labour market characteristic of the economic growth process in industrially advanced societies; and
- the all-round failure to establish satisfactory relations between the structures and offerings of the higher education system, the aspirations of its clients, particularly those from the new social groups seeking access, and the needs and absorptive capacity of society for qualified people.

There is, in consequence, a manifest urgency in the push towards reform of the higher education systems in Member countries, which finds its focus in structural changes encompassing the entire post-secondary sector.

The central issue which gives rise to the existing situation can thus be defined as the transition from an elitist, or, as some prefer to call it, a selective system of higher education to a more popu-

larly based one, i.e. to a system of mass higher education. This applies to all countries, with different degrees of intensity according to their relative stage of development. As summed up in an earlier Secretariat report, "most countries are at an intermediary and critical stage, between elitist and mass higher education, the former having to be abandoned under the pressure of numbers and of a series of socio-economic factors, the latter requiring structures, content and organisational arrangements which have not yet been developed and only partly identified" (1).

## A Crisis of Confidence

In many countries, this process of transition has become more difficult to analyse, let alone manage, because it has come to be part of the intricate relationships of wider social and political conflict. What was an obvious need resulting from the proven inadequacies of institutional structures and of educational processes to cope with the growth and diversity of the new student population acquired major political significance by the widespread movement of student unrest in the late Sixties and the different reactions to it from various social groups and in particular from the academic community itself. The resulting crisis of confidence in higher education is in many respects a political phenomenon; it reflects the disappearance, under the impact of massive quantitative growth, of the old-time consensus which

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(1) *Towards New Structures of Post-secondary Education: A Preliminary Statement of Issues* (OECD, 1971), p. 28.

### RELATIVE CHANCES OF UPPER STRATUM AND LOWER STRATUM YOUTH OF STUDYING IN A UNIVERSITY

France	1959	84 : 1	UK (England and Wales)	1961	8 : 1
	1964	30 : 1		1970	5 : 1
	1968	28 : 1			
Germany	1961	58 : 1	Sweden	1960	9 : 1
	1964	48 : 1		1968	5 : 1
Netherlands	1970	12 : 1	Yugoslavia	1960	6 : 1
	1961	56 : 1		1965	4 : 1
	1964	45 : 1		1969	3.5 : 1
	1970	26 : 1			

Source : "Quantitative Trends in Post-secondary Education in OECD Countries 1960-1970".

prevailed as to the values and objectives of the system, and which governed the allocation of financial resources to it and its management and control structure, when the system catered for only a small minority of the population.

In fact, the problem of growth remains at the heart of much of the debate, and the uncertainty, about the future. The expansionist trends, exemplified by the vast increase in enrolments during the last two decades as shown in the attached figures, are generally recognised to be irreversible, though significant differences are emerging in the pattern of such expansion under the impact of new factors affecting the development of the demand for post-secondary education. Thus, any relative slowing-down in the "traditional" youth demand for higher education, i.e. from the immediate age-groups of secondary school leavers, is likely to be more than compensated by the growing demand from adults.

Many countries are already taking measures to promote and provide for such demand, as evidenced by the growing interest in recurrent education, the proliferation of non-traditional forms of higher education study and generally the trend towards a multiplication of access routes into post-secondary education. This development will accentuate even more the present diversity of the student body, with respect to their social backgrounds, ages, interests and educational needs, and will call for correspondingly increased as well as diverse and flexible educational offerings to meet these needs.

In endeavouring to meet such needs, higher education is in essence responding to the wider range of goals and functions which society expects of it today, over and above its traditional attributes of transmission and extension of knowledge and training for the higher professions. The so-called "public service function", i.e. involvement of higher education institutions in the solution of major problems facing the surrounding community and their contribution to the quality of life, facilitating the process of life-long learning and contributing to the general objective of social change and towards greater equality of opportunity are essential aspects of this new goal structure of higher education.

These new goals are not always easy to reconcile with the more traditional ones and the strains to which they give rise, e.g. between the requirements of excellence and of egalitarianism, between individual aspirations and social and economic needs, represent major conflict areas around which much of the current debate as to the future of higher education revolves.

These tensions will be increasingly compounded as political pressures mount for greater equity in higher education in terms of social group participation and for wider involvement by both students and teachers in decision-making and in the control of institutions. Though the latest figures made available in the Secretariat analysis (2), as shown in the attached table, do indicate that the expansion of the Sixties has had some impact on the social composition of the student body, the pace of this progress remains too slow to be politically acceptable.

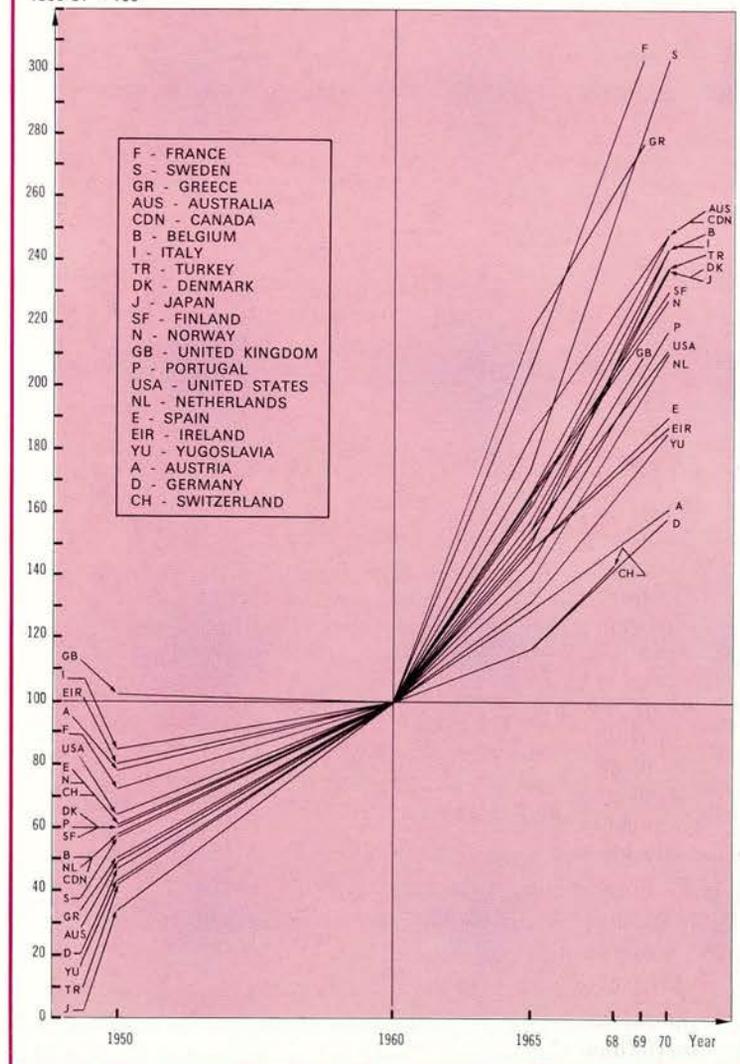
Moreover, as the process of democratisation in global participation proceeds, new and more subtle forms of disparities appear, an eloquent example of which is the over-representation of the middle and upper classes in the more prestigious and selective fields of study or institutions leading to higher status career prospects while lower class participation is concentrated in areas and institutions providing, by and large, entry into less privileged occupations. Most higher education systems have thus come to be split into a "noble" (university and equivalent institutions) and a "less noble" (short-cycle courses and institutions) sector with significant social as well as educational distinctions (3).

