

# Developing Countries and the NPT

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by A.M. Cissé

On the eve of the Second Review Conference and after a decade of efforts and implementation, it is time for the Parties to the Treaty to take stock of the situation.

For the majority of developing countries which are Member States of the IAEA, and for whom nuclear power is still a fairly distant prospect, the Agency's programmes for the use of nuclear science and nuclear techniques in food production and preservation, including insect control and agricultural research, in medicine, in water resources development and in geological and industrial applications, are a significant source of aid. For most of the 33 African Parties to NPT these techniques still represent the major application of nuclear energy and the IAEA must, therefore, continue to support them.

Most African countries do not have the infrastructure required to install nuclear power plants, to say nothing of technical considerations concerning the differences between their electric power grids. Africa's first task, therefore, is to establish a true transfer of technology, during a full generation at least, so that some African countries can, as the year 2000 approaches, benefit from nuclear power if the need for it is felt. This transfer can be effective only if we make use of the technological and scientific research centres already in existence, which could provide the base necessary for the development of various disciplines that are already being taught but often in a rather scattered manner. There is accordingly a need for a concentration of effort and for long-term plans which will provide both the men and the qualifications required. In this area a great effort remains to be made, and a number of international organizations, such as the World Bank and UNESCO, could take part in it alongside the Agency; it seems to me that it is particularly in Africa that the concept of a "centre of excellence" could have the most influence and the greatest impact.

A second experiment should be attempted in the areas of applied research and engineering in order to train engineers and technicians. This type of programme is obviously based on the application of Article IV of NPT, which stresses the aid that the technologically advanced countries can provide for States party to the Treaty. We should not forget, either, the natural resources possessed by certain African countries and the possibilities offered by co-operation in the common exploitation of natural riches.

The total resources available for the Agency's technical assistance amounted to about 20 million dollars in 1980 compared with just over 3 million dollars ten years earlier. But this increase was eroded by inflation and also, in recent years, by the fall in the value of the dollar. Moreover, the size of the programme should be seen against the costs today of a nuclear power plant — one billion dollars or more, for a single large nuclear power station.

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For the dozen or so developing countries that now have nuclear power programmes or projects, the assistance the IAEA gives can be no more than peripheral to the vast capital investments they are making themselves in their nuclear plants. This rate of growth must therefore increase in the future if it is to meet the needs of developing countries. Although resources for technical assistance have been growing steadily, the gap between the need for assistance in developing countries and the available resources is widening. To a far greater extent than the industrialized countries, the developing countries, moreover, are facing severe economic problems as a result of the energy supply crisis.

Although projections about the growth of nuclear power may look encouraging, they are subject to several qualifications. First, even under the best estimates, nuclear power will continue during this century to play a much' smaller role in electricity generation in developing countries than in the industrialized countries. Secondly, the expansion of nuclear power in most developing countries continues to be dependent upon the health of the nuclear industry in the developed countries. The third qualification is that the future prospects of nuclear power in the developing countries are equally as sensitive to the further evolution of non-proliferation policies and related questions of supply as they are in the developed countries.

There is also a direct relationship between the expansion of nuclear power in the developed countries and increased energy use in the developing countries. The less nuclear power the industrial countries generate, the more oil they will consume, the higher the price will go and the less oil will be available to the developing world. The same is true of coal. It is therefore in the direct interest of the developing countries, that nuclear power should expand rapidly in the industrial countries and relieve the pressure on oil supply and prices.

A particularly sensitive question is the transfer of nuclear technology. Reactions to proposals for restraint on such transfer dominated the conference on this topic organized in Iran in the spring of 1977 and was also an important theme at the Istanbul meeting of the World Energy Conference and at the Thirty-Second Session of the General Assembly. This concern was clearly expressed in the final document of the UN General Assembly's Special Session on Disarmament:

"Non-proliferation measures should not jeopardize the full exercise of the inalienable rights of all States to apply and develop their programmes for the peaceful uses of nuclear energy for economic and social development in conformity with their priorities, interests and needs. All States should also have access to and be free to acquire technology and equipment and materials for the peaceful uses of nuclear energy, taking into account the particular needs of the developing countries. International co-operation in this field should be under agreed and appropriate safeguards applied through the IAEA ..."

The issue goes right to the very roots of co-operation between the industrialized countries and the Third World, as the industrial development of the developing countries is predicated on the free and full transfer of advanced technology. This is also in a sense a bargain struck in the NPT; in return for accepting full-scope safeguards the non-nuclear-weapon States were assured of access to peaceful nuclear technology. No doubt this issue will be of concern to the Conference.

Non-nuclear-weapon States understandably desire a clear-cut commitment on this point. While they have accepted IAEA safeguards, in the elaboration of which they have been able



African leaders adopted the "Declaration on the Denuclearization of Africa" in which they solemnly declared their readiness to undertake through an international agreement to be concluded under United Nations auspices not to manufacture or control atomic weapons, appealed to all peace-loving nations to accept the same undertaking and to all the nuclear powers to respect the Declaration and conform to it.

I believe the problems we have mentioned must be considered first of all in a constructive manner: what I mean is that we must not get into a situation where we cannot see the wood for the trees. Even what is important must sometimes yield to what is essential. Finally, there is bound to be a certain relativity, that of time for example, for of the 30 years of validity of the Treaty, ten have already passed.