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PROGRAMME PLANNING

Country and intercountry programmes and projects

FOURTH COUNTRY PROGRAMME FOR ETHIOPIA*

<u>Programme period</u>	<u>Actual resources programmed</u>	\$
January 1987-December 1991	IPF for 1987-1991	82 943 000
	Other resources programmed	<u>91 180 000</u>
	Total	174 123 000

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*Detailed listings of projects and other related data prepared as part of the country programming exercise are available on request. These listings include: (a) ongoing projects; (b) proposed projects; (c) distribution of resources by objective; (d) planned activities of operational funds and programmes under the authority of the Administrator; (e) distribution of new country programme by sector.

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I. DEVELOPMENT TRENDS, STRATEGIES AND PRIORITIES

A. Current economic trends

1. Ethiopia is among the least developed of the Least Developed Countries (LDCs), its predominantly rural population (86 per cent) eking out a mere subsistence from small-scale agriculture and livestock production. The past decade has, nonetheless, demonstrated the possibilities of appreciable growth rates, averaging 3.2 per cent between 1976/77 and 1980/81 with peaks of 5.2 and 5.5 per cent in 1978/79 and 1979/80. However, the recurrence of drought, assuming disastrous proportions in 1983/84, and exacerbated by internal security problems in the north of the country, has forced the Government to divert already scarce resources from productive investment, thus disrupting development programmes and sharply reducing growth.

2. The national census of 1984 established the total population at 42 million. Per capita gross domestic product (GDP) is at approximately \$120, among the lowest in the world. All other economic indicators also confirm the difficulties of a situation that is negatively affecting economic growth. Economic reforms directed towards income and wealth redistribution through more egalitarian wage and price policies have largely contributed to lowering urban and rural income differentials and thus have depressed domestic savings below 3 per cent of GDP. This, together with a diminution of external resources due to a deterioration by 27 per cent in Ethiopia's terms of trade from 1980 to 1983, as well as by a progressive contraction in development assistance, has been among the main factors maintaining gross fixed investment below 12 per cent of GDP (compared to a 14 per cent average for LDCs). But the hardest blow to development and growth has come from the drought, culminating in the disastrous 1984 harvest which, according to the Food and Agriculture Organization of the United Nations (FAO), was 28 per cent below the average production attained in 1980-1983. More than 10 million people needed emergency food assistance in 1985, and relief programmes worth over \$1 billion had to be implemented. Whilst 1985 has brought more favourable rainfall to many regions, FAO puts total harvest at 15 per cent below normal, and the Office for Emergency Operations in Africa (OEOA) estimates that more than 6 million people will continue to need emergency assistance.

3. In many respects, however, the 1974 Revolution has set in motion a process of profound and positive change. This is demonstrated by the impressive rise in literacy, from 7 per cent in 1973 to over 40 per cent in 1983, and in primary school enrolment, 19 per cent to 47 per cent within the same period; there is also a tenfold increase in the population with access to clean water and better health services, from 1975 to 1984 the number of people per physician decreased from 75,740 to 58,490. Most significant, however, was the reduction in the rural-urban income differential as a result of the agrarian reforms of 1975.

4. The expansion of social services in the education and health sectors has, on the other hand, aggravated the already chronic shortage of skilled manpower required for the implementation of the development programmes in all fields and at all levels of competence. This critical problem is duly reflected in the Government Perspective Plan for 1984/85 - 1993/94 and has influenced the orientation of the fourth country programme.

B. National development strategies

5. The Government has adopted central planning as the main instrument for the conception and management of an accelerated socio-economic transformation of the country. Whilst the annual development campaign programmes, introduced in 1978, made a significant contribution towards minimizing the effects of acute crises and stabilizing the national economy, it is recognized that what is now required is a broader and more sustained development effort. Accordingly, a ten-year perspective plan (1984/85 to 1993/94), the aim of which is to mobilize and direct the country's human and natural resources towards directly productive activities, so as to raise the level of development of the productive forces and the standard of living of the working people, has now replaced the annual plans which, because of their limited time-horizon and their primary concern with immediate problems, were unable to bring about the necessary structural transformations in the economy.

6. The major objectives of the Plan aim at a gradual improvement of material and social well-being through accelerated economic growth, achieved by expanding productive capacities and productivity, particularly in agriculture, mining and industry. At the same time it will ensure a structurally balanced development by expanding domestic resources-based industries, thus enhancing sectoral and intersectoral linkages.

7. The Government seeks to attain these general objectives, by pursuing, inter alia, the following strategies:

(a) To increase agricultural production and productivity in the peasant sector by improving the organization of production; modernizing farmers' production techniques through training, improved inputs, irrigation, better livestock, applied research; and by offering adequate incentives to farmers in order to achieve food self-sufficiency with at least a three-month food security reserve;

(b) To increase substantially the production of basic industrial consumer goods by industrial expansion, including cottage industries and crafts;

(c) To increase and improve basic health services and the supply of safe drinking water, especially in rural areas, by encouraging self-help activities in constructing and running the necessary facilities as a complement to Government inputs;

(d) To increase domestic savings and investment by rationalizing the administration and collection of Government revenue; reforming the existing tax system to make it more price and income elastic; and increasing the efficiency and profitability of public enterprise;

(e) To promote and diversify exports and economically sound import substitution;

(f) To employ labour-intensive technologies, wherever feasible;

(g) To promote integrated rural development by developing and conducting coordinated programmes of construction, irrigation and mechanization;

(h) To conserve, explore, develop and rationally exploit Ethiopia's natural resources by focusing (i) on the conservation as well as on the quantitative and qualitative improvement of such renewable resources as forests, soils, water, livestock and wildlife; and (ii) on exploring and developing the mineral resources;

(i) To raise the level of education and skills by eradicating illiteracy and by equipping people with vocational and technical skills, so as to enhance their contribution to the development effort;

(j) To improve the organizational structure and the managerial and administrative capacity of Government institutions, especially the planning organs.

8. The Government is convinced that a concentration of efforts in the following priority areas will be most likely to attain the projected results: (a) agriculture, with particular emphasis on peasant farming; (b) farm settlement and cattle-raising co-operatives for the improvement of the life of nomadic population; (c) industry, with particular emphasis on efficiency and on the development of labour-intensive and cottage industries; (d) soil and water conservation, including afforestation and reforestation; (e) science and technology, with the establishment of a national capability in selecting, adapting and, finally, generating technology.

