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Item 5 (b) of the provisional agenda

PROGRAMME PLANNING
Country and intercountry programmes and projects

FOURTH COUNTRY PROGRAMME FOR TURKEY*

<table>
<thead>
<tr>
<th>Programme period</th>
<th>Actual resources programmed</th>
<th>$</th>
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<tbody>
<tr>
<td></td>
<td>IPF for 1992</td>
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</tr>
<tr>
<td></td>
<td>Other resources programmed</td>
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<td></td>
<td>Total</td>
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* Detailed listings of projects and other related data prepared as a 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) distribution of new country programme by sector; (e) the Government technical co-operation programme.
I. DEVELOPMENT TRENDS, STRATEGIES AND PRIORITIES

A. Current economic trends

1. After a period of sustained and rapid economic growth, Turkey experienced severe economic difficulties in the late 1970s. The economic structure of the country proved to be exceedingly vulnerable to the various external shocks of the decade, including the sharp rise in petroleum prices. The economy was also heavily influenced by direct Government controls and regulations. High subsidies for many consumer and intermediate goods, as well as basic raw materials, represented a serious drain on public finances. The expansionary monetary policy led to mounting inflation. The Turkish Lira was over-valued against major currencies. Exports could be promoted only through strong Government subsidies and incentive measures. The lack of foreign exchange had led to a severe restriction of imports, resulting in a diminished utilization of industrial capacity. Maintenance of interest rates below the rate of inflation curtailed domestic savings and the allocation of resources was unfavourably affected. As a result of these developments, the growth of per capita gross domestic product (GDP) slowed and even became slightly negative in 1979.

2. In January 1980, a drastic economic reform was adopted by the Government, reorienting economic policies towards greater reliance on market forces and making industrial exports the motor of growth. As a result of the structural adjustment policies then implemented, economic performance scored impressive gains. GDP per capita increased by 12.5 per cent during the period 1980-1985 and exports climbed to 14 per cent per annum, keeping the current account deficit at manageable levels. As a result of a strict monetary policy, inflation has been brought under control and high interest rates have led to increased domestic savings. Despite this remarkable recovery, constraints on public resources remain an area of concern and efforts are being made by the Government to control public expenditure and to increase the productivity of the public sector by reorganizing and streamlining it.

3. Because of these favourable developments, the Government has been able to enlist both domestic and foreign support for its investment programmes. It is expected that with the reduced financial burden of petroleum imports and the sustained gains in industry, agriculture and exports, the economy will progress on a favourable course.

4. Today Turkey is one of the few developing countries self-sufficient in food and is a net exporter of agricultural products. The share of agriculture in GDP is close to 17 per cent, and 59 per cent of the working population earn their living in this sector. In various regions of the country, agricultural productivity is still low, leading to wide regional income disparities. To remedy that situation, the Fifth Five-Year Development Plan has designated as Priority Development Areas 28 provinces which are underprivileged. Integrated rural development projects are being implemented in some of these provinces and simultaneous efforts are being made to launch agro-industrial projects and to improve the social infrastructure.
B. National development strategies

5. The planning and policy framework of the Government is set out in periodic five-year plans and is further detailed in Annual Programmes. The current Fifth Five-Year Development Plan covers the years 1985-1989 and therefore is not synchronous with the Fourth UNDP Country Programme (1988-1992).

6. Among the basic goals of the Plan, the following should be mentioned:

- To increase per capita income;
- To increase the share of industrial output within a structure promoting productivity and the increase of exports;
- To promote private enterprise within a free market system;
- To increase employment and reduce youth unemployment;
- To expand public welfare activities in Priority Development Areas, with emphasis in Eastern Anatolia;
- To accelerate technological development.

7. To reach these macro-objectives, the development policies laid out in the Plan re-emphasize the economic reforms of January 1980. Basically, they continue to support greater reliance on market forces to improve the efficiency of resource allocation, along with policies designed to sustain high export growth in the medium term. To curb inflation, restrictive monetary policies are being followed, while eliminating price controls and liberalizing the foreign exchange régime in a timely manner. Import controls are being removed progressively and self-reliance of exporters is being promoted by reducing export subsidies. Finally, measures are being taken to improve the institutional efficiency in key public sectors, among them, measures to expedite the formulation, co-ordination and implementation of economic policies.

