

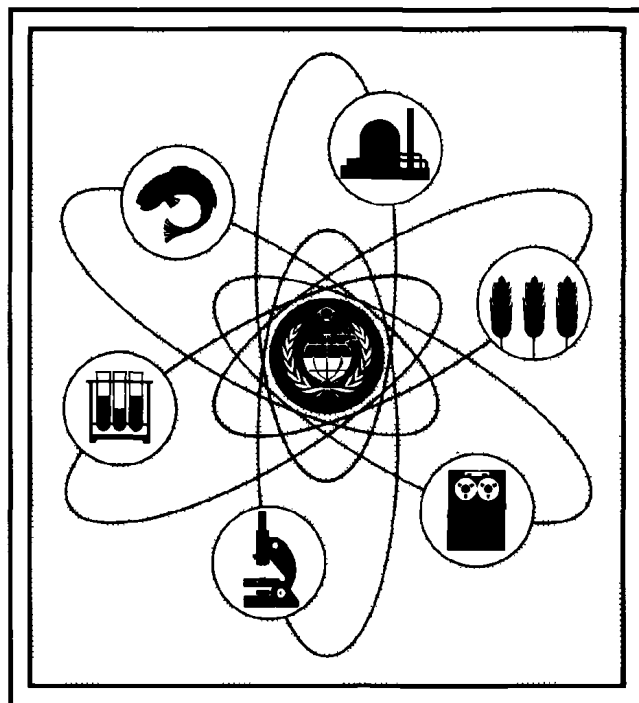
IAEA technical co-operation and the NPT

by Carlos Vélez Ocón

The International Atomic Energy Agency (IAEA) has many roles and responsibilities in the nuclear energy field. Through its safeguards system, it is an instrument of verification of peaceful nuclear applications in its Member States; through its various technical programmes, it is the focal point of international discussion and the promulgator of widely accepted standards; through its International Nuclear Information Service (INIS), it serves as a global clearinghouse for technical literature in various nuclear fields; and through its technical co-operation programme, it is the primary international vehicle for promoting nuclear techniques and technologies in the developing countries.

All the above activities are undertaken, in the words of the Statute, "to enlarge the contribution of atomic energy to peace, health and prosperity throughout the world". The Statute also places another responsibility on the organization: that of ensuring that nuclear applications under its control or supervision remain peaceful. Member States are designated such by virtue of their acceptance of the Statute, and it is their expectation that the Agency exercise both of the statutory functions described above.

It may well seem that these two functions are incompatible – that controlling nuclear technology and promoting it involve a fundamental logical conflict. In actual fact, they are complementary, and peaceful nuclear applications as envisaged by the signatories of the Statute demand a regime of promotion and control which is embodied in the activities of technology transfer and applications verification.



As is well known, there are various kinds of nuclear technology; some applications are seen as furthering military purposes and others are not, although the distinction between them is not always clear.

Mechanisms of control

Mechanisms for ensuring that nuclear technology applications under the IAEA's jurisdiction or control remain peaceful have evolved over the years in keeping with political developments and technological advances in the world. In the early days of the Technical Co-operation programme, acceptance of the Statute by a Member State, and of the provisions contained therein, was regarded as sufficient to indicate a country's peaceful intent.

In Article XI.F of the Statute, obligations of Member States in connection with the receipt of assistance are spelled out. The important requirement in this regard is the conclusion of an agreement between the Member State and the IAEA to the effect that (*italics added*):

"(a) ... the assistance provided shall not be used in such a way as to further any military purpose"; and

"(b) ... the project (i.e. the assistance) shall be subject to the safeguards provided for in Article XII, the relevant safeguards being specified in the agreement".

The above provisions relate only to the obligations of the recipient country. There are also responsibilities placed upon the IAEA, in its capacity as donor or channel through which assistance is made available, which are set forth in Article II of the Statute (*italics added*):

"It (the IAEA) shall ensure, so far as it is able, that assistance provided by it or at its request or under its supervision or control is not used in such a way as to further any military purpose".

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It is evident from the foregoing that agreements are needed between the Agency and individual Member States governing the terms under which assistance can be provided and restricting the scope of IAEA assistance to nuclear technology applications of a non-military nature.

Impact of NPT

The Treaty on the Non-Proliferation of Nuclear Weapons (NPT) came into force in 1970, reflecting growing concern in the world with the possible misuse of nuclear technology. The treaty – which is, strictly speaking, an agreement among nations – calls for the application of safeguards at nuclear installations and a repudiation by non-nuclear-weapon States of military applications of nuclear technology, specifically for the construction of a nuclear explosive device. The IAEA figures prominently in this agreement as the international body charged with verifying, through its safeguards system, the peaceful intent of nuclear applications in signatory countries.

