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OTHER FUNDS AND PROGRAMMES

UNITED NATIONS FINANCING SYSTEM FOR SCIENCE AND TECHNOLOGY FOR DEVELOPMENT

Report of the Administrator

Summary

This report provides: a summary of the operational activities of the Financing System in 1983 with particular emphasis on projects financed through trust funds; co-operative arrangements that have been developed with both governmental and private organizations; and activities to promote international exchange in science and technology. The report also presents a review of the System's activities over the past several years within a framework which emphasizes major areas of concentration and regional initiatives. A description of the portfoloio of projects approved and awaiting financing is also included as is a brief description of the System's monitoring and evaluation procedures. Tables are included on project activities and the financial status of the System.

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INTRODUCTION

1. The Administrator, as the official responsible for supervisory and management overview of the Financing System, reports annually to the Governing Council on its operations and progress. This report covers operational activities of the Financing System during 1983, financed from both core and non-core resources. It covers newly initiated activities, including those funded under special trust-fund arrangements and information on important follow-up actions on earlier projects as part of the overall implementation process. New administrative and methodological developments are also outlined such as those for monitoring and evaluation of ongoing and completed projects.

2. As called for in the Financing System's mandate, new co-operative arrangements with public and private institutions and organizations were also initiated. These arrangements, their objectives and some early results were also considered of significant potential value to the System's overall operations, and therefore of interest to the Council.

3. Key regional initiatives and thematic programmes supported by the Financing System are summarized in section II of the report. This summary covers the System's activities in such areas as: strengthening human capacities in science and technology; small energy packages; high technology projects; technologies for rural development; science and technology information; and strengthening regional and interregional co-operation in the field of science and technology.

4. A statement on the System's resources and commitments at the end of 1983 is also included. Finally, a summary of all project operations for the period 1980-1983, including a report on the current status of all projects approved for funding by the Financing System, will be made available separately to members of the Council during the thirty-first session.

5. With regard to the outlook for the future, General Assembly resolution 38/157 of December 1983 called upon Governments and the Secretary-General to undertake all necessary consultations and other efforts to mobilize support for the establishment of the long-term arrangements for the Financing System and to convene, if appropriate, a pledging conference by June 1984 to enable Governments to announce their pledges for this year, and if possible, the following two years.

6. These consultations are now underway and both Governments and the secretariat have initiated a number of multilateral and bilateral meetings with high-level representatives of both developing and developed countries. At the time this document was under preparation, it was not possible to determine whether sufficient progress had been achieved to warrant the convening of the pledging conference as called for. A further report of progress on these extremely important consultations will be provided to the Council during the course of its thirty-first session.

7. It should be emphasized, however, that progress toward the $50 million level, which is considered the minimum requirement to activate the long-term financial and institutional arrangements, is essential at this time if the Financing System is to be maintained as a separate, viable operation. This point was made by the Administrator and by the Director-General for International Economic Cooperation at several intergovernmental consultations on the Financing System during the thirty-eighth session of the General Assembly.

8. The Administrator's 1984 budget proposals for the Financing System contained specific administrative cost estimates for the period 1 January to 30 June only. With regard to the second half of 1984, the document stated that:

> "The Administrator has examined a spectrum of possibilities based on different sets of assumptions as to the outcome of these intergovernmental actions. Should progress in the negotiations and other intergovernmental consultations to be held in the first half of 1984 warrant, it is envisaged that the Financing System would operate during the second half of 1984 with a staffing structure up to the currently authorized level. This would result in total expenditures for the whole of 1984 of about $1.8 million. At the other end of the spectrum, in the absence of any progress, the administrative structure and project-related expenditures of the Financing System would be reduced by the end of 1984 to the level necessary for the supervision of projects already approved and under implementation".1/

9. The Administrator subsequently transmitted to ACABQ, proposals for the second half of 1984 which project a reduced staffing structure and related administrative costs, pending the outcome of the negotiations now underway and the results of the pledging conference called for in resolution 38/157. A further review of the resources and staffing situation of the Financing System will be undertaken in the light of developments on these and other relevant intergovermental actions.

I. OPERATIONAL ACTIVITIES, 1983

10. In order to respond to the diverse needs of the developing countries and the variety of activities to be supported within the field of science and technology, the Financing System is authorized by General Assembly resolution 37/244 to adopt a flexible, innovative approach to financing. Within the period covered by this report, efforts have been made to develop new procedures and mechanisms in order to support this diversity of approach. Areas in which progress was made in 1983 are briefly described in the following sections.

A. Trust Funds

11. The Governing Council, at its twenty-ninth session in 1982, adopted decision 82/5[2] authorizing the Administrator to accept trust funds conditioned on procurement from a donor country as regards the Financing System and certain other special funds under UNDP management. At its thirtieth session in 1983, the Governing Council adopted decision 83/32[3] which extended the authority of the Administrator to accept such trust funds until 30 April 1984.