C. Technical co-operation priorities

8. The requirements for technical co-operation are specialized and are focused primarily on advanced technologies. The catalytic aspect of technical co-operation is essential here. Often, small self-contained projects in specific fields may have a considerable impact. In this context, the Government perceives technical co-operation, inter alia, as a means for:

- Introducing new technologies in some sectors of the economy;
- Addressing constraints of technical know-how through highly specialized consultancies.
9. Since national capacities have largely outgrown the traditional forms of technical co-operation, new modalities must be utilized. This had already been recognized by the third country programme, in which all projects were managed by national project co-ordinators, with only a few long-term resident experts. This modality is discussed in greater detail in the assessment of that programme.

10. The major needs for technical assistance are: (a) in agriculture, in order to maintain Turkey's status as a food-surplus country; (b) in the energy and natural resources sector, with the heavy investment programme to reduce dependence on energy imports and to utilize indigenous resources fully; (c) in the industrial sector, in order to upgrade and increase exports further; (d) in the transport sector, with a view to bringing the present infrastructure to the levels encouraged by the relevant international organizations; and (e) in the science and technology sector, in order to promote self-reliance in the other sectors mentioned above. In this regard, there is a need to develop and adapt local and foreign technologies to local needs, conditions and priorities. The opening of the economy to international competition makes it more urgent to strengthen the links between local industries and the national scientific and technological community in order to meet that challenge better. Also, project design will incorporate mechanisms ensuring the maintenance of close research/industry linkages.

11. While UNDP will participate in selected projects to achieve these goals, the World Bank is expected to provide technical assistance linked to its major investment projects in the agricultural, industrial, transport and energy sectors. In view of the flexibility and broad range of technical assistance which the United Nations system can provide, the Government wishes UNDP co-operation to focus on science and technology. Other priority themes for UNDP assistance are agriculture, public sector management, industry, transport and communications.

D. Aid co-ordination arrangements

12. Aid co-ordination responsibilities in Turkey have been formally vested in the Ministry of Foreign Affairs, which acts as the official channel of communication between the Government and donors, including UNDP, and is the mouthpiece of the Government in policy matters. The technical and substantive co-ordination of programmes and projects is the responsibility of the State Planning Organization. UNDP and the specialized agencies of the United Nations system also communicate directly with the substantive Ministries and the Government departments concerned on matters related to project implementation.

13. For the preparation of the country programme, the Government has to some extent relied on the UNDP Office, which was instrumental in co-ordinating the programming efforts of the United Nations agencies represented locally (the International Labour Organisation (ILO) and the Food and Agriculture Organization of the United Nations (FAO)) and in arranging sectoral missions by the United Nations Department of Technical Co-operation for Development (DTCDD) and the United Nations Industrial Development Organization (UNIDO). Consultations were also...
organized with the World Food Programme (WFP), the United Nations Fund for Population Activities (UNFPA) and the United Nations Children's Fund (UNICEF), as well as with several World Bank missions. During the preparation of the country programme, bilateral assistance was duly considered; particularly, vis-à-vis the Federal Republic of Germany, the major donor country in technical assistance, other countries belonging to the Organization for Economic Co-operation and Development (OECD) and the European Economic Community (EEC).

II. THE COUNTRY PROGRAMME

A. Assessment of current country programme

14. The third country programme for Turkey, approved by the UNDP Governing Council in May 1982, was formulated in accordance with the trends implicit in the Fourth Five-Year Development Plan (1979-1983). However, because of a number of political and socio-economic factors, in January 1980 the Plan was superseded by a collection of economic reform measures revising development priorities. Furthermore, the Fifth Five-Year Plan was not issued before 1985. Therefore, the third UNDP country programme was, in its early stages, operational during an era of change in Government policies, notably the budgetary restrictions and the restructuring of the economy.

