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SCIENCE AND TECHNOLOGY FOR DEVELOPMENT

Framework of a study of the system-wide efficiency of the United Nations system in the field of science and technology for development

Report of the Secretary-General

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* A/35/50.

I. BACKGROUND

1. The General Assembly, in section V of its reoslution 34/218 of 19 December 1979, requested the Secretary-General "to prepare a basic study of the activities, mandates and working methods of all the various organs, organizations and bodies of the United Nations system in the field of science and technology for development and to examine the possibilities of improving the efficiency of the system in that field". The Assembly specified that "a preliminary report on this study should be submitted to the Intergovernmental Committee on Science and Technology for Development at its first substantive session in 1980, and that a final study, including proposals, should be submitted to the Committee at its 1981 session; the Committee should make preliminary recommendations to the General Assembly at its thirty-fifth session and final proposals to the Assembly at its thirty-sixth session". The decision of the Assembly was based upon paragraph 109 of the Vienna Programme of Action on Science and Technology for Development, 1/ in which the Assembly was invited to initiate such a study.

2. Various bodies of the United Nations have consistently, over the last decade, expressed their wish to obtain a clear picture of the activities of the United Nations system in this field. The first such requests in the recent past were made by the Advisory Committee on the Application of Science and Technology to Development at its eighth and ninth sessions, in response to Economic and Social Council resolution 1083 (XXXIX) of 30 July 1965 and General Assembly resolution 2082 (XX) of 20 December 1965, and led to the preparation by the Secretariat of a paper entitled "Machinery available in the United Nations system for dealing with science and technology" (E/AC.52/L.67), dated 18 August 1969. Soon after its establishment, the Committee on Science and Technology for Development, at its second session, addressed a request to the Secretary-General, through the Administrative Committee on Co-ordination (ACC) "to prepare for the Committee at its third session a comprehensive report listing the various organs or units of the United Nations system dealing with science and technology, indicating the interrelationship between them and the distribution of broad responsibilities, major current programmes, presently available and projected resources among them". 2/ At its fifty-seventh session, the Economic and Social Council adopted resolution 1905 (LVII) of 1 August 1974, entitled "Institutional arrangements for science and technology", under which, inter alia, it:

> "Requested the Secretary-General, with the advice of the Advisory Committee on the Application of Science and Technology to Development, and after consultation with all interested agencies and bodies within the United Nations system, to make a study on:

1/ Report of the United Nations Conference on Science and Technology for Development, Vienna, 20-31 August 1979 (United Nations publication, Sales No. E.79.I.21 and Corr.1 and 2), chap. VII.

2/ Official Records of the Economic and Social Council, Fifty-seventh Session, Supplement No. 3 (E/5473), chap. X, resolution B.

"(a) The work at present being undertaken throughout the United Nations system in the field of the development and the transfer of science and technology particularly in the interests of developing countries;

"(b) The feasibility of the establishment of a United Nations science and technology programme, including its form, functions and responsibilities, to assist, facilitate and ensure the application of science and technology to development, particularly that of the developing countries."

These requests were met by a single report of the Secretary-General on institutional arrangements for science and technology in the United Nations system (E/C.8/29 and Corr.1 and Add.1 and Corr.2).

3. At its first session, the Preparatory Committee for the United Nations Conference on Science and Technology for Development asked that a report be prepared giving an "over-all view describing the manner in which ... /the programmes of the United Nations system/ have linked science and technology to socio-economic development and international co-operation related to the agenda of the Conference". 3/ In like manner the Committee for Programme and Co-ordination (CPC) at its seventeenth session requested the submission of a report containing a cross-organizational programme analysis in the field of science and technology. 4/ These two requests were answered by the production of one paper entitled "Overview of activities of organs, organizations and programmes of the United Nations system" (A/CONF.81/PC/19), prepared jointly by the Secretary-General of the Conference and ACC.

4. Dissatisfied with that effort, CPC at its eighteenth session called for the preparation of a new report in a more circumscribed cross-organizational area. 5/ The General Assembly endorsed the request and, in its resolution 33/192 of 29 January 1979, called for a supplement to the aforementioned report, "analysing outputs, gaps and/or overlap of present United Nations activities in the area of science and technology for development as a background document for the consideration of the draft programme of action, bearing in mind the views expressed by the Committee for Programme and Co-ordination at its eighteenth session". In response to that request, a conference room paper was issued, entitled "Cross-organizational analysis of programme activities within the United Nations system concerning science and technology for development" (A/CONF.81/PC/CRP.13 and Add.1).

