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UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

ANNUAL REPORT OF UNIDO 1988

Industrial Development Board
Fifth session, 1989

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CONTENTS

	<u>Page</u>
Abbreviations	v
CHAPTER I. POLICY ISSUES	1
CHAPTER II. INDUSTRIAL STRATEGIES AND OPERATIONS	6
A. Industrial policies and perspectives	6
B. Technical co-operation	8
I. Programme and project development	8
II. Implementation overall in 1988	14
III. Implementation of industrial operations by field of activity	32
Agro-based industries	32
Chemical industries	33
Metallurgical industries	37
Engineering industries	38
Industrial planning	40
Institutional infrastructure	41
Industrial management and rehabilitation	44
Industrial training	45
Feasibility studies	46
Integrated industrial projects	47
Environment	48
CHAPTER III. INDUSTRIAL PROMOTION	50
System of Consultations	50
Development and transfer of technology	52
Industrial Investment Programme	54
CHAPTER IV. SPECIAL THEMES	57
Industrial Development Decade for Africa	57
Assistance to the least developed countries	58
Industrial co-operation among developing countries	59
Integration of women in industrial development	60
Co-operation with industrial enterprises and non-governmental organizations	60

CONTENTS (continued)

	<u>Page</u>
CHAPTER V. APPRAISAL AND EVALUATION	62
CHAPTER VI. CO-ORDINATION, FIELD AND LIAISON ACTIVITIES AND PUBLIC INFORMATION	64
Relations with Governments and intergovernmental organizations	64
Inter-agency co-ordination	64
Field Adviser and Junior Professional Officer programmes	65
Public relations and information	67
New York Liaison	68
Geneva Liaison	68
CHAPTER VII. GENERAL ADMINISTRATION	70
Staffing	70
Project personnel recruitment	73
General services	74
Conference services	75
CHAPTER VIII. SOURCES OF FUNDS	78
A. Financing of technical co-operation activities	78
UNDP indicative planning figure and cost sharing	78
Special Industrial Services programme	78
Technical co-operation - regular budget allocations .	79
Operational budget	79
Industrial Development Fund	80
Trust funds and self-financing arrangements	80
Programme support costs	81
B. Regular budget	82
STATISTICAL ANNEX	85
APPENDICES	99

ABBREVIATIONS

ACC	Advisory Committee on Co-ordination
ANC	African National Congress of South Africa
ALIDE	Latin American Association of Development Financing Institutions
CAD/CAN/CIM	Computer-aided design/computer-aided manufacturing/computer-integrated manufacturing
CAF	Andean Finance Corporation
CID	Centre for Industrial Development
COMFAR	Computer Model for Feasibility Analysis and Reporting
CPC	Committee for Programme and Co-ordination
ECA	Economic Commission for Africa
ECDC/TCDC	Economic and technical co-operation among developing countries
FAO	Food and Agriculture Organization of the United Nations
IACT	International Association for Clean Technology
IDDA	Industrial Development Decade for Africa
IDF	Industrial Development Fund
ILO	International Labour Organisation
INTIB	Industrial and Technological Information Bank
IPF	Indicative planning figure
JPO	Junior Professional Officer
LDC	Least developed country
NGOs	International non-governmental organizations
OUA	Organization of African Unity
OCN	Office of the Commissioner for Namibia
OECD	Organisation for Economic Co-operation and Development
PAC	Pan-Africanist Congress of Azania
PROPSPIN	Project Profile Screening and Pre-Appraisal Information system
R and D	Research and development
SADCC	Southern African Development Co-ordination Conference
SELA	Latin American Economic System
SIDFA	Senior Industrial Development Field Adviser
SIS	Special Industrial Services programme
SWAPO	South West Africa People's Organization
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFDAC	United Nations Fund for Drug Abuse Control
UNPAERD	United Nations Programme of Action for African Economic Recovery and Development, 1969-1990
UNIFEM	United Nations Development Fund for Women

CHAPTER I. POLICY ISSUES

1. At the beginning of 1988, UNIDO found itself facing difficult challenges emanating from earlier years. Foremost amongst these was a crippling financial crisis that affected every aspect of the Organization's activities. The challenge was to effect significant economies in the operations of UNIDO while preserving its capacity to carry out its mandate. Thus, reductions in posts had to be made in the face of a growing demand for the Organization's services. Sustained improvement in overall efficiency became a necessity as the Organization had to do more with less resources. UNIDO set about the task of devising new and innovative ways of carrying out its work in response to the increasingly complex and diverse demands of industrial development among its Member States. It also became necessary to introduce organizational changes and redeploy resources to reflect programme priorities better.

2. These challenges set the agenda for UNIDO in 1988. A comprehensive plan of action in response to these challenges was devised and carried out in the course of the year. The present chapter describes in detail the steps taken by UNIDO to stabilize its financial situation, improve overall efficiency, increase project delivery and quality, introduce innovative programmes and projects, streamline the structure of the Organization and simplify its procedures.

3. In close co-operation with Member States, appreciable progress was achieved in stabilizing the financial situation. An essential foundation to this financial stability was laid with the introduction of a split-currency system governing the payment of assessed contributions whereby Member States now pay 72 per cent of their contributions in Austrian schillings. This system, coupled with the increase in the level of the Working Capital Fund and the growing willingness of a greater number of Member States to meet their obligations in a timely manner, provided the Organization with a much needed boost. In addition to offering more manoeuvring space, the system helped to offset the dramatic drop in the value of the United States dollar which, in the previous biennium, had led to cancellation or deferment of several programmes.

4. Member States also contributed to the endeavours to stabilize the operational budget of UNIDO. A working group drawing on the skills of highly experienced national experts was established to assist the Secretariat in ensuring the achievement of a balanced operational budget by the end of 1989. Starting with a review of other international organizations with similar financial structures, the working group will prepare an in-depth study of the required scope and content of the Organization's operational budget and its relationship to the regular budget. The findings of the working group are scheduled to be presented to the Programme and Budget Committee in April 1989.

5. The improvement in UNIDO's financial situation was greatly facilitated by the increase in implementation of technical co-operation and the growing volume of project approvals in 1988, which bore the promise of even greater revenue. Record levels were achieved on both accounts. In 1988, some \$119.8 million worth of technical co-operation was delivered as against \$97.7 million in the previous year. Project approvals rose from \$117.2 million in 1987 to \$161.4 million in 1988, while the volume of projects to be implemented in future years also reached unprecedented levels: \$217 million as against \$175.4 million in 1987.

6. Member States' renewed confidence in the ability of the Organization to deliver programmes and projects that are of vital importance to them was also reflected in their growing commitment to the Industrial Development Fund (IDF). Pledges to IDF rose from \$14.5 million in 1985 to \$23.3 million in 1987 and still further to \$25.9 million in 1988.

7. Increased quantity was matched by improved quality. An analysis of project evaluation reports revealed an appreciable improvement in the performance of UNIDO large-scale projects. In a growing number of countries delivery targets were fully and frequently met. Even in countries that received the largest share of technical co-operation, UNIDO managed to achieve respectable ratios in terms of actual delivery against project budgets.

8. Programme and project evaluation also took on an increasingly important role as an effective management tool within the Organization. As noted by the Industrial Development Board at its fourth session, evaluation results contribute to improving the design and management of future projects and programmes. This was borne out by the experience of UNIDO throughout the year. A conscious attempt was made to extend the coverage of evaluation and ensure the effective implementation of the comprehensive review and appraisal systems introduced at the outset of 1987. Guidelines were introduced to facilitate the development, approval and monitoring of implementation of special trust fund projects, which accounted for new technical co-operation projects worth more than \$20 million in 1988.