15. The substantial reduction of the IPF to $11 million (plus a $1.1 million carry-over from the second country programme) from the original figure of $20 million sharply curtailed the resources available for programming. In addition, Government cost-sharing, which had been foreseen as amounting to $6 million during the period of the third programme, has in practice diminished in about the same proportion as the IPF resources. These developments resulted in the elimination of a number of proposed projects and the elimination or reduction of programmed reserves intended for such fields as support for loan operations and pre-investment studies, technical co-operation among developing countries (TCDC) and others. In addition, some shifts of emphasis occurred between sectors, the major divergence being in agriculture, which received a substantially larger share in the programme as implemented, reflecting the Government's increased emphasis on agro-business. However, the major stress of the programme remained on industry and natural resources, as originally foreseen.
Delivery under the third country programme

<table>
<thead>
<tr>
<th>Sector</th>
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<th>Actual per cent</th>
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<td>Natural Resources</td>
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<td>Agriculture</td>
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<tr>
<td>Industry</td>
<td>34.7</td>
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<td>Transport</td>
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<td>Trade/Finance</td>
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<tr>
<td>Human Settlements</td>
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<tr>
<td>Health</td>
<td>6.5</td>
<td>-</td>
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<tr>
<td>Education</td>
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<tr>
<td>Employment</td>
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<tr>
<td>Science and Technology</td>
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<td><strong>Total</strong></td>
<td><strong>100.0</strong></td>
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16. UNDP technical co-operation retained an important multiplier effect in the overall Government development effort. Approvals by 1 July 1986, for the years 1983-1987, had reached $9,202 million in IPF and $2,869 million in Government cost-sharing resources; thus, a total of $12,071 million had been allocated up to that date.

17. A noteworthy aspect of the programme is that all UNDP projects are managed by national project co-ordinators designated by the Government in consultation with UNDP and the United Nations system executing agencies concerned. In many cases, these co-ordinators demonstrated a high degree of managerial competence. Coupled with this modality of operation, the use of long-term experts and consultants was reduced. Most of the projects utilized the services of highly-specialized short-term consultants. Moreover, the use of national consultants was also developed.

18. Some of the major factors that have affected both quality and level of delivery in the past are stated below.

- The absence of an enforced Five-Year Plan and the introduction of interim measures affected the approval of new projects; 11 of the 21 new projects specified in the country programme document failed to retain their original priority ranking and were not formally submitted to UNDP. The restructuring policies of the Government at times prevented the allocation of adequate funds to projects under the national budget;

- The temporary recruitment freeze imposed upon all government agencies affected training adversely. The lack of sufficient foreign language proficiency also hampered training abroad;
Because of the sophisticated nature of consultancy requirements, United Nations system executing agencies sometimes faced recruitment difficulties. In those instances where the identification of training and equipment needs depended on the advice of expatriate consultants, project delivery rate was often low;

- National project co-ordinators had difficulties in complying with United Nations procedures and regulations. In the future, project staff should be better trained and supervised by the responsible United Nations system specialized agency, especially in administrative matters;

- Linkages should be increased between research and development centres and the industries they are expected to support. In the future, special attention will be given during the project formulation stage to ensure closer linkages. For example, projects could have a board or steering committee composed of researchers and industrialists, or arrangements could be made for joint financing with the industrial firms receiving assistance.

19. The experience gained during the third country programme has revealed that project design, to which many problems can be attributed, requires more careful attention. A Project Appraisal Committee has been established by the UNDP Office to help remedy the situation.

B. New programme proposal

20. The fourth country programme, covering the period 1988-1992, will conform closely to the national development strategies and the technical co-operation priorities identified under the relevant sections above. The resources available for programming are $11 million in IPF funds and $1,740,000 in government cost-sharing funds.

21. Continuing the trends of the third country programme, national project co-ordinators will retain responsibility for project implementation. For both foreign expertise and training requirements, the emphasis will be on short-term assignments. For projects with large equipment components, IPF funds will be supplemented by cost-sharing.

22. A breakdown of the proposed resource utilization is provided in the Financial Summary. Almost 7 per cent of total resources has been set aside as an unprogrammed reserve. Of the remaining $11,877,000, the major portion will be devoted to new projects, while the balance will cater to those ongoing projects which extend into 1988 and beyond.