9. The primary goal of the Plan is to achieve an average growth of 6.5 per cent in real GDP over the ten-year period, resulting in a more than 40 per cent increase in per capita GDP. The growth rate for the first five years is projected to be lower than the average for the entire period, as it is tied initially to improvements in organization and management, the availability of raw materials and new capacity creation. Conversely, the growth rate for the second half of the Plan period is projected to be higher than the average, as many of the projects and programmes included in the Plan will by then have become operational.

10. The cumulative gross investment requirements of the Plan in current prices are estimated at 41.8 billion Birr, or \$20.2 billion. Projected cumulative domestic savings for the ten-year period amount to 23.2 billion Birr in current prices, thus covering 55.5 per cent of total planned investment. There is thus a resource gap of 18.6 billion Birr which will have to be mobilized from external sources. The need for external resources, however, is caused not only by the insufficiency of domestic savings but also because of the foreign exchange gap. The structure of the economy is such that a higher rate of growth and a greater level of investment will result in increased imports, not normally matched by a corresponding growth in exports.

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11. The gap in investment funds, increased by what is required to service foreign debt, will have to be filled entirely from external resources, which include private transfers, official development assistance such as grants, loans and credits, as well as inflows from joint venture investments. Since only part of this gap can be expected to be funded by bilateral and multilateral development finance (grants and concessional loans or credits), the remaining portion will have to be met through inflows of private venture or loan capital.

C. Technical co-operation priorities

12. In the absence of an explicit technical assistance plan, Ethiopia's requirements have been assessed from a detailed study of the Ten-Year Plan itself; from other available data on existing manpower resources and the projected needs of the current training programmes of the Government; and from an analysis of the proposals contained in recent World Bank, FAO, International Labor Organisation (ILO), United Nations Educational Scientific and Cultural Organization (UNESCO) and World Health Organization (WHO) sectoral studies that laid the framework for medium-term development following on the rehabilitation process.

13. From a study of these reports and of the Ten-Year Plan, the technical assistance priorities of Ethiopia must be perceived as follows:

(a) To increase the number of trained persons in specific areas of science and technology (e.g. agriculture, water supply and management, forestry) and to improve the quality of the existing staff;

(b) To increase the number and raise the level of management and administrative personnel;

(c) To improve the central, regional and sectoral planning and project preparation capacity of the Government;

(d) To strengthen teaching, training and management institutions;

(e) To improve overall facilities, services, institutions and infrastructure in the rural areas, so as to increase agricultural production;

(f) To arrest the process of desertification and to increase soil and water conservation.

14. The main, most urgent priorities are concentrated in the broad areas of rural development, and of human resources development. In this context, rural development is intended to include all direct measures to increase agricultural production (irrigation schemes, better farming practices, peasant training, improved inputs) as well as the construction, operation and maintenance of the requisite and basic infrastructure (rural roads, storage facilities, basic health units, schools, basic water supply and sanitation facilities). Human resources development, whilst also being an important component of rural development is designed to improve skills indispensable for conceiving, operating and managing the development process in all its planning, administrative and productive aspects, on all levels and in all relevant sectors. It should be stressed that the concentration on these critical

elements in the development process constitutes the very relevance of the fourth country programme with regard to the established priority needs of Ethiopia as defined in the Perspective Plan.

15. The Government will conduct a National Technical Co-operation Assessment (NATCAP) during the fourth country programme, when preparing for the mid-term review or, if possible, even earlier. The sectoral scope of the assessment will be determined as and when appropriate.

D. Aid co-ordination arrangements

16. The co-ordination of all external inputs from sources of technical assistance and capital aid flows is vested in the Office of the National Committee for Central Planning (ONCCP). Its Executive Committee meets regularly to monitor economic development performance and serves as a decision-making body for all final allocations of development funds, domestic as well as external. The sectoral departments of ONCCP ensure the liaison with ministries and commissions. The direct UNDP counterpart in ONCCP is the Foreign Economic Relations Department, which has also acted as co-ordinator of all Government inputs in the preparation of the fourth country programme.

17. The UNDP Resident Representative in Ethiopia, in responding fully to his mandate as Resident Co-ordinator, ensures the effective co-ordination of programming, project design and day-to-day operations of UNDP-financed assistance and related activities financed and/or executed by other United Nations agencies, such as the Food and Agriculture Organization of the United Nations (FAO), the United Nations Children's Fund (UNICEF), the United Nations Fund for Population Activities (UNFPA), the World Food Programme (WFP) or the World Health Organization (WHO). Through regular United Nations system consultations, he uses the integrated approach of UNDP to manage the overall programme so as to obtain optimum results from the linkage of interdependent efforts. In addition, UNDP also maintains regular contacts with other multi- and bilateral donors on emergency and developmental issues.

II. THE COUNTRY PROGRAMME

A. Assessment of the current country programme

18. Three significant features distinguish the third country programme for Ethiopia. First, it sought to concentrate UNDP efforts on four sectors: (a) agriculture; (b) human resources development; (c) industry, and (d) mining, energy and water resources. Secondly, it emphasized the necessity for nationals of Ethiopia to participate more fully in the execution of UNDP-funded projects. And thirdly, it was meant to be a co-ordinated programme designed to exert a maximum, unified development impact.

19. The first goal has been largely attained. Indeed, 88 per cent of the third country programme estimated total Indicative Planning Figure (IPF) expenditure will have been spent on the key sectors: 32 per cent on agriculture and rural development; 26 per cent on human resources development;

18 per cent on industry, and 12 per cent on mining, energy and water resources. The remaining 12 per cent will be spent on projects in the health, transport and communications and trade sectors.

20. A major feature of the third country programme has been its success in fostering the spirit of self-reliance by emphasizing Government execution, through the increased use of nationals as project co-ordinators and in the administration of large-scale projects. By the end of 1984, one-fifth of all IPF projects were executed by the Government. Additionally, in 60 per cent of those projects executed by the specialized agencies of the United Nations system, project management responsibilities were entrusted to national project co-ordinators appointed by the Government. National leadership has thus been introduced in nearly three fourths of UNDP-financed projects. In general, the distinguished quality of national management in the Ethiopian programme has been uniformly recognized throughout the United Nations system.

