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SUPPORT

PROGRAMME IMPLEMENTATION

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Addendum

COUNTRY PROJECT RESULTS BY REGION

I. ASIA AND THE PACIFIC

1. Most developing countries in Asia and the Pacific, although they suffered a slow-down in economic growth to 6 per cent in 1989, showed per capita growth rates which were considerably higher than those in the industrialized Western countries. One contributing factor was the increase in agricultural production, due largely to improved weather conditions. This was particularly true of India, where agricultural output increased by 20 per cent in 1988 and 1989 after a drought-induced decline in the preceding year.

2. Overall, there was a sharp increase in exports, owing to economic diversification, and a tendency for Governments in the region to open their countries to new foreign investments. Against this backdrop, the United Nations Development Programme (UNDP) will continue to work towards improving productivity in the region through the promotion of new skills and technologies.

Trade promotion

3. UNDP operates a regional programme, one objective of which is to maintain the momentum of export growth in Asia and to encourage its spread. One project under this programme has helped to establish joint ventures between enterprises in Asia and counterparts in the developed world by drawing up and distributing company profiles, arranging contacts between potential partners and organizing workshops. Participating Asian countries are India, Malaysia, the Philippines, Sri Lanka and Thailand. The project, executed by the International Trade Commission (ITC) and

expected to end in 1990, handled 104 proposals, of which over 10 have resulted in firm joint ventures. A further 10 are anticipated. Another ITC-executed regional project is providing consultants on marketing strategies and export development to assist selected leather manufacturers, furniture businesses and printing services in China, Indonesia, Malaysia, Pakistan, the Philippines and Sri Lanka to develop products for export market. This project will continue throughout 1990.

Disaster relief and rehabilitation

4. Several developing countries in Asia and the Pacific also sought UNDP assistance in coping with disaster relief and rehabilitation. In China, following earthquakes in Sechuan province and massive floods in six southern provinces, UNDP, together with the Chinese Government, the Office of the United Nations Disaster Relief Co-ordinator (UNDRO) and the Government of Australia, entered a cost-sharing programme to distribute food, blankets and medical supplies. In Indonesia, UNDP provided building materials after landslides had damaged and destroyed thousands of homes in Irian Jaya. After fires swept a densely-populated area of Beik in Myanmar, leaving some 22,000 people homeless, UNDP helped to obtain chlorine to purify drinking water, and it also provided medical supplies and blankets.

Cross-border action

5. Man-made disasters in the Asian region continue to present a challenge to UNDP. A vital feature of its programme in Pakistan is the Afghanistan cross-border operation, implemented by a number of non-governmental organizations (NGOs). In 1989, UNDP funded eight Afghanistan cross-border projects administered from Pakistan worth \$4.15 million. Of this, approximately \$500,000 was from the Afghanistan Indicative Planning Figure (IPF), while the remaining \$3.65 million was contributed by the United Nations Co-ordinator's Trust Fund for Afghanistan.

6. Activities undertaken in 1989 by NGOs in Afghanistan with UNDP support included: distribution of wheat seed to Afghan farmers; repair of roads, bridges, culverts, drinking water facilities, irrigation and housing in eight provinces; the clearing of mines in Kunar and Paktika provinces; launching of a crop protection programme in the northern provinces; and the implementation of small, community-scale projects such as primary school and health clinic reconstruction, livestock vaccination and poultry breeding.

Combating illiteracy

7. In Bangladesh the great majority of children either never enrol in primary school or fail to complete five full years. As a result, only 3 in 10 adults can claim to be literate. Among women, the literacy rate is under 2 in 10. In 1985, the Government of Bangladesh drew up a plan to increase enrolment and to ensure that the majority of children remained in school for at least five years. To further this aim, a UNDP project has been assisting the Government in improving teacher training and education management, drawing up policy studies, revising curricula and developing better textbooks.

8. Thirty specialists were trained in curriculum development, and 200 officers were trained in primary education management. A revised curriculum is ready for

implementation in 1990 for classes I and II, and groundwork has been completed to develop a curriculum for classes III to V. A follow-up project, beginning in July 1990, will disseminate the new curricula, introduce further reforms and continue teacher training.

AIDS prevention and control

9. The menace of acquired immunodeficiency syndrome (AIDS) in Thailand, as in the rest of the world, has become a problem of great urgency. Research indicates that among intravenous drug users the rate of HIV (human immunodeficiency virus) infection increased from 1 per cent of users in September 1987 to an estimated 30 per cent in October 1988. This is one of the highest known rates of increase in the infection. In view of this situation, the Ministry of Public Health has developed a National Medium-term Plan for the Prevention and Control of AIDS, covering 1989-1991.

10. A UNDP project, executed by the World Health Organization (WHO), supported the first year's work under the National Medium-term Plan. Activities in which the project is assisting include: reduction of the incidence of HIV infection among intravenous drug users, reinforcement of safe sexual behaviour, prevention of HIV transmission through blood and blood products, and treatment of HIV-infected persons. Resources contributed by UNDP include audio-visual material for health education and promotion of public awareness, training of health officials and scientists concerned with AIDS, and subcontracted services for the establishment of therapeutic communities for HIV sufferers. The UNDP contribution to the first year of the Medium-term Plan was \$890,000.

