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TECHNICAL CO-OPERATION STRATEGY

I. Introduction

1. The IAEA has over the past three decades assisted developing Member States in capacity building and establishing infrastructures in nuclear science and technology. In the areas of nuclear power and safety, the role of the Agency has often been indispensable. In those countries where nuclear power is not a priority, the Agency has transferred isotope and nuclear technologies that have applications in industry, human health, agriculture, water management and other sectors. These efforts for the most part had technical objectives and their cumulative effect on technical capacity has been and continues to be quite significant. It is precisely the Agency's success in capacity building efforts, combined with the desire of Member States to strengthen the efficiency and effectiveness of technology transfer activities, that now creates greater opportunity for projects that will bring significant socio-economic benefits.

2. To encourage this trend it is necessary to focus the scarce resources available for technology transfer on activities which are both cost-effective and contribute to national development. This has led to a series of initiatives which, taken together, represent a gradual shift in emphasis in the Agency's technical co-operation programme from project activities directed at building capacity in nuclear authorities and institutions, towards collaboration with counterpart organizations to employ this capacity for *productive and sustainable human development*.

3. This paper contains a strategy to guide this new direction for TC activities. It is important to recognize that this strategy implies decisions and actions by all participants. This paper elaborates only the Secretariat's own activities and efforts. The Secretariat looks forward to collaboration with Member States and other institutions in implementing this strategy.

II. The Strategic Goal

4. The Statute provides, inter alia, that the Agency shall seek to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world. To that end the Agency facilitates access by Member States to the peaceful uses of nuclear energy, by transferring nuclear technology to them, and by promoting co-operation among them.

5. The technical co-operation activities financed from the Technical Co-operation Fund (TCF) are only one part of the Agency's technology transfer effort, which involves many activities and Departments.[1/] The Research Contracts and Agreements managed by the technical departments are one important example. This document is limited to those activities that involve the Department of Technical Co-operation and the TCF, but it may also serve as a reference for other aspects of the Agency's technical transfer activities.

6. The new strategic goal for technical co-operation can be stated as follows:

> *Technical co-operation with the Member States shall increasingly promote tangible socio-economic impact by contributing directly in a cost-effective manner to the achievement of the major sustainable development priorities of each country.*

This goal is conveyed by the term Partners in Development - the idea being that the Agency become a partner with each Member State, co-operating in the process of achieving sustainable development.

III. Modalities

7. The Technical Co-operation Department will utilize three principal tools to achieve its strategic goal: Model Projects; Country Programme Frameworks; and Thematic Plans. Respectively, they address: setting and maintaining standards of quality in project design; achieving country programmes focused on a few priority development needs; and targeting those nuclear and isotopic techniques that offer clear cost-benefit advantages in achieving sustainable development. In simple terms these tools can help answer: *how* best to undertake technical co-operation, *what* to co-operate on, *where*, and with *whom*?

Model Project Standards

8. Producing sustainable socio-economic impact in technical co-operation activities requires high standards for project design and management. The Model Project is essential to the Partners in Development concept because it represents the programme's highest standard of project quality. The established criteria for Model Projects are that they must:

[1/] GOV/INF/769 of 27 April 1995.

respond to a real need of the country; produce significant economic or social impact through the end user; reflect the distinct advantages of nuclear technology over other approaches; and attract strong government commitment. The Model Project idea also involves detailed workplans and objective performance indicators. Model Projects established thus far have indicated that these criteria do improve the quality of technology transfer. Accordingly, the new strategy calls for Model Project standards to be extended to the entire TC programme.

9. The Model Project concept involves looking beyond the immediate recipient institute to the final end user - that is, the last link in the chain that connects the national counterpart to the ultimate beneficiaries, the public at large. For example, in the area of hydrology, the counterpart might be the national research centre, but the end-user might be the national water authority and its teams in the field. The ultimate beneficiary is the consumer of water.

10. Model Project standards encourage substantive, ongoing dialogue with Member States. For example, assessing proposals against Model Project standards leads both the TC Department and the national authorities to assess carefully the issues and assumptions involved and to identify clearly the expected results. Requiring that Model Projects address a major need of the developing country prompts more thorough analysis of the country's development objectives and the connection that a proposed activity will have to the overall effort.