(2) "Quantitative Trends in Post-secondary Education in OECD Countries 1960-1970.

(3) For an analysis of this problem see Short-cycle Higher Education: A Search for Identity, OECD, 1973.

### INCREASE IN HIGHER EDUCATION ENROLMENTS FROM 1950/51 TO 1970/71

Index of increase :  
1960-61 = 100



This, of course, reflects the reality that persisting inequalities in participation in the hierarchy of higher education institutions are intertwined with existing hierarchies in the larger society.

## Sharpened Constraints

The trends sketched above represent on the whole expansionist forces in the development of higher education. They operate, however, within a present-day climate of opinion not at all convinced of the usefulness of continuing growth. There are sharpened constraints arising from the continuing rises in both unit and total costs in higher education: the percentage of GNP devoted to higher education has more than doubled in most Member countries over the past decade, unit costs rising on an average over all OECD countries by nearly 5 per cent per year, while expenditure on higher education increased much more rapidly than that on other educational sectors and than total government expenditure. Many felt that this pace of growth could not continue indefinitely. Increasing demands are being made by other social sectors upon public expenditure. There are difficulties of adjusting the employment expectations of students to a situation in which the number of professional and high-level job opportunities has not kept pace with increases in enrolments. There is increased awareness of the limitation of merely educational measures in bringing about greater equality of opportunity and of the need to direct resources into broader social areas if the cycle of deprivation is to be effectively combated.

Above all, there are marked signs of a stiffening of resistance against the threat to entrenched values which the move towards mass higher education is taken by certain groups to represent—fears, for example, that open access policies and the introduction of new style modular and unit courses, and the democratisation of institutional governance may lead to the erosion of the quality and values of scholarship and research.

## Diversification

The response to the complex dilemmas sketched above has been generally recognised to lie in the adoption of pluralist patterns of development in post-secondary education, of institutions, of course organisation, of certification and of links with adult education programmes and with working life; in other words, of greater diversification of access and options in higher education in terms of space, time and study.

The push towards such diversification derives from combinations of factors outlined above, both under the expansionist trends and those making for constraints. Herein lies the main difficulty, for often these factors carry inbuilt conflicting policy aims which are eventually reflected in the relative cost and resource structure prevailing in various institutional patterns. Thus, whereas pressures in the interest of greater equality, public service functions and better employment prospects would militate for the setting up and proliferation of short-cycle and non-traditional institutions, the same solution could be interpreted as deriving from different pressures aiming at providing cheaper educational opportunities for the flood of new students and at protecting the traditional status and role of the universities.

In other words, diversification of higher education may be both an instrument of democratisation and a means used by the existing establishment in defence of the traditional basic academic values.

## ENROLMENTS IN HIGHER EDUCATION (in thousands)

	1950	1960	1965	1970
Austria	22.5	38.9	50.1	62.5
Belgium	30.2	52.0	84.0	(127.1)
Denmark	19.5	32.5	53.2	77.1
Finland	17.6	29.2	48.5	67.1
France	185.4	256.0	527.0	778.8 <sup>(1)</sup>
Germany	(146.9)	313.2 <sup>(3)</sup>	367.4	494.9
Greece	(15.3)	30.5	66.7	84.6
Iceland	(0.6)	(0.8)	(1.1)	(1.4)
Ireland	11.2	14.0	20.7	26.2
Italy	240.7	284.3	424.7	694.2
Luxembourg	0.3	0.5	0.7	0.6
Netherlands	(63.5)	109.4	152.6	229.5
Norway	13.3	21.7	35.9	49.3
Portugal	14.4	24.0	34.5	52.0
Spain	(113.8)	185.4	274.1	351.9
Sweden	27.3	47.9	83.5	145.7
Switzerland	18.3	(30.0)	(35.0)	43.0 <sup>(2)</sup>
Turkey	27.7	65.4	103.1	155.4
United Kingdom	(294.7)	(287.7)	(433.4)	589.7 <sup>(1)</sup>
Yugoslavia	60.4	140.6	184.9	261.2
Australia	(34.9)	70.7	(131.7)	175.4
Canada	167.0	286.3	471.3	711.1 <sup>(1)</sup>
Japan	240.0	712.0	1,093.0	1,685.6
USA	2,297.0	3,610.0	5,570.3	7,608.0

(1) 1969 - (2) 1968 - (3) 1961

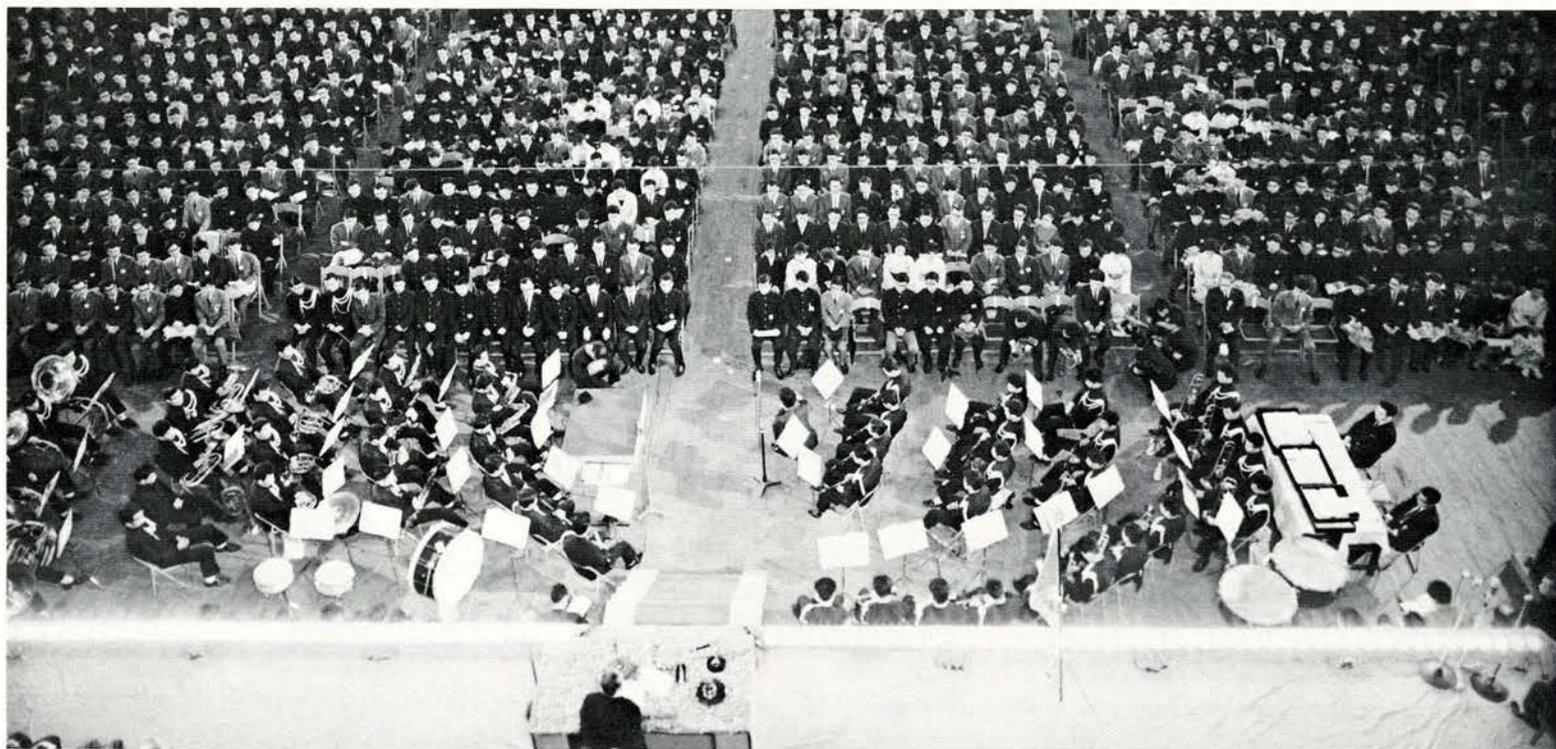
Source: "Quantitative Trends in Post-secondary Education in OECD Countries 1960-1970".