21. During preparations for the fourth country programme, UNDP undertook an assessment of the third country programme by analyzing, in the first instance, individual project evaluations. The assessment revealed that some projects shared similar problems: failure of one or the other of the partners to provide planned inputs (equipment and expertise) in a timely manner; faulty project design; and delays in the supply of counterpart resources and facilities as scheduled.

22. For example, in the establishment of ETH/79/003, National Quality Control Centre, equipment procurement by the executing agency led to implementation delays. Notwithstanding some otherwise notable achievements, ETH/81/003, Soil and Water Conservation was not able to exploit soils information in its entirety because of an engineering bias at the design stage, to the exclusion of appropriate agronomic expertise. Similarly, the inability of the executing agency to separate its expert advisory functions from operational assistance in ETH/80/015, Planning and Implementation of Large-Scale Settlements for Rural Development, eventually resulted in diverting resources on an ad hoc basis, to the detriment of expected outputs in the planning, training and farm management aspects of settlements.

23. While such problems are not unique to Ethiopia but arise from the nature of the tripartite relationship in the purveyance of technical assistance, the introduction of corrective measures within the implementation process depends on the frequency and quality of various monitoring mechanisms. The Government has been responsive to the changes required during implementation, particularly in view of the expected under-expenditure of \$5.5 million from the third cycle (equivalent to 8.9 per cent of IPF resources available for programming), which in part can be attributed to implementation difficulties.

24. On the positive side, the following achievements of the third country programme are worthy of note:

(a) The reinforcement of the Government capacity to undertake feasibility studies of medium and large-scale irrigation systems;

(b) The training of a number of peasant association leaders in soil and water conservation techniques;

(c) The training of teachers and students at the Ethiopian universities and teacher training institutions;

(d) The enhancement of the Government capacity to plan, evaluate and co-ordinate both capital and technical assistance projects;

(e) The upgrading of the management skills of the public sector through the training given by the National Productivity Centre. Indeed, an evaluation of this project by ILO indicated that, as a direct result of the training provided at the Centre, productivity in many factories increased significantly after it had been demonstrated that production losses and downtime were often caused by faulty managerial and administrative practices rather than by the often-cited technical and financial constraints.

B. New programme proposal

25. The fourth country programme is scheduled to run from January 1987 to December 1991, spanning a five-year period in the middle of the Government Ten-Year Perspective Plan.

26. The IPF has been set at \$77.443 million. In addition, a balance of approximately \$5.5 million will be carried forward from the third cycle. Unspent amounts of \$0.5 million from Special Measures Fund for the Least Developed Countries (SMF/LDC) and \$0.35 million from Special Programme Resources (SPR) will also be carried forward. Further, the programme takes into account about \$4 million already committed by the United Nations Capital Development Fund (UNCDF); \$5.1 million approved by the United Nations Sahelian Office (UNSO) for fuelwood plantation projects, \$0.3 million committed by the United Nations Development Fund for Women (UNDFW); \$1.893 from trust funds; and \$70 million from WFP for the soil and water conservation programme.

27. The programme concentrates on two main development objectives: (a) to increase agricultural production and productivity and improve the quality of life of the rural population; and (b) to develop Ethiopia's human resources potential in selected fields. Both objectives have been identified in the Ten-Year Perspective Plan as being of the highest importance. Each objective has been elaborated in four functionally coherent sub-programmes of projects and project packages which are logically integrated to form a coherent programme.

28. The effective management of such a programme requires an integrated approach to the operational planning, design and implementation of complementary inputs from various United Nations system sources. Since the third programming cycle, UNDP has ensured this kind of integration for sub-programmes such as soil and water conservation, or increases in agricultural production (UNDP and UNCDF integrated projects). It will continue to facilitate the most effective results through integrated programme management and project co-ordination, in close co-operation with the Government and the other participating United Nations agencies.

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Rural development

29. The total IPF earmarked for rural development is \$34,470,090 of which \$3,920,090 is already committed to ongoing projects; \$18,550,000 is for extensions/new phases; and \$12,000,000 for new projects. The programmed reserve is \$3,000,000.

30. Over 88 per cent of Ethiopia's largely rural population of 37 million must exist in an extremely harsh environment. Since 1961, FAO food balance sheets have estimated that the average calorie intake and production of cereals and pulses have declined steadily. Although cereals constitute the most important agricultural produce, covering 60 per cent of cultivated land, yields have been extremely low, providing less than the 500 grams minimum required survival intake of a sedentary person.

31. The backwardness of agricultural technology, limited access to central agricultural inputs, the inadequacy of rural infrastructure, the inappropriate use of land, and the degraded ecosystems in many of the most densely populated areas have kept agricultural production and productivity low and brought about what appears as an almost inevitable corollary: the recurrent and increasingly worsening famines which have patterned Ethiopia's history over the last century.

32. The programme therefore emphasizes the following sub-programmes: (a) soil and water conservation; (b) direct increase of agricultural production; (c) institutional support for sustained improvements in agricultural production and productivity; and (d) social and economic services.

Soil and water conservation

33. The topography of the highlands, the nature of the soils, and the pressure on the land by the human and animal population in the country's most densely inhabited and cultivated areas make much of Ethiopia particularly vulnerable to soil erosion. Land degradation has reduced the capacity of the soils to absorb and store water in many areas, often to an extent where recovery cannot be anticipated within the foreseeable future.

34. Since 1979, UNDP has financed assistance for the development and implementation of a Government programme for degraded land rehabilitation and erosion control and further preventive measures in the most severely threatened areas. The first phase (1979-1980) focused primarily on training field staff. The second phase (1980-1982) concentrated on improving the quality of execution, training higher level staff, and developing and applying improved techniques.

Projects and project packages

35. One all-embracing project is proposed, with particular emphasis on developing the most appropriate and cost-effective technologies and techniques for soil and water conservation, and then integrating them, together with suitable land-use plans, into agricultural development programmes. It will also develop a more refined overall soil and water conservation strategy. An amount of \$4.5 million has been earmarked from the IPF for this project.

