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PROPOSED REVISIONS TO THE MEDIUM-TERM PLAN  
FOR THE PERIOD 1992-1997

MAJOR PROGRAMME IV. INTERNATIONAL COOPERATION  
FOR DEVELOPMENT

Programme 17. Science and technology for development

1. The preparation, format and content of the medium-term plan and its revisions are governed by the Regulations and Rules Governing Programme Planning, the Programme Aspects of the Budget, the Monitoring of Implementation and the Methods of Evaluation.
2. Regulation 3.11 provides, inter alia, that the medium-term plan shall be revised as necessary every two years to incorporate required programme changes and that the proposed revisions shall be as detailed as required to incorporate the programme implications of the resolutions and decisions adopted by the intergovernmental organs or international conferences since the adoption of the plan.
3. The revised programme 17, Science and technology for development, submitted below replaces the narrative of programme 17 of the medium-term plan for the period 1992-1997, which was adopted by the General Assembly in its resolution 45/253 of 21 December 1990 and subsequently revised by the Assembly in its resolution 47/214 of 23 December 1992 and issued in document A/47/6/Rev.1 and Corr.1. The proposed revisions reflect the outcome of the restructuring in the economic and social sectors approved by the General Assembly in its resolution 47/212 B of 6 May 1993. Owing to the interrelated nature of their activities and the need for rationalization in implementing the programme, it is proposed to merge subprogramme 2, Advance Technology and Assessment System, and subprogramme 4, Information services. In order to integrate further the activities covered by the programme, it is proposed to move subprogramme 4, Investment and technology, from programme 13, Trade and development, to programme 17 as subprogramme 3, Investment and technology. It is also proposed to transfer subprogramme 3, Coordination and harmonization of activities of the

United Nations system on science and technology for sustainable development, from programme 17 and to merge it with the related programme 46, Sustainable development. These changes would not affect high priorities already established at the subprogramme level.

4. The proposed revisions to subprogramme 3, Investment and technology, were submitted to the Working Party on the Medium-Term Plan and the Programme Budget of the Trade and Development Board at its meeting from 20 to 24 June 1994. Owing to the calendar of meetings of the Commission on Science and Technology for Development, the revised programme has not been reviewed by that Commission.

## PROGRAMME 17. SCIENCE AND TECHNOLOGY FOR DEVELOPMENT

### A. Programme

#### 1. General orientation

17.1 The orientation and general mandate for this programme derives from General Assembly resolutions 34/218 of 19 December 1979, in which the Assembly endorsed the Vienna Programme of Action on Science and Technology for Development, and 48/179 of 21 December 1993; the Final Act of the seventh session of UNCTAD, paragraph 105 (3), 19 (ii) and (24); the Cartagena Commitment, in particular paragraph 176, adopted by UNCTAD at its eighth session; the science and technology-related provisions of the Rio Declaration and Agenda 21, adopted by the United Nations Conference on Environment and Development; and Trade and Development Board decision 393 (XXXVIII). In its resolution 46/235 of 13 April 1992, the General Assembly established the intergovernmental Commission on Science and Technology for Development, which convenes biennially and provides policy guidance in this field. In addition, the General Assembly, in its resolution 47/212 B of 6 May 1993, approved the transfer to UNCTAD of resources and activities related to the subprogrammes of programme 17 on endogenous capacity-building and resource mobilization, the Advance Technology Assessment System and information services. In accordance with that resolution and the provisions of resolution 48/179, the programme will focus on improving efficiency and effectiveness in addressing development and interrelated issues in the area of trade, finance, investment, services and technology.

17.2 The programme on science and technology for development is designed to enhance the capacity of Member States, particularly developing countries, to manage technological change in achieving sustainable development objectives. It also addresses specific problems that countries in transition to a market economy confront in strengthening their technological capacity and in improving competitiveness. Furthermore, it places special emphasis on the needs of the least developed countries and on policy approaches that may be required to alleviate the constraints those countries face in acquiring foreign technology and building up technological capabilities.

17.3 The programme aims at giving further consideration to policies and measures that would help to make the environment in developing countries and countries in transition more conducive to the transfer and diffusion of

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technology, including through foreign direct investment. More specifically, attention will be given to the role of education and technical and vocational training in the process of capability-building, including the institutional requirements for human resource development. The linkages between these activities on the one hand and the production sector on the other has remained weak in many countries. This also applies to linkages between research and development and the production sector, a situation that has hindered technological innovation. To help remedy those problems and deficiencies, the programme will consider ways and means of strengthening such linkages as well as the relationship between local and foreign technology inputs. It will also continue to address the changing determinants of international competitiveness and examine the factors that influence the competitive advantage of countries and their enterprises in this rapidly changing international environment.