5. The purpose of this historical recitation is to draw attention to certain lessons that may be learned from these previous attempts at catalogue and analysis. The record suggests that Member States have not been entirely satisfied with these earlier efforts, considering them to have been either too static, too terse or too

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3/ Official Records of the General Assembly, Thirty-second Session, Supplement No. 43 (A/32/43), annex II, decision 1 (I), para. 8.

4/ Ibid., Supplement No. 38 (A/32/38), chap. I, sect. F, para. 31.

5/ Ibid., Thirty-third Session, Supplement No. 38 (A/33/38), chap. I, sect. C, paras. 42-44.

unwieldy. Whatever the particular inadequacy, however, the feeling was that many of the earlier reports were not of a nature to allow meaningful decisions to be reached.

6. A reasonable conclusion to draw from this experience is that the field in question is a particularly difficult one to treat and to encompass, at least in so far as the activities of the United Nations system are concerned. Viewed in this light, it can be said that the General Assembly's requirement that a preliminary report on the basic study should be submitted to the first substantive session of the Intergovernmental Committee on Science and Technology for Development and that the Assembly should review the preparations for the study at its thirty-fifth session is, from the Secretariat's point of view, a particularly welcome course of action.

7. This preliminary report will attempt to deal with the purpose, scope, structure and methodology of the study. In the view of the Secretary-General, it is essential that these issues be resolved satisfactorily before the Committee embarks on what is certain to be an elaborate exercise. Consequently, this report is not a first draft, but is, rather, a suggested framework for the study. The General Assembly's request for the preparation of the basic study was addressed to the Secretary-General. He considers, however, that the specialized agencies concerned should be fully involved in all stages of the preparation of the basic study. The necessary interagency consultations have, therefore, taken place on the present report.

8. Finally, work on the basic study should not be done in isolation from two other related exercises. One of these is the preparation of an operational plan for the implementation of the Vienna Programme of Action; the other is the gathering of background material for the work of the intergovernmental group of experts that will study the United Nations Financing System for Science and Technology for Development. At both the intergovernmental and intersecretariat levels, attempts must be made to ensure that these separate but related exercises proceed in tandem.

II. GUIDING PRINCIPLES

9. In paragraph 83 of the Vienna Programme of Action on Science and Technology for Development, 6/ it is pointed out that "The steps taken so far within the organs, organizations and bodies of the United Nations system to improve the present situation have largely been institutional reforms involving reviews of the mandates of individual components of the system, so as to reduce overlapping, competitiveness and unnecessary duplication of effort." It is then concluded that "It is now apparent that 'institutional approaches' alone cannot be sufficient in the sphere of science and technology." 7/ In view of this prescription, and taking into account the spirit and tone of the Vienna Programme of Action, it seems clear that the basic study will have to be much more than a descriptive report of existing institutional arrangements.

6/ Available in the files of the Secretariat.

7/ Report of the United Nations Conference on Science and Technology for Development, Vienna, 20-31 August 1979 (United Nations publication, Sales No. E.79.I.21 and Corr.1 and 2), chap. VII.

10. Paragraph 86 of the Programme of Action enumerates a list of considerations to be "taken fully into account" in the efforts to strengthen the role of the United Nations system in the area of science and technology. These considerations are:

"(a) Modification and, if necessary, redefinition of objectives, policies and criteria, in response to the general commitment by all Member States to treat science and technology as an integral part of the New International Economic Order;

"(b) Adjustment of the objectives, policies and programmes of the organs, organizations and bodies within the United Nations system and other relevant international agencies so as to support effectively the development objectives and priorities agreed upon by the countries, especially the developing countries, at the national, subregional, regional, interregional and international levels;

"(c) Harmonization of the objectives and policies of the different organs, organizations and bodies within the United Nations system and co-ordination of their sectoral and intersectoral activities in developing countries in order to maximize the benefits derived from these activities and to eliminate waste and avoid unnecessary duplication;

"(d) Adoption of specific programmes which will lead to the implementation of the Programme of Action, by means of co-ordinated action which includes both the general and specific interests and the effective participation of developing countries."

11. It is proposed that these considerations should serve as the guiding principles for the preparation of the study.

III. EFFICIENCY

12. The title of section V of General Assembly resolution 34/218 - "Study of system-wide efficiency" - leaves no doubt about the anticipated outcome of that exercise. However, the notion of "efficiency" does, in itself, raise certain conceptual difficulties. The Vienna Programme of Action has indicated that too much attention has been paid in the past to institutional reforms concerned with overlapping, competitiveness and the unnecessary duplication of effort. At the same time, these concerns are hardly ignored in the Programme of Action and find reflection in a number of passages where stress is laid on the need for greater harmonization, cohesiveness, co-ordination and the elimination of "waste and unnecessary duplication".