36. WFP has supported the soil and water conservation programme with substantial inputs. Since the inception of the programme, over 487,500 tons of food have been provided at a cost of \$154 million. Of the \$80 million already programmed in close co-operation with UNDP/FAO for the continuation of the integrated approach to soil and water conservation problems, about \$70 million is scheduled to be spent during 1987 and 1988.

37. During the fourth country programme, UNSO will continue its vital complementary role to other donor efforts by supplying non-food items such as tools and equipment. Of particular importance are the fuelwood plantations, which will provide economically and efficiently for the household energy needs of two central highland towns, and at the same time reduce deforestation and promote reforestation in their vicinity. Other such projects are planned for the Blue Nile Basin and the town of Harar. An amount of \$5,110,000 has been approved by UNSO for this project. This may increase to \$5,829,000.

Direct increases in agricultural production

38. The Perspective Plan seeks to achieve increased agricultural production through rationally planned intensive and extensive land use, preferably with irrigation. This is also an important component of the rehabilitation programme in the wake of the recent drought. There is overcrowding in the central highlands even though less than 20 per cent of the arable land is under cultivation. Furthermore, inappropriate farming practices and fragile ecosystems have resulted in sub-subsistence peasant agriculture with insufficient food production. At the same time, extensive tracts of fertile land in the South and the West remain largely unutilized, because of an inadequate transport and communications infrastructure which impedes mobility; inadequate labour, tools and equipment; and insufficient marketing arrangements. The above impediments could be overcome and production rapidly raised by inducing more peasants to move into these areas, changing their technology and introducing small- and medium- scale irrigation.

Projects and project packages

39. During the third country programme, several projects, or packages of projects, were started aimed directly at expanding cultivation and developing irrigation and other vital services and infrastructure components. The first package, with relatively modest capital and technical assistance, was for the development of small-scale irrigation schemes in the central highlands, and provided for the construction of irrigation networks, the development of the areas to be irrigated, and the introduction of appropriate agronomic practices and improved inputs (1984-1986). This package was designed as the first stage of a much larger programme now funded by the African Development Bank (ADB), providing, *inter alia*, for such infrastructural needs as stores and rural roads. The fourth country programme will provide further assistance in hydrology, irrigation, agronomy, hydro-engineering and construction. An amount of \$1,000,000 has been allocated from the IPF for this project.

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40. Small and medium-scale irrigation schemes in Shoa and Gemugofa Provinces have been identified for UNCDF-funding, which will cover the cost of irrigation works and land development. IPF resources have been earmarked for technical assistance to support the construction programme and land and agricultural development, including improved inputs and extension services. An amount of \$2,000,000 has been allocated from the IPF for this project; a further \$2,125,000 has been approved by UNCDF.

41. Preparatory assistance to identify areas and inputs for increasing production and productivity in existing villages in the low population density southern and western regions was approved in 1985. The full project will largely be implemented during the first years of the fourth cycle, possibly with supplementary funding by UNCDF. Its results will produce critical data for further projects of the same kind in which UNDP-financed assistance is to be employed. An amount of \$1,150,000 has been set aside from Special Programme Resources (SPR) and the Emergency Operations Trust Fund (EOTF) for the initial project; \$2,000,000 has been allocated from the IPF for resultant proposals.

42. Within the framework of this programme, and benefiting from it, are other programmes and projects aimed at quick increases in food production such as the substantial Ethiopia-Italy Programme for Rehabilitation and Development (total approved in May 1985: It. Lire 50 billion), covering capital aid and technical assistance for small- and medium-scale irrigation, land development, storage facilities, roads, potable water and environmental health control, soil and water conservation, and extension services. The International Fund for Agricultural Development (IFAD) is also exploring the opportunities for projects in the same fields to be financed from the Special Programme for Sub-Saharan Africa. Finally, UNDP and UNCDF are engaged in improving the protein supply by financing projects designed to increase production and productivity of Red Sea Fishing, and to improve the general fish marketing organization. An amount of \$6,240,000 has been designated by the Ethiopia-Italy Programme portion for the fourth cycle. An amount of \$540,000 has been allocated by UNCDF for fishing projects (ETH/83/C01).

Institutional support for sustained improvements in agricultural production and productivity

43. The formulation and implementation of development plans and programmes have been greatly constrained by a serious lack of detailed information on Ethiopia's agricultural resources, such as crop varieties, agricultural and land preparation practices, and methods of soil improvements best suited to the widely different topographic, climatic, soil and water conditions. Projects in this area are designed to support planning authorities, technical agencies and related services in their efforts to remedy this deficiency.

Projects and project packages

44. During the third programming cycle, a national soils laboratory was equipped for a wide range of analysis, and technical and higher level staff were trained to develop a fully-fledged soil service (1983-1986). The fourth country programme will continue to develop the staff, establish test procedures and analytical methods for a wider range of soils, and introduce soil-improvement practices within the

framework of a systematic soil studies programme. An amount of \$2,500,000 has been allocated from the IPF for this project.

45. After two phases (1979-1984 and 1983-1986) of assistance in initiating systematic and comprehensive land-use planning, including selected semi-detailed studies at a scale of 1:150000, the fourth country programme will continue to assist the Ministry of Agriculture in further strengthening and consolidating its institutional capacity. An amount of \$2,000,000 has been allocated from the IPF for this project.

46. With assistance from UNDP, UNFPA and UNICEF, marked improvements have been made in strengthening the statistical information base, and in developing more systematic data collection, analysis and dissemination programmes for the Central Statistical Office. The Government now intends for the first time to conduct an agricultural census. Support for its preparation, implementation and interpretation will be provided under the fourth country programme. An amount of \$1,000,000 has been allocated from the IPF for this project.

47. With only 40 agrometeorological stations and 350 locations for collecting hydrological data, Ethiopia is singularly ill-equipped for meteorological and hydrological work. In the project packages described in the context of direct increases in agricultural production, provision will be made for the collection of more agrometeorological and hydrological data which are an integral part of irrigation system studies. Whilst UNDP has until now essentially financed fellowships, the fourth country programme will fund a more systematic programme to expand the network of data collecting stations and to strengthen the capacity of the meteorological and hydrological services. Advantage will also be taken of assistance available in this domain under the regional programme. An amount of \$1,000,000 has been allocated from the IPF for this project.