## Selection

In either approach to the example given above, which in many ways epitomises the difficulty of bringing about significant changes within the educational system without corresponding changes in the traditional value structures of society, the main instrument has been that of selection. All systems, those with *numerus clausus* as well as those with open access, are in effect selective, the distinction between them residing in differences as to the strategic points and modes at which the selection process operates.

By and large, this process has been allowed to operate irreversibly and on the basis of a limited number of criteria, e.g. the distinctions between academic and vocational education and between formal education and work experience, strongly correlated with the social class origin of the student population. Entry into universities, and similar prestigious institutions, has been operating as the main criterion for success in terms of career opportunities, social status and economic returns.

While in most systems the selection process functions as a cumulative phenomenon determined for all practical purposes at the school level, manifesting itself most clearly at upper secondary level, current indications in the Member countries point to a more purposeful use of admission procedures; these are designed to make policies regulating access to individual parts of the higher education system both more explicit and more socially acceptable and to do away with the wasteful and frustrating phenomenon of "selection by failure" which cha-



*Commencement in a Japanese university*

racterises many of the open-access systems. An essential part of these policies are new facilities for increased transferability between courses and more diversified access routes to post-secondary education — e.g. successful termination of general as well as of vocational secondary education, various types of qualification acquired in employment, individual study outside formal school, different kinds of professional training and remedial courses, etc. — aimed at encouraging and satisfying demand from new groups, particularly youth with work experience and adults.

### **Towards a New Model**

The effectiveness of these new policies will in large measure depend on ingenuity in the diversification of the curriculum and the structure of studies, i.e. in establishing "the most appropriate sequences and relationships between generalised and specialised education, between theoretical and practical instruction and also between formal education and work experience. It may well be that this is the most crucial issue with regard to the future of higher education, on which all the others in a sense depend, because its solution will, in the final instance, determine the flows of students to and from higher education, and their mobility between different educational institutions and between education and work" (4).

This is surely the most intractable part of the problem for it will involve a redefinition of knowledge and its pedagogical applications, including new roles for research and new patterns of teaching-research relationships. It will inevitably arouse strong opposition from the established disciplines and will bring to the forefront of the debate the whole future of the universities.

The dominant factor in this debate will be the capacity and willingness of the universities to assume an internal diversification so as to provide within them the new facilities needed by a system of mass higher education; otherwise these facilities will have to be concentrated in a parallel sector, thus consecrating the "binary" principle. The issue at stake is how the essential standards and traditional functions of higher education can be

maintained within a more pluralistic value system, i.e. how to bring about a diversification of excellence at different levels and points in the system which is necessary to attenuate the "noble"/"less noble" dilemma referred to above. In such a system institutional variations in terms of quality and functions will inevitably persist, but not necessarily as between universities and the rest.

The other crucial areas on which the success of new admission policies rests is effective coordination between the post-compulsory school level and higher education and between the formal education system and the non-formal one. This will imply the availability of *real* options for the young school leavers to test themselves out in society without sacrificing subsequent educational opportunities and more flexible relationships between education and professional experience, as is implied in the recurrent education concept (5).

Thus, the higher education model which may well be developing in Europe in the '70s and '80s would represent a significant departure from the more "linear" one followed in the '50s and '60s under the runaway process of educational growth. Its essential characteristic is the attempt to telescope the advent of mass higher education by merging the formal education system with non-traditional studies and similar educational activities into one framework, acceptable and meaningful to both youth and adults, and without waiting for the universalisation of secondary education, as was the case in the United States.

Success in working towards such a model will in large measure depend on conscious measures of policy to support the development of "non-traditional" studies, within or outside the universities, but within a recurrent education strategy, and to provide the resources and incentives necessary to ensure their respectability and recognition by the various social groups involved, not least the teachers and the students and their potential employers.

(4) *Towards New Structures...* op.cit., p. 43.

(5) *For an analysis of these problems see* Recurrent Education: A Strategy for Life-long Learning, OECD/CERI, 1973.

# INTERNATIONAL TOURISM: BRISK EXPANSION



*For the fourth successive year international tourism in the OECD area enjoyed a brisk expansion during 1972 which continued in the first half of 1973. This is illustrated by detailed statistical information and analysis in the annual report of the Organisation's Tourism Committee, which has been approved for publication by the OECD Council (1).*

*The conclusions of the report give prominence to the need for considering the costs and benefits of tourism development, especially with regard to the environment, to public participation in the tourism planning process, to the protection of the tourist as a consumer and to the development of rural tourism.*

*The following article summarises the findings of the new report.*

**D**uring 1972 foreign currency earnings from tourism of all Member countries exceeded \$ 20 billion for the first time. Total arrivals of foreign tourists rose by 8 per cent to around 150 million, while nights spent in 13 European Member countries and Yugoslavia, continuing their steady growth, grew by 6 per cent to 630 million.

Main features of the 1972 situation were fast growth of international tourism in European Member countries and a strong revival of tourist traffic from the United States, apparently unaffected by the dollar devaluation. German tourist travel continued its role as the mainstay of European tourism. The United States and Germany together now account for almost half of the total OECD expenditure on international tourism. North Atlantic air charter traffic decelerated sharply, in contrast to scheduled traffic which grew by about a quarter. There was a recovery in the growth of tourism to Japan, while tourist travel abroad by Japanese residents continued to expand.

Investments in tourism generally maintained a high rate of increase with new hotel building, modernisation and extension work remaining buoyant. Inflation was again in evidence, as in other economic sectors, and many substantial price increases were recorded in the hotel and catering industries of Member countries. Employment in these sectors continued to rise, but growth was generally moderate.