Management of wildlife

11. Rapid population growth in India over the past half century, often combined with poor land management, has resulted in severe pressure on wildlife habitat and a large decline in the numbers of almost all forms of wildlife, many of which cannot be found, or preserved, anywhere else in the world. Various measures have been taken by the Government to combat this problem, including the establishment, in 1982, of the Wildlife Institute of India at Dehra Dun, in order to provide trained personnel for national conservation programmes and to furnish a scientific data base for improved management of wildlife resources.

12. From 1983 to 1988 a UNDP project, executed by the Food and Agriculture Organization of the United Nations (FAO), assisted the Wildlife Institute in successfully developing a teaching and research programme and establishing a computerized data base. A second phase of the project, due to be completed in June 1990, is strengthening the Institute's Masters of Science Programme in wildlife biology, helping with the analysis of research data and arranging overseas training for faculty members.

Making use of marine resources

13. The Government of Indonesia, in an effort to ameliorate the depressed economies of the rural coastal communities, embarked on a seafarming project in 1983. With \$2.3 million from UNDP and \$140,371 from its own budget, the Indonesian

Government sought to exploit its coastal waters, not only to produce more food and boost employment but also to generate foreign exchange through exports.

14. Since the launching of the project, a National Seafarming Development Centre has been set up in Lampung, incorporating a seafarming data base and information system. So far, 4,798 hectares of coastal waters have been utilized for seafarming development, involving a total of 19,670 people - 7,670 on a full-time basis and 12,000 on a part-time basis. Following the Centre's breakthrough in seabass spawning, about 1.3 million seabass fry were distributed to farmers in 1989. At least 29 small-scale operators have begun raising seabass, and it is estimated that by January 1991 up to 500 tonnes of seabass will have been harvested.

15. The Philippines, being an archipelago, has a large number of people dependent on the sea for their livelihood. Five years ago, determined to protect and further exploit the country's marine resources, the Government decided to strengthen, with the help of UNDP, the research and teaching capabilities of the Marine Science Institute of the University of the Philippines at Diliman.

16. This project, due to be completed in 1990, has achieved many positive results. A doctor's degree programme in marine biology has been established, training workshops for researchers and technicians have been conducted throughout the country, and technologies have been developed for the harvesting, culture and processing of various marine species. Some of these technologies are already being used to improve marine husbandry practices among coastal communities.

Integrated rural development

17. About 85 per cent of the 3.9 million citizens of the Lao People's Democratic Republic live at subsistence level and are dependent upon agriculture. Hence, the country's first two five-year development plans (1981-1985 and 1986-1990) stressed self-sufficiency in food, crop diversification and an integrated approach to rural development. The country's mountainous terrain, however, makes many areas inaccessible. The Government has therefore pin-pointed four regions for integrated rural development pilot projects to improve access and develop new agriculture and forestry enterprises, as well as to provide social services.

18. In the first targeted area - the Muong Hom district - a number of significant improvements have been made with UNDP technical assistance. A 40-kilometre dry season road from the Nam Sane Valley to the village of Phalavek in the mountainous region has been completed, along with shorter roads totalling 30 kilometres. To help farmers in even more remote parts to market their produce, the district was supplied with a 20-ton ferry and three outboard-powered canoes, plus nine pack horses and one elephant to transport logs from the forests to the sawmills. Dams and canals were constructed, creating 83 hectares of permanent rice fields. Two rice mills were built to process the grain, and a sawmill was constructed to supply timber for housing. Two multi-purpose surveys of health, veterinary services and local drinking water supplies were carried out in nearly half of the district's villages. UNDP provided \$2.24 million while the Lao Government contributed \$71,225.

Fostering the handicrafts industry

19. The development of the handicrafts industry is important to the economy of Sri Lanka because the industry employs about 60,000 persons, a high proportion of whom are women and people from the rural areas. It is an industry that requires little imported equipment, uses mainly local materials and provides supplementary income for the underemployed and the seasonally employed. In 1983 the Government set up the National Design Centre under the Ministry of Textiles and Rural Industrial Development with the primary objective of upgrading the marketability of Sri Lankan handicrafts.

20. One of the major achievements of the National Design Centre has been the recruitment of a design co-ordinator, seven full-time designers and two consultants. In one year, the Design Department produces more than 1,000 designs, 80 per cent of which are commissioned by producers or marketing enterprises. If not for the recent political disturbances within the country, the percentage of designs taken up by producers would have been greater. A regular annual buyers' and sellers' meeting has been established, which last year attracted 27 producers, 100 trade buyers and 2,000 members of the public.

Extending essential skills

21. Bhutan's Human Resources Development Master Plan, formulated in 1987, has helped to relieve the country's acute shortage of skilled manpower. The Master Plan has promoted overseas fellowships, strengthened indigenous educational and technical institutions, and assisted new in-country training programmes. It was implemented, in part, through UNDP funding of \$5.28 million; Bhutan contributed \$675,000. In addition, the Government elected to tap into the professional expertise of the United Nations Volunteers (UNV) programme to cope with its lack of skilled manpower. Today, while young Bhutanese are sent abroad for advanced training, the UNV programme continues to provide essential skills.

22. UNV medical specialists have handled 25,000 ophthalmological cases, treated 3,000 children, interpreted 24,000 X-rays and provided obstetric and gynaecological services at Thimphu and Tashigang hospitals. At the same time, Bhutanese are being trained as ophthalmological assistants, radiology technicians, paediatric nurses, midwives and health workers. Training is also being offered in animal husbandry, agriculture, education, road construction and housing.

