ANNUAL REPORT OF THE ADMINISTRATOR FOR 1987

PROJECT RESULTS: GLOBAL AND INTERREGIONAL PROGRAMME AND SPECIAL FUNDS

I. GLOBAL AND INTERREGIONAL PROGRAMME RESULTS: SOME EXAMPLES

1. The United Nations Development Programme (UNDP) Division for Global and Interregional Programmes (DGIP) works to mobilize and support international co-operation in selected fields of acknowledged importance to development. The global programme supports basic and applied research relevant to developing countries. It thus increases their access to the world-wide pool of advanced scientific and technical knowledge, particularly in the areas of food crops and health. The interregional programme disseminates and utilizes research results and helps countries address shared development problems which can be dealt with most effectively through multiregional approaches. These two programmes constitute the external research and development arm of UNDP.

A. Agriculture

2. Approximately 70 per cent of DGIP financial support goes towards global programmes in agricultural research, an area which continues to receive high priority. The recent increases in food production in many developing countries are encouraging. However, these increases must be sustained if the people of the developing world are to be adequately fed - particularly when their numbers in the year 2000 will be 1.5 billion more than now and possibly 4.5 billion more by the year 2050. Research strategies for increasing food supplies for the future must include stability of production at high levels and be directed towards the enhancement of the yields of major food crops per unit land area, per unit water input, per increment of fertilizer and per unit of time. All this must be achieved...
with minimum expenditure of non-renewable sources of energy including fossil fuel energy. In order to develop and apply new technologies aimed at continuing the increases in food production, joint work is being carried out between special programmes and a network of well-established International Agricultural Research Centres (IARCs) operating under the umbrella of the Consultative Group on International Agricultural Research (CGIAR), of which UNDP, the World Bank and the Food and Agriculture Organisation of the United Nations (FAO) are the co-sponsors. DGIP supports the research and training activities of some of these centres as well as the International Centre of Insect Physiology and Ecology (ICIPE) and the International Fertilizer Development Centre (IFDC), and the International Centre for Living Aquatic Resources Management (ICLARM) which are presently outside the CGIAR system.

3. In 1987, the global programme continued to support research on food crops important to developing countries. The International Rice Testing and Improvement programme, supported by UNDP, is being implemented by the International Rice Research Institute (IRRI) in the Philippines, in collaboration with some 80 developing countries. It continues to be an indispensable vehicle for the exchange of improved rice varieties, knowledge and experiences among rice scientists around the world. Similar networks for crop improvement initiated by DGIP include sorghum and millet - two important dryland crops which constitute the staple diet of millions of people in the Indian sub-continent and Africa. This programme, implemented by the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), with headquarters in India, has developed several varieties of these two crops possessing such desirable characteristics as resistance to pests and diseases and tolerance to drought. These varieties are being released to farmers through national programmes in India and several African countries.

4. The International Centre for Tropical Agriculture (CIAT) in Colombia and the International Potato Centre (CIP) in Peru and the International Institute for Tropical Agriculture (IITA) in Nigeria are engaged in a UNDP-supported project designed to help national programmes in the increased production of cassava, Irish potatoes and sweet potatoes through transfer of improved technology, production, storage and processing.

5. A collaborative network on maize improvement, implemented by the International Centre for Maize and Wheat Improvement (CIMMYT) in Mexico, is working closely with several national programmes around the world to develop improved maize varieties with stable yields that also combine resistance to insects and diseases as well as tolerance to drought. Several promising varieties of maize have already been released to farmers. CIMMYT is also carrying on work to adapt strains of wheat to warmer humid climates as the demand for wheat consumption is increasing in these regions. Trials being conducted in Bangladesh and Thailand show considerable promise.

6. DGIP continues to support research on the development of safe and non-chemical methods of controlling insects affecting crops, animals and human beings through ICIPE in Kenya. The Director of ICIPE received the Hunger Award in September 1987 and a citation from the President of the United States of America in recognition of the outstanding achievements of the Centre.

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7. UNDP-supported work on research and training in fertilizer technology and utilization implemented by IFDC made considerable progress in 1987. With support from DGIP, the Regional Bureau for Africa (RBA) and other donors, IFDC has begun preparatory work on the establishment of the African Fertilizer Centre in Lome, Togo. This Centre, when fully developed and with substantial additional assistance being considered by UNDP and other donors, will have an appreciable impact on increasing food production in African countries where little or no fertilizer is now used.

8. The International Laboratory for Research on Animal Diseases (ILRAD) in Kenya continued its studies on the mechanisms of innate and acquired resistance to trypanosomiasis (sleeping sickness) in domestic ruminants, wildlife and laboratory animals. While trypanosomiasis presents several intractable problems to researchers, every effort is being made to develop a vaccine suitable for mass immunization. Meanwhile, greater emphasis is being given to improve the effectiveness of available drugs, to integrate vector control methods and to breed trypanotolerant cattle, which appear to have a natural immune response to the disease.

9. All the global agricultural programmes provide substantial resources for training national personnel of developing countries through training courses, workshops and conferences. In certain cases, small grants are given for collaborative research at national institutions. To date, over 6,000 scientists and technicians from developing countries trained in the global programme maintain close links between their national institutions and the international centres. In 1987, a contribution of approximately $8 million to the IARCs for the specific programmes mentioned above attracted collateral support amounting to over $230 million from the CGIAR donor group.

B. Water

10. Progress continues to be made in realizing the goals of the International Drinking Water Supply and Sanitation Decade (IDWSSD 1981-1990). During the first three years of the Decade, more people gained access to clean water supplies than in the preceding 10 years. Nevertheless, in 1987, more than 1.6 billion people still did not have adequate access to potable water supplies, and at least 2 billion lacked adequate sanitation facilities. These people are predominantly the poorest segments of the population of developing countries.

11. UNDP and the World Bank launched a programme in 1987 with the goal of increasing the capacity of countries to deliver water supply and sanitation services to low-income groups, using primarily low-cost, community-based approaches. This programme, now known as the joint UNDP-World Bank Water Supply and Sanitation Programme, has made significant strides towards the goal of large-scale coverage for low-income groups. It has played a major role in promoting government policy shifts towards the adoption of low-cost water supply and sanitation systems and towards community management and financing of services. The programme has also acquired a global leadership role in the field of technology development and system design for sustainable water supplies and sanitation.
facilities for low-income communities. For example, development of the Afridev-type deep-well and Tara-type shallow-well handpumps now provide millions with low cost, easily maintained technology. A symbol of success lies in the fact that the Afridev pump is now produced by private companies in Kenya, India and Great Britain, and the Tara pump is produced in Bangladesh.

12. The research and development work needed to improve low-cost technologies is now largely completed, and the programme is turning its attention to community involvement, health education, project-related training and financing. These factors complement the technology proper in the success of low-cost systems. The challenge for the future is to integrate all these elements into implementation strategies and processes, demonstrate their effectiveness, and extend the demonstration into large-scale programmes.