Trends in early 1973 are of continuing growth in international tourism, with flows from Germany rising briskly, as in recent years, but tourism from the United States to Europe in the first six months of the year grew at about half the rate recorded in 1972 (+ 12 per cent against + 23 per cent). On the other hand, two-way North Atlantic scheduled air passenger traffic of IATA companies rose by 18 per cent in the first four months of 1973 (+ 31 per cent in 1972) while air charter traffic

(1) "International Tourism and Tourism Policy in OECD Member Countries - 1973"

## 1. INTERNATIONAL TOURIST RECEIPTS AND EXPENDITURE OF OECD MEMBER COUNTRIES

(rounded figures in U.S. \$ million)

Countries	Receipts			Expenditure		
	1971	1972	%	1971	1972	%
Austria .....	1,271	1,679	+ 32	389	55	+ 42
B.L.E.U. ....	370	433	+ 17	574	709	+ 24
Denmark .....	387	491	+ 27	309	374	+ 21
Finland .....	172	240	+ 39	114	161	+ 42
France .....	1,451	1,622	+ 12	1,191	1,344	+ 13
Germany .....	1,529	1,854	+ 21	3,520	4,513	+ 28
Greece .....	305	393	+ 29	52	66	+ 26
Iceland .....	6	8	+ 32	6	8	+ 36
Ireland .....	193	178	- 8	n.a.	n.a.	n.a.
Italy .....	1,882	2,174	+ 16	837	1,049	+ 25
Netherlands (1) .....	647	762	+ 18	804	888	+ 10
Norway .....	174	201	+ 16	169	206	+ 22
Portugal .....	305	391	+ 28	117	153	+ 31
Spain .....	2,055	2,608	+ 27	136	190	+ 40
Sweden .....	162	179	+ 11	532	677	+ 27
Switzerland .....	875	1,063	+ 21	368	438	+ 19
Turkey .....	79	104	+ 32	42	59	+ 40
United Kingdom .....	1,192	1,369	+ 15	1,064	1,317	+ 24
<b>TOTAL European (2) Member Countries .....</b>	<b>13,055</b>	<b>15,747</b>	<b>+ 20</b>	<b>10,224</b>	<b>12,705</b>	<b>+ 24</b>
Australia .....	196	198	+ 1	303	419	+ 38
Canada (3) .....	1,270	1,214	(3)	1,479	1,442	(3)
Japan .....	172	201	+ 17	509	775	+ 52
United States .....	2,455	2,708	+ 10	4,294	4,740	+ 10
<b>TOTAL OECD (2) Member Countries .....</b>	<b>17,148</b>	<b>20,068</b>	<b>+ 17</b>	<b>16,809</b>	<b>20,081</b>	<b>+ 19</b>
Yugoslavia .....	382	461	+ 21	218	n.a.	n.a.

(1) Figures supplied by OECD Balance of Payments Division.

(2) Totals of expenditures exclude Ireland.

(3) Figures for 1972 not comparable with 1971 due to changes in definitions and reporting methods. Figures, many of which are provisional, exclude receipts and expenditures on account of international fare payments.

Figures for Canada, Ireland, Switzerland, United Kingdom and United States are based on sample enquiries; figures for the other countries are based on bank returns.

n.a. = not available.

(IATA companies only) was up 34 per cent in the same period as against + 47 per cent in 1972.

Statistics of *frontier arrivals of foreign visitors* in European Member countries generally relate to the first two to six months of 1973 and showed the following evolution: Turkey + 36 per cent (4 months), the Joint Scandinavian Passport Control Area + 27 per cent (3 months), Denmark + 24 per cent (4 months), Greece + 22 per cent (5 months), Ireland + 12 per cent (6 months) Ger-

many + 10 per cent (3 months), Portugal + 8 per cent (4 months), Spain + 4 per cent (6 months), Switzerland + 1 per cent (4 months arrivals at hotels). In Yugoslavia, arrivals at frontiers rose by 23 per cent during the first four months. Arrivals of foreign tourists increased by 29 per cent in the United States (4 months), 9 per cent in Australia (2 months) and 5 per cent in Japan (5 months). *Nights spent by foreign tourists* in hotels or registered tourist accommodation increased by 12 per cent in Ireland (6 months esti-

mate) by 7 per cent in France and in Portugal (4 months), 5 per cent in Belgium (2 months), 4 per cent in Denmark (4 months) and in Germany (3 months), 1 per cent in Norway (4 months). The figure remained stable in Switzerland (5 months) and increased by 47 per cent in Yugoslavia (5 months).

## Tourism Development at the National and Regional Levels

Four broad groups of considerations characterised the development of tourism facilities during 1972. First, the rapidity of tourism's growth has given rise to pressures which have led to increased sensitivity to tourism development in Member countries. This points to the need, among other things, for giving more information to the public about the benefits which local communities and the country as a whole may derive from tourism. It also suggests the need, where large-scale tourist development projects are concerned, of finding ways of involving local interests of all kinds in the early planning stages. The form of this "public participation" may be of different kinds ranging from exhibitions and public meetings to



sophisticated systems of opinion sampling. Secondly, there is a growing interest amongst OECD Member countries in considering not only the benefits but also the costs of developing tourist facilities.

This reflects an increasing concern with the effects of tourism on the environment and the quality of life in general. The need is therefore recognised for further study to evolve appropriate techniques for analysing and if possible measuring the qualitative and quantitative aspects of these costs

Thirdly, growing urbanisation has increased the demand for tourism and recreational facilities. The provision of facilities to meet this demand is being considered in more detail than previously and within the wider context of national and regional economic planning. It may be possible in some circumstances to envisage the joint use of facilities for both tourism and recreation with a consequent improvement in the return on capital.

Fourthly, there is a progressive emergence in a number of Member countries of tourism development policies with a social content. The main purpose of such policies is to put tourism and recreational facilities at the disposal of more sectors of the population.



## Rural Tourism

New economic opportunities are being created within rural areas through the development of tourism, farm holidays for example. There is some evidence that this development can add to farm earnings and thereby indirectly help to reduce rural depopulation. The Tourism Committee nevertheless points out in its report that this is a fairly recent kind of tourism whose early growth was spontaneous in a number of Member countries and that there is a need for more research to ascertain the types of facilities compatible with the protection of local cultures and the

characteristics of rural communities and to assess possible future effects on land use patterns in these areas.

## Vocational Training

One of the main problems which affect the growth of tourism is that of attracting more people to work in the industry and of providing expanded training facilities both for management and other staff. There is evidence of more experimentation in new teaching methods and training techniques, but there is a need for effective manpower planning for the tourism sector. An essential prerequisite to this approach is properly conceived and executed re-

### 2A. TREND OF TOURIST TRAVEL TO EUROPEAN MEMBER COUNTRIES BY UNITED STATES RESIDENTS

	1968 (1)	1969	1970	1971	1972
1. Number of visitors departing from the U.S. ('000) . . . . .	1,880	2,285	2,783	3,030	3,666
2. Change on previous year . . .	(+ 8 %)	+ 22 %	+ 22 %	+ 9 %	+ 21 %
3. Average length of stay . . . . .	30	29	27	26	27
4. Number of nights spent (1,000) (1. × 3.) . . . . .	56,400	66,265	75,141	78,780	98,982
5. Change on previous year . . .	(- 2 %)	+ 17 %	+ 13 %	+ 5 %	+ 26 %
6. Total expenditure of U.S. visitors (\$ millions; transatlantic fares excluded) . . . . .	925	1,075	1,310	1,373	1,645
7. Change on previous year . . .	(- 3 %)	+ 16 %	+ 22 %	+ 5 %	+ 20 %
8. Average expenditure per visit (\$)	492	470	470	453	449
9. Average daily expenditure (\$)	17.00	16.90	18.00	18.50	18.00

### 2B. TREND OF TOURIST TRAVEL TO THE UNITED STATES BY RESIDENTS OF EUROPEAN MEMBER COUNTRIES

1. Number of arrivals of visitors from European Member countries ('000) (2) . . . . .	826	892	984	1,113	1,306
2. Change on previous year . . .	- 1 %	+ 8 %	+ 10 %	+ 13 %	+ 17 %
3. Total expenditure by visitors from European Member countries (\$ million; transatlantic fares excluded) . . . . .	226	264	318	367	452
4. Change on previous year . . .	-	+ 17 %	+ 20 %	+ 15 %	+ 23 %
5. Average expenditure per arrival of visitor $\frac{3}{1}$ (\$) . . . . .	274	296	323	330	346

(1) Percentage changes in 1968 are calculated on the basis of the figures for 1968 in the former series.  
(2) New series.



search and forecasts relating to the long-term labour needs of the sector.