23. The distribution of UNDP resources among the various themes of the programme favours Science and Technology (34 per cent), followed by Public Sector Management (20 per cent), and Agriculture (15 per cent). Industry has a share of 11 per cent and Transport and Communication 13 per cent. Hence, the transfer of new technologies and their applications to industry, improved agricultural methods and
better management techniques constitute the major themes of the programme. Another orientation of the programme centres on the rural poor and on income-generating activities for which $600,000 has been allocated as a programmed reserve.

24. The country programme also deals with the integration of women in development and environmental problems. Two projects will cover the legislative and organizational aspects of pollution control. The project Strengthening Rural Women's Participation in Vocational Training and Rural Co-operatives in Turkey complements WFP assistance. It will promote women's involvement in traditional handicrafts and help develop their marketing capabilities through the establishment of co-operatives.

25. The concept of continuous programming has been used for the theme of Agriculture in order to give flexibility to the programme and keep resources available to prepare projects aimed at developing rural areas in the East. In this connection, discussions are under way with WFP to implement a joint project at grass root level in the Priority Development Areas.

26. The effectiveness of UNDP co-operation is to be enhanced by cross-theme linkages, as well as by linkages with other major objectives of the Fifth Plan. For example, several projects in the country programme will contribute to improving quality control in industrial production which, in turn, is an important factor for increasing exports, a major Government objective which is included under the theme Public Sector Management. There are therefore numerous interrelations between the selected themes of concentration. Also, central to the whole programme is the importance of human resources development; this can be found under each of the themes proposed for UNDP co-operation.

27. Wherever possible, links will be established with the projects of the UNDP Regional Programme. In fact, in many of the new regional project proposals, the same organization will also be the counterpart of the country project. Among the new regional projects, the following should be mentioned because of their close thematic relationship to the projects of the fourth country programme: Mediterranean Aquaculture Development, Environmental Planning and Management Systems, Technologies for Control of Air Pollution, Industrial Robotics Applications, Microbial Biotechnology, Technological Patent Information Services, European Telecommunications, Airport Facilitation Requirements, Marketing and Export Promotion, and Public Sector Management Development Network.

THEME 1: Science and technology ($4,365,000)

28. In the new country programme, particular emphasis is given to developing the national capacity for research in science and technology. The overall objective will be to support the modernization of export-oriented industries through national centres of scientific and technological excellence. In implementing these projects, every effort will also be made to establish linkages with the industrial establishments.
29. Modernization of the Industrial Property Department: One aim of the Government promotion of industrial exports in particular, and of national scientific and technological development in general, is the attraction of foreign investors to Turkey. The establishment of a well-functioning industrial property system appears therefore to be an important prerequisite. Another benefit of the system will be the promotion of innovative activities in the country. The project will assist the industrial property department of the Ministry of Industry and Trade, mainly by increasing the capability of its staff through consultancies and training abroad, by initiating contacts with similar institutions in other countries, and by computerizing the patent documentation and information systems.

30. Innovation Centre: An important linkage missing in many countries is a sufficiently strong connection between industry and higher education. In such a relationship, the innovative skills of universities are opened to industry, while industry helps to fund institutes of higher education; both parties and the entire economy benefit immensely. The Innovation Centre will bring together Turkish Universities, private and public industrial firms and Chambers of Commerce and Industry. A preparatory phase of assistance will be carried out to lay the groundwork.

31. Support to High Technology Research and Development in the Turkish Scientific and Research Council: This project will assist the Council, the semi-autonomous body which promotes and implements the more extensive research and development projects throughout the country, in five fields:

(a) Ceramics development: The present world research trend in materials science is concentrated on development of high-strength materials produced by power metallurgy and new ceramics. The proposed project will establish within TUBITAK the necessary facilities and technical background for research on advanced technology.

(b) Optical communications: TUBITAK has set up a thin film optical communication technology programme to carry out research on amorphous silicon and gallium arsenide which are currently attracting wide interest because of their vast technological applications.

(c) Recombinant DNA Hybridoma and Fermentation Technologies: Aware of the potential of powerful technologies such as recombinant DNA and hybridoma, Turkey has initiated a programme to build up biotechnology-based industries in the fields of agriculture, medicine and energy. The project will assist the Turkish Scientific and Research Council in conducting related research work and in training researchers and technicians.