12. In the case of the Financing System, the donor must also be a contributor to the general resources of the System and the total contribution conditioned on procurement in a donor country is not to exceed the level of untied contributions of that donor country to the System during the interim and transitional periods. The ceiling established for accepting tied contributions from a particular donor represents the same ratio as that established for the Financing System between its core and non-core resources. During 1983/1984, projects valued at about $15 million have been initiated.

13. Within this period, and in the context of severe general resource constraints, the Financing System has made notable progress in the design, negotiation, development and financing of projects in this category. Brief accounts of the projects for which agreements and firm commitments have been negotiated are given below. The figures provided here represent total project costs. More detailed information on these first funds is available in document DP/1984/58, trust funds conditioned on procurement from a donor country.

14. The project to establish the Beijing Institute for Computer Software has three related objectives: to provide research and training facilities for software engineers, systems designers and technicians; to broaden the area of computer applications in the economy; and to develop a software development teaching curriculum based on national end-user requirements. The trust fund contribution is to finance the purchase of three mainframe computers and to provide expert and other services and facilities. The total cost is $1.31 million,

15. The project to establish an interregional Technological Information Pilot System will explore the technical and economic feasibility of a scientific and technological information exchange system among a limited number of developing countries. The promotion of ECDC and TCDC are a major objective of this project. The output of the preparatory phase will be the complete design of the pilot system. The trust fund is to finance experts and appropriate surveys in each of the participating countries for identification of user needs. The cost is estimated at $1.47 million.

16. The first phase of the project for the Application of Technologies Appropriate for Rural Areas in Indonesia assessed the suitability for widespread dissemination of 12 available and new rural technologies for improving village water supplies, reducing post-harvest food losses and generating cheaper energy yields from renewable sources. The second phase of the project will use the results obtained to implement technologies developed under the project. The cost is $2.19 million.

17. The project to strengthen the National Capacity for Mineral Prospection and Development in Costa Rica is designed to train local personnel in modern techniques of different phases in the exploration for uranium and other minerals (reconnaissance and semi-detailed level of surveys), to survey a selected project area of 6,000 square kilometers and to assess the actual deposits of uranium and other minerals in a preliminary way. The cost is $0.66 million.

18. The project in Malaysia concerns an Integrated Programme for the Derivation and Rural Application of Energy from Agro-animal Waste Sources. Heavy pollution hazards caused by effluents and by-products from Malaysia's palm oil and agricultural industries could be reduced through the large-scale exploitation of such waste material for energy. The project aims to establish two energy-producing pilot plants utilizing palm oil and agro-animal wastes, to be located in affected areas, in order to demonstrate the feasibility of these fuel sources for rural development programmes. The trust funds will finance the procurement of pilot plant equipment (digesters, electrical conversion systems) and 48 work-months of training. Funds will also be allocated for a research sub-project. The cost is $2.60 million.

19. The project in Ethiopia, Development of the National Scientific and Technological Capacity in Natural Resources Remote Sensing through Aerial and Satellite Photo-Integration, is designed to develop technical manpower qualified to interpret and utilize remote sensing data for survey, mapping and evaluation of natural resources. The establishment of a training centre at the Geology Department of Addis Ababa University is the overall project objective. The preparatory assistance approved will provide for initial technical assistance, basic facilities and the preparation of the detailed plan of work for the Remote Sensing Centre. The cost is $0.1 million.

20. The project to strengthen the National Capacity for Technology Planning and Promotion in Mali is designed to initiate a technology planning process involving all existing science and technology institutions, both private and public, as well as to establish a focal point within the Government to co-ordinate these activities. The project will prepare recommendations aimed at identifying priorities and strengthening national scientific and technological capacities. Attention will be given in particular to the adaptation and transfer of technology, to the exchange of technological information, and to the financing and promotion of scientific and technological activities. The trust fund will finance principally an expert and 10 work-months of consultant services, and will provide training. The cost is $0.43 million.

21. The project To Assess and Plan Energy Technologies in Mauritania will strengthen the technical capacity of the Centre for Alternative Energy Studies to identify, select and evaluate ongoing and future activities in renewable energy. The project aims to make recommendations for inclusion as part of the national strategy for the development and utilization of renewable energy. The trust fund will principally finance the cost of an expert for two years and a United Nations volunteer and provide training. The cost is $0.53 million.

22. The project to establish a National Centre for Agricultural Machinery in the Niger seeks to establish this centre at an operational level. Research and development will be oriented towards improving the existing machinery, adapting the machinery for particular soil characteristics, and disseminating the results, as appropriate. There will be a particular emphasis in this project on the improvement and adaptation of animal-drawn implements. The trust fund is to principally finance technical assistance and to provide the equipment for a mechanical workshop and for general testing. The cost is $0.67 million.

23. The project to assist in the Assessment and Planning of Rural Energy Technologies in Niger will provide support to the relatively new ministry responsible for energy matters. The project will assess present policies and practices regarding the application of rural energy technologies at the village level and make recommendations to be included in the national energy policy. The trust fund will finance the costs of an expert and will provide training. The cost is estimated at $0.42 million.