*Attracting and training employees is one of the main current problems of tourism.*

## Protection of the Tourist as a Consumer

There is now increased concern about a situation in which tourists may suffer personal discomfort or material loss when they are stranded or find their hotels unfinished or are subject to misrepresentation of holidays in tourist publicity. Action by the public sector aimed at dealing with these abuses has been uneven. In a small number of Member countries government has already taken swift measures to deal with the worst abuses. Further measures to introduce greater protection for the consumer might be based on specially conceived fact-finding studies and take the form of, for example, setting up appropriate administrative machinery, passing new legislation or adapting the existing body of law on consumer protection to deal with the specific problems of the tourism sector.

### 3. TREND OF NORTH ATLANTIC AIR TRAFFIC (1969-1972)

Number of passengers carried in both directions (thousands)

<i>Number of Passengers</i>	1969	%*	1970	%*	1971	%*	1972	%*
Scheduled flights I.A.T.A...	5,997	+14	7,201	+20	7,532	+5	9,503	+26
Scheduled flights non-I.A.T.A. ....	183	+11	262	+43	268	+2	275**	+ 3
<b>TOTAL SCHEDULED FLIGHTS (I) .....</b>	<b>6,180</b>	<b>+14</b>	<b>7,463</b>	<b>+21</b>	<b>7,800</b>	<b>+5</b>	<b>9,778</b>	<b>+25</b>
Charter flights I.A.T.A. ...	780	+58	817	+5	1,059	+30	1,329	+26
Charter flights non-I.A.T.A. ....	1,411	+87	1,864,	+19	2,157	+28	2,174	+ 1
<b>TOTAL CHARTER FLIGHTS (II).....</b>	<b>2,191</b>	<b>+75</b>	<b>2,501</b>	<b>+14</b>	<b>3,216</b>	<b>+29</b>	<b>3,503</b>	<b>+ 9</b>
<b>GRAND TOTAL (I + II) .</b>	<b>8,371</b>	<b>+26</b>	<b>9,964</b>	<b>+19</b>	<b>11,016</b>	<b>+11</b>	<b>13,281</b>	<b>+21</b>

\* Change on previous year.

\*\* Secretariat estimate.

Source : International Air Transport Association (I.A.T.A.), Geneva.



# THE IMPACT OF THE AUTOMOBILE ON THE ENVIRONMENT

*A broad of range policy issues raised by the proliferation of the automobile has been examined by OECD's Environment Committee. The problems and some possible solutions as presented in an interim report (1) are summarised in the following article.*

**A**long with the clear advantages to society conferred by the automobile, the number of detrimental side effects catalogued by OECD's Environment Committee is a wide-ranging one: a rising toll of accidents; mounting levels of pollution, noise, congestion and blight; escalating demands on land and fuel resources; impairment to the mobility of those who cannot drive and the severance of neighbourhoods and dislocation of people caused by urban highway projects.

With the number of automobiles on the roads in OECD countries projected (by one estimate) (2) to rise from 200 million in 1972 to 320 million by 1985, more than three times the 1960 level, the problems are bound to intensify, especially in densely settled areas like Paris, Tokyo and Chicago, where there are up to 1,500 cars per square kilometre.

Another problem that has been much discussed in recent months is the contribution of the auto to the rising demand for energy. Already passenger cars consume 12 per cent of world oil pro-

(1) "Environmental Implications of Options in Urban Mobility" available from OECD's Environment Directorate. The report has two parts: "Observations of OECD's Environment Committee on the Impact of the Motor Vehicle on the Environment"; and "Automotive Air Pollution and Noise: Implications for Public Policy", report of an ad hoc group to the Environment Committee.

(2) "Motor Vehicle Indicators, 1955-1985", Automotive Air Pollution and Noise: Implications for Public Policy, Appendix E, OECD, 1973.

duction, and the fuel requirements of the automobile fleet may double by 1985, exerting pressure on oil prices, creating balance of payments problems and possibly diverting resources from other important needs.

In light of these trends, OECD's Environment Committee has been trying to answer certain basic questions: how is the conflict between the benefits brought by the motor car and the harmful side effects to be resolved? What is the balance to be struck between the desire for private transport and other societal needs? And above all what innovations in policy are needed to create an environment in which man and the automobile can live in harmony?

The approach of OECD's Environment Committee has been not only to examine the auto itself and the technological and design possibilities for better control of emissions, lower fuel consumption, less noise etc. but to view the auto as part of a transportation system in which there are other complementary possibilities, in particular public transport. The basic problem as seen by the Committee is "how to provide an integrated urban transportation system that will not just move people efficiently but will also enhance the quality of the city and contribute to broader community objectives". This larger perception of transportation has led OECD's Environment Committee to seek what it calls a "strategy for urban mobility" which takes into account such far-reaching and varied considerations as the intensity of use of individual vehicles, the available opportunities for walking and bicycling and changes in the structure and density of urban development which could affect the need for travel.

## Improving Public Transport

One of the key elements in this strategy for urban mobility is improving public transport in the cities. The most promising solutions to the problem of how to move people within and into cities often lie, in the view of the Environment Committee, neither in massive investment in more highways nor in expensive high capacity underground systems. Cities that have tried to accommodate cars through ambitious highway building programmes have found that streets remain congested, commuting becomes increasingly difficult and the quality of the urban environment continues to be eroded. There is also growing opposition on the part of city dwellers to the construction of these highways.

As to underground mass transit, cities like Toronto, Montreal and San Francisco have discovered that such systems may, in the absence of land use controls, exacerbate rather than relieve traffic congestion by encouraging additional development around the stations. Moreover the experience with these systems built up over the past decade shows that they are increasingly unsuited to the land use and travel patterns that are evolving in most cities: they can be economically viable only in large cities with high density and high employment in the central district. "On these criteria" OECD's Environment Committee report notes, "few cities in OECD countries that do not already possess or have under construction a mass transit system could justify building one."

Rather, the solution lies in "innovative low cost improvements in existing systems" says OECD's report. For example, cities that have maintained the tramways of an earlier generation have an interest in improving this mode of transport by converting it into the so-called semi-metro — light rail cars which operate on the surface in the suburbs but which descend into tunnels in city centres and other places where surface space is at a premium or where the environment would be harmed by an above-



*A large number of European cities are turning back to the tram as a way of resolving their transportation problems.*

ground system. Such light railways are characterised as "among the most promising innovations in urban transport that have emerged in recent years" since they fill the gap between high capacity, high cost underground rapid transit and the slower buses and trains operating on city streets.