The other two sub-projects are (a) adaptation of the most widely-used educational software and programming languages to Turkish needs and (b) combustion of lignites.

32. Enhancing the Research Capacity of the Chemical Engineering Department of Bogazici University: The project will assist the department and inter-disciplinary research groups of the Faculty of Engineering in carrying out research programmes on reaction and biochemical engineering.
33. Molecular Biology Center: This project will enable the Biology Department of Bogazici University to study pre-natal identification of genetic disorders. Through genetic counselling, this will eventually decrease the number of people affected by genetic disorders. The long-term goal of this project is to establish a regional research centre in molecular biology for the understanding of genetic disorders in Turkey and the Middle East.

34. Expansion of Robotics Laboratory and Computer-Aided Design: This project will support the expansion of the robotics laboratory of the Middle East Technical University Computer Engineering Department. It is hoped that, with the training and equipment provided, the laboratory will eventually become a regional research and education centre. Resources will also be provided for strengthening the Computer-Aided Design Centre in the fields of mechanical robotics and die design. That will, in the course of time, enable Turkish industry to cope with modern technologies. In view of its high-technology component, twinning arrangements will be sought with a similar centre in an industrialized country.

35. Experimental Medical Research: This training project will assist the Experimental Medical Research and Application Center in Istanbul in introducing modern methods and techniques for breeding test animals. It will also strengthen basic investigations aimed at the local production of a vaccine against Hepatitis B, a common disease in Turkey.

36. Adaptation and Maintenance of High-Technology Medical Equipment: This project will continue the activities of an ongoing project with the Middle East Technical University which proved to be most successful. The proposed project will address an important issue in the health field: large sums are spent abroad to purchase a wide variety of medical equipment which cannot be fully utilized because of calibration, maintenance and servicing problems. The project will support a national institution in establishing a national capability for rationalizing future purchases and ensuring greater utilization of existing equipment.

37. Feasibility Study on Wind and Solar Energy Conversion Systems: This project, a follow-up of the World Bank/UNDP energy assessment mission, will investigate the feasibility of using alternative sources of energy generation for remote parts of Turkey. A system will be designed to test and assess the feasibility of solar energy conversion systems.

38. Geothermal Reservoir Engineering: The previous country programmes supported the exploration of geothermal reserves in Western Anatolia. However, a number of technical problems precluded the full use of these reserves. For example, a pilot geothermal power plant has been operating at a fraction of its potential because of the scaling of the steam pipes. This project will assist the Minerals Research and Exploration Institute to investigate ways of solving these problems and also in identifying potential problems in new reserves which are likely to be discovered.

39. Restoration Research Laboratory: UNDP has been active during the third country programme in two restoration projects enhancing the preservation of cultural sites in Istanbul and Goreme in connection with the International Campaign...
to Safeguard the Historical Quarters and Monuments of Istanbul and the Site of Goreme launched in 1983 by the United Nations Educational, Scientific and Cultural Organization (UNESCO). The proposed project will assist the General Directorate of Foundations in establishing a Restoration Research Laboratory and introducing modern scientific methods for restoring and preserving the national cultural heritage.

40. Transfer of Knowledge through Expatriate Nationals (TOKTEN) (Phase III): The main objective of the TOKTEN project has been to create a system whereby outstanding specialists of Turkish origin now residing abroad can provide specific technical inputs for the development of Turkey through short-term assignments, under the aegis of the United Nations. Experience during the period 1978-1986 has shown that many talented expatriates welcomed the idea; more than 200 of them undertook assignments to introduce some of the experience they had acquired abroad. The proposed new phase is aimed at widening the scope of the programme to address the specific needs of public and private industries and to impart a more demand-oriented nature to the programme.

Linkages

41. Technical assistance in science and technology has traditionally been an important component of UNDP and bilateral activities in Turkey. Regional projects, such as Industrial Robotics Application and Microbial Biotechnology will provide a framework for the promotion of contacts by the Turkish technical staff working on such projects with the staff of similar institutions in the region and hence lead to implementation of the national projects within a broader context.

42. The Medical Imaging Technology project will benefit an academic connection already established between the Biomedical Engineering Group of the Middle East Technical University and Sheffield University with the financial support of the United Kingdom Overseas Development Administration (UKODA).