24. The project on Applied Farming Research in Different Ecological Zones in Niger aims to optimize farming in each of Niger's four major ecological zones. Research in the country's major crops (millet, sorghum, niebe and groundnuts) will be conducted on farms so as to define basic technological packages (variety, inputs application, cultivation methods, pest control) suited to each ecological zone. The research is intended to contribute to increased food production in Niger. The trust fund will finance the costs of an agronomist and a United Nations volunteer and will provide for technical assistance and training through a subcontract. The cost is $0.48 million.

25. In addition to the arrangements described above, the Financing System has entered into negotiations on additional projects in the fields of food technology and technology management training, which are expected to be finalized in the forthcoming year.

B. Co-operative arrangements and the promotion of international exchange in science and technology

26. The Financing System's underlying mandate is premised on an active use of co-operative and collaborative arrangements, within the United Nations system and with the international community as a whole, both public and private. As a natural function of its enabling legislation and the consequent operating procedures, its closest collaboration is with UNDP itself. This follows not only because of the

Administrator's overall supervisory responsibility for both, but also because of the day-to-day involvement of the UNDP field network, as well as various headquarters bureaux and divisions in support of the System's operations.

27. In addition to UNDP, the specialized agencies also play an important co-operative part in the review and implementation of the Financing System's projects and have contributed both substantively and institutionally to the success of individual projects and sectoral programmes. These extensive collaborative actions have helped the System to carry out its project operations and related activities at a worldwide level with far greater comprehensiveness and efficiency that it could otherwise have done.

28. The Financing System has also actively sought new co-operative arrangements with non-governmental and private sector organizations, as well as with established governmental bodies, in order to bring the widest possible range of expertise, resources and linkages to bear on the scientific and technological needs to which it caters. These arrangements include agreements with organizations like the American Chemical Society, the largest professional organization of its kind in the world, under which experts drawn from the Society's membership will provide consultancy services to the Financing System's projects without fee. Similar arrangements are being worked out with a major university, whereby developing country universities will acquire high-quality audio-visual instructional programmes on science and technology at the graduate level.

29. Consulting engineering groups have responded positively to the Financing System's invitation to make available the considerable experience and expertise they possess in project management and design; joint activities to take advantage of these resources have been initiated in several regions. Discussions with other private and professional organizations indicate a substantial degree of interest to participate in co-operative programmes designed to upgrade developing countries' capacities in science and technology.

30. In addition to these measures, the promotion of international scientific and technologocal co-operation is undertaken by the Financing System, both at the project level through provisions for seminars, workshops and co-operative research, and at the global level through specific international meetings. Three distinctive conferences were sponsored by the Financing System within this reporting period in an effort to support such exchange.

31. In China, preparations for the Beijing International Conference on Science Policy and Research Management began in 1982 when a total of 33 top policy-makers were given the opportunity to visit over 100 institutions in 7 developed and developing countries. They were able to explore with their counter parts strategic choices, plans and institutional options related to the management of science and technology which. for the People's Republic of China, as for other developing countries, is considered to be a central issue of national development policy. It may be noted, for instance, that the Government of India was glad to welcome one of these missions and that a mission of eminent Indian scientists and policy-makers has had the opportunity to visit China in return.

32. After digesting and dissemintating the principal conclusions reached regarding policy options and practices of other countries, and calling a major national symposium, an International Conference on Science and Technology Policy was held in Beijing, in October 1983, co-hosted by the State Scientific and Technological Commission of China and the Financing System. Some 35 international experts and 80 Chinese policy-makers and planners were involved, contributing, through 40 discussion papers, to a genuine interchange of ideas. The meeting culminated in an interview with the Premier of China, Mr. Zhao Ziyang, who underlined the vital importance to China of science and technology, and his appreciation of the role played by the Financing System.

33. In Africa, the Financing System's experience has consistently demonstrated the need for closer partnership between scientific and technological organizations, both public and private, in developed countries with their counterparts in developing countries. To address this need, an unusual meeting, International Co-operation for African Technological Development, was held in Dakar, Senegal in December 1983, jointly sponsored by the African Regional Center for Technology (ARCT) and the Financing System. The meeting brought together a wide range of interested parties, including representatives of African Governments and of African scientific and technological organizations, together with representatives of international organizations, western donor Governments, and private banks, enterprises and research and academic institutions from developing countries. The purpose of the meeting was to identify and reinforce opportunities for practical co-operation between African science and technology activities and international and national capacities in other countries, so that skills and resources could be systematically mobilized to support African efforts. Although the first of its kind, the meeting was successful in promoting possibly far-reaching co-operative arrangements for technological development in Africa.

34. Equally successful in disseminating results and experience more widely was the International Conference on Carbon Fibre Applications in Brazil, which brought together internationally renowned experts for technical reviews and discussions with their Brazilian counterparts in this sophisticated field. In terms of promoting exchange in specific subject areas, the Financing System is also supporting in the Arab States region a series of 24 sessions of lectures and discussions attended by leading national and international experts actually engaged in the process of technology choice, development, acquisition and transfer.