## 2. Overall strategy

17.4 The programme will be implemented by the UNCTAD secretariat. However, in view of the intersectoral character of science and technology, coordination will be strengthened between the UNCTAD secretariat and the Department for Policy Coordination and Sustainable Development in particular, as well as with other organizations involved in science and technology-related activities, such as the regional commissions, UNEP, UNDP, UNIDO and UNU. UNCTAD will seek to promote complementarity between the activities of the Commission on Science and Technology for Development and the intergovernmental bodies of relevant organizations within the United Nations system. In carrying out the programme UNCTAD will also draw on the experience of non-governmental organizations, including private enterprises.

## 3. Subprogramme structure and priorities

17.5 The subprogramme structure and composition take into account the restructuring of the economic and social sectors approved by the General Assembly in its resolution 47/212 B, the outcome of the first session of the Commission on Science and Technology for Development, in 1993, and the outcome of the work of the Ad Hoc Working Group on the Interrelationship between Investment and Technology Transfer of the Trade and Development Board of UNCTAD. The programme on science and technology for development will consist of the following subprogrammes:

- Subprogramme 1. Endogenous capacity-building and resource mobilization
- Subprogramme 2. Advance Technology Assessment System and information services
- Subprogramme 3. Investment and technology

17.6 Subprogrammes 1 and 3 are designated high priority.

B. Subprogrammes

SUBPROGRAMME 1. ENDOGENOUS CAPACITY-BUILDING AND RESOURCE MOBILIZATION

(a) Objectives

17.7 The legislative authority for subprogramme 1 derives from General Assembly resolution 48/179 and the Rio Declaration and Agenda 21, adopted by the United Nations Conference on Environment and Development.

17.8 Activities in endogenous capacity-building in science and technology are aimed at assisting member States in designing and implementing national policies that promote the development of endogenous science and technology capabilities, taking into account priority needs, resource endowments and sustainable development objectives. The main emphasis of this subprogramme is on strengthening the national capacity for autonomous and informed decision-making regarding the acquisition, development, application and diffusion of science and technology for development. The experience gained by the pilot programmes carried out during the first part of the medium-term plan period have helped to define further the main objectives of subprogramme 1, which are:

(a) To contribute to the building of endogenous science and technology capabilities, within the framework of national development strategies;

(b) To promote the participation of the international community, United Nations organizations and financing institutions in following up recommendations emanating from the pilot studies carried out in specific countries.

17.9 Furthermore, the subprogramme will take into account the work approach adopted by the Commission on Science and Technology for Development whereby its members are actively engaged in the conduct of ad hoc panels and workshops on specific themes relevant to capacity-building.

(b) Course of action of the secretariat

17.10 In view of the above, the UNCTAD secretariat will:

(a) Provide substantive support to the Commission on Science and Technology for Development and assist with the organization of inter-sessional expert panels and workshops relevant to endogenous capacity-building;

(b) Analyse experiences of countries covered by pilot studies in endogenous capacity-building;

(c) Support the elaboration of measures for enhancing developing countries' capabilities to define capacity-building requirements, to help generate, acquire and efficiently manage environmentally sound technologies;

(d) Develop modalities of cooperation with other United Nations organizations and financing institutions for following up pilot programmes and building the capacity of countries to develop, assess and utilize science and technology for development.

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SUBPROGRAMME 2. ADVANCE TECHNOLOGY ASSESSMENT SYSTEM AND INFORMATION SERVICES

(a) Objectives

17.11 The legislative authority for this subprogramme derives from General Assembly resolutions 44/14 E and 48/179, and the Rio Declaration and Agenda 21, adopted by the United Nations Conference on Environment and Development.

17.12 The broad objective of subprogramme 2 is to provide member States, in particular developing countries, with information on the potential impact of new and emerging technologies and to assess their implications for the development process.

(b) Course of action of the secretariat

17.13 In view of the above, the UNCTAD secretariat will:

(a) Provide support to the Commission on Science and Technology for Development and to ad hoc panels and workshops relevant to technology assessment and information services;

(b) Disseminate, through the ATAS Bulletin and other means, information on the impact of new and emerging technologies on the development process;

(c) Encourage networking among institutions concerned with technology assessment and promote the exchange of information and experience by countries at different stages of development;

(d) Serve as a focal point for technology assessment within the United Nations system. In that context, the secretariat will cooperate in particular with non-governmental institutions such as the International Association for Technology Assessment and Forecasting Institutions and the International Association for Impact Assessment;

(e) Define methodologies for providing assistance to member States in technology assessment, developing training programmes and policy guidelines, in cooperation with concerned United Nations organizations and financing institutions.