13. During the remainder of IDWSSD and into the early 1990s, an additional thrust of the programme will be to design and implement waste management and recycling demonstration projects in urban and urban-fringe areas. The management of municipal wastes, both liquid and solid, continues to be a major dilemma for urban societies. Waste management is a labour and capital intensive function that consumes, on average, 30 to 50 per cent of municipal budgets. In 1981, the Governing Council approved a global research project on integrated resource recovery and waste recycling with the World Bank as executing agency. The development objectives of the project are to expand and improve municipal waste management services, particularly for urban low-income populations, and to minimize the adverse environmental impacts of municipal waste disposal while maximizing resource conservation through recycling. The project has concentrated its resources on:

(a) Generic research on resource recovery technologies;

(b) Global socio-economic research and case studies of resource recovery activities in cities of developing countries;

(c) Promotion of demonstration projects in selected cities; and

(d) Dissemination and application of research results.

14. State-of-the-art review and generic research, including technological, economic and financial assessments, have been carried out on the several resource recovery technologies. Six technologies have been identified as the most promising for application in a great number of developing countries. Research has shown that each of these technologies is site-specific, and the feasibility of their application must be determined on a city-by-city basis. Field testing of specific technologies or combinations of them, through demonstration projects, is the long-term goal of the programme. The six technologies are materials recovery and recycling of municipal solid wastes; co-composting of garbage with night soil or sludge; industrial-scale community biogas plants; landfill gas recovery; wastewater reuse for effluent irrigation; and sewage-fed aquaculture.

15. Surveys and pre-feasibility studies have been carried out for the assessment of resource recovery activities and opportunities in Abidjan, Colombo, Dakar,
Douala, Khartoum, and Mexico City, and the results are currently being compiled into a summary report. In-depth case studies of several systems were also carried out, including those of the Shanghai Resource Recovery and Utilization Company, China; the Cairo Zabaleen community, Egypt; landfill gas recovery in Sao Paulo, Brazil; and wastewater reclamation and reuse in Nicosia, Cyprus. The results of these studies are being incorporated into the summary report for broader dissemination. In addition, technology assessment case studies have been carried out in Asia, Europe, the Middle East, and the United States. As a follow-up on these research and assessment activities, implementation of a demonstration project is under way in Lima, and other demonstration projects are under preparation in Colombo, Dakar, Douala, Guatemala City and Mexico City with bilateral cost-sharing support.

16. Total UNDP support since 1980 in the drinking water and sanitation projects sector reached $171.8 million by the end of 1987. Five new interregional projects received UNDP assistance last year. Under the demonstration programme of the Promotion of the Role of Women in Water and Environmental Sanitation Services (PROWESS), six country projects receive assistance: Bangladesh, India, Indonesia, Nepal, Sri Lanka and Thailand. In each, different methodologies for community participation, and particularly women's participation, are being developed and tested, and case studies are in the process of being prepared.

17. For the remainder of IDWSSD, UNDP has allocated $20 million for intercountry activities. Cost-sharing by other external support agencies will allow the programme to intensify, expand and consolidate its activities. An advisory committee, established to provide guidance and review the programme's implementation, will be composed of representatives from UNDP, the World Bank, the World Health Organization (WHO), the United Nations Children's Fund (UNICEF), the Department of Technical Co-operation and Development (UNDTCD) of the United Nations Secretariat and bilateral agencies.

C. Special Programme for Research and Training in Tropical Diseases

18. Some one billion people are afflicted by debilitating or deadly tropical diseases according to WHO estimates. A multi-front attack on six of these diseases was launched in 1974 within the framework of the UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases (TDR), now supported by 30 bilateral and non-governmental organizations. TDR has two interdependent objectives: major tropical disease control and the strengthening of the medical research capabilities of tropical countries. The diseases selected for attack are malaria, schistosomiasis (bilharzia or snail fever), filariasis (including onchocerciasis/river blindness), trypanosomiasis (both African sleeping sickness and the American form, called Chagas' disease), leishmaniasis and leprosy. To date, TDR has achieved concrete results in the form of vaccines, drugs, diagnostic methods and new vector control techniques and the programme has produced some 50 products, including potential malaria and leprosy vaccines and new drugs for malaria, river blindness, sleeping sickness and schistosomiasis. The programme also supports research on social and economic factors in disease control programmes.
19. During 1987, the Governing Council agreed to the proposal of the Administrator for a global project to provide continuing support to TDR in the amount of $2.5 million annually (1987-1989). At that time, the Council was also informed that a similar annual amount was envisaged for the period 1990-1991, subject to the results of a comprehensive external evaluation of TDR, taking place during 1987 and 1988.

20. In late 1987, there was considerable attention in the international press regarding the decision by the United States pharmaceutical manufacturers, Merck and Co., to donate a new drug, ivermectin, free to developing countries where onchocerciasis is endemic. The development of ivermectin was achieved in part with the support of TDR, which played an active role in screening activities and in the clinical testing of this compound. It will bring relief to a disease affecting 18 million people in developing countries, permanently blinding some 500,000 people each year. Moreover, it may be possible, thanks in part to TDR, to wipe out river blindness by the year 2000.

D. AIDS

21. The morbidity and mortality of the disease known as acquired immunodeficiency syndrome (AIDS) at present cannot compare with other communicable diseases such as schistosomiasis, malaria, diarrhoeal diseases, respiratory infections and others. Nevertheless, AIDS is ultimately fatal, the number of people infected with the human immunodeficiency virus (HIV) is growing alarmingly in a number of countries and the social, economic and financial implications of the AIDS pandemic are anticipated to be without precedent. Large numbers of men and women in the prime of life are potential victims in developing countries. The amount of $3.6 million has been allocated to prepare and implement joint UNDP/WHO interregional and regional programmes and to forge linkages with national AIDS programmes. UNDP will help in the dissemination of information on the status of blood transfusion world wide and support blood screening services to ensure safe supplies.

22. The WHO Global Programme on AIDS resource needs are expected to grow from $37 million in 1987 to $650 million in 1991 (not including direct costs for diagnosis, treatment or vaccine). In view of the extraordinary efforts required world wide, these resources are considered a bare minimum that must be supplemented by additional resources from national, bilateral, multilateral and non-governmental agencies as well as the private sector.

E. Fisheries

23. An encouraging initiative for improving co-operation in fisheries assistance world wide was taken in October 1986, when UNDP joined the World Bank, the African Development Bank (AfDB) and the European Communities (EC) to co-sponsor the first Fisheries Development Donor Consultation. Over 50 representatives of 29 agencies providing about $400 million annually to fisheries programmes agreed to steps aimed at making their activities mutually coherent and supportive. The consultation process also seeks: (a) to improve the quality of project identification,
formulation and implementation with emphasis on the need for better training; (b) to encourage and facilitate the exchange and dissemination of information on fisheries development; and (c) to support co-ordinated research on major problems, including marketing, involved in fisheries and aquaculture. An inter-agency information exchange system is already in operation and a major review of fisheries research needs will be completed in 1988. These activities, combined with expanded use of World Bank consultative groups and UNDP round-table meetings, will go far towards improving the quality of projects in this key sector.