Training in hydroelectric technology

23. Nepal wants to harness its abundant water resources and is planning to construct hydroelectric dams on its major rivers, but it lacks professional and technical manpower. A study by Nepal's National Planning Commission indicates a need for 1,000 civil engineers for the country as a whole. In the power sector alone, there is an immediate need for 250 civil engineers, especially since the Government is actively considering the Karnali hydroelectricity project in the Far Western Development Region.

24. In July 1980, the first group of 50 students was enrolled in Roorkee University in India for an eight-year engineering course. With \$2.68 million from

UNDP, 244 students have completed their studies and six more are expected to finish in 1990.

Conservation of rainwater

25. The 63,000 inhabitants of Kiribati depend solely on rainfall and wells for water. While rainfall is quite abundant and evenly distributed during the rainy season, droughts of several months during the dry season often cause severe water shortages and damage to crops. To meet the water supply needs of its growing population, the Government of Kiribati has initiated a programme to conserve rainfall. Kiribati's Public Works Department is entrusted with the task of co-ordinating water supply projects in the outer islands. UNDP has provided equipment, technical assistance and training.

26. As a result, there is now a catchment system in the outer islands to collect and store water. Each island involved has four people trained in water tank construction, with equipment to produce more catchment systems. Ferro-cement water tanks have been built on 11 islands, and local volunteers help to maintain the systems, including the hand pumps.

II. AFRICA

27. Sub-Saharan Africa continues to contend with natural and man-made disasters, rising indebtedness, falling export revenues, mounting population, food scarcity and disease.

28. Technical co-operation remains in line with the priority areas identified in the United Nations Programme of Action for African Economic Recovery and Development (UNPAAERD) 1986-1990. Areas of primary focus include agricultural development, the alleviation of external debt, the reduction of unemployment, private sector development, environmental management, women in development, the encouragement of non-governmental organizations and, most importantly, the development of human resources, which UNDP sees as a major component of its programmes in Africa for the next decade.

29. At the regional level, UNDP organized a series of cluster meetings of African planning ministers (four for sub-Saharan Africa and one for North Africa) to build consensus on development policy. Subsequently all of these ministers came together with all of the sub-Saharan resident representatives at a precedent-setting joint meeting in Addis Ababa in April 1989. It was agreed that such continent-wide meetings should be held every two years. UNDP has also continued to organize round-table discussions and sectoral follow-up meetings for several least developed countries in the region, in which all major donors are invited to participate. In addition, UNDP has continued to hold meetings with the main United Nations executing agencies to discuss common objectives and to harmonize policies.

30. Roughly three quarters of the countries in the region have now embarked on some economic and institutional structural adjustment. UNDP is playing a part in assisting the process and in helping countries to make the transition with minimum

hardship. The Structural Adjustment Advisory Teams for Africa, established in July 1989 as a regional project, provide for the training of national staff, particularly in the ministries of finance, who handle the complex analysis and negotiation of structural adjustment packages. A complementary project, which the World Bank executes and jointly funds with the African Development Bank, helps to sustain social services during structural adjustment. This project is expanding rapidly.

31. UNDP supports various other innovative mechanisms to promote development in the region. The Africa Project Development Facility (APDF), formed in 1986, is an example. Another is the African Management Services Company, founded in 1989 to promote improved management of African enterprises. The National Technical Co-operation Assessment and Programmes (NaTCAP) exercises are an increasingly important means for establishing country-wide frameworks for technical assistance, and they are being requested by and extended to a majority of the countries.

32. The 1980s in Africa were characterized as a decade of adjustment, largely without growth. The next decade, it is hoped, will be one of renewed growth and development. UNDP is ready to play its role, and the next two years will involve a great deal of operational follow-up planning.

Special situations

33. One of the most important events for the region in 1989 was the gaining of independence by Namibia, where a UNDP office has been opened in the capital, Windhoek. A country programme will be decided upon by the new government in mid-1990, and UNDP has established a trust fund for development activities.

34. The role of UNDP in areas of acute hardship and disruption remains a significant one. The problems of refugees, displaced persons, famine, desertification and plagues of locusts and migratory birds are all being addressed in various countries. In Ethiopia, for example, UNDP has continued to co-ordinate operations within the Emergency Prevention and Preparedness Group, at the request of the Ethiopian Government, to alleviate the effects of war and famine.

Increasing the productivity of women

35. Through a specially designed package of seven projects - costing \$14.4 million and involving at least 17 countries - new ways of raising the productivity of women in key development sectors are being tested. The projects, which are being carried out simultaneously in several participating countries, focus on agriculture, drinking water supply and sanitation, energy and the informal sector, as well as women's access to credit and scientific and technical education. The purpose is to experiment with participatory grass-roots approaches and to communicate the results to government officials and donors on the front line of decision-making. In Nigeria, for example, research carried out under the project is being used to advise both the Government and World Bank officials on how to make agricultural extension services more specific to the needs of women. A Women in Agriculture (WIA) Programme, initiated in a few States, is now nation-wide and is strongly supported by World Bank lending operations. At a recent WIA workshop, three-year

action plans were drawn up outlining in detail the problems women farmers face and ways to alleviate them. These action plans are now being implemented by the Government. News of the Nigerian programme has spread to Kenya, which is gearing up for a similar workshop, possibly involving all east African countries.