9. The subsectoral approach to project development initiated in the previous year (see IDB.4/10, chap. I, para. 4) gained greater impetus in 1988. Originally launched in respect of the leather and leather products sector in two regions in Africa, subsectoral studies were also undertaken in respect of the fisheries sector. The programme approach, as it has been termed, is firmly based on country- or region-specific needs as well as subsectoral perspectives and technical requirements. This new approach was incorporated in the first draft of the medium-term plan of UNIDO for the period 1990-1995 presented to the Programme and Budget Committee and Industrial Development Board sessions in 1988. Initial reactions were positive as borne out by increased donor interest in the first programmes being developed. By permitting the allocation of limited resources to a selected number of agreed priorities, the approach will enhance the developmental impact of the technical co-operation provided by UNIDO. In addition to greater efficiency of delivery, it will also ensure closer integration of operational activities and such supplementary activities as industrial studies, investment promotion as well as enhancing inter-agency co-ordination.

10. The direction and content of the programmes of UNIDO were also the subject of discussion at the 1988 meeting of the Special Advisory Group to the Director-General of UNIDO. The eminent experts were consulted on: human resource development; development and transfer of technology; industrial rehabilitation; and the management of hazardous wastes and the environment. Discussion also touched on the main areas of emphasis in the medium-term plan of UNIDO. The deliberations of the Group were taken up by Member States in their subsequent discussion of the

medium-term plan, which was found to reflect many of the concerns that the Group had expressed on the four major themes.

11. At the close of the year, preparations were also completed for the first meeting of the board of the International Industrial Development Foundation that UNIDO has established in the United States of America. The Foundation plans to act as a forum for the exchange of information and to facilitate self-help programmes by bringing together representatives of industrial, academic and financial organizations in the United States with their counterparts in developing countries. At the first meeting held in January 1989, three projects were identified as suitable for implementation, certain financial and operational modalities were determined and decisions were taken on the interim staffing of the Foundation.

12. A sharper focus and a clearer delineation of departmental responsibilities and functions were the hallmarks of the moves made in the course of the year to restructure and consolidate certain Departments. In compliance with the request by the General Conference at its second session to further rationalize the organizational structure of UNIDO, a series of moves were initiated. The moves described below were matched by further steps to simplify organizational procedures and introduce more appropriate methods in keeping with the overall objective of eliminating duplication and improving internal co-ordination as had been urged by Member States at the second session of the General Conference (see GC.2/Dec.22). Work, for example, is under way on finding effective ways of reducing processing time for both administrative and project-related activities.

13. In the course of the changes, an Industrial Operations Support Division was established in the Department of Industrial Operations - comprising the Office of the Director, the Feasibility Studies Branch, the Industrial Training Branch, the Project Personnel Recruitment Branch and the Central Reference Unit - to enhance the substantive support functions within the Department as a whole. An Industrial Co-operation Branch was established in the Special Programmes and Activities Division of the Department for Programme and Project Development. Designed to improve co-operation with industrial enterprises, the new branch comprises the Section for Co-operation with Non-governmental Organizations and Industrial Enterprises and the Special Trust Fund Projects Section. Merging the expertise and skills of industry with the

resources and know-how of a multilateral organization proved an attractive proposition to many industrialists interested in involvement in the developing countries. UNIDO acts as an honest broker, an intermediary helping both parties.

14. The brokerage role of UNIDO was also greatly enhanced by the steps taken to strengthen the network of UNIDO Investment Promotion Services so as to ensure a matching flow of investment in the growing number of mutually beneficial projects being generated. Changes were introduced to bring about better co-ordination between Headquarters and the expanding network, particularly in terms of follow-up activities. In some cases, these were enhanced by the introduction of computerized project-related monitoring and control systems. Every endeavour was also made to improve information on small-scale enterprises so as to increase their attractiveness to potential foreign partners. In the course of 1988, the programme successfully promoted 121 industrial investment projects valued at some \$414 million as against 43 projects with a total investment value of \$106 million in the previous year.

15. Other moves to rationalize the structure of the Organization included the consolidation of the Industrial Policy and Perspectives Division in the Department for Programme and Project Development. The Division now comprises three Branches: Regional and Country Studies, Global Issues and Policy Analysis, and Industrial Statistics and Sectoral Surveys. It undertakes analyses of development perspectives and carries out operationally oriented studies and surveys on the industrial sector and its subsectors at the global, regional and national levels. It also develops concepts for industrialization, explores mechanisms for enhanced international co-operation, and develops and maintains the UNIDO industrial data base.

16. Consolidation was also the key feature of the restructuring of the External Relations Division and the Editorial Control and Publications Section, both in the Department of External Relations, Public Information, Language and Documentation Services. It was also the main thrust of the re-alignment of the System of Consultations Division, whose component units reflect four categories of industry-related activity - light industries, heavy industries, process industries and common topics. Within the Department of Industrial Promotion, Consultations and Technology, the Development and Transfer of Technology

Division was also restructured in the last quarter of 1988. Two new Divisions were established - the Industrial Technology Promotion Division and the Industrial Technology Development Division. The aim of this shift was to ensure the development of a technology programme more precisely focused on all the important aspects of the new programme for the development and transfer of technology contained in document IDB.3/26 that had been approved by both the Industrial Development Board and the General Conference.

17. With this process of consolidation and re-alignment, some scope was offered for the redeployment of resources between Departments. In response to General Conference decision GC.2/Dec.22, paragraphs (g) and (h), 6.8 per cent of the resources of the Department of Administration were shifted to substantive activities in the Organization in the period January 1986 to May 1988. In the Department of External Relations, Public Information, Language and Documentation Services, similar shifts accounted for no less than 12.8 per cent of the Department's resources over the same period.

18. This process of redeployment was maintained throughout 1988 as steps were taken to reduce staff by a further 18 Professional posts and 31 General Service posts as envisaged in the programme budget for the biennium 1988-1989. This made it all the more essential to establish that current staff were being used to the best effect. Whereas productivity was demonstrably greater, it was recognized that the burden imposed on limited staff could be greatly reduced by introducing more office automation and continually assessing the appropriateness of organizational and staff structures.

19. In respect of office automation, the newly established Management Information Advisory Committee drew up computer policy guidelines with the express objective of achieving improved accuracy, quality and timeliness of response; more creative planning; and better financial and management control (Director-General's Bulletin UNIDO/DG/B.84). Steps were taken to secure appreciably more word-processing work stations and to launch UNIDO on the path to acquiring its own mainframe computer.

20. In respect of assessing the appropriateness of the current organizational and staff structures, a review was undertaken by the Secretariat in the last two months of 1988. The findings and recommendations arising out of that review were to be reported to the Board at its

fifth session in June 1989 through the Programme and Budget Committee scheduled to meet two months earlier. Unlike the management audit conducted in late 1986, ^{1/} the review was not so much concerned with evolving a survival strategy, as with ensuring that the Organization is so structured and staffed as to carry out its mandate more effectively.

21. Closely related to staff structure is the issue of staff composition and the small proportion of women in the UNIDO Secretariat at the Professional level. In direct response to decision IDB.4/Dec.32 on women in the Secretariat, a co-ordinator for the improvement of the status of women in the Secretariat was designated in November 1988 and a plan of action for implementing the Board's decision was drawn up. Steps were also taken to ensure the provision of appropriate training required to derive maximum benefit from the increase in office automation, while the first two phases of a series of management development activities for senior staff members in the Organization were held in July and November 1988. Known as the Director-General's Forum, the senior management seminar was intended to identify, within the Organization's Constitution, the basic components of a strategic vision of UNIDO and to specify more clearly the products and services to be delivered by UNIDO in the nineties. The course contributed to creating a greater sense of cohesion among senior managers and concrete action plans were drawn up on the most relevant issues discussed during the Forum. For example, the ongoing endeavours to revise administrative procedures and ensure greater cost-effectiveness within the Organization were a direct outcome of the Forum, as was the development of the new performance appraisal system that was finalized in the latter half of the year.

