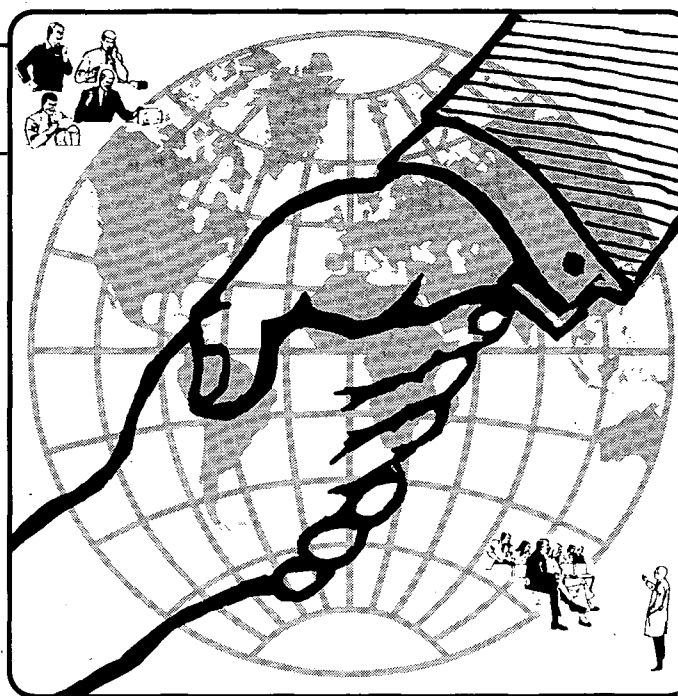


Challenges of technical co-operation

*A look at the aims and evolution
of the IAEA's
expanding programme*

by Noramly bin Muslim



The technical co-operation programme is the IAEA's primary vehicle for promoting the peaceful uses of nuclear energy in developing countries. The Department of Technical Co-operation provides the general administrative support for the programme, while two other departments (those for research and isotopes and nuclear energy) are relied upon for technical support. In 1986, for example, more than 120 technical officers from these departments were involved in providing support to 846 ongoing projects.

Guidance and support is provided in areas that offer immediate benefit to Member States. These include fields related to basic human needs, industrial applications, power generation, radiation protection, and other areas that would accelerate the contribution of atomic energy to world peace, health, and prosperity. Activities are financed through voluntary contributions and assistance-in-kind by Member States and by the United Nations Development Programme (UNDP). For 1987, US \$35 million has been allocated for the IAEA's technical assistance and co-operation programme.

The Agency acts in response to Member States' needs for assistance. The activities and projects that it assists are genuinely national ones, supported by the government and counterpart institutions in the country. National support is essential to the success of the projects assisted by the Agency. No amount of assistance can substitute for a genuine national commitment.

In general, the programme includes assistance to projects with specific objectives, expected results, and target audiences. Project planning and preparation are important ingredients to a project's success. IAEA serves as a participant, partner, and contributor to

projects in which it and Member States share a vital interest. Where there is evidence reflecting insufficient planning, the Agency supports pre-project assistance, which provides opportunities for IAEA staff and local authorities to discuss and prepare plans that are effective and can be successfully executed.

The Agency provides assistance to Member States for achieving self-reliance and the capability to absorb the transfer of technology through human resources development and institutional support. By providing services of experts or equipment and training, the programme stands ready to advise and guide Member States on their future plans for peaceful uses of atomic energy.

Recent growth

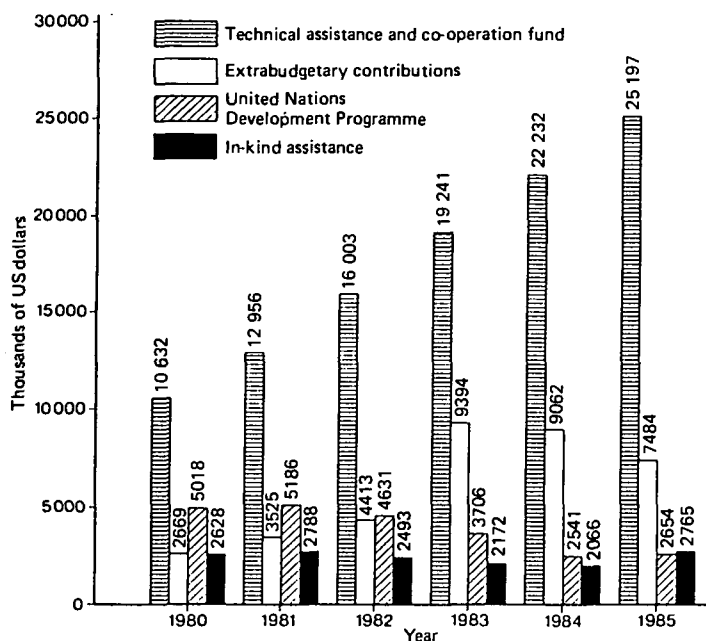
Resources available for the programmes have been increasing, with available funds now growing at a rate of 12% a year. (*See accompanying charts for overviews.*) Equipment supplied to Member States takes the major share of resources.