24. Periodic regional and subregional donor/recipient consultations to increase the impact of fisheries assistance and to reinforce South-South collaboration will also be held. An example of the type of co-operation foreseen is the interregional project, Tuna Development and Management in the Indian Ocean and South-East Asia. In December 1986, a sub-committee of the Indian Ocean Fishery Commission gave final approval to cost-sharing arrangements under which, by 1989, a tuna data centre funded by coastal and deep-sea fishing countries will be established. These long-term financing arrangements were reviewed in 1987.

25. Better services with lower costs may be expected from a Fisheries Advisory Services set up in 1987 that will enable UNDP/FAO Regional Marketing Centres (such as INFOPESCH in Asia and INFOPESCA in Latin America) to provide access to a data bank of local and international experts in fisheries who are able to address technical as well as marketing questions. By drawing on national and regional experts, countries can avoid the high costs of experts from developed countries. Similarly, a UNDP/FAO fisheries research vessel consortium that was coming to an end is being replaced by a low-cost arrangement under which FAO will maintain a data base of vessels that can be made available to developing countries with research requirements.

26. A regional consultation on fisheries in Africa was held in Côte d'Ivoire in 1987. Co-sponsored by UNDP, the World Bank, AfDB and EC, it was designed to improve the impact and viability of technical assistance and investment projects in Africa and to establish special avenues of co-operation among donors. As a result of the consultation, fisheries sector studies will be revised and a diagnosis of private investment in fisheries and a review of credit for artisanal fisheries will be made. The work of these regional consultations is now enhanced by the publication every six months of an FAO document entitled "Fishery Focal Points in Bilateral and Multilateral Donor Agencies and Fishery Projects in Recipient Countries". The first one, published in August 1987, covered 720 projects funded by 23 bilateral and 19 multilateral donors.

F. Trade

27. The Trade Expansion Programme (TEP), initiated by UNDP and the World Bank in 1987, represents a new direction in the trade sector, away from export promotion per se and towards assistance to countries committed to liberalizing their trade policies. The emphasis in the programme is on how to implement reform in the most effective manner. In this respect, such issues as the timing and sequencing of trade policy reforms become critical. At the same time, the programme will give...
careful consideration to transition costs, such as unemployment, and will recommend ways of mitigating such costs. Field work in countries as diverse as Guatemala, Mali, Niger and Poland began in 1987.

28. A parallel project, being implemented by the International Trade Centre (ITC), focuses on more specific issues of a downstream nature arising in countries which have reformed their trade policies under the terms of World Bank structural adjustment loans. Specifically, it will examine questions of streamlining import operations and techniques as well as the rehabilitation of export industries. The underlying premise is that much can be done to mobilize the private sector in countries with trade reforms generated by structural adjustment loans. Work began in Côte d'Ivoire, Guatemala, and the Philippines early in 1988. Both the TEP and the ITC projects were approved at the same time and UNDP has ensured that they are closely co-ordinated at the working level.

29. In collaboration with the United Nations Conference on Trade and Development (UNCTAD), UNDP supports a global effort for Training Development in the Field of Maritime Transport (TRAINMAR). In 1987, 22 centres around the world provided short-term training to about 4,000 managers of ports and shipping companies. Developing countries conduct most of their international trade through maritime transport. In recent years, many of these countries have substantially increased their merchant fleets. As they have gained greater control over the shipment of their exports and imports, however, they need greater numbers of trained maritime workers. Maritime managers are now required to oversee larger merchant fleets and develop seaports along modern, efficient lines. UNDP helps meet these needs at a cost which developing countries can afford.

30. The interregional programme continued to provide core support to the interregional, multi-product Market News Service (MNS), which has helped subscribing developing countries maximize their foreign exchange earnings from exports of so-called non-traditional products. In co-operation with the Department of Food and Agriculture of the State of Massachusetts and the Port Authority of Boston, MNS opened its first North American office in Boston in October 1986. The Boston office has identified and established working relationships with major United States and Canadian importers of the products covered by MNS. As a result of the introduction in 1987 of a subscription system, both countries and individual exporting firms increasingly participate in the service on a pay-as-you-go basis. This is the first time that a UNDP-assisted project designed to stimulate South-North trade had successfully established itself as an impartial broker between developing country exporters and developed country importers. The third phase of MNS was approved in 1987, extending UNDP assistance through the end of 1989. Assistance also continues to be provided by the Governments of Sweden and Switzerland.

G. Environment

31. The rapid depletion of the natural resource base in the developing world poses a serious obstacle to sustainable development. This critical situation was addressed by the interregional programme in 1987 in two separate but related
initiatives. In collaboration with the World Bank, UNDP launched a natural resources management and economic development project in 1987 in Bolivia, Burkina Faso, Lesotho, and the Philippines. The goal is to strengthen the ability of local planning agencies to factor in the potential for the long-term depletion of their natural resources as they prepare projects. The second initiative is to promote conservation. An agreement was reached between UNDP, the World Resources Institute and a number of private foundations and bilateral agencies to carry out a feasibility study of proposals put forward by the Bruntland Commission and others for the establishment of an international conservation financing facility. The study is based on the premise that more needs to be done to mobilize both public and private resources in support of projects concerned with sustainable development. Careful consideration will be given to the possibility of exchanging debt write-offs for conservation rights and other financial arrangements to generate increased support for conservation activities. Finance for a feasibility study is in the process of being obtained and it is projected that the study will be initiated in 1988. The study will be carried out in consultation with developing countries, multilateral and commercial banks, bilateral aid institutions and NGOs.

H. Special public works programme

32. The formulation and funding of viable special public works programmes (SPWPs) has been responsible for promoting direct investment in the least developed countries (LDCs). In these countries, such investments draw the poor into the adjustment process and increase their share of available resources through creating income-earning employment. These people also participate in selecting the public works to be launched under SPWP. In the White Nile province of Sudan, a successful SPWP programme was launched in 1984 with funds provided through a UNDP/International Labour Organisation (ILO) interregional project for the promotion of special public works programmes in LDCs. SPWPs in the Sudan include the irrigation scheme at Al Tuura-El Khadra, the 40 kilometre rural feeder road at Ed Dueim-El Sufi, afforestation projects, six rural water supply schemes, six schools and twelve houses for teaching staff, four health centres, four women's centres and four veterinary clinics. Contributions were approved in 1985 by the Government of the Federal Republic of Germany and the Arab Gulf Programme for United Nations Development Organizations (AGFUND), while the Government of Sudan, in 1985 and 1986 respectively, also made two contributions. The World Food Programme (WFP) contributed food as part payment of wages. By the end of 1987 a total of $3,324,022 had been contributed to the project.