11. Model Project standards require a strong government commitment and the local infrastructure necessary to ensure sustainability. Government commitment provides hard evidence of the usefulness and priority of the project to the country. It is being increasingly demonstrated by cost-sharing for national projects. The need for such a government commitment also implies the involvement from the start of national authorities, often extending beyond the recipient institute to the end-user. The net effect is more direct contact with the sector involved, a strengthened role for counterpart organizations and a wider interest in the outcome and sustainability of the activity beyond the lifetime of the Agency project

12. The strategy envisages a situation in which all recipient Member States will be able to formulate Model Projects. However, progress toward this goal will depend on commitment of all parties, the available management capabilities and the opportunities identified through joint planning with Member States. It will be accomplished in phases. The immediate phase will be to implement at least one project conforming to Model Project criteria in about two-thirds of recipient Member States by the year 2000.

Country Programme Frameworks

13. In designing and managing co-operation projects to meet Model Project standards, programme preparation assumes crucial importance. Of the two main mechanisms for such preparation, the Country Programme Framework (CPF) process is strategically the most important, as it provides a means for extending the Model Project approach to all Member States.

14. The goal of the CPF process is to achieve agreement between the Agency and a government on a few priority areas for technical co-operation that can produce significant impact. This leads to the identification of opportunities for Model Projects and the systematic application of Model Project standards to the Country Programme. To be effective, the CPF must become an integral part --- and eventually the principal means --- of the national process of formulating and appraising projects.

15. Internal guidelines on the preparation of CPF's are being improved in the light of the findings of an evaluation on CPFs prepared to date.. The lessons learned suggest that the CPF will be a dynamic *process* which places significant demands on human resources in both the Agency and Member States. It is also recognized that planning requirements differ according to the technical capacity and needs of the countries concerned.

16. The new CPF guidelines will be followed during the formulation of the 1999-2000 TC programme for all Member States, and it is expected that CPF's will be concluded for about half of recipient Member States by the year 2000. For the rest, the Secretariat's regular pre-programming activities should result in a clear understanding of the major national needs, and identification of a few areas on which to focus. This understanding will guide internal assessment of the future country programme, and provide the basis for dialogue with Member States leading to final conclusion of a CPF.

Thematic Planning for Technical Co-operation

17. The second main pre-programme activity is Thematic Planning for Technical Co-operation. While CPFs result from interactions primarily involving the Agency and Governments, thematic plans initially derive from an assessment of the needs for Agency assistance in safety and regulation, the potential benefits of various nuclear techniques and the record of past technical co-operation activities.

18. The need to identify services and technologies with special value has emerged in connection with efforts to expand the Agency's comparative advantage. In simplest terms, the special value of a service or technology relates to the priority of the problems it can solve. In effect, the process of thematic planning is a management tool for identifying special value services and technologies amongst those that the Agency is currently transferring to Member States.

19. A thematic plan should have the following features. It should indicate how Agency expertise can contribute and identify the project format which constitutes the most cost-effective way to solve a problem or to contribute to a development objective, especially when compared to non-nuclear alternatives. It should then indicate in which countries or regions its application would be most appropriate. Further analysis should identify those countries where the ability to employ the services or applications exist, or can be readily created at reasonable cost.

20. Even when thematic planning by the Secretariat identifies an opportunity for co-operation with a particular country, concrete action will result only if the country concerned decides to incorporate it among the priorities reflected in its CPF. Conversely, when thematic planning does not identify significant opportunities in a given sector in a given country, the CPF should also reflect this fact.

21. Detailed thematic plans require in-depth discussions among technical Divisions and the TC Department, as well as follow-up activities in selected target countries. Because of the workload involved, the goal is to complete 5-6 thematic TC plans by 2000, beginning with the themes of radiation protection, waste management, and nuclear power safety. In developing other themes in the fields of isotope applications, it will be important to give priority to those used in individual Model Projects that have unambiguously played a crucial role in addressing development needs at reasonable cost.

22. It is appropriate that the first thematic plan to become fully operational is in the area of radiation protection. Meeting basic safety standards for radiation protection is a statutory pre-condition for all activities involving ionizing radiation. In 54 Member States, inadequacies in radiation safety infrastructures have been identified. A plan has been established in an interregional Model project to maximize national commitment to achieving the required level by the year 2000.

23. A strong link can be made between thematic planning and regional programmes. While thematic planning can result in national project activities, it can also help establish common regional strategies and opportunities for technical co-operation among developing countries (TCDC). In future regional and inter-regional projects, human resources development and inter-regional training activities will also be based on thematic plans and Model Project standards.

IV. Supporting Activities

24. In addition to the three principal tools discussed above, the Technical Co-operation Department will also emphasize the following auxiliary concepts and activities in pursuing its strategic goal.