48. During the third cycle, UNDP funded efforts to reinforce the capacity of the National Water Resources Commission (NWRC) to study and design irrigation, water distribution and land development systems (1984-1987). To ensure the continuation of the necessary support to water, irrigation and land development projects, as described in paragraphs 41-44, UNDP will provide funds to the Commission for developing basic guidelines and methods for study and design, and for training an increasing number of its specialized staff. An amount of \$2,500,000 has been allocated from the IPF for large- and medium-scale projects, while a further \$1,000,000 will be reserved for small-scale projects.

49. UNDP has been associated with the Institute of Agricultural Research (IAR) since. Nevertheless, IAR still needs assistance in special areas of applied research such as dryland farming including crop and variety selection, tillage and other improved agricultural practices, and irrigated agriculture including water management and irrigation agronomy. An amount of \$2,250,000 has been allocated from the IPF for this purpose.

50. A separate additional project will continue third cycle funding of agricultural implements research and development within IAR, which will eventually facilitate the production and widespread introduction of improved hand tools and simple machinery. An amount of \$2,000,000 has been allocated from the IPF for this project.

51. The multiplication and wide distribution of quality seeds constitutes a key element in improving output and enhancing productivity in peasant agriculture. The fourth country programme is therefore called upon to support Government efforts to develop national projects for the expanded production of breeder, pre-basic and certified seeds. UNCDF has already earmarked funds for a seed potato project requiring a minor technical assistance contribution from the IPF in seed multiplication. Another project for which UNDP co-operation is requested concerns the launching of pilot multiplication projects for cereal seeds. The following amounts have been allocated from the IPF for this project: \$500,000 for cereal seeds; and \$200,000 for potato seeds, with a further \$1,900,000 from CDF funds.

52. A sustained effort to reduce pre- and post-harvest losses, estimated at an average 20-35 per cent, must be an integral part of all endeavours to improve productivity through better land and water use, agricultural technology, seeds and other inputs. During the third cycle, UNDP began to support the Government in building an adequate crop protection service and to promote greater awareness of the importance and possible reduction of such losses through preventive measures (1984-1988). This first phase focused on training middle and high level personnel, and on strengthening the laboratory support services. The fourth country programme will concentrate more specifically on reinforcing the crop protection service at the zonal and regional levels and on emphasizing the training of development agents and peasant leaders. An amount of \$1,800,000 has been allocated from the IPF for this purpose.

53. The training of agricultural development agents and peasant leaders in all aspects of agriculture is considered one of the most urgent priorities. Accordingly, the Government has launched a comprehensive training programme in soil and water conservation, service and producer co-operative development, and improved agricultural technology, including irrigation. UNDP-financed assistance in soil and water conservation, outlined in paragraphs 36-40, and in crop protection, as described in paragraph 54, already contains components of direct support to this training programme. Projects and project packages described in the context of direct increases in agricultural production will also include training components in irrigated agriculture and related subjects for peasants and extension staff. It is the wish of the Government, however, for the fourth country programme to finance specifically the training of field staff and peasant leaders through the multipurpose farmers' training centres now being established. An amount of \$1,500,000 has been allocated from the IPF for this project.

Socio-economic services

54. Ninety per cent of the population is still obliged to use unsafe water and to spend considerable time and effort in obtaining it, whilst more than half remain without access to even the most basic health services; even fewer can attend primary school. Housing is rudimentary. The availability of non-agricultural products is limited, because of both the absence of an adequate distribution and marketing infrastructure and the wide-spread lack of cash incomes. In collaboration with WHO, UNDP has been assisting the Government for some time in laying the foundation for a national health laboratory network, improving basic health care programmes, and in implementing an expanded programme of immunization (1979-1986).

The UNICEF-supported programme on comprehensive health care carries \$1.9 million into the fourth cycle, whilst of the \$6 million approved by UNFPA for the construction of health centres \$2 million is scheduled for expenditure after 1986. The rural development projects described in paragraphs 42-45 contain important components for the improvement of health infrastructure and potable water supply.

Projects and project packages

55. In view of the increased number of small water supply projects expected to be financed by the World Bank, ADB and several bilateral donors - often based on prefeasibility studies supported by the UNDP regional and interregional programmes within the International Drinking Water and Sanitation Decade - and in order to improve the project preparation capability of the Water Supply and Sanitation Authority (WSSA), the fourth country programme will finance assistance to WSSA for investment planning and management studies. An amount of \$1,200,000 has been earmarked from the IPF for this project.

56. Unless teachers and children can be adequately accommodated, it will not be possible to realize fully the benefits of the considerable investment which the Government, supported by UNDP, has made, and will continue to make, in the development of educational programmes and the training of school teachers. This programme joins, therefore, in the Government efforts to improve design and techniques for erecting low cost structures for health, education, and other social purposes. By thus promoting the development, albeit on a modest scale, of a rural construction sector, the project will also widen the economic base for the rural population. An amount of \$1,000,000 has been allocated from the IPF for this project.

57. The assistance offered by UNDP/WHO in the past in strengthening the public and environmental health control component of the Water Resources Development Authority (WRDA) and in assessing the implications of planned agricultural development programmes in river basin areas (1980-1986) will be continued. The new phase will complete the ongoing water pollution study in the Awash Valley and develop a national water pollution control strategy and pertinent standards. An amount of \$600,000 has been allocated from the IPF for this project.

Linkages

58. The objectives and activities of the projects and project packages concerned with directly increasing agricultural production will benefit from the activities and results of institutional support for sustained improvements in agricultural production and productivity (paragraphs 43-53) and from the socio economic services (paragraphs 54-57). At the same time, direct linkages exist between UNCDF-financed projects and the IPF Projects (often through joint financing or through projects with identical or closely related objectives) aimed at directly increasing agricultural production, as well as between the IPF-supported soil conservation efforts and UNSO reforestation projects around provincial towns.

59. There are obvious linkages between projects of a similar nature and closely related or identical objectives funded by WFP, UNICEF, UNFPA and UNDFW on the one hand, and UNDP and its operational funds on the other hand. Moreover, many benefits

will accrue to the former group of projects from the results of UNDP projects described in paragraphs 42-52 and in paragraphs 53-56.