Enhancing management capacity

36. A high priority in Africa remains the building of national management and planning capacity, which is recognized as central to the promotion of sustainable development. In Ghana, nearly 70 per cent of UNDP resources are being directed to the planning effort - representing some 23 projects in every major sector - in support of decentralization and the country's economic recovery programme. A number of countries have carried out administrative reforms and training programmes with UNDP assistance.

Putting labour to work

37. In 1987 Nigeria launched a Special Public Works Programme as an emergency employment measure and a means of involving local communities in improving their living conditions. Through a demonstration project supported by UNDP and the International Labour Organisation (ILO), high-level government officials as well as local contractors have been convinced of the merits of labour-intensive construction methods, which not only provide a needed source of employment but save about 40 per cent in foreign exchange costs due to the elimination of heavy imported machinery. Through the project, 70 engineers from five States were trained in both the theoretical and practical aspects of labour-intensive methods through the construction and rehabilitation of rural roads and small-scale irrigation schemes. As a direct result of the project, labour-intensive methods will be incorporated in a major public works programme covering nine States.

Preparing first-time entrepreneurs

38. While unemployment in Zambia is generally high, it is particularly acute among youths and school drop-outs. Each year an estimated 160,000 young persons leave the educational system, with limited hope of being absorbed into the formal employment sector. With technical assistance from the ILO and national consultants, UNDP is helping to identify viable small-scale enterprises for young Zambian men and women and thus to prepare them for self-employment.

39. Since March 1989, three training programmes have been organized for nearly 50 prospective entrepreneurs; 40 have successfully completed the training and are now embarking on new business ventures in traditional and non-traditional areas. To provide start-up capital, loan agreements have been signed with two Zambian banking organizations, opening up a new form of credit for first-time entrepreneurs. An "enterprise education" campaign is also being initiated. Four radio programmes have been aired introducing the self-employment option, and training materials are being prepared for introduction into schools and technical colleges. As a result, nearly 700 inquiries have been received from Zambian young people, of whom 400 have been interviewed or have received advice.

Supporting national consultants

40. Sweeping changes have taken place in Ghana since it launched its economic recovery programme in 1983, involving major policy shifts and economic adjustments. While a large pool of skilled consultants is available in Ghana to help implement these changes, the consultants often lack the experience or expertise to compete with foreign experts, and they are frequently jobless.

41. Since January 1989, a UNDP-supported project has been helping to develop the consulting industry in Ghana, in both the public and private sectors, which is estimated to include some 2,500 professionals in various fields. Three workshops have been conducted so far, resulting in a draft national action plan to develop the industry, which is under review for legislation. A Ghana Association of Consultants has also been formed along with the establishment of consultancy centres in the country's three main universities. Donor agencies and multilateral agencies, including UNDP, are now stepping up their use of local consultants. In ongoing projects supported by UNDP, about 50 per cent of all person-months now approved for subcontract will be filled by local experts. In 1990, special focus will be placed on enhancing opportunities for women professionals in the consultancy field.

Environmental management

42. The effects of desertification in the Gambia are less dramatic than those in other Sahelian countries. Nevertheless, the deterioration of the country's natural environment is contributing to a steady decline in the quality of life. In recent years, the Gambia has experienced a steep reduction of forests and degradation of rangelands due to overgrazing and frequent bushfires, with the result that feed supplies in some areas are no longer adequate to support livestock.

43. To prevent further desertification - and to restore rangelands and feed supplies - a UNDP-supported project was undertaken in 1986 in the districts of Niamina Dankunku and Niamina West, with a combined population of nearly 10,000 people and a large number of cattle, goats, sheep, donkeys, horses and oxen. Through a combination of rangeland management, improved water supplies, new feed storage facilities, bushfire prevention and tree planting schemes, livestock deaths have been considerably reduced and bushfires have been almost completely eliminated. Moreover, the project was carried out with the full participation of 54 villages, which contributed nearly 22,500 days of work and have now organized local committees to see that the results of the project are sustained. A pilot dairy processing unit is being set up and training for farmers and community leaders continues. Two neighbouring districts have requested government support for similar assistance.

Multi-sectoral education and training

44. The partnership between UNDP and the United Nations Volunteers (UNV) programme has proved of great benefit in Africa. UNV furnishes a highly flexible way of providing technical assistance and has been at the forefront in the promotion of South-South co-operation.

45. In the Central African Republic a UNDP multi-sectoral education and training project executed by UNV has been operating since 1985. Volunteers introduced to the country from other parts of Africa include five science teachers, five statisticians, three civil engineers, two garage mechanics and two computer experts. The results have included auxiliary science teaching in the lycées of M'Baiki, Sibut, Bozoum and Mobaye, improved use of statistics in economic planning, and the setting up of a computerized data base on gold and diamonds. The project is expected to have a multiplier effect, since national counterparts trained by the volunteers will, in their turn, train other national personnel.

Upgrading urban facilities

46. In many parts of Africa, inadequate urban infrastructures and heavy migration to the cities have resulted in poor and unhygienic living conditions. Burundi, although one of the world's least urbanized countries, has experienced increasing pressure on its capital, Bujumbura, which has been absorbing 6,000 new inhabitants every year. This has resulted in the appearance of unplanned slum areas, such as Musaga on the outskirts of the capital, which by 1978 had some 8,500 inhabitants living in extremely unhealthy conditions.