Every five years, States party to the treaty meet to discuss overall implementation and steps that can be taken to realize its various provisions. From the standpoint of the IAEA's Technical Co-operation programme, the First NPT Review Conference, held in 1975, was a very important event. At this conference, signatories of the treaty issued a resolution calling for additional extrabudgetary technical assistance through the IAEA, particularly for parties to the NPT. The rationale here was that countries that had renounced all military applications did, indeed, have peaceful intentions and, by promoting the cause of peace, were more deserving of assistance in the nuclear field, and less likely to misuse it, than were those countries that had not accepted the international non-proliferation regime.

It was recommended, *inter alia*, that "in reaching decisions on the provision ... of technical assistance, States Party to the Treaty should give weight to adherence to the Treaty by recipient States", that "any special measures of co-operation to meet the growing need of developing countries might include increased and supplemental voluntary aid provided bilaterally or through multilateral channels such as the IAEA's facilities for administering funds in trust and gifts in kind", and that "States Party to the Treaty in a position to do so meet, to the fullest extent possible, 'technically sound' requests for technical assistance ... made by developing States Party to the Treaty".

It was understood by the conference that preference would be given to developing countries that had ratified the NPT. In line with the above recommendations, NPT donor countries set aside additional monies for technical assistance efforts; a mechanism was also established by the IAEA to handle extrabudgetary contributions for project-related assistance. Under this arrangement, donor countries were given the opportunity

to select projects in individual countries that had been approved by the IAEA's Board of Governors but for which no funds were available.

Extrabudgetary funds, distribution

The push for additional assistance for IAEA Member States party to the NPT that emerged from the First Review Conference had its effect on the IAEA's Technical Co-operation programme. The accompanying table gives a breakdown over the last ten years of regular IAEA technical co-operation resources as compared to the extrabudgetary component.

IAEA technical co-operation resources compared to extrabudgetary funds, 1975–84

Year	IAEA funds (millions of US \$)	Extrabudgetary (millions of US \$)	Ratio of extrabudgetary to IAEA funds (per cent)
1975	4.54	0.10	2.2
1976	5.49	0.73	13.3
1977	5.96	2.15	36.1
1978	7.12	2.86	40.2
1979	8.80	2.64	30.0
1980	10.63	2.67	25.1
1981	12.96	3.56	27.5
1982	16.00	4.41	27.6
1983	19.24	9.39	48.8
1984	22.23	8.93	40.2

Immediately apparent from the table is the appreciable share represented by extrabudgetary funds since the introduction of a mechanism to handle such contributions.

This fact notwithstanding, it may be asked whether such supplementary assistance is serving the purpose for which it was originally intended by its proponents – i.e., strengthening the NPT and benefitting States party to it.

First, there is the question of resource distribution. While the preponderance of extrabudgetary resources has gone to NPT States (95% during the period 1980–83) – which may seem to indicate a preference of donor States for NPT recipients – the overwhelming majority of the IAEA's recipient Member States are, in fact, NPT signatories. Moreover, the distribution of extrabudgetary funds along NPT/non-NPT lines closely follows the distribution of assistance in the fully funded component of the programme. A clear correlation of NPT endorsement with increased assistance, whether regular or extrabudgetary, is thus difficult to establish.

Furthermore, the extrabudgetary component has, in the course of the last decade, not developed into a "special" NPT aspect of the Technical Co-operation

programme. Rather, it has developed into a traditional “non-discriminatory” one, in line with the IAEA’s Statute, with both NPT signatories and non-signatories submitting requests for assistance on a regular basis with some expectation of obtaining it. In fact, through a variety of programming measures, it is now possible for the Agency to finance extrabudgetary projects from savings from its general Technical Co-operation fund and to provide extrabudgetary assistance in substitution for fully funded assistance approved by the Board. Also, Member States not party to the NPT have received assistance from NPT donors and from the IAEA itself for extrabudgetary projects.

In the years since 1975, therefore, the NPT seems to have had a significant impact on extrabudgetary contributions from NPT donor States – reflected in the increased volume of the Technical Co-operation programme. But the degree to which the extrabudgetary assistance has furthered the objectives of the NPT is not easily assessed.

Framework of Agency assistance

Where the NPT may have influenced technical assistance from the IAEA is in the content and administration of the programme. Before this question can be discussed, however, a word must be said about the framework which exists for the provision of assistance by the Agency. As has been mentioned, the organization has always sought to enter into agreements governing the provision of assistance which stipulate a forswearing of military intent. This is called for by the Statute.

