

In the last few months, "energy" has become a household word. Governments and the general public have been made aware of a problem which only specialists had been concerned with before. The reasons for the current energy "squeeze" – I feel the term "crisis" has been used by the media so much that we tend to forget its original meaning – have been analysed elsewhere. What is essential is that it has now been brought home to many Governments and to a broad spectrum of the general public that there just may be "limits to growth" in the field of energy, as in many other fields. In this situation efforts are being made to find both short-term and long-term solutions.

In many parts of the world, the negative effects of responses to the short-term problem are being felt: speed and temperature limits, rationing and the relaxation of environmental restrictions are among the measures being taken.

Out of the various existing alternatives only nuclear power through fission is ready at present from a technological and economic point of view to make an immediate contribution in a positive sense to the solution of the short-term problem of energy supply. In the balance of alternative sources, nuclear power will play an increasing role.

Long-term aspects involve both the expanded use of nuclear power, also for process heat, and the development and utilization of new sources of energy, for instance, solar energy and fusion. For these new sources, however, development work will require 10 - 20 years before economically and technically sound solutions are available.

The new energy picture will certainly affect the IAEA; new trends will already be indicated in our next six-year programme.

In considering the future state of nuclear power careful attention will have to be given to the possible consequences of an increased use of nuclear energy: the supply of uranium, siting and safety problems as well as the management of radioactive wastes for which regional or international solutions will have to be found.

In fulfilling its statutory obligation to advise Member States on the use of nuclear energy, it is worth recalling that the Agency must also have competence in overall energy questions.

This issue of the Bulletin is designed to take a look at the energy situation in general and to comment on short- and long-term aspects of the problem. What is striking is the tremendous amount of knowledge we must acquire before a realistic evaluation can be made of the potential of new sources of energy and the ability of our environment

to accommodate them.

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