47. From 1978 to 1989 UNDP assisted the Government in carrying out an urban improvement project in Musaga, through the United Nations Centre for Human Settlements (UNCHS/Habitat) and the United Nations Capital Development Fund (UNCDF), with cost-sharing from the Government of Switzerland during the second phase of the project. Results of the project include extensive new housing, road and drainage networks, a piped water supply system, street lighting, a health centre (financed through bilateral aid from the Netherlands), a community centre, a sports field and a market-place with service buildings. The result has been a marked overall improvement in sanitation and general living conditions.

Cultural heritage preservation

48. Preservation of Africa's cultural heritage has in most countries tended to be given a lower priority than economic development. Yet the cultural dimension can be of great importance to a country, not only in terms of national identity but also as a source of tourist revenue. A case in point is Kenya, where prehistoric sites in the Rift Valley have yielded a unique record of human evolution. These sites are now being threatened by agricultural development, urban expansion and the proliferation of industry. Furthermore, lack of funds and experienced staff make it difficult to maintain research and exhibition facilities.

49. To counteract this threat, the administration of the National Museums of Kenya is encouraging cultural tourism in the country and at the same time improving its scientific and conservation capacities and organizing exhibitions. UNDP has been assisting the National Museums of Kenya in a project at Koobi Fora in northern Kenya, one of the world's most important palaeoanthropological sites, rich in fossils and stone tools. Access and accommodation for tourists and researchers are being upgraded, and museum and exhibit facilities improved.

III. LATIN AMERICA AND THE CARIBBEAN

50. This region, beset by the burdens of external debt, critical poverty, drug trafficking, civil conflict, and pressures to conserve its environment, took important steps in 1989 to unite in facing these problems, with UNDP playing a substantial role.

51. In Central America, UNDP began to implement the Special Plan of Economic Co-operation for Central America (PEC), in close collaboration with five Central American Governments (Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua), regional institutions, international organizations and donors. UNDP approved 21 regional projects at a cost of \$11.2 million, of which \$7.5 million was financed from UNDP's Special Programme Resources and the balance through co-financing. These projects helped to create the technical documentation needed to mobilize resources for investment and for large-scale technical co-operation projects, and to strengthen national and regional institutions. Governments placed high priority on programmes for uprooted populations, electricity, agricultural and telecommunications sectors, reactivation of the Central American Common Market and strengthening of the Central American Bank of Economic Integration. As of 31 December 1989, donor pledges and estimates for the PEC programme totalled over \$700 million, including Italy's \$115 million commitment to the Programme of Assistance to Displaced Persons, Refugees and Returnees (PRODERE) and \$140 million from the European Economic Community (EEC) to boost intraregional trade. Pledges by donors were tied to progress in the regional peace process, democratization and economic reform.

Uniting on the environment

52. In November 1989, President Oscar Arias of Costa Rica and a group of prominent political, economic and scientific leaders of the region met in New York. Their mission was to draw up a common approach to the vital issue of balancing environmental needs and conservation of natural resources with the development needs of Latin America and the Caribbean. The Commission for Latin America and the Caribbean on Development and the Environment, sponsored by UNDP and the Inter-American Development Bank, was formed. The Latin American leaders urged that the region seek "a major financial contribution from industrialized countries and rapid and growing technology transfer". They called for an early North-South summit to discuss "a common agenda of mutual self-interest" for the region.

Emergency assistance

53. In the Caribbean, UNDP provided emergency assistance to Jamaica, the British Virgin Islands, Dominica, Montserrat, and Saint Kitts and Nevis, all of which were badly hit by Hurricane Hugo in November 1989. In the case of Montserrat, which suffered particularly severe damage to infrastructure, UNDP provided additional assistance under a project designed to introduce hurricane-resistant construction techniques in housing rehabilitation. The UNDP office in Barbados co-operated closely with UNDRO and with the Pan Caribbean Disaster Preparedness and Prevention Project, located in Antigua and Barbuda, in the co-ordination of international disaster relief.

The Caribbean Project Development Facility

54. The Caribbean Project Development Facility, which began its activities in 1982, assists entrepreneurs in developing suitable private sector projects and in mobilizing necessary financing. Since its inception it has helped to prepare 82 business proposals in 19 countries with a total investment value of \$242 million. Of these, 46 projects have secured \$98 million in financing. They include investments in hotel construction and expansion, furniture manufacturing, food processing, ceramic tile production, fertilizer production, sawmill expansion, cultivation of cut flowers and winter vegetables and the building of shipping facilities.

55. The Facility, which is managed by the World Bank/International Finance Corporation (IFC), is funded by UNDP and other donors, including the United States of America, Canada, the Federal Republic of Germany, the Netherlands and the Inter-American Development Bank. The Facility benefits from an advisory committee composed of representatives from the private sector, the World Bank/IFC and UNDP.

Tapping geothermal energy

56. Saint Lucia is seeking to meet its electricity needs and save on imported oil by harnessing geothermal energy. In 1988, an exploration team drilling near the Pitons mountains in Saint Lucia struck an underground reservoir containing highly pressurized steam that could, if properly exploited, revolutionize Saint Lucia's electricity production. UNDP administered the drilling project, which was funded by a \$10 million grant from the United Nations Revolving Fund for Natural Resources Exploration (UNRFNRE) and the United States Agency for International Development (USAID).