Semi-metros are under construction in Stuttgart, San Francisco and Bonn and already exist in such cities as Brussels, Cologne, Rotterdam, Frankfurt, Essen and Vienna.

Two types of additional possibilities for low cost improvements are set out in OECD's report.

### • *Sharing cars and using them as public transport*

"Car pools" or "bus pools" (used by groups of commuters in place like Hamburg, Ottawa, Washington DC, and gaining currency elsewhere) preserve some of the convenience of private transportation while at the same time reducing congestion and the demand for parking space in city centres.

More institutionalised forms of group riding—"jitneys", "jeepneys", "shared taxis", "paseros", "dolmus" or "sheruts" are rapidly expanding in popularity. In Teheran for example 2,000 jitney taxis running on fixed routes carry about 100 million passengers per year—or 50,000 passengers per taxi. The six-to-ten passenger jeepneys in Manila which now share respon-

sibility for public transportation with the bus—and at the same fares—are displacing the bus as a method of getting around. In Montpellier in France a fleet of small cars was put at the disposal of individuals who joined the service on a subscription basis. Special parking facilities were set aside throughout the central city for the distinctively marked cars which could only be picked up and returned at designated locations. A similar system of self-drive taxis is contemplated in Toulouse, central Amsterdam and in Japan.

Yet another version of group riding has sprung up in the form of the "dial-a-ride" system which uses minibuses to provide door-to-door transportation over relatively dispersed areas to people who telephone for service. Such demand-responsive systems are being tried in a large number of urban areas in North America, Europe and Japan, for example in Regina in Canada, Nose near Osaka in Japan, Haddonfield, New Jersey and Ann Arbor, Michigan in the United States and Harlow in the United Kingdom.

Sufficient evidence exists to suggest that extensive and well organised fleets of public automobiles could provide convenient transportation service for a significant proportion of urban travellers and would result in reduced traffic congestion and demand for parking space in central areas. What is more, such services offer the best promise of narrowing the gap that today separates car owners from the carless.

### • *Improving bus service*

Measures such as according buses priority at traffic lights, allotting them exclusive use of entire city streets or individual lanes, creating busways on arterial highways leading towards city centres, and tunnelling short stretches of busways under the most congested parts of the inner city are some of the methods of improving bus service and should be accorded "a first priority" in cities where buses have become entangled in traffic congestion, says the report.

Examples are the Shirley Highway leading to Washington DC, on which 12 miles of the centre section are devoted exclusively to buses; Southampton in the United Kingdom where a vehicle metering system allows buses unrestricted entry onto a main arterial highway leading to the city centre while private vehicles are admitted onto the same highway by means of computer controlled traffic lights in such numbers as to ensure a free flow of traffic; and Paris, where a large network of exclusive bus-only streets and bus lanes will be created to restore to buses some of their former regularity and speed and help them recuperate their clientele (bus travel in Paris declined by 60 per cent between 1952 and 1972).

### • *Limiting the use of cars*

The improvement of public transportation, OECD's Environment Committee states, must go hand in hand with a deliberate policy to curtail the use of cars within the congested parts of urban areas. For there is a growing realisation that city centres cannot accommodate large numbers of automobiles, that cars are not necessary and even counterproductive in such a setting, and that improvements in public transport service often depend on freeing streets from traffic congestion.

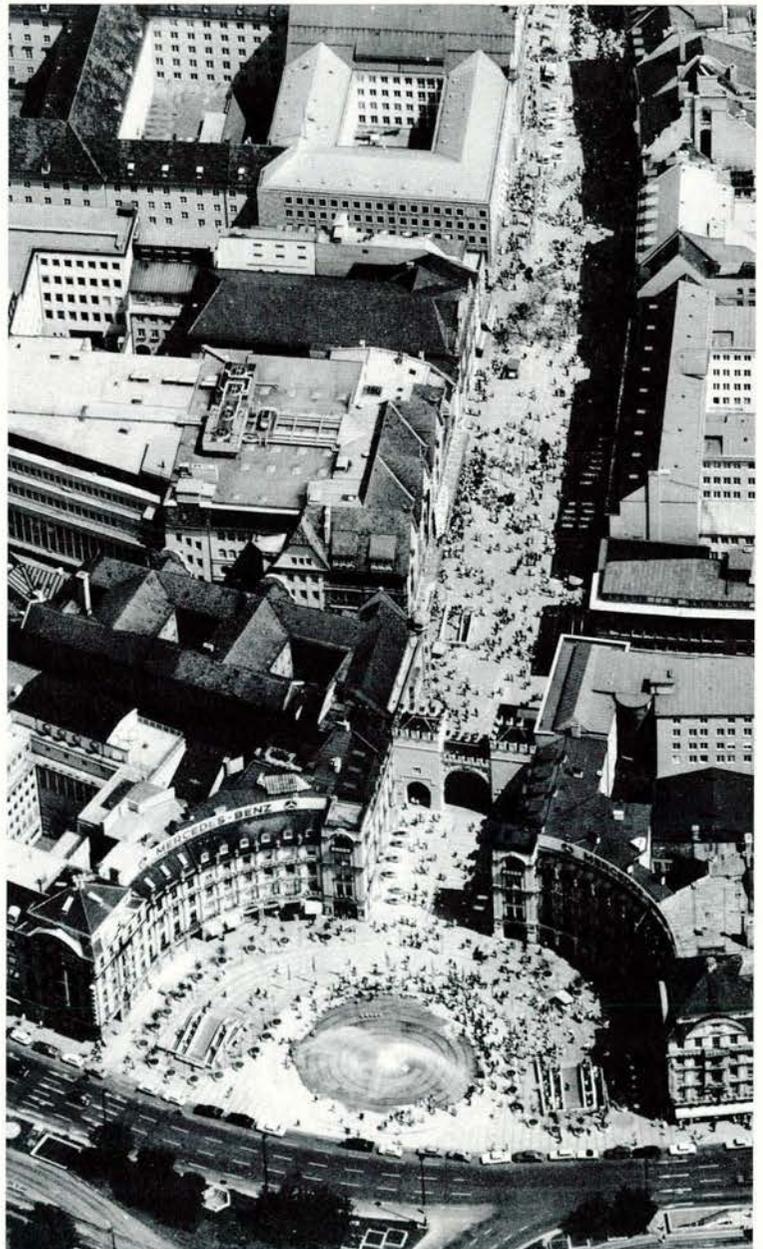
By now there is firm evidence that limiting the use of automobiles in urban areas is politically, commercially and technically feasible. Perhaps the most convincing proof is the growing use of traffic restrictions in the cities of OECD countries. An

investigation recently carried out by the OECD Sector Group on the Urban Environment disclosed over 100 cities which have banned traffic from portions of their central districts and dedicated them to pedestrian use.

Limiting the use of cars over wider areas, though in a more selective manner, is also proving to be effective. A particularly ambitious plan to exclude private automobiles from a large portion of the inner city has recently been tested during a month-long experiment in Geneva. The city of Milan has just closed a 1.5 square kilometre central area to private traffic while keeping some streets open to taxis, buses and the cars of local residents. The cities of Bremen, Göteborg, Bologna, Liverpool and the inner suburbs of Stockholm have had good results in reducing the volume of traffic entering the central area by dividing the area into separate sectors and prohibiting the direct movement of cars from one sector to another, while diverting through traffic to a perimeter road.