22. The new performance appraisal system was one in a series of endeavours to improve the welfare of the staff throughout the year. Other benefits included the introduction of longevity steps for General Service (GS) and Manual Worker staff and the new scheme for the advancement of GS staff to the Professional category. Coupled with the introduction of the new Staff Rules and the renewed emphasis being given to career development, the sense of staff commitment

that had helped the Organization to come through its financial difficulties with a minimum of disruption was appreciably strengthened. A highly motivated staff adequately equipped with skills and expertise remains the Organization's best guarantee of a firm future.

Intergovernmental organs

23. In 1988, the Industrial Development Board convened a second special session and its fourth regular session, ^{2/} which was preceded by the fourth session of the Programme and Budget Committee. ^{3/}

24. The Economic and Social Council, at its first and second regular sessions in 1988, adopted a number of resolutions calling for contributions or actions by specialized agencies. Among these were resolution 1988/22 on the establishment of a comprehensive reporting system to monitor, review and appraise the implementation of the Nairobi Forward-looking Strategies for the Advancement of Women and resolution 1988/69 on international co-operation on the environment. ^{4/} Also of relevance to UNIDO are various decisions adopted by the Governing Council of the United Nations Development Programme at its thirty-fifth session. ^{5/}

25. Decisions and resolutions adopted by the General Assembly at its forty-third session included several with implications for UNIDO. ^{5/} Of particular relevance to the work of the Board are resolution 43/217 dealing with the loan of the United Nations

^{2/} For the reports of the Industrial Development Board on the work of its second special session and of its fourth regular session see documents GC.3/1 and GC.3/2, respectively.

^{3/} For the report of the Programme and Budget Committee on the work of its fourth session see document IDB.4/4.

^{4/} A list of resolutions and decisions of the Economic and Social Council at its organizational session and its first and second regular sessions of 1988 is available in document IDB.4/CRP.3.

^{5/} A list of the resolutions and decisions of the United Nations General Assembly and the United Nations Development Programme Governing Council of relevance to UNIDO will be made available to the Board in a conference room paper.

^{1/} IDB.4/10, chap. I, para. 13.

to UNIDO, resolution 43/199 on operational activities for development, resolution 43/219 on programming planning, resolution 43/182 on preparations for an international development strategy for the fourth United Nations Development decade and resolution 43/186 concerning the Second United Nations Conference on the

Least Developed Countries. The General Assembly requested the Secretary-General to obtain the views of appropriate organizations concerning the environment and development, for considering at its forty-fourth session the question of convening a conference on the subject.

CHAPTER II. INDUSTRIAL STRATEGIES AND OPERATIONS

A. INDUSTRIAL POLICIES AND PERSPECTIVES

Introduction

1. The Industrial Policies and Perspectives Division (see chapter I, para. 15) consolidated its functions and focused on fewer - but closely integrated - groups of functions. Consistent short- and medium-term global economic perspectives continued to be provided for industrial policy-makers in developed and developing countries, along with analyses of the changing international industrial structure in an uncertain trade and financial situation. Closer links between research work and the technical co-operation activities of the Organization resulted in a significantly increased volume of technical co-operation activities through stronger support and guidance to other areas of UNIDO. Country-specific studies incorporated a direct advisory function for the national policy-making organs of requesting countries and enabled the formulation and development of new technical co-operation projects based on a sound understanding of the radically changed macro-economic constraints. Industrial statistics and related services aimed not only at improving the data on which the technical co-operation programme is based but also at assisting developing countries to develop their own industrial statistical capacity. The method developed for integrated sectoral programming ^{1/} was applied intensively in technical co-operation programmes for the fisheries industry in West Africa.

Country- and region-specific studies and related support activities for programme and project development

2. The regional and country studies assumed an increasingly important role in the pre-programming work carried out by other parts of the Organization. As regards the Industrial Development Review Series, which present in a consolidated form analytical surveys of the industrial

sector in individual developing countries, eight issues were completed and six were in process, including those initiated to support industrial co-operation efforts among Arab States. In the preparation of the reviews, attention was directed to the requirements for technical co-operation pre-programming and for industrial investment promotion.

3. In support of the trust fund programmes, research work continued for the promotion of supporting industries in the Association of South-East Asian Nations (ASEAN) countries with a new field study mission that identified technical co-operation needs and investment opportunities in Thailand, and with follow-up on the results of two previous study missions with the Governments concerned (Indonesia and the Philippines).

4. Several other country studies were carried out, often as forerunners for larger technical co-operation programmes, with financial support from extrabudgetary funds, in order to support developing countries in re-examining the direction, pace and policy framework of their industrialization process: more specifically, one such study for Viet Nam to provide a framework for an industrial development strategy; one to examine policies and measures for continued industrial transformation in Ecuador; one to review prospects for external collaboration in metalworking industries in Sri Lanka; one to provide policy advisory services to enhance competitiveness of the textile and garment industry in Thailand; one to analyse the economic linkage effects of export-processing zones in the Republic of Korea; one to identify general prospects and the specific requirements for technical co-operation in the areas of industrial statistics, research and technology, small-scale industries and raw material supply in Malawi; and another to review the rehabilitation prospects of the sugar industry, also in Malawi.

5. In support of the Industrial Development Decade for Africa (IDDA), a region-wide survey of rehabilitation requirements in African manufacturing industry was carried out; in addition, two nation-wide surveys on industrial rehabilitation were completed for Angola and Zambia. The latter surveys contained

^{1/} IDB.3/10, chap. II, para. 10; IDB.4/10, chap. II, para. 10.

policy and plant-level recommendations, along with a number of detailed project concepts focusing on the rehabilitation needs in agro-related industries, particularly in the food subsector. The results of the surveys are to be followed up by multilateral, bilateral and commercial co-operation programmes in the course of 1989.

6. The regional studies, which focused on co-operation prospects and joint policy approaches among groups of developing countries, included: one for South-East and East Asia, in which a synopsis was prepared of the selected case studies on small-scale industry support measures and linkage promotion activities and related enterprise-oriented programmes; one for the Group of African, Caribbean and Pacific (ACP) States which analysed the pattern of industrialization and co-operation with the European Community within the framework of the Lomé Convention in order to identify options for effective industrial co-operation; one for Latin America and the Caribbean which examined the industrial restructuring prospects as a basis for future work of UNIDO.

Global issues and policy analysis

7. Work continued on analysis and assessment of the radical structural changes and the emerging pattern of complex interdependence that characterizes the world industrial economy. The main research findings are incorporated in Industry and Development: Global Report 1988/89 (ID/360). The Report includes, in addition to short-run projections for some 170 countries and 10 regions, a medium-term (1989-1992) scenario with attention to the shifting influences of the economy of the leading poles of the world industrial economy; emphasis is placed on structural change in industry as an important source of growth, along with highlights of recent developments in small- to medium-scale industrial enterprises, capital goods sectors, private enterprises and foreign direct investment. The report also includes a set of brief global sectoral surveys - textiles, leather products, chemicals, petrochemicals, pharmaceuticals, petroleum refineries, iron and steel, and automobiles - that form an integral part of the exercise of monitoring the process of international industrial restructuring.

8. Four further issues of the journal Industry and Development were prepared in 1988, which cover topics such as management of technological change, industrial sub-contracting, rural industrialization (Bangladesh), export processing zones

(Republic of Korea) and an estimate of economic value of major factors of production (Botswana) and other articles on specific industrial subsectors such as automobiles (Japan, Brazil), engineering industries (Republic of Korea), machine tools, textiles, steel (Mexico), petrochemicals (oil exporting countries) and agro-food industries (Latin American region). Reports were prepared on restructuring of world industrial production and redeployment (IDB.4/28) and on UNIDO's role in the global efforts to alleviate the debt burden of developing countries (IDB.4/39). Assistance was rendered to the Economic and Social Commission for Western Asia (ESCWA) on its regional energy survey and a study mission was carried out jointly with the World Bank on the perspectives of industrial restructuring in Ghana.