TCDC

25. Technical co-operation among developing countries will continue to be a key area of emphasis because it strengthens the sustainability of project activities by building self-reliance and mutual interest among Member States. The most successful mechanisms the Agency has established to stimulate TCDC are undoubtedly the Regional Co-operative Agreements RCA, ARCAL and AFRA. The Agency intends to strengthen these regional endeavours by encouraging Member State responsibility for project formulation activities, and by encouraging

the more advanced national institutes within the region to contribute fully to solving problems within the region.

26. As countries progress with development, their growing capabilities and experience become important resources for others attempting to follow a similar path. Some of the more advanced developing countries have nuclear know-how and nuclear establishments that equal those of developed countries in certain areas. The Agency plays an important role in the nuclear field in fostering partnerships among such countries, and between them and the least developed countries (LDCs). It is integral to the TC strategy to expand this role to the maximum extent possible.

Co-funding and the Wider Development Community

27. The new strategy requires the participation of development organizations beyond the Agency and the nuclear community in each Member State. It is a major goal to engage the development community at large - end-users, bilateral aid organizations, UN organizations, non-governmental organizations, as well as the private commercial sector can all help make the seed money of the TCF produce significant results. However, dialogue with new partners requires improved project design and consistent project terminology. Here once again, Model Project standards are essential for success in gaining support from the wider development community. The need to compete for scarce resources reinforces the need to ensure high programme quality standards.

28. Experience has shown that some Model Projects related to improving the safety of nuclear power plants and helping to alleviate poverty have already attracted the increasing interest of donor countries and organizations. Thematic planning will enhance the impact of Model Projects and will lead to more opportunities for obtaining additional funding through development aid channels. It is expected that national cost-sharing will continue to increase in association with the success of the Model Project concept. This success will not only contribute to overcoming the constraints of the limited resources available directly to the Agency through the TCF but also demonstrate the improved quality of the programme. It will be seen as evidence of progress made towards becoming a Partner in Development.

Internal Management

29. The objective of extending the standards of Model Projects to the entire TC programme looks to the day when “models” are unnecessary. In the interim, it entails a number of new functions and responsibilities that place increased demands on the management capacity of the TC Department and its partners. The main prerequisite for this approach is management responsibility for new methods of planning, formulating and appraising project proposals, and systematic monitoring and evaluation of project performance. These new functions in turn influence the structure and procedures of the TC Department, and indeed a restructuring plan is now being implemented. Meanwhile, the Department will strengthen management capacities through training for both Agency and counterpart staff; the

introduction of guidelines for project formulation; and more extensive use of performance indicators to enhance accountability. Also, a comprehensive *internal management plan* has been drafted to achieve the objectives set out in Part III of this document. It sets unit priorities, assigns tasks and working arrangements, and reviews performance. The plan will be revised annually along with individual work plans and performance indicators for all TC Department staff. The management plan is intended as an internal document providing guidance to TC staff. Progress toward the objectives outlined in the new Strategy will be reported in the annual Technical Co-operation Report.

V. Summary of Expected Results

The new strategy can only succeed with the full involvement of all partners. The Agency is therefore counting on the co-operation of all Member States to reach the following objectives of the TC strategy by the year 2000:

1. Model Projects will have been introduced in about two-thirds of all recipient Member States.

2. The core elements of the Model Project concept --- orientation towards end-user, cost-effectiveness and impact --- will have become the dominant consideration in the appraisal of all project requests. The Technical Co-operation Fund will continue to help build regulatory infrastructures and scientific and technological capabilities to meet identified objectives.

3. Project design standards such as objectives, timeframes, workplans and performance indicators will be a normal feature of all projects: thus standards of measurement of project quality will join the traditional standard of efficiency - the implementation rate

4. The Country Programme Framework process, introduced during the preparation of the current programme, will be applied to all Member States during the preparation of the 1999-2000 TC programme. By 2000, agreed CPFs will be in place for about half of recipient Member States.

5. Thematic Plans will be available for 5-6 subjects.

6. Nearly all Member States which currently have inadequate radiation safety infrastructures will have reached the levels required by the Basic Safety Standards (BSS) by the year 2000, provided they commit themselves to doing so.

7. The high implementation rates reached in recent years, and the corresponding reduction in carry-over funds, will continue. To this end, “implementability” will be an important element in project design.

8. Resource mobilization efforts during the period covered by this strategy will focus on fund raising for a selected group of very well designed projects with potential for attracting extrabudgetary donor funding. With experience and contacts, efforts will expand to thematic activities and general resource requirements for future TC programmes beyond the year 2000.