While the needs of developing Member States still remain beyond the Agency's available resources for technical co-operation, the considerable growth in funding has allowed substantial expansion of activities. In particular, it has enabled undertaking more long-term (multi-year) projects that hold promise of having a substantial impact on important national issues.

Steps for improvement

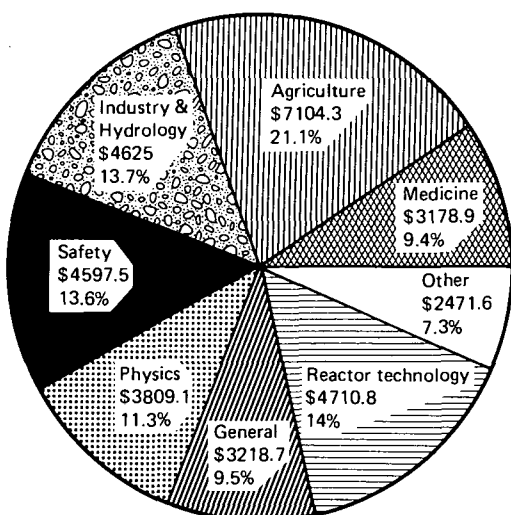
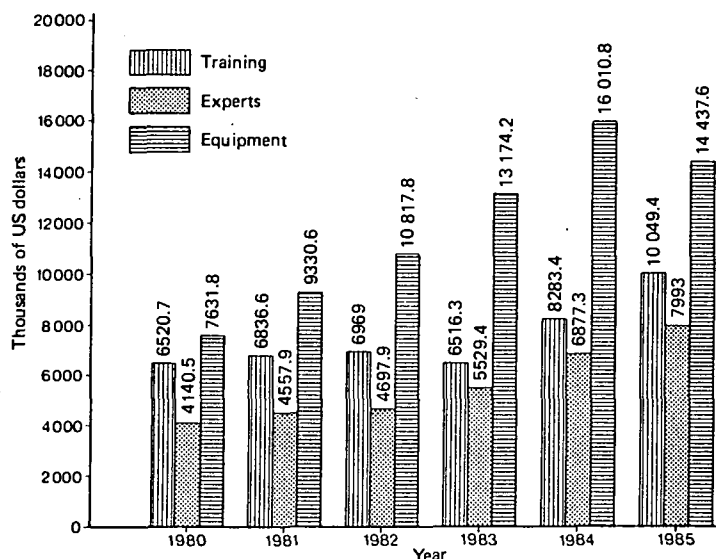
As the interest of Member States has grown, the IAEA has introduced a few innovations which will improve the efficiency, delivery, and effective programme implementation without affecting the quality of the assistance provided. Also, pre-project assistance in the preparation of multi-year projects will be expanded. A project management plan that shows the

Mr Noramly is the IAEA's Deputy Director General heading the Department of Technical Co-operation.

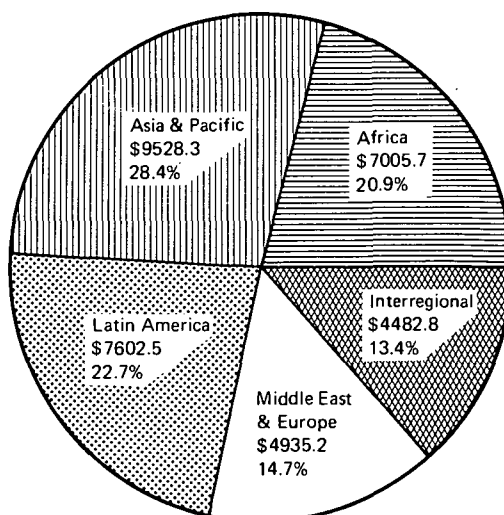


Resources available for
IAEA technical co-operation programmes:
1980-85

What was bought with
IAEA technical co-operation resources,
1980-85



Major types of activities supported by the
IAEA's technical co-operation programme, 1985
(in thousands of US dollars)



Where were IAEA technical co-operation resources
spent in 1985?
(in thousands of US dollars)

IAEA's responsibilities, as well as the obligations of Member States or counterparts, and identifies activities, milestones, targets, and objectives to be achieved within a specified timeframe will be introduced for all new 1987 multi-year projects in excess of US \$100 000.