C. Private sector collaboration

35. With a view to exploring the opportunities for active collaboration with interested private enterprises, including financial institutions and technologically-oriented corporations, the Financing System held a series of meetings with representatives of such organizations during 1983-1984. Initial reactions indicate a considerable degree of interest in working with an international organization in this field, provided there is some opportunity for private groups to express their views as to the purpose and nature of their involvement. Follow-up meetings are planned during 1984 to examine in more detail the issues raised in earlier discussions and to attempt to work out practical arrangements to facilitate the potentially significant levels of public and/or private co-operatives on science and technology projects and programmes to promote development.

II. KEY REGIONAL INITIATIVES AND THEMATIC PROGRAMMES

36. In order to provide a more comprehensive view as to the activities supported by the Financing System, this section provides information on some of the thematic issues and programmes promoted by the System.

A. Strengthening human capacities in science and technology

37. The development of human resources, in particular expanding the base of technical personnel, lies at the core of capacity building and of providing developing countries with the means of initiating and sustaining their own developmental efforts. The large number of requests received by the Financing System from African countries in this field testify to the importance the countries attach to building up their science and technology base. The demand for such support has been more for increasing the supply of middle-level technical manpower and for the upgrading of science education facilities.

38. The Financing System, with its limited resources, has tried to address this need and has sought to support project activities which provide developing countries with the infrastructure to produce the necessary technical skills on a sustained basis. In Africa, countries like Zambia, Swaziland, Ethiopia and Kenya are recipients of the Financing System's assistance to develop and upgrade their science education. The support to Swaziland, for example, is aimed at increasing the number of Swazi professors at the science faculty of the University of Swaziland (presently most of the staff is expatriate) and building up a cadre of young Swazi scientists. For the first time, science education at the university level can now be completed in the country. By 1984, 42 students are expected to graduate with B.S. degrees, and the University will increase its staff to 26 trained Swazi science teachers. In Kenya, the support to the Rift Valley Institute for Science and Technology, which is training technical middle-level manpower in a number of areas, has been able in a very short time to increase its student intake from 180 students in 1982 to over 800 students for the 1983-84 academic year. The practical purpose of these graduates is reflected in the Institute's curricula which are intended to provide the practical training and know-how required for these graduates to become self-employed, middle-level technicians in the rural areas or in small towns. In Ethiopia, the project has been successful in strengthening production capacities in the country for producing science kits designed for use in primary and secondary schools.

39. In Ethiopia there is an added dimension. The Financing System is helping one of the few ongoing efforts anywhere to develop and popularize, in a practical and systematic way, a science and technology vocabulary in the national language, Amharic. In this way, the Financing System is helping to sustain the vitality of this language as a medium of expression in the rapidly changing modern world of science and technology.

40. Since its inception in 1977, the Regional Centre for Technology Transfer (RCTT), a regional institution, has aimed at strengthening the endogenous technological capacities of the developing countries of Asia and the Pacific. The Financing System is assisting RCTT by supporting a three-year, $1.2 million programme to: help developing countries in the ESCAP region in establishing institutional and policy frameworks relating to technology; provide training to persons involved in the implementation of technology policies and to technicians in identified critical technological fields; establish a regional technology information network and provide specific assistance to selected national information centres; and promote national energy programmes. The training opportunities offered by RCTT tend to complement national efforts by focusing specifically on technology topics defined in relation to the development needs of countries in the region.

41. In the Arab States region, the responsibility of formulating and implementing major projects has commonly been given to foreign engineering and contracting firms, and only slowly are some of these essential tasks being shared or taken over by national professionals and consulting firms. The Financing System supported a request, submitted by the Economic Commission for Western Asia, for assistance in creating a nucleus of well-qualified technical staff needed in the petroleum-based industries with a $510,000 grant for practical training activities. Designed to involve about 100 professionals (planners, engineers, agronomists, etc.), the programme has been carried out through the regional commission by means of training workshops, dealing with assessment and acquisition of technology, and with design criteria and commercialization aspects of selected technology in petroleum-based industries. In addition, a symposium has focused on development research pertaining to petrochemical end-products (plastics) and their application in the region with regard to the agriculture and construction industries.

B. Small energy packages

42. In six African countries (Cape Verde, the Gambia, Lesotho, Mauritius, Seychelles and Somalia), small energy packages are being developed. Research and development efforts focus on appropriately designed, low-cost prototypes and other small devices using any one or a combination of different energy sources.

43. The activities of the Financing System focused on energy problems of island developing countries are of particular interest. Here, a particularly important energy problem has proved to be the supply and linkage to outlying islands. The Seychelles Integrated Energy Project, for example, seeks to alleviate this problem; technologies are being systematically developed with the needs of the outlying islands in mind. The energy mix includes a range of renewable sources (biogas, solar, wind and mini-hydraulic schemes) which are adapted and tested in actual field applications. On the main islands, these applications are developed for integration into the national grid. As a result of the Financing System's initial involvement, several donors are now participants in this research effort. In Mauritius, the potential of wind as a source of energy for electrifying small isolated villages is being examined. Project activities include collecting, analysing and interpreting wind for wind power generation.