Since the entry into force of the NPT in 1970, such agreements have undergone review and revision. In the early 1970s, the IAEA’s Board of Governors started discussing means of rendering the original Guiding Principles and Operating Rules to Govern the Provision of Assistance by the Agency (1960) more specific and consonant with the language of the NPT. In 1979, revised wording of the Guiding Principles was adopted by the Board, rendering in more concrete terms what forms of assistance were deemed to have military applications (*italics added*):

“Technical assistance shall be provided only for peaceful uses of atomic energy. For the purposes of the Technical Assistance programme, peaceful uses of atomic energy shall exclude nuclear weapons manufacture, the furtherance of any military purpose and uses which could contribute to the proliferation of nuclear weapons, such as research on, development of, testing of or manufacture of a nuclear explosive device. To this end and to the extent required by the Board of Governors, Agency safeguards shall be applied to all forms of technical assistance in all sensitive technological areas in accordance with the provisions established by the Board of Governors as set forth in the Annex or as subsequently amended by the Board.”

The Annex referred to spells out the technological areas in question:

- (a) Uranium enrichment;
- (b) Reprocessing of spent fuel;
- (c) Heavy water production; and
- (d) Handling of plutonium, including manufacture of plutonium and mixed uranium/plutonium fuel.

Safeguards will be applicable only “if it appears that a ‘substantial contribution’ is being made to the project assisted”, a stipulation that requires a case-by-case assessment of all assistance requests. Responsibility for identifying requests with a “sensitive” component devolves, as stipulated in paragraph 7 of the Annex, on the Secretariat. With the submission of the draft Technical Co-operation programme to the Board’s Technical Assistance and Co-operation Committee in November/December of each year, the Director General is obliged to indicate which, if any, of the proposed projects are deemed as having the potential of making a “substantial” contribution to the “sensitive areas” mentioned above.

Complicating the assessment, at least in theory, is the stipulation that such contributions may be either “direct” or “indirect”. It is further stipulated that, for the purpose of rendering assistance to Member States that have concluded appropriate safeguards agreements with the Agency, no further agreements will be necessary. For Member States without appropriate safeguards, however, individual agreements for safeguards will be worked out should the technical assistance be effectively rendered.

In actual practice, only two projects have been judged by the Secretariat to have the potential of making a “substantial contribution” in one or more “sensitive” technological areas. These projects, both dealing with the supply of nuclear fuel, were approved as part of the IAEA’s Technical Co-operation programme for 1983. In line with the Revised Guiding Principles, the Board called for the conclusion of project agreements containing safeguards provisions.

In view of the fact that so few requests have been received for assistance in connection with “sensitive” technologies, it can be assumed most developing countries are not in a position to absorb assistance in such areas. The “sensitive” technologies in question relate to the nuclear fuel cycle and require considerable experience in the nuclear power field and investments that would be disproportionately high for most developing countries.

As the countries capable of supplying military nuclear technology are, with two exceptions, NPT signatories, and all nuclear-weapon States have endorsed the Revised Guiding Principles – which explicitly proscribe the transfer of such technologies – it can also be assumed that assistance in “sensitive” areas is not being provided bilaterally outside the framework of safeguards agreements.

Fostering a climate of non-proliferation

What emerges from an examination of technical co-operation in the Agency and its relationship with the NPT is the following:

- The Statute itself was the first instrument to define the “appropriate” scope of international technical co-operation in the nuclear field.
- The NPT echoes many of the same concerns about peaceful and appropriate applications that are articulated in the Statute.
- The NPT may well have given rise to the Agency’s Revised Guiding Principles, which define more explicitly the appropriate scope of international technical co-operation in the nuclear field.
- The recommendation of the First NPT Review Conference to provide greater extrabudgetary assistance through the IAEA to NPT signatories was quickly followed by the introduction of a mechanism in the IAEA to facilitate the provision of such assistance.

- In view of the non-discriminatory nature of the IAEA’s Statute – and the fact that participation in the Technical Co-operation programme antedates the NPT – the preferential treatment foreseen in the NPT conference resolution could not be implemented as a policy in the IAEA.

In summary, therefore, while there is evidence – if only circumstantial – that the NPT has had an impact on technical co-operation in the IAEA, the relationship between the NPT and the IAEA’s Technical Co-operation programme is complex and dynamic; causality in this relationship is far from being explicit and numeric analysis yields little that is conclusive.

Viewed collectively, however, the Statute, the NPT, and the Revised Guiding Principles all reflect the desire of countries to foster an international climate where it will be unacceptable for a non-nuclear-weapon State to indulge in the development of military nuclear technology and reprehensible for States possessing this technology to offer it to others. With regard to this point, the IAEA and the NPT profess one and the same faith.