Project evaluation has also led to the initiation of a number of actions that contributed to better implementation. An Interim Project Implementation Reporting (IPIR) system has provided Member States with a procedure for reporting on their projects as to their achievements, difficulties encountered, and additional actions needed. IPIR ensures that the Agency is informed on the status of projects and any corrective measures that need be taken. Through periodic review and continuous evaluation of projects, it is hoped that the Secretariat will be able to identify problems and find the necessary solutions that will enhance the quality of assistance provided. Project evaluation has continuously been able to provide data and information on current operations in support of decision-making while generating lessons for use in improving future activities of the Agency's technical assistance.

Trends and future directions

Though the resources available for the Agency's technical assistance have been increasing considerably, the needs of Member States still remain beyond them. This is clearly reflected in the large number of requests that have to be turned down and the number of approved projects that await financing. This increased number of requests is due to many developing countries having realized the benefits that can be derived from atomic energy.

Based on previous experience in providing technical assistance and co-operation to Member States, the following trends and directions can be envisaged:

- Technical assistance projects tend to become multi-year programmes as Member States place emphasis on national programmes where requests for training, experts, and equipment are a necessary means of enhancing them. However, from countries that do not have a comprehensive national programme, it is envisaged that there will be more requests for project planning or formulation.
- As Member States begin to realize that the success of any programme is dependent on the availability of competent well-trained personnel, there will be an increase in requests for training, especially in terms of fellowships, scientific visits, and special courses (including academic qualification) to improve the capability and capacity to make effective technology transfer.
- As the capability and the capacity of Member States to absorb new technologies develop, the patterns and types of training and training courses will have to change. As Member States develop national capabilities and tend to co-operate more with one another within a region, there will be a tendency to have more regional

and national training courses which are for specific area problems. Interregional courses would have to be adjusted to meet demands that may not be available at national or regional courses. A "train-the-trainers" approach will have to be considered to enhance national capabilities.

- For the next 5 years, the Agency can foresee the types of assistance that will be needed by various regions, based on current developments and technical capabilities. There will be requests from the African region for assistance that would lead to building of national infrastructures and projects in agriculture, medicine, and inventories of national resources. In Asia and the Pacific region, there will be emphasis on industrial applications. This is reflected by priorities placed by the Member States especially with the UNDP and projects under the IAEA's Regional Co-operative Agreement (RCA) for Asia and the Pacific. For Latin American States, there will be emphasis on building up infrastructure and national capabilities in many fields, especially in agriculture, medicine, and industry, that are reflected in national and regional projects (ARCAL). For the European and Middle East regions, there will be an increase in assistance for the development of nuclear power programmes, industrial applications, and the development of human resources for these programmes.

- As regional and national infrastructures improve, regional co-operation will assume an important role. This is already reflected in programmes for the Asian-Pacific and Latin American regions. (*See related article in this edition.*) New programmes are being proposed in the African region and among the Arab countries under UNDP. This co-operation among developing countries leads to mutual assistance among Member States, exchange of experience, personnel, and sharing of facilities. This would also lead to an increase in the use of experts from developing countries in the near future.

- As safety and radiation protection are increasingly important to Member States, there will be a tendency for requests in radiation protection, personnel, and environmental monitoring.

- As a large proportion of the Agency's assistance is in the form of equipment, there will be a need for the creation of projects to assist Member States to service, maintain, and repair this equipment and for the supply of spare parts. There will be additional requirements for training of technicians responsible for repair, and the establishment of national centres for maintenance.

Within these probable trends for future technical assistance, the Agency must address itself to the needs. Steps are being taken to identify needs of Member States through consultations, information from technical officers through project and travel reports, from experts, from consultants, and by evaluation. There is also greater interaction between relevant IAEA departments in preparing the programmes and budget, as technical officers of these departments are responsible for all technical aspects of projects.