17.14 The UNCTAD secretariat will also continue, through a newsletter and other means, to keep national authorities, United Nations organizations and intergovernmental and non-governmental organizations informed of the progress made regarding significant developments in science and technology.

SUBPROGRAMME 3. INVESTMENT AND TECHNOLOGY

(a) Objectives

17.15 The legislative authority for the subprogramme derives from the Final Act of the seventh session of UNCTAD, paragraph 105 (3), 19 (ii) and (24); the Cartagena Commitment, in particular paragraph 176; Trade and Development Board resolutions 380 (XXXVI), paragraphs 4 and 5; and 393 (XXXVIII), paragraphs 5

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to 8; and decisions 384 (XXXVII), paragraphs 1 to 10; and 398 (XXXVIII), annex C; the conclusions and recommendations of the third session of the Ad Hoc Working Group on the Interrelationship between Investment and Technology Transfer (TD/B/40/(2)/17; TD/B/WG.5/12); and chapter 34, paragraphs 34.17 and 34.26, of Agenda 21.

17.16 The objectives of subprogramme 3 are:

(a) To promote technology transfer and capability-building in developing countries and countries in transition to a market economy, paying special attention to the specific problems of the least developed countries;

(b) To contribute to the expansion of international trade and investment, and to promote cooperation in the field of transfer of technology, including environmentally sound technology, through, inter alia, cooperative schemes, incentive measures and inter-enterprise collaborative arrangements;

(c) To enhance national technology development policies in the context of a market-based trade and investment policy framework that would promote entrepreneurship and encourage technology transfer, including through foreign direct investment. Those policies should be accompanied by measures for the domestic absorption of technologies, including research and development, innovation, adaptation and development of technologies supportive of national objectives and priorities;

(d) To enhance the capacity of developing countries to cope with the rapid changes in technology that impact on trade and development;

(e) To promote policy coordination in the fields of technology, finance, investment, services and trade. Those policies should further the goal of trade expansion for the benefit of all trading partners, particularly developing countries, and promote investment, innovation and absorption, utilization and development of technological and entrepreneurial capabilities;

(f) To promote closer collaboration between business, academia and government in order to take into account the motivation and needs of the productive sector in the formulation of policies, including the commercialization of research and development results;

(g) To examine and encourage new initiatives and the exchange of experiences on investment and technology policies that are conducive to overcoming constraints, and facilitating technology transfer through investment and the generation, transfer and diffusion of environmentally sound technologies.

(b) Course of action of the secretariat

17.17 The UNCTAD secretariat will contribute to:

(a) Identification and use of opportunities for greater international cooperation, including through the strengthening of networking arrangements among enterprises;

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(b) Review and analysis of national policies, and international measures and initiatives promoting investment and technology flows, technological innovation and technological capability-building, including research and development;

(c) Creation of a better awareness of the impact of technological change on investment decisions and production patterns, trade competitiveness and national capacities for innovation and adaptation, as well as of the role of foreign investment in technology transfer and technology development.

17.18 In the light of the above, the UNCTAD secretariat will:

(a) Review developments affecting the flows of investment and technology to developing countries, including modalities for channelling those flows, and analyse the challenges and opportunities for transfer of technology to and from countries undergoing the process of transition to a market economy;

(b) Study the role of incentives and other inducements in stimulating investments that contribute to technological capabilities of the technology recipient countries;

(c) Analyse the role of intellectual property protection in international investment and technology flows;

(d) Undertake research and policy analysis on ways and means of establishing closer linkages between research and development activities and the productive sector, particularly in developing countries and countries in transition to a market economy;

(e) Examine measures, in particular in the field of training and education, aimed at engaging more fully the potential of small and medium-sized enterprises in the process of capability-building and skill-upgrading, including organizational and managerial skills;

(f) Study approaches and mechanisms for fostering entrepreneurship and partnerships among enterprises, with special attention to small and medium-sized enterprises, particularly as concerns their role in the generation and dissemination of environmentally sound technologies;

(g) Examine the specific technology and investment-related problems and constraints facing the least developed countries, advising on appropriate policy approaches for strengthening their technological capability;

(h) Analyse the impact of technological change, including new and emerging technologies, on investment, production patterns and trade competitiveness in relation to national development objectives and priorities;

(i) Examine modalities and formulate proposals for enhancing technological cooperation in the international community concerned with investment and technology transfer, particularly among Governments, enterprises, non-governmental organizations and the scientific and research sector.

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