THEME 2: Public sector management ($2,518,000)

43. Recognizing fully that scientific and technological tools will lead to positive economic and social performance only if managed efficiently, the Government has allocated the third largest share of IPF resources to the development of management skills in the public sector.

44. Export Promotion: In line with its export drive, the Government is requesting UNDP's assistance in the reorganization and expansion of the Export Promotion Centre, particularly in the fields of medium-term export promotion, product and market development, trade information, training and commercial publicity. A pilot scheme will be implemented to penetrate selected foreign markets with a few selected Turkish products.

45. Development Planning Support (Phase II): This second phase of assistance to the State Planning Organization will provide advanced training for junior officials in several selected development subjects and thus increase the Organization's overall planning capacity.
46. Industrial Management Institute: The Turkish Institute of Industrial Management was founded by the Government with a view to providing training and consultancy services to public and private industries. In spite of the fact that some ad hoc training programmes have been organized by a few national institutions, industrial management is an area in which development has lagged behind the rapid industrialization process. The project will assist the Institute in improving its training infrastructure and upgrading the capabilities of its staff in the design and implementation of training programmes for middle- and high-level managers.

47. Employment Stimulation: This project will cover three topics developed by an ongoing project: increasing shift work in selected branches of the manufacturing sector, a labour-based rural and municipal infrastructure and an improved labour market information system. In view of the high unemployment and underemployment which characterize the labour force, this project has high priority since it will help to promote manpower planning at the national level.

48. Streamlining Information Management: This project will train staff and provide short-term consultancies to establish a data-processing system within the Ministry of Justice.

49. National Quality Control System, Phase II: This project aims at completing a national quality control infrastructure capable of planning and co-ordinating the development of the Turkish Quality Control System. The project will assist the Turkish Standards Institution to train producers and exporters, ensuring trained staff and reliable testing through: (a) the establishment of a system for accreditation of authorized laboratories, and (b) the development of promotional activities and training facilities in the field of quality control.

50. Quality Control in Nuclear Power: This project will provide training and equipment and establish a permanent inspection service for the planned nuclear power programme of Turkey.

51. Pollution Control: The project will assist in developing an appropriate institutional and organizational framework within the General Directorate of the Environment, in the fields of water pollution and water quality control.

52. Strengthening Environmental Health Programmes: A study undertaken by the Ministry of Health and Social Assistance on the existing environmental health infrastructure has indicated the need for its reorganization and strengthening. This will enable the Ministry to perform its functions better, including those resulting from the newly-emerging requirements of environmental protection in the broader context of rapid industrialization and urbanization. The project will also facilitate the upgrading of the existing network of 67 Provincial Public Health Laboratories into Environmental Health and Food Safety Laboratories.

Linkages

53. The Government is particularly interested in all aspects of pollution control and is active in the Mediterranean Action Plan. It participates in the second phase of the long-term pollution monitoring and research programme in the
Mediterranean. The national project on pollution control will also extend its activities to the Mediterranean coast. The regional programme contains supportive projects on environmental planning management, the control of toxic chemicals including their impact on water quality and food safety, export promotion, public sector management and patent information services.

54. Assistance in employment is provided by the Federal Republic of Germany through an advisory team at Halk Bankasi, which supplies credits primarily to returning Turkish migrant workers launching small-scale industries. The proposed project on employment stimulation will provide information on jobs, while informing the industry about the skills of the returning workers.

55. The project on National Quality Control System will complement a World Bank loan being negotiated in the field of quality improvement, an issue of high priority in the Government export policy.

56. Through its regular programme, the International Atomic Energy Agency (IAEA) is assisting Turkey in the quality control aspects of nuclear energy with a view to increasing national participation in the planned nuclear power plants programme.

THEME 3: Agriculture ($1,914,000)

57. As a result of large-scale mechanization, irrigation and increased fertilizer and pesticides use, Turkey has increased her agricultural production and is therefore better able to meet the demands of the domestic market and also to become more competitive in foreign markets. This favourable development, along with the completion of the gigantic South-East Anatolia Project which provides irrigation and electricity for the region, Turkey expects to become a major food exporter to other countries of the Middle East and to those of the EEC. To assist the Government to spread the benefits of these developments to the poorer regions of the country and thereby attain a more equitable distribution of wealth, a programmed reserve has been set aside under this theme, for use when appropriate projects are identified. Meanwhile, individual projects already identified cover different aspects of the sector from livestock disease control to marine aquaculture and forestry.