In Cape Verde the Financing System project is promoting a well co-ordinated approach to develop water resources linked to the testing and installation of wind and solar energy technologies in the archipelago.

C. High-technology projects

44. In response to its specific mandate from Governments, as reflected in the Vienna Programme of Action and ensuing General Assembly resolutions, the Financing System has used a small amount of its resources in response to government requests for technology-related projects which represent the state-of-the-art in their respective fields. A case in point is the development of carbon fibre technology in Brazil, where the Financing System has assisted with the installation and development of a small-scale, steady state pilot plant for carbon fibres. A research team and a production team have been fully trained to develop and adapt the state-of-the-art technology and introduce it into production processes.

45. At the regional level in Latin America and the Caribbean, an innovative networking approach has been used for the pooling and upgrading of non-destructive testing capabilities. Many countries in Latin America have reached the level of industrial development where the production and export of capital goods is of great importance. Quality control in industrial production, construction and maintenance is essential. The National Non-Destructive Testing Institute in Argentina provides the main operational basis for this regional project which is focused principally on the training of operators and certification officers and the introduction of modern testing techniques. In order to finance this project, the Financing System has helped bring together a consortium of interested parties including the developing countries themselves, donor Governments and other funding and technical agencies.

46. In Asia, two high-technology projects deserve special mention. Project INTERACT, an ambitious computer training and software development programme in India is building up capacity to custom design, adapt and integrate software packages for real-time, on-line applications in railway management, electrical power distribution and meteorological forecasting. Under a co-operative research programme, professionals from interested developing countries have been engaged, together with their counterparts from the Indian Computer Maintenance Corporation, in designing software and systems which will assist other developing countries to keep pace with this rapidly evolving science. In China, a Financing System project seeks to establish the Beijing Institute of Computer Software Research and Training as the nation's foremost national centre for the development of computer software designs and the training of specialized software personnel. The project will help increase the conspicuous shortage of such personnel, and support the efficient and rapid utilization of computer technologies in China's industrial strategy.

D. Technologies for rural development

47. In contrast to the type of high-technology projects described above, the Financing System is also supporting a large number of projects where the specific purpose is the appropriate development for the application and adaptation of well known technologies to the solution of pervasive problems of rural development. A good example of this approach is a package of projects in the Sahel region of Africa which is now being negotiated on a trust-fund basis, designed to support the improvement and application of technologies in food and energy. The focus is on the planning of energy technologies and on farming systems research, taking into account the different ecological and agricultural conditions of the countries concerned. Another recently approved project, in Indonesia, aims to implement a complete programme for the design, adaptation and delivery of rural technologies covering such fields as post-harvest technologies, rural water supply, food conservation and processing, and the production of fertilizers, while making maximum use of locally available renewable energy sources. An interesting feature of this project is that the Financing System will make available through a private bank in Indonesia, small loans to individual entrepreneurs to encourage the dissemination of technologies in rural areas.

48. Rural development efforts do, of course, include the use of some advanced technologies and a project in Egypt demonstrates the results which can be achieved. The project, on a pilot scale, responds to the country's need for a comprehensive health information system with a radically new approach using micro-computers at the village level. This relatively inexpensive and uncomplicated technology is making a start in providing Egypt with a readily accessible data base and a data collection network so that health care can be managed and monitored on a reliable basis. Health indicators are being synthesized and instructions for action are fed back to the villages within days.

E. Science and technology information

49. The timely flow of scientific and technical information is critical for developing countries in their effort to accelerate social and economic development. Developing countries are increasingly cognizant of the substantial costs in lost time and resources because of the inadequate national and international exchange of information.

50. Better access to information networks, however, requires the establishment and strengthening of local capacity. A good example is the project in Kenya, which has helped articulate an information policy for the country and supported the first effort by the Government to set up a science and technology information and documentation service, with the co-ordinating focal point located at the National Council of Science and Technology. In other cases, such projects on agricultural information in Senegal and health information in Egypt, activities have been requested specifically to focus on sectoral subjects or on specific information issues.

51. The Financing System has also addressed this important subject at the subregional, regional and interregional levels to promote the international exchange of information. An ambitious project of this type supported by the Financing System is in the Andean subregion, where the five-member countries of the Andean Pact have joined together to form the Andean Technological Information System (SAIT) expanding on conventional information network practices.

52. SAIT is an important component of the emerging Regional Technical Information Network in Latin America (RITLA). The Financing System has assisted in the final design and in bringing this network into effect. Another regional approach to information exchange is being supported in the Asia and Pacific region in the context of the RCTT already mentioned. A similar need for Africa has been recognized by the ARCT and, through the Financing System preparatory assistance project already mentioned, a detailed design of an African information exchange system has been made. A survey of national science and technology institutions in Africa has been completed with information on their activities, personnel, achievements and constraints. The results of this survey have been processed for dissemination. As a result of this and other related work, data banks have been established at the Centre and the now operational Technological Information System on Food and Energy Sectors (with ARCT and participating African institutions).

