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OTHER FUNDS AND PROGRAMMES

UNITED NATIONS FINANCING SYSTEM FOR SCIENCE AND TECHNOLOGY FOR DEVELOPMENT

Project recommendation of the Administrator*

Technological Information Pilot System (INT/83/TOI/A/71/31)

I. BACKGROUND

1. The Financing System for Science and Technology for Development was established by the General Assembly to provide technical and capital assistance to Governments for activities intended to promote the objectives of and implement the measures recommended in the Vienna Programme of Action on Science and Technology for Development. The Vienna Programme of Action specifically recommends that developing countries promote systematic exchange of information concerning their experience in science policy and planning, building scientific and technological infrastructure, and the acquisition, development and application of scientific technological knowledge, and make arrangements to facilitate the dissemination and exchange of science and technology knowledge and experience originating in the developing countries. The Programme further recommends that an international scientific and technological network be set up, designed to meet the needs of developing countries and facilitate contact between users and suppliers of information, and endowed with the appropriate communication facilities to be able to supply information as fast as needed.

*Submitted in accordance with the provisions of the Annex to General Assembly resolution 34/218, paragraph 37, Section IX-C, concerning procedures for approval of projects to be supported by the Financing System and exceeding \$2 million in total cost.

2. The Technological Information Pilot System is intended as a limited, practical demonstration of the viability of a scientific and technological information exchange mechanism with the characteristics as described above. The urgent need for establishing this mechanism has been reiterated by the Caracas Programme of Action adopted by the High-Level Conference on Economic Co-operation Among Developing Countries, 1981, which emphasized that co-operation in the field of technology among developing countries is of critical importance as it constitutes an essential factor in the promotion of a sound programme of action in other fields of economic co-operation among developing countries (A/36/333, pages 9-10), and by the Meeting of Heads of Science and Technology Agencies of Developing Countries, New Delhi, 1982, which recommended that steps be taken to ensure that scientific and technological information is exchanged effectively, and methodologies be developed for this purpose.

3. This project has been given clear expressions of support from developing countries, who consider it a preparatory undertaking of vital importance in view of long-term arrangements in the field of information. The project has been prepared through extensive consultations with concerned organizations and United Nations system agencies and with the assistance of independent experts, and appraised in accordance with standard procedures.

4. The main purpose of the Technological Information Pilot System is to demonstrate, initially on a limited scale, the viability of establishing a flow of current science and technology information primarily among developing countries, in order to strengthen their endogenous capacities in the field of science and technology. At the same time, this information exchange aims to stimulate technical and economic co-operation among countries and thus accelerate national development.

II. THE PROJECT

5. The specific objectives of the project are: to design and implement a user-oriented information exchange system, for selected science and technology subjects, among a limited number of participating developing countries; to train nationals of participating countries in data collection and dissemination, to control the quality and completeness of information, operation and maintenance of hardware/software facilities and information marketing; to test the viability of providing users with access to selected data bases and of utilizing other modern techniques; and to evaluate the technical and economic viability of the project and, if viable, to prepare the required design and the necessary arrangements for a larger network, covering additional countries and information sectors.

6. The provisionally identified subjects for the users' demonstration are energy technologies (biomass, coal, solar and hydropower) and industrial technologies (pharmaceuticals, food processing, extractive metallurgy, electronics, agricultural machinery and biotechnology). These subjects have been selected in accordance with the recommendations of the Vienna Programme of Action, taking into account the priority sectors identified in the Caracas Programme of Action and UNFSSTD experience. Within each subsector, a number of functional activities will be included, for instance, research and development, technology transfer, development of human resources, and technical co-operation. The project characteristics are outlined in the Annex.

7. The final selection of information subject, however, will be accomplished at the end of the preparatory phase, following consultations with target users (Government science and technology institutions, public and private enterprises, professional associations, consulting firms, small and medium entrepreneurs, research and development institutions, etc.). Among these, the private enterprises and business associations especially are those which most bear the high cost resulting from a lack of prompt, accurate information; this project intends to address this issue from its start, and makes provision for consulting users and tailoring the detailed design of the demonstration to their needs.

8. This limited project, therefore, will test and develop concepts and arrangements which would prepare the basis for decisions on a broader system along the lines of the Development Information Network (DEVNET) which, on the basis of a feasibility study carried out by UNDP, visualizes a broad system capable of exchanging a wide range of information among a large number of countries.

9. In addition, a related benefit to be expected from implementation of this project is capacity building at the national level through the provision of extensive training of national personnel in the areas of system operation and development, user's identification, information marketing and information gathering, dissemination and retrieval.