Industrial statistics and sectoral surveys

9. A new agreement was reached with the United Nations Statistical Office, whereby UNIDO obtains copies of national questionnaires on industrial statistics to facilitate UNIDO's technical contribution at the level of primary data.^{2/} Moreover, with the merging of preparation of industrial statistics and in-depth sectoral studies, increased emphasis was given to the compilation of detailed sectoral statistics drawing on both national and international sources including producers' associations and specialized professional institutions. The statistics are used in the sectoral surveys and other studies as well as in programming technical co-operation activities. Dissemination of statistics within UNIDO continued through provision of extracts from the data base and by maintaining a system of on-line access and data processing; for users outside the Organization, data sales and exchanges continued in the form of computer tapes and diskettes. Statistical indicators were also supplied for use in recurrent publications of other international organizations, including the World Development Report and World Tables (World Bank) and the Handbook of International Trade and Development Statistics (United Nations Conference on Trade and Development (UNCTAD)).

10. The 1988 edition of the biennial sales publication, Handbook of Industrial Statistics (Sales No. E/F.88.III.E.5) was issued. It provides an indication of industrial performance and structural

^{2/} IDB.4/10, chap. II, para. 15.

change as well as related indicators for individual industries, patterns of commodity consumption and trade in manufactures. Other publications included "An inventory of industrial statistics: UNIDO data base, 1988" (PPD.80(SPEC.)) and "Africa in figures, 1988" (PPD.95(SPEC)).

11. Assistance was provided to three developing countries and one subregional organization (Ethiopia, Cameroon, Mozambique and ASEAN) for installation of software in statistical offices to automate the storage of industrial census data, tabulation of various indicators and dissemination of results. Expertise in statistics and computer applications was also provided directly by Headquarters staff under technical co-operation arrangements. Five other similar projects were under discussion, e.g. for Kenya and Malawi.

12. Work continued on an empirical study that will analyse shifts in competitive advantage and product differentiation in key industries (scheduled for completion in mid-1989). Work on a series of sectoral surveys began in the latter part of 1988, initially with focus on the fine chemicals industry, including the related environmental and safety issues. During the year, much of the sectoral study staff resources were, however, devoted to the completion of an integrated sectoral programming exercise geared to the development of new co-operation project concepts for the fisheries industries in West Africa. In addition, four field missions were carried out for technical co-operation programme development: metallurgical industries' perspectives in Angola, Zaire and Zambia, and chemical industries in Cameroon.

projects was further intensified, owing to the increased resources available under the Industrial Development Fund (IDF) and the indicative planning figure (IPF) for the current (fourth) cycle (1987-1991) of the United Nations Development Programme (UNDP), which was raised by an average of 15 per cent. As a part of this effort, 83 programming, programme review and project formulation missions were carried out and the computer-based pipeline monitoring system that was established in 1986 was further refined. The trend of programme development shows that UNIDO activities will increase in the areas of agro-industry, industrial rehabilitation and public sector oriented services.

14. The introduction of a new project document format and procedure by UNDP in early 1988 caused some delays in the programme and project development process carried out under IPF resources. Despite this constraint, an increase was recorded in the overall value of IPF projects approved in 1988: \$109.5 million as compared to \$83.2 million in 1987. There was also a significant growth in the value of approved projects developed under IDF: \$26.4 million as compared to \$21.3 million in 1987. The level of overall project approvals reached a record high of \$161.4 million in 1988 (1987: \$117.8 million), thus providing a sound basis for future technical co-operation activities and breaking previous records for the second year in succession. For more details see chapter VIII, part A.

15. The highlights of programme and project development in the individual regions are as follows:

Africa Region

B. TECHNICAL CO-OPERATION 3/

I. Programme and Project Development

13. The development of projects at the country, regional, interregional and global levels and programme development and monitoring of programme implementation formed the twofold focus of activities dealing with area programmes. The process of building up a portfolio of pipeline

16. Programme and project development activities continued for the African countries and intergovernmental organizations in support of the economic recovery and structural adjustment programmes initiated over the past two years. Major emphasis was placed on reinforcing capacities for formulating industrial strategies, plans and policies and on industrial restructuring and rehabilitation, including strengthened repair and maintenance capacities. Other areas of concentration included the development of agro-related industries, the development of entrepreneurship (particularly in the small- and medium-scale industrial sector), industrial training, enhancement and expansion of the role of women in industrial development,

3/ Some of the 1987 figures differ slightly from those reflected in document IDB.4/10 owing to minor accounting adjustments.

technology transfer and industry-related energy development. Programme development activities resulted in a substantial increase in the number of new projects approved as compared to 1987. New project approvals for 1988 amounted to \$38.9 (1987: \$22.3) million of which \$23.1 (1987: \$13.7) million were funded by UNDP and \$15.8 (1987: \$8.6) million from other sources of funding. This represents an increase of some 74 per cent over 1987, with IPF approvals having grown by some 69 per cent. In addition to the above achievements, four UNDP-funded projects, worth about \$2.3 million, were approved after successful conclusion of preparatory assistance. New projects covered the training, telecommunications, leather and leather products and industrial chemicals sectors. New approvals for African least developed countries more than doubled in 1988, amounting to \$11.45 million as compared to \$4.77 million in 1987.

17. UNIDO assisted 12 countries in formulating projects aimed at streamlining their industrial policy objectives and priorities and preparing, reviewing or implementing their industrial master plans: Angola, Burkina Faso, Cameroon, Cape Verde, Côte d'Ivoire, Kenya, Lesotho, Mauritius, Mozambique, Nigeria, Seychelles and Zaire. In Kenya, a project with a value of \$1.2 million was formulated and approved for the development of a programme calling for foreign private investment, mainly through joint ventures. Projects aimed at strengthening institutional capabilities for industrial policy-making and for monitoring project preparation, analysis, pre-feasibility and feasibility studies were initiated in 13 countries: Angola, Cameroon, Djibouti, Ethiopia, Ghana, Liberia, Malawi, Niger, Rwanda, Sao Tome and Principe, Senegal, Somalia and Zambia.

18. In the agro-industrial subsector, projects worth nearly \$5.0 million were developed and approved for developing food processing and other agro-industries in Botswana, Burkina Faso, Cameroon, Niger, Nigeria and Senegal.

19. Major programmes and projects approved during the year included a metallurgical development centre in Nigeria (\$6.4 million), support to small-scale marble industries in Ethiopia (\$2.0 million); and industrial rehabilitation for Uganda (\$5.0 million). Other projects in industrial rehabilitation were small and medium-sized industries or at an advanced stage of development in Uganda (\$1.5 million), Zaire (\$5.0 million), Nigeria (\$2.43 million)

and Kenya (\$3.0 million). Similar programmes were launched in Angola, Niger, Somalia and Mozambique.

20. Training programmes were developed for improving industrial repair and maintenance capabilities, particularly in the agro-industrial sector in Mozambique, Guinea, Nigeria, Liberia, Seychelles and Côte d'Ivoire; for upgrading the skills of women entrepreneurs in Côte d'Ivoire, Malawi and Nigeria; and for industrial energy generation, auditing, saving and the use of solar energy in Zimbabwe, Angola, Côte d'Ivoire and Sierra Leone.