II. ASSOCIATED FUNDS

A. United Nations Capital Development Fund

33. The United Nations Capital Development Fund (UNCDF), working primarily in LDCs, provides concessional capital assistance for small-scale investment projects designed to promote socio-economic growth by meeting basic needs and to strengthen self-reliance with particular emphasis on bringing early and direct benefits to low-income groups. In 1987, UNCDF approved 25 projects valued at $59.1 million.
34. Following are some examples of effective co-ordination and complementarity established between UNCDF assistance and those of UNDP and/or multilateral and bilateral programmes.

35. Somalia's 1,000-kilometre coastline borders an abundant fish supply in the Gulf of Aden. The Government attaches high priority to the development of its fishing industry, which provides increased employment and exports as well as a relatively cheap supply of high protein food. Most of the Government's fishing development activities have been concentrated on the south, east and north-east coast of Somalia. However, the north coast, also a rich fishing ground, has remained unexploited because of the lack of gear, spare parts, repair facilities and an assured market.

36. Consequently, in 1984, the World Bank, the Danish International Development Agency (DANIDA), UNDP, FAO and UNCDF jointly co-ordinated their efforts and designed individual, complementary projects to support the development of north coast fishing. UNCDF, with supporting technical assistance from UNDP/FAO, is developing artisanal fisheries on the coast near Berbera. A fishing training and community centre was constructed with a workshop and housing for the Centre's senior personnel. A revolving fund was created to enable the fishermen to purchase boats and engines on credit, with repayments over five to seven years. Repairs, spare parts, and fishing gear are available on short-term credit through a working capital fund for the Centre.

37. The Centre, which started its operation in October 1985, is already self-supporting through profits from sales in both foreign and domestic markets and charges for repairs. Small entrepreneurship has developed rapidly. The fishermen, with training from the UNDP/FAO team, have proven to be competent small businessmen, obtaining an estimated 30 per cent return on their investment. Small private retail outlets have started operation in Hargeisa and other inland towns for local sale of fish. Fish is also purchased for export to France and Italy. The excellent results achieved under Phase I in Berbera resulted in the approval of a second phase in Zeila. A working capital fund for the purchase of spare parts, and a credit fund for the purchase of boats by the Centre for lease to or purchase by fishermen on credit will be made available.

38. In the eastern region of Burundi, UNCDF is financing a labour-intensive road construction project with the support of a UNDP technical assistance team. The Government of Belgium is providing the services of associate experts who are supervised by the technical assistance team. The project has opened up 51 km of roads, with 400,000 man/working days provided by local labour from the region (Gitega-Ruyigi-Kiyuvinya). There are still 14.6 km of roads to be constructed.

39. In addition to road construction, UNCDF and UNDP have jointly undertaken a reforestation programme within these regions. To date, some 5,000 hectares have been improved through soil conservation and soil stabilization measures, the building of fire lanes and the establishment of tree nurseries. These activities fit within the framework of an integrated rural development programme for the region. UNCDF has provided light road-building equipment and garage tools for essential maintenance. UNDP is financing the technical assistance component which
also co-ordinates inputs from the European Development Fund (EDF), DANIDA, the Netherlands and Belgium for the entire activities carried out by the SPWP in Burundi. Periodic maintenance of the roads will be the responsibility of the beneficiaries in the region.

40. In Senegal, UNCDF launched a project in 1982 for the development of women's co-operatives in the rural areas. The main objective is to alleviate the daily work burden of rural women by supplying these co-operatives with equipment for food processing such as millet mills, rice milling machines, and grinding mills. Initially, 120 groups of women were selected from three regions and the beneficiaries were trained in the management of the co-operatives as well as in the operation and maintenance of the equipment.

41. On the basis of successful results and recommendations of the 1984 evaluation mission, a second phase of activities was carried out, involving all 10 regions of the country. The Phase I main objective to alleviate the workload has been achieved and the daily work and labour time has been reduced by about two hours with the utilization of the mills.

42. The project team assisted the 468 women's groups by installing the necessary equipment in 449 co-operatives. Members of the women's committees, extension agents, women co-ordinators and artisans have been trained to manage the operation. The women's groups are responsible for recovering the operational costs, making provision for spare parts and for the amortization of the equipment, sub-contracting artisans for building and maintaining the main structure of the mills and depositing savings in bank accounts. At the national level, la Direction de la promotion humaine, a project unit, has been set up to monitor the technical and financial aspects of the operation in each village. Indirectly, the UNCDF project, together with the technical assistance inputs from UNDP/ILO, has produced the following effects:

(a) Development of a group of responsible women who have mastered the accounting procedures and learned to appreciate income-generating aspects of a properly managed investment;

(b) The effective group participation of all the women and creation of savings at the village level;

(c) Development of economic activities initiated by the women, such as food crop production, marketing, construction of storage facilities and handicrafts;

(d) Strengthening rural artisans who, through the project, have been equipped and trained, and are now able to provide maintenance services not only to the project, but also to other rural communities that have food processing equipment.

43. UNCDF is involved in private sector promotion, offering its assistance to private entrepreneurs mainly in the agricultural and industrial sector. Credit is a crucial component of those projects that focus directly on increasing the income and productivity of the poor or those aiming at the development of small- and medium-scale businesses. Out of approximately $230 million in project commitments...
to agriculture, irrigation, industries and housing, about $108 million represent projects with credit components. UNCDF also supports private sector participation in project execution by sub-contracting activities to private firms.

44. In Bhutan, a horticulture produce processing and storage facility was designed to facilitate commercialization by the growers of produce, mainly apples and citrus, and increase their income and national foreign exchange earnings through the export of these high value fruits to neighbouring India.

45. In Nepal, UNCDF funds of $2,901,000 contributed to the installation of five mini-hydels (hydro-electric pumps), with a total installed capacity of 825 kilowatts to provide electricity to an estimated 32,000 inhabitants, to small industries, and to government offices in the district towns in the far western region of Nepal. The construction of the civil works for the five mini-hydels, including the erection of the transmission lines, is sub-contracted to private Nepali construction companies by the Small Hydel Development Board, the executing agency for this project, after competitive bidding. A total of $1,457,000 of the UNCDF contribution will stimulate the Nepali private sector through local contracting for these activities.

46. In the Yemen Arab Republic, a UNCDF grant of $1 million established an $800,000 fund to guarantee 75 per cent of the loans extended to small industries by the Industrial Bank of Yemen, the executing agency for the project. The project also provides $200,000 to guarantee loans through the Bank to small-scale entrepreneurs. About $975,000 credit has been provided to 73 small entrepreneurs to establish small-scale enterprises such as metal working and carpentry in the industrial sector.

47. Further information on the activities of UNCDF in 1987 is contained in document DP/1988/18/Add.5.

B. United Nations Sudano-Sahelian Office

48. Severe drought has persisted in much of the Sudano-Sahelian region for two full decades. Although close to normal precipitation returned in 1986, serious rainfall shortages occurred again in 1987, especially in East Africa, leading to crop failures and a new threat of famine. Desertification and environmental degradation continue at an alarming rate, underlining once more the growing need for the intense drought-related and desertification control activities of the United Nations Sudano-Sahelian Office (UNSO).