53. A further important effort of the Financing System has been to support the Arab League and its member Governments in establishing a computer-based information system to identify, on a continuing basis, individuals and organizations with scientific and technological expertise available throughout the Arab world and beyond.

54. At the interregional level, the Financing System has made a substantial effort to define, negotiate and launch the Technological Information Pilot System (TIPS) project at the request of a number of developing countries throughout the world. This project is being financed by the Government of Italy. In two phases, this project will test the technical and economic viability of a user-oriented mechanism for the exchange of scientific and technological information on a current basis among developing countries. The project is not, therefore, aimed simply at linking data banks, but in promoting the exchange of information of work and activities in progress between countries on a continuing and timely basis. The focal points of the project will be a national bureau in each of the initial 10 participating countries linked through a global operational centre. The topics provisionally selected, subject to confirmation through detailed user surveys in the participating countries and elsewhere, are focused on energy and industrial technologies. The project makes provision for evaluation and design of a wider system, if warranted by successful results. It offers a limited but practical start with an interesting approach on an issue of key concern to developing countries.

F. Strengthening regional and interregional co-operation in the field of science and technology

55. The mandate of the Financing System as reflected in the Vienna Programme of Action and ensuing General Assembly resolutions underlines two basic criteria in the selection and design of projects: firstly, they should contribute to endogenous capacities; and secondly, the activities supported should strengthen co-operation in

the field of science and technology among developing countries themselves and between developed and developing countries. This latter criteria reflects an essential truth underlining progress of science and scientific creativity: that in the sciences, absence of regular and continued contact can be intellectual death.

56. The Financing System has responded to this need in a number of ways: in the design of project activities by incorporating a specific component on internationalization of project results; by supporting and strengthening regional and subregional bodies; by identifying and promoting concrete opportunities for contact between the developing and the developed scientific and technology communities; and by financing some projects explicitly aimed at linking science and technology efforts in the north with those in the south.

57. A number of successes have been achieved in the international exchange of project results. A project on science and technology policy and programming in the Dominican Republic has been the focus of close study by policy makers and experts from other developing countries. Another illustration is the success of the International Conference on Carbon Fibre Application which was recently held in Brazil, and which familiarized participants from other developing countries with the results achieved from the project. It was agreed that the laboratory and pilot plant facilities created in Brazil might be used as a training ground for scientists and technicians from interested developing countries.

58. Examples of support to regional bodies are the establishment with the support of the Financing System of a scientific and technological information system among the countries of the Andean Pact, the development and dissemination of improved woodstoves in countries of the Sahel under the aegis of the Permanent Inter-State Committee on Drought Control in the Sahel (CILSS), and assistance to further the establishment of regional technology centres in Asia and Africa. Other examples of promoting regional co-operation include the holding of a symposium in Ghana on the state of biology in Africa, and assistance to a regional programme aimed at improved and increased production of antiobiotics and other pharmaceuticals in Latin America.

59. Project INTERACT, referred to in paragraph 46 above, contains a noteworthy TCDC component as, under a co-operative research programme, professionals from interested developing countries have been engaged, together with counterparts from the Indian Computer Maintenance Corporation, in designing software and systems which will assist developing countries worldwide to keep pace with this rapidly evolving science. Moreover, based on experience gained during its co-operative research phase, INTERACT is offering training courses in 1983-1984 in which 100 developing country systems engineers and 100 Indian nationals will benefit from studying actual case history experiences.

60. At the interregional level, the TIPS project is a major effort to stimulate technical and economic co-operation among developing countries by facilitating contact between users and suppliers of information in a timely manner. The project will set up a mechanism which will open a direct communication channel among scientists and technology practitioners in the developing countries: two-way information flow will establish a more effective way for communicating and exchanging the knowledge, experience and needs originating in the developing countries, and will offer a better chance for TCDC and ECDC.

61. Finally, the Financing System through support to existing co-operative programmes such as AGRIS and CARIS, is strengthening links in the field of agricultural information, since active participation in these networks will make accessible to developing countries, according to their requirements, a world store of knowledge. These links help in the design and implementation of national agricultural development programmes.

III. PORTFOLIO OF PROJECTS

62. By the end of 1982, the Financing System had recorded 894 requests for assistance from developing countries and had responded, to the extent possible given the level of pledged resources at that time, by approving 84 of these requests for financing, at an estimated cost of $38 million. Although the remaining 810 projects varied in their implementation readiness and ranged from well-formulated project proposals to brief descriptions of project concepts, 78 projects valued at $83 million were considered of high potential and ready for immediate implementation.