13. Overlap or duplication are often quite difficult issues to treat. Where two or more organizations may appear to be engaging in the same activities, a close examination may reveal that the organizations are simply approaching an area of activity from different disciplinary perspectives. Reducing apparent overlaps in such instances may result primarily in eliminating complementary activities and in reducing the total amount of resources being devoted to a critical area of activity, a conclusion whose benefits might be open to question.

14. The objectives of greater harmonization and coherence, the imperative of better co-ordination and the apprehension about waste and duplication are, of course, of a traditional character. The fact that these are repeated themes do not, of course, negate their contemporary relevance. It should be pointed out, nevertheless, that in much more clearly defined fields than science and technology, intergovernmental bodies and intersecretariat instrumentalities have found it difficult to get to grips with these problems. In a field as pervasive as this one, it might be best, perhaps, to approach these problems with the goal of making incremental gains rather than trying to resolve undoubted difficulties at one leap.

15. Taking these considerations into account, it is suggested that it may be more practical to deal with the issue of efficiency in terms of the necessity for testing whether the activities that are being carried out by the system at present, as well as those proposed for the future, (a) correspond to the orientation provided by the Vienna Programme of Action; and (b) will be carried out in the manner best designed to achieve the objectives prescribed by the Programme. The search for efficiency would thus be conceived as a forward-looking process.

16. Such an approach would also seem to correspond to the considerations expressed in paragraph 93 of the Vienna Programme of Action. That paragraph spells out a list of changes which ought to intervene in order to improve "the over-all efficiency and effectiveness of the United Nations system". The changes suggested are the following:

> "(a) Improvement of existing mechanisms and/or setting up channels to enable the system to enhance its comprehension and knowledge of the efforts undertaken by developing countries to achieve a greater level of scientific and technological development;
>
> "(b) Co-ordination and harmonization of the system's policies, programmes and functions in the field of science and technology;
>
> "(c) Decentralization of the decision-making process for the strengthening of the regional commissions, in accordance with General Assembly resolution 32/197 of 20 December 1977, by entrusting to them:
>
> "(i) The rationalization of their subsidiary machinery in the field of science and technology;
>
> "(ii) The assumption of the role of team leadership for co-ordination of science and technology co-operation programmes at the regional level;
>
> "(iii) The provision of inputs for the policy-making process of the intergovernmental committees;
>
> "(iv) The responsibility for supporting developing countries, at their request, in identifying projects and preparing programmes for the promotion of scientific and technological co-operation among those countries;

"(d) Co-ordination of the restructured regional commissions with subregional, regional, interregional and international co-operation organizations in the field of science and technology;

"(e) Increasing the effective participation of developing countries in international organizations concerned with the application of science and technology to development, including the holding of interregional meetings on science and technology, in accordance with their established procedures and practices."

IV. SCOPE AND METHODOLOGY

17. Previous analyses of science and technology activities in the United Nations system have run into considerable difficulties over questions of scope and methodology. Finding an acceptable and readily applicable framework for the activities to be covered by this study is not an easy task, since, as the Vienna Programme of Action has stated, science and technology have a "fundamental and pervasive role" in the development process. The Programme of Action has provided a new focus for the activities which Member States consider should fall under the study's scope. Also, the request of the General Assembly is concerned with the field of science and technology "for development", and this is certainly an essential criterion in determining which activities should be included. After taking into account any comments that may be made on the study's scope and methodology during the second session of the Intergovernmental Committee, further work on the identification of activities to be covered by the study could be pursued at the interagency level.

18. With regard to the scope of the analysis, it is suggested that the consideration of manageability should be of paramount importance. The basic study should have carefully acknowledged parameters, which would permit a serious in-depth analysis to be made of the programme areas chosen. The alternative course would be to attempt to cover a broad ensemble of activities, and the result might well be an unwieldy mass of material, which the Secretariat would find hard to analyse and with which the Intergovernmental Committee would have difficulty in coming to grips.

19. Since the adoption of General Assembly resolution 32/197 of 20 December 1977, the United Nations Secretariat and the organizations of the system have had the opportunity to develop and refine analysis techniques in relation to the preparation of cross-organizational programme analyses and evaluation studies of programme areas. In relation to the designing of a framework for data collection and analysis, the results of these experiences have been reported to the Committee for Programme and Co-ordination and point to the usefulness of having manageable, compact and well-defined areas for analysis. Taking all these developments into account, it is suggested that the idea of a two-stage process for the completion of the study should be entertained.