49. During the year, in close collaboration with RBA and other partners, work continued on the formulation of more comprehensive regional and subregional programmes. Important progress has been registered in the development of the national tree-seed centres network, at present focused on the East African countries; it is expected that the network will contribute significantly to the forestry sector and tree-planting programmes in the region.

50. As part of its 1987 initiatives to adopt a more holistic and integrated approach to land management and development, UNSO, in conjunction with the...
Co-operative for American Relief Everywhere (CARE), developed two projects for integrated land management in Niger and the Sudan. DANIDA has expressed interest in funding these projects; approval of the $17 million required for the projects is expected in early 1988. These projects will be implemented by CARE in co-operation with the Sudanese Central Forest Administration and the Forest Service of Niger, and represent the first co-operation by UNSO of this nature and magnitude with a non-governmental organization (NGO). Both projects aim at improving agricultural and agro-forestry practices through extensive environmental awareness programmes, the use of ecologically sound agronomic practices, the protection of forest reserves, the restocking of plantations and the strengthening of governmental forestry services.

51. With extensive support from the donor community, UNSO assisted the countries of the Sahelian region during the last decade in the construction of over 2,500 kilometres of all-weather secondary roads. After construction, increased attention has been paid to the rehabilitation and maintenance of these roads. In 1987, a regional project operating with expert support from France, was extended with Norwegian and UNSO funding, for the provision of technical assistance for the maintenance of feeder roads in the Sahel. The project continues to provide technical assistance to the countries of the Permanent Inter-State Committee on Drought Control in the Sahel (CILSS) to strengthen their feeder-road maintenance capabilities in the field of planning, management and inventory control practices, as well as skills development through on-the-job training.

52. During the year, UNSO continued its close co-operation with CILSS and its member States and consulted on the modalities of the further expansion and intensification of mutual co-operation between the two institutions. In the eastern part of the region, UNSO continued its active co-operation with the countries members of the Intergovernmental Authority for Drought and Development (IGADD); important steps were also taken for the establishment and development of a productive co-operation with IGADD itself and its secretariat.

53. In Benin, work continued on a tree planting project in the northern region of the country with funding from the Netherlands and AGFUND/United Nations Environment Programme (UNEP); the project has now been extended to a new zone in Materi with additional funding from the European Development Fund (EDF).

54. In Burkina Faso, a new project for the development of agro-forestry through the regeneration of Acacia albida - an indigenous, multi-purpose species that produces forage for livestock and fuelwood for cooking and also improves the fertility of the soil - and other local species was launched at the end of 1987. This project, financed by Norway, aims, over the next five years, at regenerating 11,000 hectares of Acacia albida and 300-400 hectares of diverse local species.

55. In Cape Verde, the objectives of a project for the utilization of wind energy, funded by Denmark, were achieved by the end of 1987. The project is to be extended for one more year to allow for a follow-up to the installation of the wind/diesel energy facilities in Santa Catalina for the training of more technicians and for the testing of the system. This extension will also allow for a smooth transition between the project and a large-scale bilateral programme under negotiation related to the utilization of wind energy in Cape Verde.
56. In Sudan, in the Kordofan region, UNSO supports three desertification projects. The first is a project for restocking the gumbelt - the geographical zone of the Sudan suitable for the growth of the gum arabic tree (Acacia senegal) - for desertification control, with funding from the Netherlands. It is now in its second phase and aims at reforestation through the planting of the Acacia senegal. Second is a project funded by Denmark, for fuel briquette production and the promotion of improved cooking stoves; the main objective is to ease the pressures on the fuelwood reserves by turning agricultural waste into briquettes. Third is a project funded by Sweden for the management of grazing resources, aiming at conserving the vegetation resources needed for livestock production.

57. In Chad, the Government, CILSS and UNSO worked out in the first half of the year the draft of a national plan of action to combat desertification, which is now being further refined.

58. In Ethiopia, the renewed pressure of drought and the crisis of deforestation have reached extreme proportions. To ease these pressures, UNSO has extended its DANIDA-funded fuelwood plantation projects in Debre Birhan and Nazret. More than 1,500 hectares have been planted; the total number of seedlings produced in 1987 reached 7 million. The Dese fuelwood plantation project, funded by Finland, was completed in 1982, reaching far beyond the original target area of a plantation of 200 hectares to a planted area of 1,225 hectares. All the forestry technicians attached to these projects have been trained, and one of the fuelwood plantation managers is attending a university course leading to a B.Sc. in forestry. During 1987, UNSO embarked upon a new DANIDA-funded project, which seeks to protect parts of the ecological catchment areas of the Blue Nile in a more integrated manner, including the use of aerial photography and in-depth ecological and socio-economic impact analyses.


C. United Nations Volunteers

60. The United Nations Volunteers (UNV) programme reached record levels in 1987. The number of established posts increased by 277 to 2,068 and the number of serving volunteers by 144 to 1,269. An additional 130 candidates were accepted and were en route to assignment and 669 were under recruitment at the end of 1987. They worked in both United Nations agency- and UNV-executed projects. United Nations Volunteers served in projects covering 15 socio-economic sectors in 96 developing countries. The programme continued to accord priority to the 40 LDCs which, as at 31 December 1987, had 836 serving volunteers, representing 66 per cent of the 1,269 serving volunteers. This orientation enables UNV to contribute towards meeting manpower requirements for operational activities in line ministries in LDCs. The 21 land-locked developing countries, 15 of which are also LDCs, had 469 volunteers or 37 per cent of UNV assistance at the end of 1987.

61. Fifty three per cent of all serving volunteers were assigned to 42 countries in Africa. The sectors of agriculture, health and rural development were the major beneficiaries in most of those countries. In the United Republic of Tanzania, a
team of volunteers assigned to FAO-executed projects was involved in a variety of training activities, ranging from agricultural engineering, hydrology and irrigation to veterinary medicine. A UNV nutritionist assigned to Mauritania within a UNV-executed emergency project carried out a large-scale nutrition survey in the four largest provinces with an estimated 2.1 million inhabitants, or about 25 per cent of the total population of Mauritania. The result of the survey will determine measures to be taken by the Government to seek external donor assistance in national food production.

62. Within a UNV-executed science/technology teachers training project in the Central African Republic, 21 physics and other science teachers produced instruments and laboratory equipment for courses in electricity and applied science. The instruments and apparatus were made from locally available materials and will help alleviate the acute problem of shortages or unavailability of science teaching aids in secondary and technical schools. In Botswana, six volunteers serving within an ILO-executed trade testing and industrial training project trained national counterparts in air-conditioning, building, metal-fitting, plumbing and pipe-fitting.