57. Converting the geothermal resource into electrical energy will involve drilling more holes into the volcanic area. The released steam can then be used to drive turbines linked to the island's electricity grids. The one well that has been drilled so far could boost the island's 15-megawatt electricity capacity by a third. But the Government is also hoping to drill additional wells and put in a large 10-megawatt power plant.

Promotion of food security

58. Fifty per cent of the population of the Dominican Republic consists of farmers, and the major share of the country's export earnings comes from agriculture. The nation increasingly imports agricultural products for its own consumption, however. At the same time, home production of certain traditional foods such as roots and tubers has dropped. The net result is a less nutritious diet and higher food prices, making many foods inaccessible to the poorer sections of the population. UNDP was called in with FAO in 1987 to help the Government to increase domestic food security.

59. Five food-raising projects were formulated under the UNDP/FAO programme. One of these, planting rice over an area of 5,000 hectares, has already begun, and results so far have been encouraging. Budgets have also been approved for three projects involving basic food items such as plantain, red beans and yucca, and for

a project to grow African palm for palm-oil. In addition, United Nations agencies and government departments joined forces to create a computerized data base covering the production, credits, costs, prices and exports of the nation's 27 most important food products.

Overcoming the shortage of brainpower

60. Since its independence in 1966, Guyana has experienced a brain drain of skilled technical, administrative and managerial professionals. The Government and UNDP have collaborated in recent years on three separate approaches to strengthen the technical and managerial capacity of the country. In 1982, expatriate specialists of Guyanese origin were invited to return to the country for short-term assignments under UNDP's programme known as TOKTEN - the Transfer of Knowledge through Expatriate Nationals. Twenty-five TOKTEN assignments were undertaken in 1989.

61. Four years ago the United Nations Volunteers (UNV) programme began to lend expertise requested by the Guyanese Government to increase productivity and strengthen institutions which have been affected by the emigration of Guyanese professionals. The number of volunteers rose from 10 in 1988 to 16 in 1989 and is expected to rise to 31 in 1990. UNV is mainly involved in macro-economic management.

62. In yet another attempt to combat the Guyanese brain drain, UNDP has been supporting the Institute of Applied Science and Technology since its opening in 1980, helping with overseas training and the establishment of a research and development capability. The Institute set up a "business incubator" following a workshop in late 1988. Twenty-five entrepreneurs were selected to participate in the exercise, which provides expert advice and allows budding businesses to share overheads and services.

Strengthening social services

63. The Government of Argentina asked UNDP to help to improve the administration of social services, which, according to a World Bank study in 1986, required a great deal of attention. Average household incomes declined by 20 per cent in real terms between 1974 and 1985, while income distribution became more skewed. Moreover, services that benefited low-income groups, such as primary education, public hospitals, preventive health care and slum improvement, had deteriorated severely. The World Bank and the Governments of Argentina and Japan are supporting UNDP's efforts to improve policy making and the delivery of services.

Grass-roots enterprise

64. Achieving economic self-sufficiency often means moving one or more steps up the production ladder to make a finished product instead of merely supplying the raw material or an intermediate product. When members of an informal neighbourhood women's group in Timby, Brazil, discovered that their tapestries were finished and sold by nearby factories for four times the price paid to the women, they joined together to finish the tapestries on their own. They sought and received financial support from the United Nations Development Fund for Women (UNIFEM) and UNDP,

working through a non-governmental organization, Casa da Mulher do Nordeste (North-east Women's House). The women are now selling their tapestries at market price, and have thus increased their incomes and living standards, including levels of nutrition and health.

65. In Guatemala, an employment project is targeted at small urban businesses or "micro-enterprises". It is estimated that there are some 40,000 small, unregistered businesses in Guatemala which could be made bigger and stronger, and could help to solve a problem common to much of Latin America - urban under-employment. The project uses six NGOs located in Guatemala City to assist the entrepreneurs. To qualify for help, a business must be at least two years old, have two to seven employees and maximum working capital of less than \$45,000. Those with the potential for maintaining a 10 per cent annual growth in profits receive a loan averaging \$1,300. In the first year of the project, 92 per cent of the \$4.7 million in loans was repaid on time, better than the national average for commercial loans. A government official has estimated that it costs three times as much to create a job in the formal sector than in the informal micro-enterprise programme.

66. UNDP has helped Paraguay to cope with the fact that over the past seven years the urban labour force has grown from 37 per cent of the total force to nearly 50 per cent at the same time that urban employment opportunities have been deteriorating. In 1985, bilateral assistance helped small businesses in the capital city of Asunción to gain small credit loans and receive basic management training courses. In June of 1989, UNDP, working through ILO and a non-governmental organization, the Paraguayan Foundation for Co-operation and Development (FUPACODE), expanded the programme to other cities. In six months, 1,465 credits were extended to "solidarity groups" of entrepreneurs in the same activity, providing a total of \$717,204 of expansion capital. Training courses were developed for the new beneficiaries, and national personnel were trained to support the extended programme.