20. On the question of methodology, attention has already been drawn to a number of earlier documents related to the subject. In particular, the addendum to cross-organizational analysis of programme activities in science and technology

(A/CONF.81/PC/CRP.13/Add.1) 8/ contains a great deal of material describing the programme activities of the system in the field in addition to extensive analytical material in the main body of the report (A/CONF.81/PC/CRP.13). 8/ The overview of activities of organs, organizations and programmes of the United Nations system (A/CONF.81/PC/19 (Part II)) includes a section giving a full description of the mandates of the organizations. At this stage, therefore, it is thought that the amount of original material to be requested from organizations may not have to be substantial.

21. The provision of financial data is an especially difficult problem to tackle. Past studies in this area have been unable to produce precise and satisfactory data, owing to the fact that the science and technology components are often built-in elements in many of the activities of the organizations of the system and such data are therefore not readily extractable. A high degree of arbitrariness tends to enter into data-gathering efforts of this sort. For those reasons, it is suggested that, to the extent such data is provided, it should be presented at the programme level only, giving rough orders of magnitude.

22. Mention has already been made of the Secretary-General's intention of fully involving the organizations of the system in the preparation of the basic study. The means of so doing would be through the Joint Interagency Task Force on Science and Technology for Development, which, it will be recalled, the Director-General for Development and International Economic Co-operation had proposed should be established to assist him, inter alia, in carrying out the interagency tasks stemming from the Vienna Programme of Action (see A/34/587/Add.1, para. 21).

V. STRUCTURE OF THE STUDY

23. In designing a structure for the basic study, the main emphasis should be on programme content and its relevance to developmental objectives. On the basis of the General Assembly's description of what the content of the study should be - "activities, mandates and working methods" - the structure of the basic study might comprise the following three parts:

(a) Factual information concerning the organs, organizations and bodies of the United Nations system (with special reference to measures taken or foreseen to implement the Vienna recommendations), which would include the following elements:

(i) Mandates, including the relevant policy decisions of governing organs;

(ii) Activities;

(iii) Working methods;

(b) A review of the objectives and strategies of the organs, organizations and bodies of the United Nations system related to the aims of the Vienna Programme of Action, taking into account the views of the governing organs concerned;

8/ Available in the files of the Secretariat.

(c) Suggested policy guidelines and measures for improving the harmonization of objectives and strategies, for co-ordinating programmes and for further developing joint working methods in order to strengthen the role and increase the efficiency of the United Nations system in the field of science and technology for development.

24. The information in the first part, concerning activities, could come under a number of major programme headings. It is suggested that the choice of headings should derive from the structure of section III of the Programme of Action, which contains the following headings:

(a) Policy formulation and guidelines;

(b) Technology transfer and assessment;

(c) Scientific and technological information systems;

(d) Development of human resources;

(e) Institutional arrangements and structural transformations;

(f) Global financial arrangements.

25. Those headings might translate into the following programme structure:

(a) Science and technology policies and plans for development;

(b) The choice, acquisition and transfer of technology (including the legal framework for the transfer of technology);

(c) Science and technology information and documentation;

(d) The development of human resources;

(e) Strengthening of research and development in and for developing countries and its linkage to the productive system;

(f) The financing of science and technology;

(g) Socio-cultural implications of science and technology.

26. As noted in paragraph 19 above, it is suggested that the study should be conducted in two stages. The first stage might consist of three of the areas referred to in paragraph 25 above, such as: (a) science and technology policies and plans for development; (b) the choice, acquisition and transfer of technology; and (c) science and technology information and documentation. The material to be presented under the three parts of the study (see para. 23 above) would be devoted to these three programme areas.

27. The second stage of the study might deal with the remaining areas, namely: (d) the development of human resources; (e) strengthening of research and

development in and for developing countries and its linkage to the productive system; and (g) socio-cultural implications of science and technology; the extent to which the study would eventually deal with area (f) (the financing of science and technology) might have to be related to the work of the intergovernmental group of experts who will study the United Nations Financing System for Science and Technology for Development, since very similar material would have to be gathered and analysed for that group.

28. The first stage of the study would be submitted to the Intergovernmental Committee at its third session in 1981 and the second stage would be submitted to the Committee at its fourth session in 1982.

VI. CONCLUSIONS

29. The Secretary-General invites the Intergovernmental Committee to agree to the broad outline of the approach that is being proposed for the preparation of the basic study. In particular, the Committee is invited to accept the guiding principles: the objective of fashioning a report of manageable scope, the division of the study into three parts in the way proposed, and the two-stage procedure.