63. In analyzing the project proposals received, it can be observed that the decline in the number of submissions was influenced by the course of the negotiations for the long-term financing arrangements of the Financing System and the actual resources contributed to it in 1983. These developments were followed closely in the capitals of the developed and developing countries. Insofar as the latter group was concerned, the correlation between these difficult and uncertain negotiations and the declining rate of projects requested after 1981 is apparent in Table 2.

64. In 1983, the Financing System, in close collaboration with the Governments concerned, with UNDP and other agencies, continued to develop, appraise and approve projects, subject to the availability of resources, from the increasing number of proposals received for support. As a result, the portfolio of bankable projects has now increased to 88 projects as shown in Table 1 below. Forty-seven of these projects are fully appraised and internally cleared. Most of these newly approved projects resulted in part from the involvement of a potential donor country representative in programme preparation missions which culminated in one of the trust-fund-type arrangements discussed in paragraphs 11-25 above.

65. The final appraisal steps are now being taken for the remaining 41 projects to ensure immediate implementation as funding becomes available. Some of these projects represent the second phase of projects for which the follow-up phase would require technical or feasibility reports. Also included in this class is a small number of projects, initially reduced in scope, to match limited available resources, but for which the needs were clearly larger.

Table 1. Financing System active Portfolio of Projects by Region, 1982-1983

Region	Fully appraised/cleared by projects committee	Advanced stage of appraisal	Feasibility studies/phase 1 report activities	Total
Latin America	12	7	1	20
Arab States	7	3	2	12
Asia	8	5	3	16
Africa	19	11	5	35
Europe	--	1	1	2
Interregional	1	1	1	3
TOTAL	47 a/	28	13	88

a/ Financing System now financing the implementation of a total of 11 projects from this figure.

IV. EVALUATION PROGRAMME

A. Origin of Financing System evaluation mandate and responsibilities

66. The Financing System, in accordance with the provisions of General Assembly resolution 34/218, has been mindful of the increasing concern shown by Governments about the effectiveness and impact of development assistance projects in general. It therefore developed an evaluation methodology that would seek to improve the decisions taken to enhance the quality of project results by objectively assessing the substantive as well as administrative performance of project execution and management.

B. Methodology

67. The evaluations are aimed not only at determining the progress made toward the stated objective and identifying the causative factors, but also at verifying whether the project was properly conceived and designed in the first place, and whether its objectives and the underlying assumptions remain valid to justify continued expenditure of the Government's and the Financing System's scarce resources.

68. The Financing System's evaluation methodology and the consequent procedures accordingly stress the need to establish that the project is cost-effectively linked to the recipient country's productive system and the need to quickly disseminate its beneficial results within the framework of the country's institutions and incentives system. This approach imposes the following methodological boundaries:

(a) Project outputs are assessed not only in relation to some fixed and predetermined targets, but more importantly with respect to their appropriateness in meeting a particular demand situation. Management should be capable of assessing, reviewing and adapting its own output to respond to possibly changing or previously misdiagnosed needs;

(b) Greater attention must be paid to the macro-economic setting of the project and particularly to the value significance (the economic applications) of specific findings or project achievements;

(c) The types of answers needed for the questions raised in (a) and (b) above require a greater reliance on objective criteria and standards of project success;

(d) The evaluation methodology focuses on identifying the elements that may impede the successful completion of the project (taken as a developmental investment) or the full exploitation of its benefits. The evaluation report is thus intended to be an unbiased technical opinion given to the Government and its international partners on the best way to tackle a particular problem that the recipient country faces.

C. Evaluation programme activities in 1983

69. The first year of the Financing System's evaluation operations covered four areas.

1. Analysis of existing project concepts, systems and practices

70. Such an analysis was undertaken in order to develop the essential insights that would enable management at the project level, in the Financing System and in the executing agencies, as well as in the government services, to formulate and effectively run the control system and instruments needed to steer the project's operations to the successful attainment of desired/intended goals. The results of this analysis were applied to the development of the Financing System's evaluation procedures. This particular exercise will continue in 1984.

2. Formulation of evaluation procedures

71. The evaluation procedures of all United Nation system organizations were reviewed in order to derive useful practices that would be compatible with the Financing System project systems. To this end, consultations as well as visits to United Nations agencies' headquarters were undertaken to exchange views on the proposed Financing System evaluation procedures, which should be finalized during the first half of 1984. The secretariat has noted so far that no objections have been raised either by Governments or by the executing agencies on the methodology and procedures followed by the Financing System. In fact, given the quality of the technical recommendations made by the teams of evaluators, the evaluation report has actually been viewed as a net additional output benefit from project. Governments and executing agencies alike have expressed satisfaction with the Financing System evaluation process in spite of the fact that the procedures differed somewhat from past practices.

3. Co-ordination with the activities of the UNDP Central Evaluation Office (CEO)

72. The Administrator established a UNDP Central Evaluation Office (CEO) on 29 September 1983, to provide him with a systematic and independent assessment of the results, effectiveness and impact of the substantive activities of the Programme, including the special purpose funds under the Administrator's responsibility. Extensive consultations have taken place since October 1983 to harmonize the evaluation policies, methodology and procedures as far as is feasible without unduly constraining the respective mandates and the operating modalities of the UNDP and Financing System as prescribed by the General Assembly.