Low-cost, self-help housing

67. Costa Rica has an urgent need for 200,000 low-cost homes in both urban and rural areas. In 1987 the Government's Ministry of Housing launched the National Bamboo Housing Project with support from UNDP and the Netherlands. The project, executed by UNCHS and ILO, uses the fast-growing bamboo in place of more expensive and ecologically valuable timber, thus providing a material that is light, flexible and easy for women and children to handle in self-help home building. Early experience has shown that houses which would cost \$5,000 made of traditional cinder block or wood and plaster can be made of bamboo for between \$2,000 and \$2,400. So far 200 homes have been built.

Volcano monitoring

68. Volcanic eruptions have occurred in Saint Vincent twice this century. Rising 4,000 feet over the island, Soufrière volcano killed over 2,000 in 1902 and erupted again in 1979 causing extensive damage to crops. The following year, the Government turned to UNDP for help in launching a project to monitor Soufrière's

activity continuously. The island has now installed an early-warning data analysis and alarm system costing \$540,000.

69. Seismographic signals are relayed to the region's volcano monitoring headquarters in Trinidad, 200 miles away. The Seismic Research Unit of the University of the West Indies then analyses the transmissions on a special computer system provided through the project. In addition to monitoring Soufrière in Saint Vincent, the Unit tracks all volcanic activity in the eastern Caribbean and collects data from a seismograph network of 30 stations in 14 islands.

70. This is an example of how UNDP funding has been put to use for the benefit of the entire region. Analysis which previously required days to compile now takes only seconds, giving scientists a vital edge in the race to save lives. The experience of UNDP in the Caribbean has been applied to other volcano monitoring programmes in Ecuador and Colombia.

IV. THE ARAB STATES AND EUROPE

71. Providing food security continued to be a major thrust of UNDP's work in the Arab region, where only 13 per cent of the total land surface is arable and agricultural production consistently lags behind population growth. Closely related were efforts to optimize the use of land and water resources and to protect the environment. Emphasis was also given to educating and training large numbers of men and women for jobs ranging from handicrafts production to the operation of state-of-the-art communications technologies. Programmes for economic diversification received support as well.

72. Transfer of technology was the dominant theme in the 10 European countries UNDP supports. High-level consultants, equipment and fellowships provided in such crucial fields as agriculture, medicine, informatics and remote sensing enabled these countries to apply advanced techniques while saving scarce foreign currency. In keeping with political changes in the region, support was given to several Eastern European countries in their moves towards more market-oriented economies.

73. Arab and European Governments and institutions have developed many fruitful linkages. This collaboration was given a boost in 1989 through UNDP-supported seminars and projects to promote a sharing of experience in photovoltaic energy systems, women in development, and aquaculture.

Supporting new settlers

74. Most of Egypt's 52 million people live on 4 per cent of the land, in the Nile valley and delta, which has also traditionally been the only agricultural land. Egypt imports more than half its food requirements and 75 per cent of its wheat.

75. Economic exploitation of former desert lands, newly reclaimed with Nile water stored by the Aswan dam, is a corner-stone of the Government's agricultural development strategy. In an area 150 kilometres north-west of Cairo, the massive Noubaria Development Scheme will increase agricultural land by 875,000 hectares and generate 75,000 jobs for new settlers.

76. UNDP, with FAO, supports Egypt's efforts to help the new settlers with irrigation and water management, agricultural mechanization, fruit and vegetable production and livestock improvement. Nurseries for windbreaks have been established and credit and marketing schemes designed. Adoption of a system that provides crops with just the right amount of pre-fertilized water has increased yields by 40 per cent. Wheat is being grown in the desert for the first time.

77. A core of extension specialists able to meet the challenges of desert development is in place. KHADRA, a national youth group also assisting the settlers, has received a \$25,000 grant from the UNDP Partners in Development programme to promote biogas energy through a demonstration project in one village.

Training agricultural personnel

78. Saudi Arabia has made huge investments to develop arable land and water resources, introduce modern farming practices and equipment and train agricultural personnel. For more than a decade, UNDP and FAO have supported four agricultural training centres which have trained over 2,000 people in general agriculture as well as specialties including irrigation and drainage, plant protection, soil and fertilizers, beekeeping, poultry production and the operation and maintenance of farm machinery.

79. Recent agricultural expansion, however, has further increased the need for technical personnel. A recent survey showed that 80 to 90 per cent of the staff operating agricultural projects are expatriates, and that the Kingdom requires 5,600 agricultural experts. Thus, UNDP and FAO continue their support for on-the-job training and short-term courses abroad.

80. During the first nine months of 1989, 416 agricultural engineers and 181 agricultural technicians from the Ministry of Agriculture and Water were trained in different specialties. These professionals now design, implement and evaluate agricultural training programmes, replacing international experts.

Cutting post-harvest losses

81. Democratic Yemen estimated that post-harvest losses of domestically produced and imported foods from 1981 to 1986 were as high as 20 per cent for grains and 50 per cent for fruits and vegetables. The total yearly value of such losses was over \$4 million for the major locally-produced food crops.

82. UNDP provided \$712,000 in equipment and FAO technical assistance for the establishment of a Post Harvest Centre, constructed with a \$635,000 grant from the Arab Gulf Programme for the United Nations Development Organizations (AGFUND). In three years, advice provided by the Centre helped to reduce fruit and vegetable losses to only 3.4 per cent. Further UNDP support is planned to strengthen the links between the Centre and extension services.