21. At the subregional and regional levels, assistance in project development was given to African countries and organizations for enhancing subregional industrial co-operation. Nine projects, valued at nearly \$2.0 million altogether, were developed and approved for the Preferential Trade Area for Eastern and Southern African States. Two projects, approved for special-purpose contributions to IDF, opened new areas of activity for UNIDO. One project (\$1.05 million) aims to establish a regional environmental testing centre for telecommunications equipment in the countries of the Southern African Development Co-ordination Conference. A second project (\$353,000) would enhance the capacity of the African Regional Centre for Engineering Design and Manufacturing (ARCEDEM) to train engineers in its member States in the design of agricultural tools and equipment. This will be achieved by providing ARCEDEM with a computer-aided design (CAD) facility and training of ARCEDEM staff in CAD applications. Two important projects for industrial rehabilitation and for the promotion of multinational enterprises (\$5.0 million) were developed and UNDP approval is expected by mid-1989. Four countries (Ethiopia, Kenya, Zambia and Zimbabwe) were assisted in the development of an ILO/FAO/UNIDO project (\$6.0 million) on the establishment of an African subregional network on agricultural tools and equipment for UNDP approval by the first quarter of 1989. Among a wide range of human resource development projects, assistance was provided for the development of a project for an industrial training programme for Portuguese-speaking countries in Africa and a group training programme was initiated on power plant operations and maintenance for least developed countries in Africa. Other pipeline programmes and projects were related to pharmaceuticals, ship-building and repair, sponge iron manufacture, telecommunications industries and new and renewable sources of energy.

22. Contacts between UNIDO, UNDP, the Office of the Commissioner for Namibia (OCN) and the South West Africa People's Organization (SWAPO) were further intensified for the development of technical assistance to the Namibian people. In March, UNIDO fielded a preparatory mission to Angola, financed under the UNDP programme established for the national liberation movements, with the aim of assessing the needs of SWAPO in the field of repair and maintenance of equipment and machinery and to formulate a project document for technical assistance to meet these needs. During the mission it was found that the SWAPO authorities required the strengthening of a workshop at Viana, near Luanda, Angola. In co-operation with SWAPO technical staff and a Swedish consultant working at the workshop, the site was visited, the assessment of the existing facilities made and data collected for the formulation of the project. A workshop held at Viana, established with financial and technical assistance from the Swedish International Development Authority, is the focal point for the repair and maintenance of a fleet of civil transportation vehicles. Currently, the workshop conducts routine maintenance and some repairs of medium-level technical complexity are carried out, while complex or extensive repairs have to be transferred to other better equipped - but much more expensive - workshops in Luanda. Additional project concepts for co-operation dealing with the processing of agricultural products, the development of industrial entrepreneurship and for repair and maintenance, which were prepared by UNIDO in 1987, were discussed at the annual meeting of SWAPO and OCN, held in April in Botswana.

23. UNIDO maintained its efforts of programme and project development in support of the national liberation movements recognized by the Organization of African Unity (OAU). Consultations were held between UNDP, the national liberation movements and UNIDO, with the objective of developing and including industry sector projects in the UNDP fourth programming cycle allocations for the national liberation movements recognized by OAU. As a result, UNDP approved a preparatory assistance project for the establishment of maintenance and repair facilities for national liberation movements, under which UNIDO made an assessment in April of repair and maintenance needs of mechanical, agricultural and transportation equipment in two African National Congress of South Africa (ANC) settlements and one Pan-Africanist Congress of Azania (PAC) settlement and submitted two main phase

projects to UNDP and the concerned national liberation movements for comments and approval. The main objectives of these projects - one for a PAC settlement (Masuguru) for \$224,065 and the other for an ANC settlement (Mazimbu) for \$274,800 - will be to support existing workshops and train people from the camps to repair and maintain tractors, trucks, ambulances, power generators, water pumps and workshop machinery already acquired by these settlements from donors or other sources. It is anticipated that the main phase of the projects will be launched in 1989.

24. UNIDO is also developing projects in response to two other requests: for ANC, to design a plant layout, install machinery, initiate operations and train counterparts for a vegetable oil plant provided by a donor in the United Republic of Tanzania, and for PAC, to provide supplementary equipment, training and expertise in the design and tailoring of clothing to a small-scale garment workshop already established under a UNIDO project at Dar-es-Salaam, United Republic of Tanzania.

Arab States

25. The weak situation in oil markets - expected to continue throughout the present decade - continued to adversely affect the economies of the majority of the Arab States. Governments therefore are trying to adjust to the situation by reducing their dependency on oil and by diversifying their economic structure. UNIDO made a great effort to extend co-operation to Arab countries either at the national or regional level in adapting to the prevailing situation by tailoring its programme to their specific needs. UNIDO was thus in a continuous dialogue with Governments and regional Arab organizations through, among others, visits of government officials to UNIDO Headquarters or official missions of UNIDO to the Arab countries. UNIDO also participated in the regional meeting of the Arab States held by UNDP at Casablanca, Morocco, in March.

26. Many Arab countries now stress the role of the private sector in their industrialization efforts and impetus to the development of the private sector is given by the Governments through the creation of supporting institutions, structural reforms of the economy and other special measures. UNIDO programmes and project development activities also reflect this trend.

27. The Governing Council of UNDP approved country programmes for Bahrain, Jordan, Libyan Arab Jamahiriya, Qatar, Sudan and Yemen and the regional programme for the Arab States covering the period 1988-1992, which emphasizes technical co-operation in respect of food development and security, development and transfer of technology and development and upgrading of human resources.

28. The overall approval figure for 1988 has reached an all-time record of some \$27 million, covering 64 new projects, as compared to \$8.9 million in 1987. Project approvals, which were mainly funded by UNDP resources and trust fund arrangements, comprised a good number of medium- and large-scale projects designed for: institution building in Algeria, Egypt, Iraq, Libyan Arab Jamahiriya, Saudi Arabia, Syrian Arab Republic and Tunisia; training and consultancies (as umbrella projects) in various fields of development including trouble-shooting and pre-investment studies projects for Jordan, Oman, Saudi Arabia and Syrian Arab Republic; and high technology for Syrian Arab Republic and Tunisia.

29. UNIDO continued to finance and implement a number of technical co-operation projects developed in consultation with the representatives of Palestine, including a feasibility study on a canning plant for citrus fruit, a study on the establishment of a Palestinian industrial development bank, assistance to the plastics industry and identification of priority projects in the industrial sector.

30. The future programme of UNIDO assistance to the Palestinian people comprises, among others, a number of technical co-operation projects, including a detailed techno-economic study, and a project that covers the industrial and engineering infrastructure for a commercial seaport facility in the Gaza area.

31. UNIDO technical co-operation projects for the Palestinian people have so far been financed under IDF. For a programme on a larger scale, other sources of financing need to be mobilized. UNIDO has therefore approached UNDP with a view to implementing jointly some projects and to participating in the UNDP special programme resources for assistance to the Palestinian people. A more intensive involvement of UNIDO in project development and implementation would be achieved through the possibility of access by UNIDO staff to the occupied territories.

Asia and the Pacific Region

32. The optimism that marked the outlook for 1988 approvals has been fulfilled in large measure. Overall project approvals amounted to an all-time record of some \$49.0 million compared to \$36.5 million in 1987. New projects approved under IPF in 1988 had a value of \$24.6 million. A total of 73 new projects were approved in 1988 under UNIDO-managed resources valued at \$4.3 million.

33. Several factors have contributed to these developments, among them the dramatic growth in the share of UNIDO in the Viet Nam country programme and the coming to fruition of several projects in the Democratic People's Republic of Korea, Philippines and Sri Lanka.

34. Field visits have proved very useful in exploring new concepts and in moving forward project proposals that had been submitted for consideration by Governments. For instance, a programming mission to India laid the groundwork for 14 new projects with an estimated value of \$24.6 million, to be considered for inclusion in the current and next cycles. A mission to Mongolia led to the identification and the firming up of implementation arrangements for projects worth \$3.8 million; similarly, in the Democratic People's Republic of Korea, five new projects were identified, for which \$2.8 million were earmarked from additional IPF funding and three new projects with a total value of \$4.2 million were identified and included in the country programme of Sri Lanka.