58. Foot and Mouth Disease Vaccine Production: FMD vaccine production was started in 1967 with UNDP/FAO support and developed a national capacity. The FMD Vaccine Institute was also supported by $1 million in EEC grants and $350,000 in funds-in-trust under an arrangement between the Government and FAO. The Government wishes to expand the existing facilities in order to produce vaccines to cover national needs. Equipment is already being installed. The project will provide limited technical assistance to start production.

59. Multi-purpose Broad-leaved Pilot Forestry Plantations: This is a continuation of the Fast Growing Broad-leaved Forestry Plantations (TUR/82/003) project which will now concentrate on plantation techniques and on establishing pilot plantations, rather than on research and small-scale experiments, as was the case of the previous project.
60. Crop Forecasting and Early Warning Systems: This project will establish a highly reliable mechanism to forecast acreage used and yields expected and to estimate Turkey’s total marketable production in order to achieve better resource utilization.

61. Marine Aquaculture Development and Training: A national station will be established with UNDP/FAO assistance where Government staff and fish farmers will be trained in new technologies in marine fish farming.

62. Rural Women's Vocational Training and Co-operatives: The Government has stressed the need to raise the status of rural women within their families and society, and to enhance their active contribution to improving the quality of life in rural areas. The project will provide training and equipment to promote vocational skills in traditional handicrafts and support marketing activities by establishing women's co-operatives.

63. Programmed Reserve: A programmed reserve of $600,000 has been set aside for integrated rural development projects, which could possibly be pilot projects for implementation in one of the Priority Development Areas. Such projects should be directed towards the rural poor and aimed at income-generating activities. Discussions are underway with WFP, which has already committed $9 million over five years in six provinces for establishing an integrated approach.

Linkages

64. The country project on Marine Aquaculture was identified by the counterpart authorities following their active participation in the regional project on the same subject. Another phase of the regional project aims at expanding the aquaculture industries of the participating countries.

65. In the forestry sub-sector, the World Bank is contemplating the second phase of the Northern Anatolia Forestry project, which would include short-term training in various fields of forestry.

66. Similarly, a FAO Regular Programme project will promote co-operation among the countries of the Near East region and organize refresher training courses in Turkey. The project also covers activities in animal health, notably vaccine production.

67. Another World Bank project, its Agricultural Sector Adjustment Loan, currently being planned, will benefit directly from the results of the project on crop forecasting.

THEME 4: Transport and communication ($1,650,000)

68. Strengthening the Management and Organization of the PTT: This ongoing project aims at developing a long-term manpower plan for the PTT to meet the needs arising from the extension of the national telecommunication network and the introduction of new technologies envisaged in the National Ten-Year Telecommunication Development Plan. It also provides advice on the management and organizational modifications required in order to accommodate these changes.
69. Aviation Training Department: This new department at the University of Anatolia will train civil aviation technicians for the expanding Turkish civil aviation network. Until now there has been no formal training of civil aviation technicians who received ad hoc training by aircraft manufacturers. The World Bank is considering a loan for the procurement of the required equipment.

70. Satellite Broadcasting: The Government, intending to develop satellite broadcasting to cover the whole of the country, has requested UNDP assistance for an independent evaluation of the alternative systems proposed.

71. Maritime Training: This project will assist in the establishment of a seafarer training school in Istanbul to cater to the staffing needs of the Turkish Maritime Corporation and the Turkish Cargo Line, as well as of private shipping companies. The project would use the services of national experts and short-term consultants in order to maximize its cost-effectiveness.

THEME 5: Industry ($1,430,000)

72. After devoting decades of effort to industrialization, primarily through import substitution, Turkey has now reached a stage where it can compete in international markets and many of its industries are profitable enough to attract foreign investment and know-how by themselves. UNDP is therefore requested to focus its assistance in supporting industry-related research and development activities, with emphasis on quality control, the development and commercial exploitation of new products, energy, electronics and technical training.