4. Individual project evaluations

73. The new Financing System evaluation procedures were tested in the second half of 1983 on four projects, one each in Africa, Asia, Latin America and the Arab States region. The results of three of the four project evaluations undertaken in 1983 can be made available to members of the Governing Council, if desires.

D. Evaluation programme for 1984

74. In view of the necouraging initial experiences with the evaluation exercise, the Financing System proposes to undertake project evaluations in 1984 in the following countries: Brazil, the People's Republic of China, the Dominican Republic, Ethiopia, India, Jamaica, Malawi, Pakistan, the Sudan, Tunisia and Zamnia. One regional project in Asia (Regional Centre for Technology in Bangalore, India) and the Agricultural Information System (AGRIS) interregional project will also be evaluated in 1984. Additionally, the Financing System will continue to develop and improve its evaluation procedures.

Notes

1/ A/CN.1/R1009, annex, paragraph 3.

2/ E/1982/16/Rev. 1, annex I.

3/ E/1983/20, annex I.

Table 2. Distribution of Requests by Region for Financing System Assistance, 1980-1983

Region	Number of requests			Percentage of total number			Country projects			Intercountry[a/] projects		
	1980-1981	1982	1983	1980-1981	1982	1983	1980-1981	1982	1983	1980-1981	1982	1983
Latin America	154	4	11	17.7	14.3	23.9	129	4	10	25	...	1
Arab States	75	7	11	8.7	25.	23.9	42	10	5	33	...	1
Asia	205	10	6	23.7	35.8	13.	164	6	9	41	1	2
Africa	267	5	9	30.8	17.9	19.6	244	5	9	23	...	...
Europe	53	0	1	6.2	...	2.2	47	...	1	6	...	...
Interregional	112	2	8	12.9	7.	17.4	...	...	...	112	2	8
	866	28	46	100.0	100.0	111.0	626	25	34	240	3	12
TOTAL		940			100.0			685			245	

a/ Including proposals for projects on which two (or more) countries co-operate and from which both (or all) will benefit.

Table 3. UNFSSTD expenditures by component for all aporoved projects

Region	Project personnel (US$ dollars)	(%)	Sub-contracts (US$ dollars)	(%)	Training (US$ dollars)	(%)	Equipment (US$ dollars)	(%)	Miscellaneous (US$ dollars)	(%)	Total (US$ dollars)
Africa	4 717 138	44.1	560 812	5.2	1 745 158	16.3	3 125 777	29.2	556 008	5.2	10 704 983
Arab States	1 004 531	23.9	...		634 558	15.1	2 264 767	53.9	296 055	7.1	4 199 820
Asia	2 434 705	20.6	1517 766	12.9	2 171 099	18.4	5 304 923	45.0	366 543	3.1	11 795 036
Latin America	3 459 121	49.8	214 040	3.1	863 892	12.4	2 053 177	29.6	351 823	5.1	6 942 053
Inter-regional	647 783	38.2	155 500	9.2	831 500	49.0	16 000	0.9	46 141	2.7	1 696 924
TOTALS	12 263 278	34.7	2 448 228	6.9	6 246 207	17.7	12 764 55	36.1	1 616 570	4.6	35 338 726

Table 4 Origin and Placement of Trainees

Trainees from	Total	Trained in Institutions in Developing Countries	Trained in Institutions Developed Countries
Africa	148	104	44
Arab States	91	77	14
Asia	303	211	92
Latin America	112	86	26
TOTAL	654[1]	478	176

1/ Attending training programmes lasting more than one week.

Table 5. United Nations Financing System for Science and Technology for Development

Statement of resources and commitments as of 31 December 1983

(US dollars)

Resources		
Adjusted pledges received for 1980-1981 as of 31 December 1981 [a]	23 215 173	
Adjusted pledges received in 1982 [a]	8 034 416	
Adjusted pledges received in 1983 [a]	494 465	
Adjusted pledges received in 1984 [a]	97 137	
Adjusted pledges outstanding as of 31 March 1984 [a]	2 730 195	
TOTAL PLEDGES		34 571 386
Cost sharing/trust funds [b]		9 055 892
Other income [a]		6 803 995
TOTAL RESOURCES		50 431 273
Commitments		
Operational activities [c]	41 499 032	
Administrative budget 1980-1984	5 697 281 [d]	
TOTAL COMMITMENTS		47 196 313
Balance of resources		3 234 960 [e]

[a] Figure supplied by UNDP/Treasury Section.

[b] Contributions of the Federal Republic of Germany, Italy, Norway, OPEC and others.

[c] Projects approved to date, including agency support costs, and related activities.

[d] It is estimated that a further amount of $1.2 million will be spent on administrative costs for the remainder of 1984.

[e] It is expected that FSSTD will have additional income in 1984 of approximately $1 million from further trust fund agreements with the Italian Government and interest income.