35. The visits of key government officials from, inter alia, India, Thailand and Viet Nam, to UNIDO have also been instrumental in identifying new opportunities for co-operation and resolving problems affecting project development and implementation.

36. The positive developments in the region would not have been possible, however, without close co-operation with the UNDP Regional Bureau for Asia and the Pacific. A project formulation plan was mutually agreed upon in 1987 and updated in 1988. The Bureau also supported the active involvement of UNIDO in the programming of the additional IPF allocation which, in the region, amounted to some \$189 million. Project concepts and proposals amounting to almost \$50 million have been submitted to UNDP for consideration.

37. The major donors to IDF have maintained an active interest in the region. Of the 32 projects for the region approved under IDF, 13 were financed by special-purpose donors with a contribution of \$2.3 million.

Europe and Mediterranean Region

36. All UNDP country programmes and the regional programme for Europe for 1987-1991 were approved by February 1988. The UNIDO share in the country and regional programme varies from 16 per cent for Albania to 60 per cent for Bulgaria. The majority of IPF projects for UNIDO execution was finalized and approved and, for some countries (Albania, Bulgaria, Hungary and Poland) all IPF projects under the current cycle were approved. Finalization of other IPF projects in Cyprus, Malta, Romania, Turkey and Yugoslavia can be expected in the course of the present cycle.

39. In 1988, approvals of 43 new projects reached a level of \$3.9 million, of which 15 were IPF-funded projects totalling \$2.2 million. UNIDO started implementation of four regional projects that were approved in 1988. Countries of the region show also an increasing interest in obtaining technical advisory assistance financed from Special Industrial Services (SIS) and other funds such as IDF and trust funds. Overall approvals in 1988 reached the level of \$6.1 million, out of which projects funded under IPF amounted to \$4.5 million.

40. Some 75 per cent of the projects developed by UNIDO in the region were in industrial sectors requiring modern or up-to-date technologies in optical electronics, electrical ceramics, CAD/CAM applications, micro-computers, laser technology, industrial robotics applications, biotechnology, development of polyether synthesis and processing technology for polyurethanes, new materials and polymers/polymer blends and composites, industrial particle beam applications, and improved metrology and calibration laboratories. The field of agro-industries also is of considerable interest with requests for improvement of wine and brandy production, fruit juice production and leather R and D and processing. Even relatively small inputs from UNDP/UNIDO have a multiplier effect, since the contributions in kind by the Governments are usually several times higher than the project budgets.

41. UNIDO was also actively involved in promoting activities of the joint committees established between UNIDO and various European countries. The programme of activities offered by a majority of those countries for the benefit of developing countries is agreed upon jointly by UNIDO and national authorities at annual meetings of the joint committees. Such joint committees exist for Czechoslovakia, Hungary, Poland, Romania, Turkey and Union of Soviet Socialist Republics (see also chap. VI, para. 2).

Latin America and the Caribbean Region

42. The Latin American and the Caribbean region continued to emerge slowly from the deep economic recession that has affected the region since the early 1980s. Positive factors leading to recovery are the establishment of policies of export promotion and diversification and the fact that manufactures from the region have penetrated international markets in an environment of keen international competition and slow growth in global trade. Nevertheless, some of the most crucial challenges facing the countries in the region are: the promotion of new investment while increasing the external debt service capacity; the transfer, adaptation and development of new and advanced technologies and their application; and the application of restructuring and rehabilitation policies and mechanisms to make the industrial sector more efficient and internationally competitive. These challenges have been reflected in the types of projects developed by UNIDO for the region during the year under review. A few illustrative examples are described below.

43. A large-scale project concerned with industrial investment promotion for the Andean Group of countries was developed jointly with UNDP and the Andean Development Corporation (CAF). For the Caribbean, a subregional project on promotion and development of entrepreneurship, small-scale industry and productive investment was developed. A project was developed under a cost-sharing arrangement to assist the Central American subregion in identifying, formulating, evaluating and promoting industrial projects with an investment potential. The project will also facilitate the utilization of investment funds generated from the San José Agreement of Co-operation with Central American countries.

44. A large-scale agro-industries project that promotes co-operation between Mexico and France with UNIDO acting as a catalyst, was approved and a similar one between Venezuela and France was developed. The projects aim at strengthening the competitiveness of the sector through the diversification of export markets, the improvement of the quality of agricultural produce and the development of new production lines through import substitution. A large-scale project was developed with the goal of reactivating the industrial park "Villa El Salvador" at Lima, Peru. The basic objectives of the project will be to strengthen the technical capability of the industrial zone administration and provide technical co-operation, training and other support to small-scale industrial enterprises in the industrial zone.

45. Efforts of UNIDO in support of advanced technology application are illustrated by a large-scale regional project that was developed with the aim of strengthening the technological infrastructure and capabilities in the Latin American and Caribbean countries in the field of microelectronics and informatics. The second phase of a large-scale project to strengthen a leather technology centre in Costa Rica was approved during 1988 under a special-purpose contribution from the Government of Italy. This project aims at consolidating and ensuring the ability of the Centre to provide services and technological know-how to national tanneries as well as to other tanneries in Central America and the Caribbean.

46. Within the priority of industrial restructuring and modernization, a large-scale project in Mexico on industrial reconversion and competitiveness continued to be developed. The overall aim is to improve the efficiency and competitiveness of Mexican industry through the formulation and implementation of appropriate strategies, policies and measures for specific industrial branches. UNIDO also took a series of initiatives aimed at identifying opportunities for programme and project development in the Central American subregion within the framework of the United Nations Special Plan of Economic Co-operation for Central America. Specifically, UNIDO will participate in the execution of a project on industrial restructuring for Central America to be executed by the Secretariat for Central American Integration within the framework of the Special Plan.

47. During the year under review, 77 new projects were approved with a value of \$7.9 million, of which 20 were IPF

projects valued at \$3.9 million and 57 projects under other sources of funds such as IDF valued at \$4.0 million. To a large extent, the decline in approval level in 1988 as compared with 1987 is the result of the reduced availability of IPF resources, the significant increase in government-executed projects, and the difficulties encountered by a number of Latin American and Caribbean Governments to fulfil their obligations towards government cost-sharing. In order to overcome the above constraints in programme and project development, efforts were increased towards the identification and mobilization of alternative sources of technical assistance funding for projects in the region. In this connection, some 20 missions to the region for formulating and identifying future projects were undertaken. Negotiations with the Inter-American Development Bank centred on the identification of specific programmes and projects for the region. Consultations with Governments were intensified to expedite the approval of projects under government cost-sharing. A large-scale subregional project on investment promotion has been jointly developed with CAF. Within the framework of the Brazil/UNIDO Memorandum of Understanding, it is foreseen that a number of important national projects and projects for technical co-operation among developing countries will be formulated and approved in the near future. Fruitful results have been obtained in mobilizing special-purpose contributions to IDF with the expectation that specific programmes will be developed in co-operation with France, the Federal Republic of Germany, Italy, Japan and Switzerland. Moreover, negotiations continued with the Governments of Mexico and Venezuela for the development of UNIDO-executed projects within the framework of the San José Agreement. ^{4/}

Global and Interregional Projects and Programmes

48. Nearly 250 interregional and global projects were processed in 1988, of which 153 were approved and funded. Overall approvals have reached \$15.2 million, which is nearly \$1.2 million higher than the level of approvals for 1987.