73. Medicinal Plants (Phase II): A pilot plant was set up with the assistance of UNDP/UNIDO (TUR/83/003) to demonstrate the possibility of producing therapeutic compounds from medicinal plants and essential oils from aromatic plants available locally. The second phase of assistance will aim at the industrial and commercial exploitation of the results of the experiments carried out during the first phase through the establishment of a production unit, possibly under a joint venture agreement between the university and interested investors.

74. Updating the Semiconductor Component Production Technology of the Turkish Electronics Industry Company: The Company has been engaged in a large-scale investment programme which was started in 1978 and will be completed in 1987. It will produce semiconductor components and integrated circuits. The Company needs to produce more sophisticated components in order to meet the requirements of modern industries. The project will update production technology through procuring additional sophisticated equipment and high-level expertise.

75. Technical Teacher Training, Firat University: The project will upgrade the skills of the instructors of this newly-established university in Eastern Turkey. It will also provide industrial training equipment for the technical workshops.

76. Coal Mining Mechanization and Safety: In the most important coal production region of Turkey, outdated underground mining technologies are still used, resulting not only in low productivity, but at times causing serious health and safety hazards. The project will provide two electronic/hydraulic drilling...
machines and train sufficient staff abroad in their use. Training in safety measures will also be supported to enable the full utilization of the new mining safety equipment being installed.

Linkages

77. The Higher Education Council of Turkey has been receiving assistance for technical teacher training through a World Bank loan, for the past two years. Technical and vocational training is being extended to the Eastern provinces to promote industrialization in these less-developed areas.

78. The regional programme includes supportive projects in vocational training and in computerized coal mining technology.

C. Unprogrammed reserve

79. The sum $863,000, which represents about 7 per cent of the IPF funds for the fourth cycle, has been set aside to respond to need that may arise during the programme period.
Annex

FINANCIAL SUMMARY

I. ACTUAL RESOURCES TAKEN INTO ACCOUNT FOR PROGRAMMING

A. UNDP-administered sources

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fourth cycle IPF</td>
<td>$8,800,000</td>
</tr>
<tr>
<td>Fifth cycle IPF</td>
<td>$2,200,000</td>
</tr>
<tr>
<td>Subtotal IPF</td>
<td><strong>$11,000,000</strong></td>
</tr>
<tr>
<td>Special Measures Fund for the Least Developed Countries</td>
<td></td>
</tr>
<tr>
<td>Special programme resources</td>
<td></td>
</tr>
<tr>
<td>Government cost-sharing</td>
<td>$1,740,000</td>
</tr>
<tr>
<td>Third-party cost-sharing</td>
<td></td>
</tr>
<tr>
<td>Operational funds under the authority of the Administrator</td>
<td></td>
</tr>
<tr>
<td>UNDP special trust funds</td>
<td></td>
</tr>
<tr>
<td>Subtotal, UNDP non-IPF funds</td>
<td><strong>$1,740,000</strong></td>
</tr>
</tbody>
</table>

B. Other sources

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funds from other United Nations agencies or organizations firmly</td>
<td></td>
</tr>
<tr>
<td>committed as a result of the country programme exercise</td>
<td></td>
</tr>
<tr>
<td>Parallel financing from non-United Nations sources</td>
<td></td>
</tr>
<tr>
<td>Subtotal, other sources</td>
<td></td>
</tr>
<tr>
<td>TOTAL ACTUAL RESOURCES TAKEN INTO ACCOUNT FOR PROGRAMMING</td>
<td><strong>$12,740,000</strong></td>
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</table>

II. USE OF RESOURCES

<table>
<thead>
<tr>
<th>Use</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ongoing projects</td>
<td>$1,351,000</td>
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<tr>
<td>New project proposals</td>
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</tr>
<tr>
<td>Programmed reserve</td>
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</tr>
<tr>
<td>Subtotal, programmed resources</td>
<td><strong>$11,877,000</strong></td>
</tr>
<tr>
<td>Unprogrammed reserve</td>
<td></td>
</tr>
<tr>
<td>TOTAL USE OF RESOURCES</td>
<td><strong>$12,740,000</strong></td>
</tr>
</tbody>
</table>