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III. FINANCIAL DATA

10. The pilot project is expected to have a duration of three years and the expenditure components of the proposed UNFSSTD assistance are as follows:

	\$
International project personnel	1 706 400
National project personnel	1 178 200
Training	423 000
Equipment	693 000
Marketing and evaluation surveys	500 000
Miscellaneous (office space, running costs, travel, printing, contingency)	1 019 200
Support costs	442 000
Total cost	5 961 800

The above total cost is based upon participation of 10 developing countries, and two operative languages (English and Spanish). The financial resources for its implementation will be provided by a Trust Fund to UNFSSTD established for this purpose by the Government of Italy, to be administered in accordance with the Governing Council decision 82/5 and subsequent decisions at its Thirtieth Session, concerning Trust Funds conditioned to procurement from the donor country.

11. The project is designed to be implemented in two phases, so that the final orientation of the major activities can benefit from practical experience acquired during the first phase. The Trust Fund arrangements will be made accordingly, and the donor government, while considering the project as acceptable, reserves the right to reconfirm its support for the second phase should the results of the first phase prove satisfactory.

12. The final decision on the number of participating countries and working languages will be taken in the light of the Governing Council decision on this project, and the results of further negotiations with donors.

IV. RECOMMENDATION

13. In the light of the above, the Administrator recommends that the Governing Council approve the project, Technological Information Pilot System, at a total estimated expenditure of \$5 961 800.

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ANNEX

1. Implementation arrangements for the Technological Information Pilot System comprise the following:

Project management: The day-to-day operations of the project will be the responsibility of an internationally recruited Project Co-ordinator. The Co-ordinator will organize and co-ordinate the consultations with governments for setting up National Bureaux (NB) in the participating countries, with the United Nations and other concerned organizations, with donor government(s), and target users in the participating countries;

Advisory Board: This Board, chaired by the UNDP Administrator, or his designated representative, will be the overall consultative organ for giving policy guidance to the project. It will include representatives from the participating and donor countries. The Board may meet once a year and make additional arrangements to advise the project management, as required;

National Bureaux: The NB serves as a focal point within the country for the collection and processing of information, for transmitting it over leased satellite channels through international Co-ordinating Center (CC) to other participating countries, and for disseminating the information received from abroad to subscribers within the country. Depending on consultations in each country, the NB could be an independent body with close linkages to the national information system or a separate unit under government auspices. It will have full-time and part-time staff, and it is envisaged that the necessary equipment will be leased;

Co-ordinating Center: As the project will interconnect 12 developing countries in four regions, its switching node will be located initially in a developed country so that existing infrastructures can be used for the necessary communication links. In a future phase, it should be possible to establish regional centers, so that the functions of the international center could be decentralized. The CC will assist the Project Co-ordinator in the running of the overall system, and, will primarily be responsible for receiving information flows from the NBs, monitoring classification and processing, translating information to the languages of users and transmitting it to other NBs; organizing the training and other support services. The CC will be linked by international telegraphic line, through dedicated circuits on INTELSAT, for transmission/reception of information from/to the NBs. As a secondary function, the CC will also be linked to the NBs through a PTT facility at data speed for transmission of data accessed from selected data banks, at specific user requests.

2. Arrangements will be established during the preparatory phase concerning storage of the information generated by the system. Appropriate storage facilities will be determined on the basis of the projected volume of traffic to be handled by each NB.

3. Information transfers will primarily cover current science and technology activities in response to user profiles and will include, for instance, abstracts of technical publications, ongoing research notes, announcements of technologies available for licensing, etc., in the subjects identified. Follow-up action between information supplier and user will primarily be outside the project facilities, using available communication modes.

4. Based on user profiles established during the preparation phase, the project will provide information on the subject, function and type identified by the user. Trained staff at the national bureaux will elicit and prepare the information to be transmitted through the system. Arrangements will be examined to enable users to access selected science and technology data bases, on a limited, off-line basis, at the user's cost.

5. The main system subscribers are expected to be: Government institutions (e.g. ministries of science and technology, planning, energy, industry, agriculture, production sector (public and private enterprises, professional associations, small and medium entrepreneurs); technical organizations (research and development institutions, education and training centers, standards institutions, design and engineering consultants). These users will also be information suppliers. In addition, arrangements will be made to link the project with selected information systems of a national, regional and global nature, set up by United Nations and other organizations, and access to information with existing and emerging data banks at the regional level will be negotiated.

6. The project design will include the basic unit of subscription fees per subject and per activity, based on the results of users' consultations. Payments in national currency are envisaged for the pilot project. However, proposals will be made in the design of the larger system, so that it could be self-supporting in the long term. The project design will also include a mechanism of collection and management of these funds.

7. Training under the project will include: the System personnel (10 NB Chiefs, 10 NB marketing managers, 60-70 part-time staff, 2 CC librarians and 4 CC editors/translators), who will be trained in English and Spanish System/user interface (users' workshops); data bank access (10 data bank interrogators), and seminars.