63. Asian and Pacific countries were the largest suppliers of United Nations Volunteers. The region was also a major user, with Bhutan having the largest number of serving volunteers in the world. At the end of 1987, 394 volunteers or 31 per cent of the United Nations Volunteers were serving in 27 countries within the region. An important development in 1987 was the assignment of the first United Nations Volunteers to Mongolia, a micro-computer systems analyst and programmer working within a United Nations Industrial Development Organization (UNIDO)-executed project. Significant achievements were recorded in Maldives, where a United Nations Volunteer successfully trained 39 rural youths in the repair and maintenance of marine and petroleum engines in an ILO-executed project. The volunteer also trained a national counterpart who will train more youths using the training programme which was drawn up by the volunteer. In Bhutan, during a four-year assignment, a volunteer successfully established the first physiotherapy unit in the country. It is attached to the central referral hospital in Thimphu. The unit is equipped with a variety of therapeutic facilities, many of which were designed and built by the volunteer, in collaboration with national counterparts. The first cadre of Bhutanese technicians in physiotherapy will be trained by the volunteer in co-ordination with the manpower training programme of the Health Department during the next two years. In Laos, a United Nations Volunteer aquaculture specialist serving in an FAO-executed project for the rehabilitation of fish farms and fish culture development helped in the expansion and intensification of fish culture development in the Luang Prabang province through:

(a) the establishment of demonstration ponds in five districts;

(b) the establishment of fisheries extension units and the production and distribution of extension materials;
(c) the provision of technical guidance to counterparts in hatchery, nursery and food-fish production management;

(d) an extensive socio-economic survey of some 400 ponds in 8 selected districts.

Consequently, there was a phenomenal increase in fish production, with a total of 1 million hatchings. Different kinds of fish fingerlings were sold to 350 fish farmers, 25 co-operatives were started and 70 community village ponds excavated.

64. The Arab States continue to be important recipients of UNV assistance with 14 of the 28 countries in the region accounting for 126 volunteers or approximately 10 per cent of the total number in post at the end of the year. The Yemen Arab Republic was among the first 10 beneficiary countries of UNV assistance. There, seven United Nations Volunteers provided on-the-job training aimed at upgrading the management capability of the aeronautical communication operation as well as the aerodrome fire and rescue services in a project fully funded by the Government of the Kingdom of Saudi Arabia under cost-sharing arrangements. Three other volunteers assisted the Rural Water Supply Department in preparing national plans and programmes and trained villagers in the operation and maintenance of their own water supply systems. In Sudan, 18 United Nations Volunteers helped in a WFP programme for refugees. Two other volunteers helped collect, compile and analyse data on relief and rehabilitation activities for the National Commission for Relief and Rehabilitation.

65. Latin America and the Caribbean accommodated 76 volunteers or about 6 per cent of the total. They provided invaluable services, particularly in Jamaica, where 36 volunteers served in a wide range of specialties in the medical field and hospitals in both urban and rural areas. In Guyana, three volunteers provided on-the-job training in electronics, ceramics and glass-blowing to national counterparts at the Institute of Applied Science and Technology. Consequently, the Institute now operates a glass-blowing unit and makes and repairs many types of laboratory glass for use by the Institute.

66. In Asia, the number of UNV Domestic Development Service (DDS) field workers in the regional DDS project increased, especially in Bangladesh, India, Malaysia and Nepal. A significant development was the increase in third-party funding for activities initiated by UNV DDS field workers through their host organizations. A more intensified on-the-job training programme for DDS officials and field workers was also put into effect. In Malaysia, a UNV-executed, UNDP-funded national project to establish 10 village-based appropriate technology activities such as fish farming, beekeeping, mushroom cultivation, bamboo crafts, and wood-carving was approved. The results of a number of case studies on experiments in the transfer of technology in rural areas were completed and are expected to be published.

67. Consultations were held with the United Nations Development Fund for Women (UNIFEM) staff to work out areas for co-operation and to review possibilities for UNV-executed UNIFEM-funded projects. The first two such projects, in Lesotho and in Tanzania, were approved and the UNV project co-ordinators selected and recruited. A third project for Mozambique is being held in abeyance pending the
resolution of administrative issues. With the aim of consolidating UNV/UNIFEM co-operation, discussions are under way for starting a support project entitled "International Volunteerism and Women's Participation in Development".

68. In order to rationalize and simplify UNV recruitment procedures and mechanisms, a review was undertaken, in part, to increase the number of serving volunteers, especially from the industrialized countries. For the first time, commitments were made by co-operating organizations in a number of industrialized countries to publicize the UNV programme, at regular intervals and at their expense, through newspaper advertisements. Advertisements were subsequently placed in newspapers in Belgium, Canada, Denmark, Finland and the Federal Republic of Germany. In order to attract a greater number of Spanish speaking candidates, advertisements were also placed in newspapers in Argentina, Bolivia, Colombia, Costa Rica, Mexico, Paraguay, Peru and Uruguay, with the co-operation of the UNDP field office in each country. This resulted in hundreds of applications from suitable candidates being included in the UNV roster for consideration for UNV posts as requested by the Governments of developing countries.


70. In 1987, the United Nations Revolving Fund for Natural Resources Exploration (UNRFNRE) continued to explore for both solid minerals and geothermal energy and to assist Governments in attracting investment to obtain more detailed information on discoveries already made by the Fund. In Peru, the Fund's activities continue in the Ananea area, where 150 million cubic metres of gold-bearing gravel averaging 200 milligrams of gold per cubic metre have been outlined. The value of this deposit is estimated at $440 million. In 1987, the Government incorporated two formerly excluded sections into the project area. They promise to make significant additions to total gold resources. Work is directed at estimating the gold in the two new areas and at estimating the production costs of the already identified deposits.

71. In Saint Lucia, the Fund is involved in a geothermal energy exploration project, with support from the United States Agency for International Development (USAID) and the Government of Saint Lucia. The project has proved to be a great success, with the second of two wells producing dry steam at temperatures in excess of 300 degrees centigrade with excellent pressure from a depth of 4,600 feet. The amount of electric energy which can be produced from this well alone is estimated at approximately 5 to 6 megawatts, which is one third of the present electric power consumption of Saint Lucia. The drilling of two additional wells could permit the country to become completely independent of foreign oil supplies for the production of electricity.

72. In Argentina, where the Fund had discovered a high grade gold and silver deposit, further exploration is being undertaken by the Government through a multi-phase $4 million four-year work plan, to which the Fund will contribute...
$375,000. The first phase of the programme - involving underground exploration, drilling and metallurgical testing - is currently under way.

73. In the Congo, the first stage of a phased feasibility study to obtain more detailed information on offshore phosphate and shell deposits for use as a fertilizer and soil conditioner extended the known deposit and identified a higher grade zone. On the basis of these results, a bulk sample of 30 tonnes will be collected for detailed testing. The testing is being jointly financed by the French Government and the Fund and is being undertaken by the Bureau de Recherches géologiques et minières.