60. The Ethiopian-Italian programme is the only one to use the UNDP Office for Project Execution as a management agent, thus placing its projects directly into the framework of this programme. Nevertheless, many other donors with interests in rural development (ADB, IFAD, European Economic Community (EEC)) will benefit from the results of the fourth country programme, especially in the areas of soil and water conservation; institutional support for sustained improvements in agricultural production and productivity and of socio-economic services. Linkages at the three-tier levels between UNDP and operational funds, other United Nations organizations and funds, and certain other donors have been consciously designed into the programme and will be reflected in individual project designs; however, benefits will not accrue automatically: ONCCP and UNDP will jointly have to ensure close programme monitoring and cross-fertilization between projects.

Programmed reserve

61. Other assistance envisaged under the fourth country programme in support of rural development addresses in particular those activities or projects designed to add value to agricultural products or complement agricultural production, such as pilot training and service centres for small-scale industries and handicrafts; small agricultural processing and support facilities, such as honey production and vegetable and fruit processing; and the improved treatment and handling of hides and skins. An amount of \$3,000,000 has been allocated from the IPF as programmed reserve for this purpose.

Human resources development

62. The total amount earmarked for human resources development from the IPF is \$38,882,793 of which \$3,467,793 is already committed to ongoing projects; \$10,515,000 is for extensions/new phases; and \$24,900,000 is for new projects. There is no programmed reserve.

63. The implementation of the Ten-Year Perspective Plan will demand an unprecedented additional number of skilled personnel at all professional levels. The third country programme has lent substantial support to the Government in increasing the number of university graduates, in upgrading skills in various ministries and other Government institutions through on-the-job training and overseas studies and practice assignments. Nonetheless, Ethiopia will continue to face skilled manpower problems for quite some time.

64. The fourth country programme concentrates on four sub-programmes of human resources development: (a) management training; (b) science education and teacher training; (c) planning and co-ordination; and (d) development of science and technology.

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Management training

65. In 1975, the Government established the National Productivity Centre (NPC) to provide training in general management for senior staff, in accounting for middle level staff; and in maintenance and production for lower level staff. In addition, NPC was to assist industrial corporations in setting up in-plant training programmes, including initial training and skills upgrading for workers. UNDP has been financing assistance to the Centre since 1978 and has contributed significantly to its impact on a large number of industrial enterprises and related ministries. In 1983, NPC and the Management Training Institute were merged into a new institution, the Ethiopian Management Institute (EMI), with the even broader mandate to develop a national management training programme for all major sectors, i.e., central administration including ministries and commissions; public enterprises; agriculture; transport; and construction.

Projects and project packages

66. EMI will play a pivotal role in the future development of Ethiopia through its residential and non-residential training programmes for senior managers in the public sector. Its recently established Consultancy Service Unit will be called upon by ministries and public enterprises to review and analyse their managerial performance and practices and to recommend appropriate and effective solutions to their problems. Simultaneously, EMI will continue the vocational training functions of the former NPC within the framework of its Productivity Improvement Centre. Finally, the Institute will organize a special internship programme for Ethiopian managers and students of management, enabling them to gain practical experience for shorter or longer periods in public institutions and enterprises, both in Ethiopia and overseas. UNDP will assist the Institute through expatriate expertise and training facilities. An amount of \$5,000,000 has been allocated from the IPF for this project.

Science education and teacher training

67. The Ten-Year Perspective Plan places special emphasis on the development of institutions of higher learning. Since the need for qualified professionals is particularly acute, special importance is attached to the expansion of the three universities: Addis Ababa University; Asmara University; and Alemaya Agricultural University. All three have received substantial UNDP assistance under the third country programme: expatriate lecturers were recruited, many faculty members went abroad for advanced degrees, and significant quantities of laboratory equipment and other teaching aids were procured.

Project and project packages

68. Ethiopia's universities, however, are still far from producing an adequate number of graduates of satisfactory quality. They are particularly weak in the natural sciences, and UNDP assistance to the Universities of Addis Ababa and Asmara has therefore so far focused exclusively on this area. Since the development of an adequate teaching staff requires considerable time, the natural sciences will

continue to receive the major attention for the full programme cycle. As a new feature, other sectors of Addis Ababa University, in fields of relevance to overall development objectives will be included, primarily economics, accountancy, public administration and management. An amount of \$4,000,000 has been allocated from the IPF for this purpose.

69. The Agricultural University of Alemaya which was administered as an agricultural college under Addis Ababa University until mid-1985, offers training for the B.Sc. degree in a variety of agricultural subjects, e.g. agronomy, agricultural economics, crop protection, horticulture, pedology and animal husbandry. The skills of its teaching staff will be upgraded through advanced training overseas, and the range of courses offered will be expanded in response to the diverse needs for skilled manpower and research capability within the agricultural sector in Ethiopia. An amount of \$2,500,000 has been allocated from the IPF for this purpose.

70. In addition, the fourth country programme will make resources available to the Commission for Higher Education to strengthen, on a selective basis, its post-secondary teacher training programme, particularly the Bahir Dar Polytechnic Institute, the Kotebe College of Teacher Education and the Junior College of Agriculture and Commerce. An amount of \$3,500,000 has been allocated from the IPF for this purpose.

Planning and coordination

71. Primary responsibility for the Government planning activities rests with the ONCCP, supported by eight regional planning offices. Most of the ministries have also their own sectoral planning units from which ONCCP receives the bulk of its primary data. Central and sectoral planning are supported by key service institutions, such as the Development Projects Study Agency (DPSA); (see para. 77), the Central Statistical Office (CSO); (see para. 78), and the Ethiopian Mapping Agency (EMA); (see para. 79).

Project and project packages

72. Since 1984, assistance to the central departments of ONCCP has focused on the introduction of micro-computers and computerized data handling for economic analysis and management information on a pilot base, in five of the departments including the Foreign Economic Relations Department, and on training in economic analysis. The International Development Association (IDA) credit 1522/OET/ provides complementary assistance, in part under a management agreement with UNDP, for the expansion of computers to all departments, and for the development of a macro-economic framework. UNDP has also helped in establishing the regional planning offices and in starting regional planning, monitoring and evaluation systems and structures. Italian assistance is concentrating on regional computerization and its integration into the central system, as well as on regional economic models.