49. Efforts continued to secure the better integration of Consultation meetings into programme and project identification and

^{4/} IDB.4/10, chap. II, para. 43.

formulation activities. Thus at the first Interregional Consultation on the Food Processing Industry with Emphasis on Sugar-Cane Processing (Havana, September 1988), some ten country, regional and interregional projects were identified and formulated.

50. The sectoral trends of global and interregional programmes and projects have not changed and training continued to be by far the largest segment (over 65 per cent). Large-scale projects are generally of a global nature, e.g. the natural rubber and tyre retreading materials project ^{5/} and a timber production project which was submitted to UNDP for approval. Group training programmes were offered in association with institutes in industrialized countries as well as in developing countries. The main donors and active participants in these programmes are: Austria, Belgium, China, Czechoslovakia, France, German Democratic Republic, Hungary, Japan, Turkey, Union of Soviet Socialist Republics and Yugoslavia. Five training programmes were developed under the UNDP/USSR trust fund in 1988.

51. Follow-up action continued to foster increased collaboration between Caribbean and Pacific island countries as a result of the first interregional co-operation workshop-cum-study tour held in 1987 for representatives of those countries in the development of small- and medium-scale agro-industries, with emphasis on live marine resources and tropical fruits.

II. Implementation overall in 1988

52. As in previous years, by far the largest portion of technical co-operation activities was financed from UNDP resources (IPF, SIS, Special Programme Resources and Special Measures). Although the total figure for UNDP resources increased from \$69.6 million in 1987 to \$76.9 million in 1988, the share of UNDP-financed technical co-operation activities within the overall implementation decreased from 71.3 per cent to 64.3 per cent. The overall expenditures for technical co-operation activities, however, increased to \$119.8 million, as compared with \$97.7 million in 1987.

53. A total of 1,784 projects were implemented or were under implementation,

including 185 projects valued at \$1 million or more, 568 projects valued at \$150,000 or more and 1,031 projects valued at less than \$150,000. Tables 1 and 2 below show the overall technical co-operation expenditures, by source of funds and project component.

54. A breakdown of technical co-operation delivery, by source of funds and project component, is given below for Africa (tables 3 and 4), for the Americas (tables 5 and 6), for the Arab States (tables 7 and 8), for Asia and the Pacific (tables 9 and 10) and for Europe (tables 11 and 12).

55. The value of projects executed by UNIDO in Africa amounted to \$38.4 million (including \$12.8 million for African Arab States). This increase of \$5.9 million or 18 per cent (an increase of \$3.2 million or 33.4 per cent for African Arab States) over the corresponding figure for 1987 was largely the result of a considerable increase in trust funds and the availability of funds from the United Nations Fund for Drug Abuse Control (UNFDAC).

56. The value of projects executed by UNIDO in the Americas amounted to \$10.8 million, an increase of \$1.5 million or 16 per cent over the figure for 1987. The higher level of implementation was mainly attributable to an increase in UNDP funds made available for 1988.

57. The value of projects executed by UNIDO in the Arab States amounted to \$18.0 million (including \$12.6 million for African Arab States), representing an increase of \$5.5 million or 43.5 per cent (an increase of \$3.2 million or 33.4 per cent for African Arab States) over the corresponding figure for 1987. The noticeably higher level of implementation in the Arab States was mainly the result of an increase in trust funds and the availability of UNFDAC funds, particularly for the African Arab States (see para. 55 above).

58. The value of projects executed by UNIDO in Asia and the Pacific amounted to \$43.9 million. This increase of \$6.0 million or 15.8 per cent over the corresponding figure for 1987 was mainly attributable to an increase in funds made available, among others, from UNDP and UNFDAC.

59. The value of technical co-operation delivery to Europe amounted to \$4.3 million, an increase of \$1.7 million or 62.9 per cent over the figure for 1987. The markedly higher level of

^{5/} IDB.3/10, chap. II, para. 42.

implementation was mainly the result of an increase in funds made available from UNDP and UNFDAC.

60. The technical co-operation delivery by individual branches in the Department of Industrial Operations is treated in the paragraphs that follow. As many ongoing projects have been covered to some extent in previous Annual Reports, brief accounts are given here, with appropriate references to those earlier Reports. It should be borne in mind that even though projects may be mentioned under specific "activities" headings (e.g. metallurgical industries), their implementation may cut across organizational lines to include the

economic and technical experience of not only the entire Department of Industrial Operations, but of UNIDO as a whole. Thus, individual branches or sections of the Department provide inputs to, and benefit from, the activities of the Department for Industrial Promotion, Consultations and Technology and the Department for Programme and Project Development.

61. The number of technical co-operation projects implemented or under implementation in 1988 and the regional distribution of technical co-operation delivery, by field of activity, are shown in tables 13 and 14 below.

Table 1

Technical co-operation expenditure,
by source of funds

	1988	
	\$ thousand	%
UNIDO regular budget		
Regular programme of technical co-operation	1 326	1.1
Industrial Development Decade for Africa	1 187	1.0
Subtotal	2 513	2.1
UNDP		
IPF and cash counterpart	73 961	61.8
SIS	2 976	2.5
Special programme resources and special measures	26	0.0
Subtotal	76 963	64.3
UNDP-administered trust funds	1 004	0.8
Other funds		
Other trust funds	14 187	11.8
Industrial Development Fund	19 849	16.6
UNFDAC	2 798	2.3
Non-UNIDO funds	2 466	2.1
Subtotal	39 300	32.8
T O T A L	119 780	100.0

Table 2

Technical co-operation expenditure,
by project component

	1988	
	\$ thousand	%
Project personnel	49 226	41.1
Sub-contracts	13 445	11.2
Fellowships and training	17 912	15.0
Equipment	35 842	29.9
Miscellaneous	3 355	2.8
T O T A L	119 780	100.0

Table 3
Technical co-operation expenditure in Africa, a/
by source of funds

	1 9 8 8	
	\$ thousand	%
UNIDO regular budget		
Regular programme of technical co-operation	501	1.3
Industrial Development Decade for Africa	1 152	3.0
Subtotal	1 653	4.3
UNDP		
IPF and cash counterpart	23 193	60.3
SIS	1 022	2.7
Special programme resources and special measures	6	0.0
Subtotal	24 221	63.0
UNDP-administered trust funds	80	0.2
Other funds		
Other trust funds	7 600	19.8
Industrial Development Fund	3 269	8.5
UNFDAC	916	2.4
Non-UNIDO funds	692	1.8
Subtotal	12 477	32.5
T O T A L	38 431	100.0

a/ Including African Arab States (Algeria, Djibouti, Egypt, Libyan Arab Jamahiriya, Morocco, Somalia, Sudan, Tunisia).

Table 4
Technical co-operation expenditure in Africa, a/
by project component

	1 9 8 8	
	\$ thousand	%
Project personnel	20 946	54.5
Sub-contracts	4 195	10.9
Fellowships and training	2 819	7.3
Equipment	8 950	23.3
Miscellaneous	1 521	4.0
T O T A L	38 431	100.0

a/ Including African Arab States (Algeria, Djibouti, Egypt, Libyan Arab Jamahiriya, Morocco, Somalia, Sudan, Tunisia).