74. In Côte d'Ivoire, detailed exploration in an area indicated by a reconnaissance survey undertaken by the Government Geological Survey has identified a gold vein at least 1,200 metres long and 2 to 3 metres wide. If results continue to be promising, future work will involve geophysics to identify drilling targets and then drilling to identify the nature and depth of the mineral deposit. In a second area, Loho, preliminary work by the Fund has indicated an extensive area of gold-bearing gravels in rivers and streams. The economic potential of this area needs to be assessed.

75. In Ghana, the Fund signed an agreement just before the end of 1987 to undertake an advanced level exploration programme covering an area adjacent to the Prestea gold mine. Gold had been recovered from two open pits in the area and the Fund hopes to identify the continuation of the mineralization in depth.

76. In Haiti, exploration in the Faille B zone indicated a small but rich gold deposit. Further work revealed a deposit containing over a million tonnes, averaging 2.3 grams per ton. Another deposit, Camp Coq, was examined but not considered to be of sufficient interest to warrant further examination. The project was officially closed in December 1987. A number of private companies have submitted bids to the Haitian Government to undertake further work on the Faille B zone.

77. In Honduras, project activities were concentrated in three areas, Yuscaran, Quita Ghana and Chanton, variously exploring for gold, silver and lead. In the Yuscaran area, geological mapping, geophysical surveys, diamond drilling and clearance of former underground workings and tunnel clearance indicated a gold-silver bearing vein system consisting of more than 500,000 tonnes containing 5.5 grams per ton gold and 400 grams per ton silver. The possibility exists of the vein extending both laterally and deeper. At Quita Ghana, an area previously explored by a major multinational group, geochemical and geophysical surveys, geological mapping, diamond drilling and the examination of old underground excavations indicates that the mineralization is localized into small blocks by faulting. This reduces the chances of locating an economic deposit. At Chanton, a former gold-mining area for which early records are lacking, the reopening and sampling of old workings revealed highly encouraging gold values. Geochemical stream sediment sampling has revealed the mineralized area to be more extensive than previously expected. Under the terms of $1.5 million in co-financing assistance from the Italian Government, future work will be concentrated in the Yuscaran and Chanton areas to obtain information to facilitate a more precise economic assessment.
78. A geothermal energy exploration project in Mexico, adjacent to the Las Planillas area, which is already a productive field, is considered to have a high chance of success. Drilling operations and associated services will be undertaken by the Mexican Government agency Comisión Federal de Electricidad. The management contract will be subcontracted by the Fund to an external agency. The project, still in its early stages, is expected to last two and a half years at a total cost of $5.4 million.

79. The Fund's project in Rwanda has identified the Miyove area as being of prime interest. Two gold-bearing veins 700 metres long by 2 metres wide (Karenda) and 300 metres long by 2-3 metres wide have been identified by a combination of geochemistry, geophysics and trenching. Diamond drilling began in January 1988 to assess the nature of the indicated mineralization in depth.

80. In Sierra Leone, the Fund project began in 1984 in the Yirisen area, where gold mineralization was known to exist. Extensions to the previously known mineralization were discovered but not enough to constitute an economic deposit. Accordingly, the project was terminated in July 1987.

81. UNRFNRE is both a funding as well as an executing agency. In its role as an executing agency, the Fund makes extensive use of a variety of contractors from the private sector. These contractors include drilling companies, laboratories and consulting firms dealing with management services as well as firms dealing with highly specialized technical analysis in geochemistry and geophysics. Private sector contractors from developing countries have participated in projects in Honduras and Peru, where the Fund is carrying out large sophisticated exploration programmes. In both projects, it has been important to get representative samples, which are collected by different methods of drilling. In Peru, the project is using reverse circulation rotary drilling and in Honduras wire line diamond drilling. Both contracts have been awarded to a Chilean/Peruvian drilling contractor Boytec, S.A., using experienced Chilean and Peruvian drilling engineers and drillers. Both undertakings, recently completed, have discovered promising deposits.


E. United Nations Fund for Women

83. UNIFEM celebrated its tenth anniversary in 1987. It has two priorities. First, it is a catalyst to promote the involvement of women in mainstream development activities, as often as possible at the pre-investment stages. Second, it supports innovative and experimental activities benefiting women, in accordance with national and regional priorities. In 1987, UNIFEM participated in round-table exercises in the Caribbean and in Niger, where it made a significant contribution to the chapter on women in the socio-economic development plan. It assisted in the fourth country cycle programming exercises for the Gambia, Sierra Leone, and Sudan, to ensure fuller participation of women; it supported the incorporation of a women-in-development dimension into the activities of the ILO special public works programme in Tanzania; and it participated in multi-disciplinary employment...
promotion missions to the Gambia and Nigeria, in the latter country contributing to recommendations for the incorporation of women in an EC-funded programme.

84. In fulfilment of the second priority of the Fund's mandate - direct support to innovative and experimental activities benefiting women in line with national/regional priorities, UNIFEM sent monitoring and evaluation missions to several countries, including the People's Republic of China, India, Sri Lanka, and Uruguay. Missions were sent to five African countries to support the women and food technologies project through a credit system for the region. The Participatory Action Programme for Latin America and the Caribbean (PAPLAC) began with the assignment of three subregional project experts. Preparation of the master plan for Asia and the Pacific commenced and a regional officer was assigned to Bangkok.

85. The participation of UNIFEM in the earlier round-table exercise of Togo was followed up with activities with the Government Directorate for Women's Conditions. This led to the elaboration of support programmes for women's socio-economic activities, financed by UNIFEM and other agencies; preparatory studies for the establishment of a revolving loan fund, financed by UNIFEM; a UNIFEM-financed, the United Nations Industrial Development Organization-executed survey of technologies used by women, the objective of which is the identification of appropriate tools and improved technologies for women; and UNIFEM assistance to a UNICEF situation analysis of women and children. At the tenth anniversary observances, a tribute was paid to the Government of Togo for its sustained effort to incorporate women-in-development activities and for the status accorded the Directorate for Women's Conditions as a technical department associated with important policy discussions.

86. In the People's Republic of China, UNIFEM assisted in the establishment of three garment factories in Beijing. The project, initiated in 1983, provides employment to about 400 young women, many of whom are handicapped. An innovative revolving loan scheme was introduced to assist women's income-generating activities in low-income peri-urban areas. It contributed to the alleviation of the unemployment problem, the raising of living standards and increases in production capacity and productivity in the Beijing plant. The project has attracted co-financing from the Government of Italy.

87. In Bangladesh, a UNIFEM project provided assistance to six women's training centres which offer classes in family health, nutrition, literacy and income-earning skills. Some 4,000 women have received training in these centres. Many have earned cash from fish nets, coconut ropes, towels and tin buckets which they produce and sell in local markets. The project proved to be catalytic in that it attracted funds from UNDP and is still being financed by them. UNIFEM has boosted the national campaign of Kenya to provide its entire population with access to clean water for the year 2000. In collaboration with the Kenyan Water for Health Organization, UNIFEM supported a project which encourages community participation in the installation and use of water pumps. The effort has trained 24 female community leaders.