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73. The fourth country programme will finance assistance to the central departments and the regional planning offices of ONCCP, as well as to the planning units of the sectoral ministries, primarily to consolidate, co-ordinate and further strengthen their planning capabilities and their macro-economic management systems. UNDP will also focus on strengthening manpower planning capabilities and the preparation of a comprehensive manpower plan. An amount of \$3,000,000 has been allocated for this project.

74. The Development Projects Study Agency (DPSA) is the central agency within ONCCP charged with the responsibility of reviewing and appraising all investment proposals submitted by the sectoral ministries. It has received UNDP assistance in the form of experts and training since its establishment in 1980, but the scope of its mandate has been greatly expanded, not only as a result of the Perspective Plan but also in connection with the recently proclaimed Joint Venture Legislation. This new project will provide assistance in both economic and technological fields relevant to the work of DPSA. An amount of \$1,000,000 has been allocated from the IPF for this project.

75. A reliable statistical data base is a prerequisite for modern planning. The Central Statistical Office (CSO) has improved its capacity for data collection and data analysis over the years, culminating in the first nationwide census in May 1984. UNDP will assist CSO in advanced statistical methodology, and the refinement of data collection methods for agricultural statistics for improved crop forecasting systems. An amount of \$1,000,000 has been allocated from the IPF for this project.

76. Large parts of Ethiopia have not yet been covered by detailed mapping. In the past, UNDP funds have served to strengthen the Ethiopian Mapping Agency (EMA); but technical assistance is still needed in many areas. Also, because much of the existing aerial photographic material is more than 20 years old and often not sufficiently detailed to meet the current needs, further assistance is now required for the collection of new material. The project will make full use of recent technological advances in aerial photography and satellite imagery. An amount of \$1,315,000 has been allocated from the IPF for this project; a further \$500,000 will come from SMF/LDC.

77. Since the early 1980s, the Government has sought to strengthen the project preparation and project appraisal capacity of its key sectoral ministries. Within the Ministry of Industry, it established an Industrial Projects Service (IPS), which has since developed into an active consulting agency for Ethiopia's manufacturing sector. While UNDP assistance during the third cycle has helped build up a core of competent professionals in a very short time, IPS needs further assistance to expand and refine its capability to undertake project analysis and appraisal, including the use of computer methods. An amount of \$1,000,000 has been allocated from the IPF for this project.

78. As a follow-up to a series of three projects, UNDP will continue to finance assistance to the Industrial Projects Development Service (IPDS) under a fourth phase, in order to maintain the momentum in strengthening its capabilities in industrial project development, and to accelerate the development of Centres of Excellence. An amount of \$1,000,000 has been allocated from the IPF for this project.

79. During the third cycle, the Ministry of Agriculture, which is essentially responsible for the peasant agricultural sector, has been strengthening its sectoral planning, project preparation, monitoring and evaluation capacities, assisted by the FAO Technical Co-operation Programme; the World Bank-funded, FAO-executed Highlands Reclamation Study project; missions from IFAD and the FAO-Investment Centre; and other funds from the World Bank. The fourth country programme is to assist the Agricultural Projects Formulation Department of the Ministry in consolidating the progress already made, and in facilitating a more systematic programme of agricultural planning, the identification of subsectoral and project priorities, and investment project preparation, monitoring and evaluation. An amount of \$600,000 has been allocated from the IPF for this project.

80. A project preparation and appraisal agency similar to that established in the Ministry of Industry was set up in 1983 within the Ministry of State Farms Development. Technical assistance to this Agricultural Projects Service (APS) has only recently started and its needs for experts and training are still considerable. Considering that the state farms provide, in addition to most of the surplus cereals for the urban areas, a significant proportion of the raw materials for the country's industries, their improved efficiency will have an important multiplier effect on the economy in general. An amount of \$1,000,000 has been allocated from the IPF for this project.

81. A project preparation and project appraisal unit has not yet been established within the Ministry of Mines and Energy. It is clear, however, that such a unit would be extremely useful since the Government is embarking on an ambitious programme of exploiting Ethiopia's considerable natural resources. UNDP will thus finance the establishment of the Mining and Energy Projects Service (MEPS). An amount of \$1,500,000 from the IPF has been allocated for this project.

82. UNDP, together with direct inputs from the United Nations Conference on Trade and Development (UNCTAD) and the International Trade Commission (ITC), has been financing assistance to the Ministry of Trade: first in trade policy formulation and staff training; then in direct foreign trade promotion coupled with further training. Marked progress has thus been made in improving the trade information system. In order to increase foreign exchange earnings through promoting Ethiopian products abroad, the Ministry has now requested UNDP assistance for a programme of foreign trade development and promotion. An amount of \$500,000 from the IPF has been allocated for this project.

Development of science and technology

83. The technologies still widely used in Ethiopia, especially in the agricultural sector, largely reflect traditional production patterns, with low productivity as their main feature. Larger organizations and corporations work with imported technologies, and there are many examples of such technologies being mastered fully and with excellence by Ethiopian professionals e.g. at Ethiopian Airlines, Ethiopian Telecommunications, and the Ethiopian Electric Light and Power Authority. It is, however, imperative for Ethiopia to develop a technology base of her own so that national creativity can be translated into productive goals, and talent can develop in interaction with general technological developments in the world.

84. Well aware of this need, the Government has defined the most urgent requirements at this time as:

(a) The development of a capacity to identify and negotiate for suitable technologies for the natural endowments and trained manpower of the country;

(b) The purposeful training and upgrading of Ethiopian scientists, engineers and researchers within the country;

(c) The elaboration of a long-term strategy enabling the adaptation and improvement of traditional technologies in the interest of increased productivity; and

(d) The elaboration of a national policy for the development of institutions and manpower in science and technology.

Projects and project packages

85. As a first step, the Ethiopian Science and Technology Commission (ESTC) was created to formulate a comprehensive science and technology policy, as well as to undertake basic research in areas of fundamental importance, such as food and agriculture, natural resources, industrial technology, and education and manpower development. While the Perspective Plan provides broad guidelines in this field, considerable work is still required to translate these principles into specific measures and programmes. After some modest basic assistance from UNDP and the United Nations Financing system for Science and Technology for Development (UNFSSTD) during the third cycle, ESTC has asked for more substantial assistance to be included in the fourth country programme. An amount of \$1,000,000 has been allocated from the IPF for this project.