Conserving soil and water

83. Tunisia aims to protect 1 million hectares of soil from erosion by the year 2000. UNDP and FAO support for soil and water conservation training is helping the Government to realize this goal. In addition to implementing 13 conservation works, seminars on conservation have been held for 70 participants. Eleven workshops and training sessions have been conducted for groups of up to 36 participants each, and 28 technicians have been sent abroad to study the conservation experiences of other developed and developing countries.

Investigating deep ground water

84. Morocco gets 30 per cent of its water from underground sources. This amounts to 1 billion cubic metres of water, of which only 8 per cent is pumped from deep aquifers. The Government is studying the deep water extraction potential of four basins in different parts of the country with \$1.3 million in UNDP and United Nations Department of Technical Co-operation for Development (DTCO) technical support.

85. Six workshops held in Morocco covered techniques of deep drilling, water extraction, satellite imagery processing and analysis, statistical data processing, mathematical modelling of ground-water flows, and ground-water resource management. These techniques are now being applied by the Water Investigation and Planning Branch of the Ministry of Public Works. Extensive data were gathered, geological maps prepared, and various models developed for aquifers in each of the four basins.

86. The Government is carrying out further studies in the modelled areas to confirm various hypotheses on the behaviour of the aquifer systems. Boreholes already drilled will soon be used for water supply.

Upgrading technical education

87. The technical secondary schools of Somalia provide craftspersons and middle-level technicians with training in vehicle mechanics, construction, engineering, navigation and other skills needed by local industries. Until recently, however, the quality of the training provided had been unsatisfactory owing to overcrowded classrooms, poorly designed curricula, inadequate equipment and low-quality instructional materials.

88. Now a four-year project supported by UNDP and the United Nations Educational, Scientific and Cultural Organization (UNESCO) since 1987 has vastly improved technical training and prompted industries to seek the assistance of the Technical Teachers' College (TTC) in restructuring their own training programmes. The project established new departments for curriculum design and development, instructional media and in-service training at the TTC. The College also held 10 workshops on technical secondary schools curriculum design for teachers, representatives of local industries and Ministry of Education personnel, and 12 workshops on the preparation of instructional materials.

89. Eleven in-service training courses were held for 198 technical teachers, and seven teachers received fellowships to study curriculum design and instructional material development abroad. Equipment worth \$400,000 was provided.

Equipping the disabled

90. Jordan has an estimated 183,000 disabled persons, but it has only 39 general education rehabilitation centres catering to fewer than 3,000 of them. Its 12 vocational rehabilitation centres serve fewer than 300 persons with disabilities.

91. UNDP and ILO have provided assistance for the training of 60 instructors and 25 directors and placement officers for the disabled. This assistance has also enabled Jordan's main vocational rehabilitation centre to establish placement and follow-up services. In other rehabilitation centres, equipment was provided to train the disabled in carpentry, shoe-making, book-binding, upholstery, motor mechanics, car body repair, metal and aluminum works, tailoring, cane work and brush making. Beginning in 1990, UNDP and AGFUND will jointly fund a two-year, \$602,000 project to develop rehabilitation staff training capacities throughout the Arab world.

Learning with computers

92. Bulgaria has been experimenting with computer education in 30 elementary and secondary schools for 10 years, assisted by UNDP, UNESCO and the United Nations Industrial Development Organization (UNIDO). The goal is to prepare young people for the information age of computers and robots. Students begin by using the internationally accepted LOGO computer language to manipulate miniature toys they build with LEGO construction sets. They later apply computers to the study of language, mathematics and other subjects, and eventually learn to create computer programmes for miniature robots which are exact replicas of factory machines.

93. The programme is expanding to include the use of video, lasers and other advanced educational technologies. While Bulgaria makes its own personal computers, UNDP has provided additional equipment, technical consultants and fellowships for Bulgarians. Software is being developed at the Lenin Higher Institute of Mechanical and Electrical Engineering in Sofia and more than 1,000 teachers have received special training. Since 1985 Bulgaria has organized three international conferences on "Children in an Information Age" at which it has shared computer education experiences with other countries.

Promoting entrepreneurship

94. In October 1989 Poland, shortly before passing 25 new economic laws catapulting it into a market economy, was host to the International Forum of Small- and Medium-Scale Enterprises, sponsored by UNDP and UNIDO. The Forum attracted representatives from Bulgaria, Cyprus, Hungary, Malta, Poland, Turkey and Yugoslavia, as well as observers from several Arab, Asian and African developing countries and more than 100 Polish entrepreneurs.

95. Participants discussed prospects and problems of developing private enterprises, especially east-west joint ventures. Many Polish entrepreneurs spoke of lack of capital, high taxes, exorbitant interest rates, inefficient banking systems, non-functioning telephones and the absence of a commercial real estate market. Three additional workshops were recommended - one focusing on the regulatory and structural environment for small- and medium-scale enterprises, another dealing with venture capital and a third with privatization.

Harnessing solar energy

96. A seminar on photovoltaic energy sponsored by UNDP in Yugoslavia in September 1989 attracted planners and policy makers from 13 Arab and eight European countries. Under certain circumstances photovoltaic systems, which generate electricity directly from the sun's rays, could be economically used in both the Arab and European regions to provide electricity for rural health clinics, water pumps, village lighting and water desalination.

97. As a result of the seminar, participants set up a steering group to pave the way for a network of Arab and European institutions and experts to exchange data in this field.