88. In the Caribbean, the Women and Development Unit, established in 1978, is part of the Extramural Department of the University of the West Indies. The programme
of the Unit is designed to respond to the needs and priorities of Caribbean women as outlined in a subregional plan of action prepared by representatives of 12 English-speaking countries at a seminar held in Jamaica in 1977. In the area of technical assistance and training, the Unit has supported income-generating activities for women, with particular emphasis on the development of pilot projects which may provide models for replication in other countries. UNIFEM support to this project allowed the Unit to continue and expand its operations in three areas: technical assistance to agencies and project participants, training of trainers and extension workers, and advocacy of women's issues through communication with key individuals and organizations.

89. In 1982, UNIFEM supported research by the Flora Tristan Centre in Peru, on the situation of female workers in the electronics industry. The results of the study enabled the Flora Tristan Centre to improve the assistance to women workers in the textile, chemical, canning and electronic industries through information services and training programmes. Through the activities, participating women can better relate the stress created by their work environment to their health and analyse the effects of the current economic crisis on their personal and labour relations. Training sessions facilitated the development of leaders capable of analysing problems and proposing solutions. This enabled planning of actions to improve the quality of their lives. The project was honoured at the UNIFEM tenth anniversary observances.

90. The catalytic and support activities of UNIFEM now give special emphasis to leveraging more funds for women within the context of national structural adjustment programmes. In particular, UNIFEM experience indicates that women's access to credit is vital. In the Bangladesh project noted above, the provision of credit to destitute women - considered eminently non-creditworthy - is beginning to move villagers from subsistence activities to small business ventures. UNIFEM plans to carry out two country case studies on the impact of structural adjustment programmes on women, within which it is trying to identify business opportunities opened up for women. In Africa, where UNIFEM work is focusing on food production, access to credit as well as technology and training is emphasized. UNIFEM has added a credit specialist to its staff.

91. Further details on UNIFEM activities in 1987 are contained in DP/1988/50.

F. United Nations Fund for Science and Technology for Development

92. The United Nations Fund for Science and Technology for Development (UNFSTD) was established on 1 January 1987 as a trust fund within UNDP. Under the new arrangements, the operations of the UNDP Energy Office and Energy Account as a separate funding mechanism were also brought under the management of the Director of the Fund, and both placed in the Bureau of Special Activities (BSA). Field offices have welcomed the procedural simplification resulting from integrating FSTD into BSA. Unified programming and technical inputs at an early stage of the project cycle have now become easier to realize. UNFSTD projects are reviewed by Project Approval Committees and the Action Committee. Further, the Fund is called upon to provide technical inputs to the UNDP regional bureaus and in national
technical co-operation assessments and programmes (NATCAPs) and round-table exercises.

93. The new arrangements are of particular value for relations with non-traditional partners such as professional organizations and the private sector, which have become increasingly important factors in the science and technology field. The integration with UNDP has led to administrative cost savings. The preceding United Nations Financing System for Science and Technology for Development had managed a slightly larger programme, with 10 professionals, while the Fund's present professional staff has been cut in half. What is needed now is the strengthening of FSTD in its two main functions: as the multilateral funding mechanism for activities in science and technology and as provider of technical advisory services to UNDP in science, technology and energy matters.

94. The Fund responded to over 50 requests for advice from UNDP regional bureaux and field offices in 1987. This covers only part of the total number of science, technology and energy projects in UNDP: in 1986, some 120 projects were approved in the field of science and technology and a similar number in energy. The choice of projects in which the advice of the Fund and Energy Office is sought is made at the level of each bureau and field office. As the service becomes better established and operational, the volume of requests is expected to increase.

95. There is a growing demand in long-term planning for the application of appropriate new and emerging technologies. UNFSTD has reviewed and participated in the appraisal and reformulation of projects in advanced technologies for Bulgaria, the People's Republic of China, India, and the Republic of Korea. These have been in fields such as plant biotechnology and development of vaccines for tropical diseases.

96. UNFSTD provided its first technical services in 1987. Positive results are already apparent in the growing demand for these services. Clear needs have also emerged. UNDP and the Fund could adopt a more active role in helping Governments, especially LDCs, to identify science and technology problems and set up the machinery required to solve them. The solutions now available through improved conventional technologies and the blending of some frontier technologies with traditional technologies can be promoted. This calls for revised national policies to enable countries to stay abreast in a rapidly changing environment or even leap-frog where conditions make this possible.

97. The Technological Information Pilot System, supported by the Government of Italy through a trust fund with UNFSTD, has been testing the feasibility of setting up a South-South science and technology information exchange network. The users' survey carried out in November 1987 showed that the information flows, which started in May 1987 among the 10 participating countries, are useful in generating business inquiries about the acquisition of products and processes. A follow-up two-year phase starting in June 1988 is envisaged to consolidate the network as well as to enlarge the System geographically and expand its news coverage.

98. A significant new initiative of UNFSTD is to examine the feasibility of adapting the business incubator modality to set up small technology-related
enterprises in the People's Republic of China, Côte d'Ivoire, Gabon, and Trinidad and Tobago.

99. In China, UNFSTD is supporting the establishment of the National Food Technology and Quality Centre. The latter is carrying out research and development work on soya beans to improve diet through an increased intake of vegetable proteins. The Centre is also conducting research to improve food quality control and packaging, and is mandated to enhance standards of food production nation-wide. The Fund also supports a computer-based management training project in China, and computer education at the Asian Institute of Technology.

100. Sponsored by UNFSTD, African and European consulting firms have joined forces to set up the first African International Consulting Consortium in order to increase the share of Africans in the growing market for consultants and to provide hands-on training for qualified African professionals.

101. In facilitating access to new and emerging technologies, the Fund provided assistance to Brazil in completing high quality carbon fibre adaptation and development using local material. Several corporations are interested in utilizing these materials on a commercial level. The Non-destructive Testing Network in Latin America, launched by the Fund, has so far trained over 5,000 technicians and is now being extended in other countries as well as the regions of Asia and Africa.

102. UNFSTD also has management responsibilities for short-term advisory services (STAS) and the Transfer of Knowledge through Expatriate Nationals (TOKTEN). A significant proportion of the technical consultancy services provided through these programmes are in the scientific research/education and industrial technology/manufacturing fields. TOKTEN provides highly-skilled professionals of developing host-country origin, primarily to universities and research establishments. TOKTEN has in the last decade fielded over 1,700 consultants in 25 countries with brain-drain problems, thus producing a 10-year "brain-gain". A fourth international TOKTEN workshop was held in New Delhi, February 1988, for the purposes of expanding and diversifying this programme.

103. STAS fields experienced hands-on expert volunteers from any country, mainly to help solve technical or managerial problems in private or parastatal undertakings. Its initial focus is on manufacturing, agro-business and transportation problems. STAS is making steady progress and expects to double the number of consultants fielded to around 100 in 1988.

104. Further information on the activities of UNFSTD is contained in document DP/1988/47.