A system of entry tolls and permits to discourage people from bringing their cars into the ten square miles of the central area is under serious consideration in London. The city of Nottingham intends to achieve the same objective through a mix of

*Munich's Neuhauserstrasse illustrates the growing trend towards freeing certain streets from vehicular traffic.*



incentives and physical restrictions which would substantially reduce the flow of commuter traffic into the city and exclude cars altogether from the inner core.

## More Lasting Solutions

Such improvements as these can be implemented on a short time-scale. Valuable progress can therefore be achieved during the next few years, giving cities much needed respite while longer term and more lasting solutions are being developed. Some of the directions in which hopes for the longer term lie can already be discerned.

### • *New technology*

Two entirely new forms of urban transport now under intensive development give promise of approximating the level of service of the automobile while avoiding many of its disadvantages. The Personal Rapid Transit (PRT) is being worked on in Germany, France, the United States and Japan. It relies on networks of lightweight guideways that might be constructed at ground level, underground or elevated, perhaps over streets and through buildings. Small cabins would provide non-stop service from boarding stations to destinations at the push of a button. The feasibility, costs, environmental impact and user acceptability of such systems are yet to be determined in a full-scale public demonstration.

The other basic technique is that of "people movers"; these are designed to carry large numbers of passengers at moderate speeds over relatively short distances in centres of high activity such as central business districts, airports or other densely developed places characterised by heavy flows of people and intensive use of land. They are at a more advanced stage of development, with a number of prototypes existing in Germany, France, Japan and the United States.

The cities of Toronto and Heidelberg have taken a decision in principle to construct people movers to serve their downtown areas; La Défense on the outskirts of Paris is also contemplating a conveyor system for internal circulation, and an automated mini-tram will connect the centre of the city of Lille with its new satellite community and university campus at Lille Est. It is expected that by the 1980's the economics of driverless operation will become an important stimulus to the adoption of people movers in many urban locations.

### • *Innovative land use designs*

In the long run policies which concentrate merely on accommodating the demand for travel will not be enough, OECD's report concludes. Lasting solutions will require some degree of control over the factors that generate demand—the location of housing and other activities, density of living and working areas, the physical arrangement of work places, shopping and community services and their interrelations.

In new towns, it is possible to balance transport supply and demand by building a total urban environment in which housing, employment, community services and transportation are physically integrated and designed to work together. It is more difficult to control these conditions in existing cities since land use arrangements have already established the patterns of movement and the demands on the transport system.

But even established cities are in a constant state of change, and

a start can be made to guiding the process of growth in ways that will reduce transport problems rather than aggravate them. This can be done by providing housing and a good environment close to places of work so as to reduce the necessity for long commuting trips, and by clustering related activities in order to create self-contained neighbourhoods in which distances between homes, shops, playgrounds and community facilities are small enough to be covered on foot or bicycle. On a larger scale, planning can begin on restructuring urban areas into multi-centred regional cities linked by efficient high-speed public transport as well as expressways. These relatively long-term goals will require careful planning, public consultation and in many countries new powers to intervene in the workings of the private land market.

## The Role of Governments

In the final analysis, OECD's report concludes, the kind of transportation strategy which each nation requires will depend on the goals which are set for metropolitan areas and the quality of their environment. If the goal is to preserve a strong central city with a high population density and a viable centre, then efforts should be focussed on traffic management and transportation services which would increase the freedom of movement and enhance the pedestrian environment within the central area and improve the radial flows to and from the outlying suburbs.

If, on the other hand, a decentralised, low-density urban form is the preferred urban strategy, primary attention should be devoted to the design of public transportation services which could adequately complement the private car in serving a dispersed travel pattern and provide adequate accessibility to all urban residents regardless of whether or not they own a car.

For most countries, of course, the urban goals and the resulting needs for transportation improvements cannot be stated as a blunt dichotomy. Each country and each metropolitan area will require a mix of transportation and pedestrian improvements that will benefit a wide range of residents—those living in central cities as well as those in the suburbs, those who are captives of public transportation as well as drivers, bicycle users and pedestrians. But whatever mix of transportation services the goals of a given urban area may dictate, one thing is clear: to bring about the kind of improvements which will assure urban mobility while preserving environmental quality, a vigorous and sustained level of innovation will be required.

Strong initiative and positive action by central governments will encourage such innovation, according to the report. Even the largest and wealthiest municipalities and transit companies are reluctant to take the risk of introducing major changes in service for fear they will meet with public indifference or hostility and thus turn out to be a bad investment and a political liability. Central governments could help to reduce these uncertainties by promoting a sustained programme of real world experimentation. Full-scale experiments are often the only way to test public response to a change in service and to evaluate its wider impact on the urban area. They are thus a powerful device for lessening the constraints that inhibit successful innovation.

A concerted programme of demonstration projects covering a wide spectrum of low-cost improvements in transportation, including methods to limit the use of cars in central areas, says the report, would provide decision makers with a broader range of alternatives from which to choose the elements of a transportation strategy calculated to achieve larger community goals.

# AT OECD

## OECD Secretary General Visits Japan



*The Secretary General greets Taizo Ishizaka, Chairman of the Japanese Business and Industry Advisory Committee. Centre: the French Ambassador, François Lefebvre de Laboulaye.*



*Masayoshi Ohira, Japanese Minister for Foreign Affairs, with Emile van Lennep, OECD Secretary General.*

An invitation to OECD Secretary General, Emile van Lennep, to visit Japan was extended by Masayoshi Ohira, the Minister for Foreign Affairs, when they met at OECD headquarters last May (see OECD Observer N° 64).

During the course of his visit from 23rd-26th July, the Secretary General, who was accompanied by members of the Secretariat, held discussions with the Prime Minister, Kakuei Tanaka, the Minister for Foreign Affairs, the Minister of Finance and the Governor of the Bank of Japan, the Minister for International Trade and Industry, and the Ministers of State for Environmental Affairs, for Economic Planning and for Science and Technology. In addition, the Secretary General had meetings with the Japanese Business and Industry Advisory Committee (BIAC) at the invitation of its Chairman, Taizo Ishizaka, and with the Japanese Press Club.

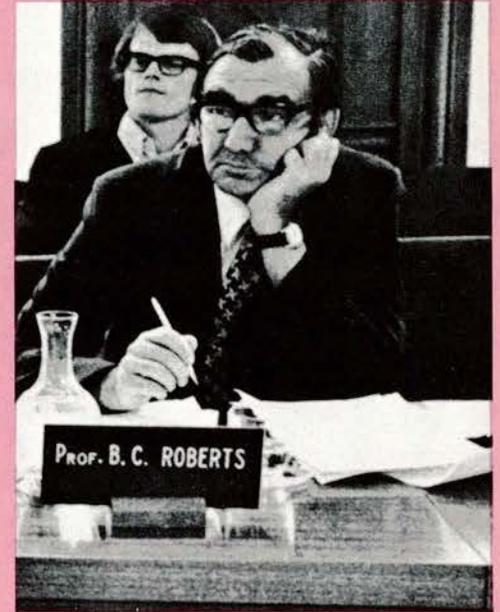
On 24th July, the Secretary General formally inaugurated the OECD Publications Centre in Tokyo (see OECD Observer N° 65) and gave a reception attended by Masayoshi Ohira, Kiyohiko Tsurumi, former Japanese Ambassador to OECD, Taizo Ishizaka, Ambassadors of OECD Member countries, representatives of international organisations, and prominent personalities from the business and academic communities and the press.