86. Another key institution is the Ethiopian Centre for Technology (ECT) established in 1980 within the framework of DPSA, and mandated (a) to prepare a roster of technology suppliers with details on their capabilities and limitations; (b) to examine the suitability of various technologies included in domestic or foreign investment proposals, and to propose alternative solutions for an increase in the share of Ethiopian manpower in their execution; and (c) to carry out subsector studies, with particular emphasis on the options open to Ethiopia at its present stage of development. The ECT professional staff is very small and not yet adequately equipped to fully respond to its broad mandate. UNDP, after having financed assistance to the Centre on a modest scale in the early 1980s, will therefore include another project as part of the fourth country programme. An amount of \$1,000,000 has been allocated from the IPF for this project.

87. The Government has assigned very high priority to the supply of safe water and sanitation, both in the Perspective Plan and in its Action Plan for the Water Decade. These Plans aim at providing 85 per cent of the urban population and 35 per cent of those living in rural areas with potable water by 1994. The development of water resources in the country requires qualified personnel at all levels. It is estimated that not less than 10,000 new

professionals will be needed during the coming decade to meet the demand of the water sector alone. The Government has thus created the Water Technology Institute in Arba Minch. Although initial assistance in designing the institute was financed by UNDP, with a subsequent UNCDF project providing the necessary equipment jointly with several bilateral donors, there is an urgent need for more technical assistance over a longer period to improve and support the teaching staff and the laboratory and research facilities. An amount of \$1,200,000 in IPF funds has therefore been allocated for this project.

88. Ethiopia's promising mineral potential has been known for a long time. However, the country has suffered not only from a severe shortage of investment capital but also from an insufficiency in qualified geologists and mineralogists. The Ethiopian Institute of Geological Surveys (EIGS), within the Ministry of Mines and Energy, has in the past benefited from UNDP-financed assistance (1980-1984) in conducting geological and mineral surveys in selected areas of the country thus providing on-the-job training for a great number of young geologists. Nevertheless, only a small part of Ethiopia has so far been surveyed, and the number of trained geologists is still inadequate to permit new large-scale initiatives in mineral exploration. To improve this situation, additional UNDP assistance is needed in the following areas:

(a) For the Institute of Geology at Addis Ababa University, to broaden its graduate programme so that a greater number of geologists with a broad range of specializations can be trained;

(b) For EIGS, to enable it to undertake a larger number of geological surveys and mineral exploration projects.

An amount of \$2,500,000 has been allocated from the IPF for these purposes.

89. In response to the recognized need for specialized and systematic training in electric power and electronics, including the manufacture, operation and maintenance of electric and electronic equipment, the Government in 1983 founded the Electrical and Electronics Institute. It has invested over 10 million Birr in lecture rooms, laboratories, workshops and other facilities. UNDP-financed assistance is to improve the level of teaching at the Institute and to increase the output of graduates. An amount of \$1,000,000 has been allocated from the IPF for this project.

90. In view of the introduction of more than 20 new plant pests and diseases from imported plant or seed material in recent years, the Government attaches great importance to strengthening the control of plant material moved into or within the country, and has decided to establish an effective quarantine service. UNDP assistance is to help accelerate the creation and implementation of such a service. An amount of \$800,000 has been allocated from the IPF for this project.

91. The Ministry of Industry considers the lack of technical know-how in casting metallurgy as a major handicap for the establishment and efficient operation of enterprises manufacturing machinery and equipment in the agricultural, construction, electrical, and transport fields. In order to provide practical training in all

relevant aspects of metal casting technology and foundry operation and management, it envisages the creation of a pilot foundry for teaching and demonstration. UNDP assistance is requested and IPF funds have been allocated for this purpose. A subsequent request for UNCDF funding is a possibility. An amount of \$1,000,000 has been allocated from the IPF for this project.

Linkages

92. Projects and project packages grouped under this objective do not appear at first sight to have those mutually beneficial linkages found in the area of rural development, although the strengthening of the Ethiopian Management Institute should benefit the management of all administrative or productive enterprises, and foremost those agencies of the Government grouped under this objective, because of the continuous joint monitoring in this respect by ONCCP and UNDP. More obvious, however, will be the benefits to and, hopefully, the feedback from, the producing sectors of the economy, whether through direct inputs such as better maps and new technologies, or through the increased efficiency of the planning and co-ordinating agencies of the Government grouped under the projects for planning and co-ordination.

93. There are few, if any, significant linkages between UNDP-financed inputs and those of other United Nations agencies within the framework of the fourth country programme, although undoubtedly they will be established with programmes such as FAO/TCP, the Industrial Development Fund, the World Bank and ADB in such areas as higher education and technological developments.

C. Unprogrammed reserve

94. The Programme allocates \$3,933,000, equivalent to 4.7 per cent of net available IPF resources, to an unprogrammed reserve to be drawn upon in cases of unforeseen necessity.

Annex

FINANCIAL SUMMARY

I. ACTUAL RESOURCES TAKEN INTO ACCOUNT FOR PROGRAMMING

A. <u>UNDP-administered sources</u>	\$	\$
Third Cycle IPF balance	5 500	
Fourth Cycle IPF	77 443	
Sub total IPF		82 943
Special Measures Fund/Least Developed Countries (SMF/LDC)	500	
Special Programme resources	350	
Government cost-sharing	-	
Third-party cost-sharing	-	
UNSO	5 110	
UNCDF	4 006	
UNDFW	300	
Trust Fund to Combat Hunger & Poverty. in Africa	1 093	
UNEOTF	800	
Sub total, UNDP non-IPF funds		12 159
B. <u>Other Sources</u>		
Funds from other UN agencies	73 874	
Management service arrangements (EIPRD)	5 147	
Sub total, other resources		<u>79 021</u>
TOTAL ACTUAL RESOURCES TAKEN INTO ACCOUNT FOR PROGRAMMING		<u>174 123</u>

II. USE OF RESOURCES

Ongoing projects	128 586	
New projects proposals		
Part I	39 052	
Programmed reserve	3 000	
Sub total, programmed resources		170 638
Unprogrammed reserve		3 485
TOTAL RESOURCES (Programme + Reserve)		<u>174 123</u>