## Conference on Wage Determination

The Conference on Wage Determination, which took place at the OECD headquarters on 3rd-6th July, was the culmination of a programme mapped out by a small steering group of academic, management and trade union experts, called



*The Conference in session at the Chateau de la Muette, OECD headquarters in Paris.*



*Professor Ben Roberts of the London School of Economics, overall adviser for the programme.*

together by the Industrial Relations Division of the Manpower and Social Affairs Directorate in the Autumn of 1971. It was felt that an enquiry into the manifold aspects of the formation of wages and salaries in OECD Member countries might not only offer a useful contribution to the ongoing debate on inflation, but prompt discussion on the direction which wage determination might desirably take in the future, in view of the considerable changes which are occurring in industrial and social life.

Papers were commissioned from experts on low pay, white collar workers, wage indexation, structural and institutional

factors in collective bargaining, the public sector, norms in incomes policies, the significance of social consensus about wages, fiscal means of influencing wage movements, methods of wage payment, and alternatives to direct wage adjustments, such as capital formation and profit sharing. Professor Ben Roberts of the London School of Economics was the overall adviser for the programme and Professor Henry Phelps Brown the General Chairman of the Conference.

The fifty or so participants and observers, among whom was Monsieur Jacques Delors, Secretary General of the French Interministerial Committee for

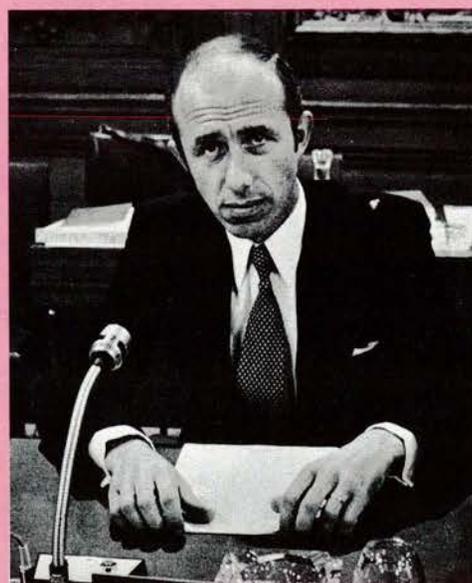
Vocational Training (who addressed the Conference on the relationship between wage determination and government policies), were a cross-section of senior trade unionists, employer representatives, academics and government people from the OECD Member countries. There was a general appreciation that countries were now facing common problems in that wage determination was suffering from the strain of being expected, not only to perform an allocative function in the economy, but to satisfy social equity as well, and that solutions seemed increasingly to belong to the realm of political science rather than economics alone.

## **Invisible Operations: Further Liberalisation and Restrictions on Capital Movements**

The 100th session of the OECD Committee for Invisible Transactions took place at OECD's Paris headquarters on 16th-18th July under the chairmanship of its Vice-Chairman, Robert Beaujon (Switzerland), the Chairman, Jacques Wahl (France) having resigned on assignment to other duties, and who has been replaced by Jean Michel Bloch-Lainé.

The meeting opened with a report by the OECD Secretariat on developments since the last session of the Committee. Among other matters discussed were:

- Changes in Member countries' regulations concerning current invisible operations and capital movements.
- Invocation by Australia of a derogation



clause in the OECD Code of Liberalisation of Capital Movements.

- Further liberalisation of inward direct investment by Japan; and of outward portfolio investment by Spain.
- Restrictions at present maintained by certain Member countries on outward capital movements.
- Provisions of the OECD Code of Liberalisation of Current Invisible Operations relating to films.

*Jean Michel Bloch-Lainé (France), Inspector of Finances, Deputy Director of Multilateral Affairs at the Treasury, has been appointed Chairman of the Committee by Council decision.*

## OECD Committee Discusses International Securities and National Capital Markets

The OECD Committee on Financial Markets met on 10th-11th July, under the chairmanship of E.A. Lieftrinck, Deputy Treasurer General of the Netherlands Ministry of Finance. Representatives of Member countries included central bankers and officials of national Ministries of Finance and Commerce; Yugoslavia, the Commission of the European Economic Communities, the International Monetary Fund and the World Bank sent observers to the meeting.

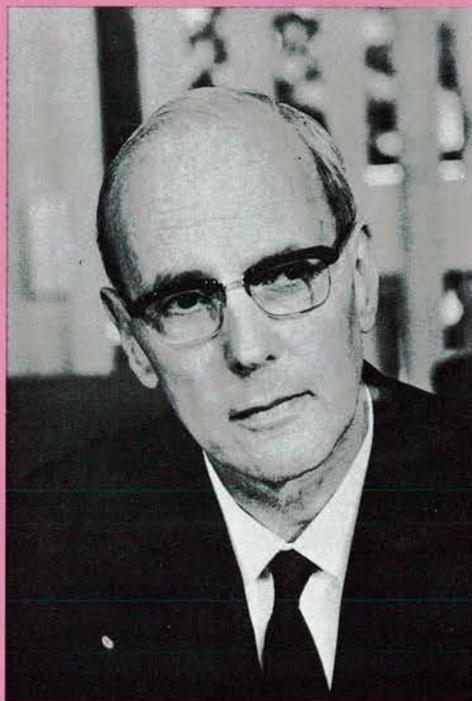
Following a tour d'horizon of recent developments and prospects on long-term financial markets, and of future developments concerning the linkage between the United States and foreign financial markets, the Committee discussed:

- Follow-up by Member countries of the application of a Council recommendation on international security issues approved in 1972.
- Indexation of fixed-interest securities.
- Housing finance under conditions of financial restraint, and the development of a secondary market for mortgages.
- Admission of securities to stock exchanges, and in particular liberality of treatment to foreign issuers.

### Chairman of the OECD Committee for Fisheries

Carl Bjørge, Deputy Director General of the Norwegian Ministry of Fisheries, elected Chairman of the OECD Committee for Fisheries at its May meeting.

*(The photograph accompanying the announcement of his election in the OECD Observer for August appeared in error.)*



*E. A. Lieftrinck, Deputy Treasurer-General, Ministry of Finance, the Netherlands, Chairman of the Committee.*



*K. Eklöf, Manager, Sveriges Riksbank (Sweden), Vice-Chairman of the Committee.*

- Recourse of Member countries to a set of standard rules for the operations of institutions for collective investment in

securities which was recommended by the OECD Council in 1972.

### Development of Tourism



*(Left to right): Alberto de la Puente O'Connor, Deputy Director General for Tourism, Spanish Ministry for Information and Tourism, Chairman of OECD's Tourism Committee, J. Gilmer, Head of OECD's Taxation, Competition, Consumer Policy and Tourism Service.*

The OECD Tourism Committee met on 3rd-4th July to finalise its annual report on the development of tourism in 1972 and the first months of 1973 (see article, page 35).

The Committee also examined a report on government policy and action concerning tourism and considered ways of improving tourism statistics.

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