Table 5
Technical co-operation expenditure in the Americas,
by source of funds

	1 9 8 8	
	\$ thousand	%
UNIDO regular budget		
Regular programme of technical co-operation	52	0.5
Industrial Development Decade for Africa	0	0.0
Subtotal	52	0.5
UNDP		
IPF and cash counterpart	7 654	70.9
SIS	708	6.6
Special programme resources and special measures	0	0.0
Subtotal	8 362	77.5
UNDP-administered trust funds	0	0.0
Other funds		
Other trust funds	777	7.2
Industrial Development Fund	897	8.3
UNFDAC	298	2.8
Non-UNIDO funds	404	3.7
Subtotal	2 376	22.0
T O T A L	10 790	100.0

Table 6
Technical co-operation expenditure in the Americas,
by project component

	1 9 8 8	
	\$ thousand	%
Project personnel	6 261	58.0
Sub-contracts	474	4.4
Fellowships and training	708	6.6
Equipment	2 997	27.6
Miscellaneous	350	3.2
T O T A L	10 790	100.0

Table 7
Technical co-operation expenditure in Arab States,
by source of funds

	1 9 8 8 a/		1 9 8 8 b/	
	\$ thousand	%	\$ thousand	%
UNIDO regular budget				
Regular programme of technical co-operation	51	0.3	29	0.2
Industrial Development Decade for Africa	118	0.6	118	0.9
Subtotal	169	0.9	147	1.1
UNDP				
IPF and cash counterpart	10 370	57.6	6 343	49.7
SIS	527	2.9	249	2.0
Special programme resources and special measures	0	0.0	0	0.0
Subtotal	10 897	60.5	6 592	51.7
UNDP-administered trust funds	0	0.0	0	0.0
Other funds				
Other trust funds	5 398	30.1	5 136	40.3
Industrial Development Fund	710	3.9	371	2.9
UNFDAC	726	4.0	474	3.7
Non-UNIDO funds	113	0.6	33	0.3
Subtotal	6 947	38.6	6 014	47.2
T O T A L	18 013	100.0	12 753	100.0

a/ Including African Arab States (Algeria, Djibouti, Egypt, Libyan Arab Jamahiriya, Morocco, Somalia, Sudan, Tunisia).

b/ African Arab States only.

Table 8
Technical co-operation expenditure in Arab States,
by project component

	1 9 8 8 a/		1 9 8 8 b/	
	\$ thousand	%	\$ thousand	%
Project personnel	10 525	58.4	8 211	64.4
Sub-contracts	1 293	7.2	1 227	9.6
Fellowships and training	650	3.6	315	2.5
Equipment	5 000	27.8	2 598	20.4
Miscellaneous	545	3.0	402	3.1
T O T A L	18 013	100.0	12 753	100.0

a/ Including African Arab States (Algeria, Djibouti, Egypt, Libyan Arab Jamahiriya, Morocco, Somalia, Sudan, Tunisia).

b/ African Arab States only.

Table 9
Technical co-operation expenditure in Asia and the Pacific,
by source of funds

	1 9 8 8	
	\$ thousand	%
UNIDO regular budget		
Regular programme of technical co-operation	352	0.8
Industrial Development Decade for Africa	0	0.0
Subtotal	352	0.8
UNDP		
IPF and cash counterpart	35 996	82.0
SIS	626	1.4
Special programme resources and special measures	20	0.0
Subtotal	36 642	83.4
UNDP-administered trust funds	51	0.1
Other funds		
Other trust funds	940	2.1
Industrial Development Fund	4 104	9.4
UNFDAC	548	1.3
Non-UNIDO funds	1 290	2.9
Subtotal	6 882	15.7
T O T A L	43 927	100.0

Table 10
Technical co-operation expenditure in Asia and the Pacific,
by project component

	1 9 8 8	
	\$ thousand	%
Project personnel	11 557	26.3
Sub-contracts	6 452	14.7
Fellowships and training	8 292	18.9
Equipment	17 012	38.7
Miscellaneous	614	1.4
T O T A L	43 927	100.0

Table 11
Technical co-operation expenditure in Europe,
by source of funds

	1 9 8 8	
	\$ thousand	%
UNIDO regular budget		
Regular programme of technical co-operation	36	0.8
Industrial Development Decade for Africa	0	0.0
Subtotal	36	0.8
UNDP		
IPF and cash counterpart	3 091	72.3
SIS	335	7.8
Special programme resources and special measures	0	0.0
Subtotal	3 426	80.1
UNDP-administered trust funds	0	0.0
Other funds		
Other trust funds	71	1.7
Industrial Development Fund	39	0.9
UNFDAC	705	16.5
Non-UNIDO funds	0	0.0
Subtotal	815	19.1
T O T A L	4 277	100.0

Table 12
Technical co-operation expenditure in Europe,
by project component

	1 9 8 8	
	\$ thousand	%
Project personnel	856	20.0
Sub-contracts	299	7.0
Fellowships and training	1 032	24.1
Equipment	1 991	46.6
Miscellaneous	99	2.3
T O T A L	4 277	100.0

Table 13

Number of technical co-operation projects under implementation in 1988
by region, by field of activity and size of project

Field of activity		Size of project						Sub-total	Total
		Africa	The Americas	Arab States a/	Asia & the Pacific	Europe	Inter-regional/ Global		
		(i).....<\$150,000							
		(ii) \$150,000 - \$999,999							
		(iii).....>\$1,000,000							
Agro-based Industries	(i)	20	19	6	20	2	6		
	(ii)	10	8	(2)	25	1	5	71	
	(iii)	5	2	(3)	9	0	0	49	
				(1)				16	136
Chemical Industries	(i)	51	28	20	46	22	23		
	(ii)	25	12	(11)	61	15	4	179	
	(iii)	16	3	(10)	28	1	2	120	
				(11)				50	349
Metallurgical Industries	(i)	25	6	12	27	4	1		
	(ii)	15	4	(7)	21	4	1	68	
	(iii)	5	4	(3)	10	0	0	48	
				(2)				19	135
Engineering Industries	(i)	21	19	14	21	17	8		
	(ii)	15	10	(8)	34	11	0	92	
	(iii)	8	1	(6)	22	1	0	72	
				(4)				34	198
Industrial Planning	(i)	9	19	6	8	2	8		
	(ii)	17	8	(4)	2	1	0	46	
	(iii)	8	2	(1)	2	0	0	28	
				(0)				13	89

a/ Figures in parentheses relate to African Arab States and are already included under Africa.

Table 13 (continued)

Field of activity	Size of project						Inter-regional/ Global	Sub-total	Total
	Africa	The Americas	Arab States a/	Asia & the Pacific	Europe				
	(i)								
	(ii)								
	(iii)								
Institutional	(i)	26	28	10	18	7	2		
Infrastructure	(i)			(6)				85	
	(ii)	35	13	13	20	4	2		
	(ii)			(6)				81	
	(iii)	10	6	4	5	0	1		
	(iii)			(1)				25	191
Industrial	(i)	17	31	7	12	0	6		
Management and Rehabilitation	(i)			(5)				68	
	(ii)	17	3	6	12	2	1		
	(ii)			(5)				36	
	(iii)	3	2	3	5	0	0		
	(iii)			(2)				11	115
Training	(i)	37	1	3	7	5	91		
	(i)			(2)				142	
	(ii)	9	0	1	1	3	17		
	(ii)			(1)				30	
	(iii)	2	2	0	0	0	0		
	(iii)			(0)				4	176
Feasibility Studies	(i)	23	3	15	13	1	10		
	(i)			(6)				59	
	(ii)	19	1	11	14	0	3		
	(ii)			(5)				43	
	(iii)	2	0	1	1	0	0		
	(iii)			(0)				4	106
Other b/	(i)	53	23	18	51	5	80		
	(i)			(11)				219	
	(ii)	12	4	4	12	2	30		
	(ii)			(3)				61	
	(iii)	0	0	0	0	0	9		
	(iii)			(0)				9	289
TOTAL	(i)	282	177	111	223	65	235		
	(i)			(62)				1 031	
	(ii)	174	63	66	202	43	63		
	(ii)			(43)				568	
	(iii)	59	22	27	82	2	12		
	(iii)			(19)				185	1 784

a/ Figures in parentheses relate to African Arab States and are already included under Africa.

b/ See statistical annex, table 6, Expenditure on technical co-operation activities in 1988, by department/programme component and geographical area, for breakdown.

Table 14
Regional distribution of technical co-operation expenditure,
by field of activity

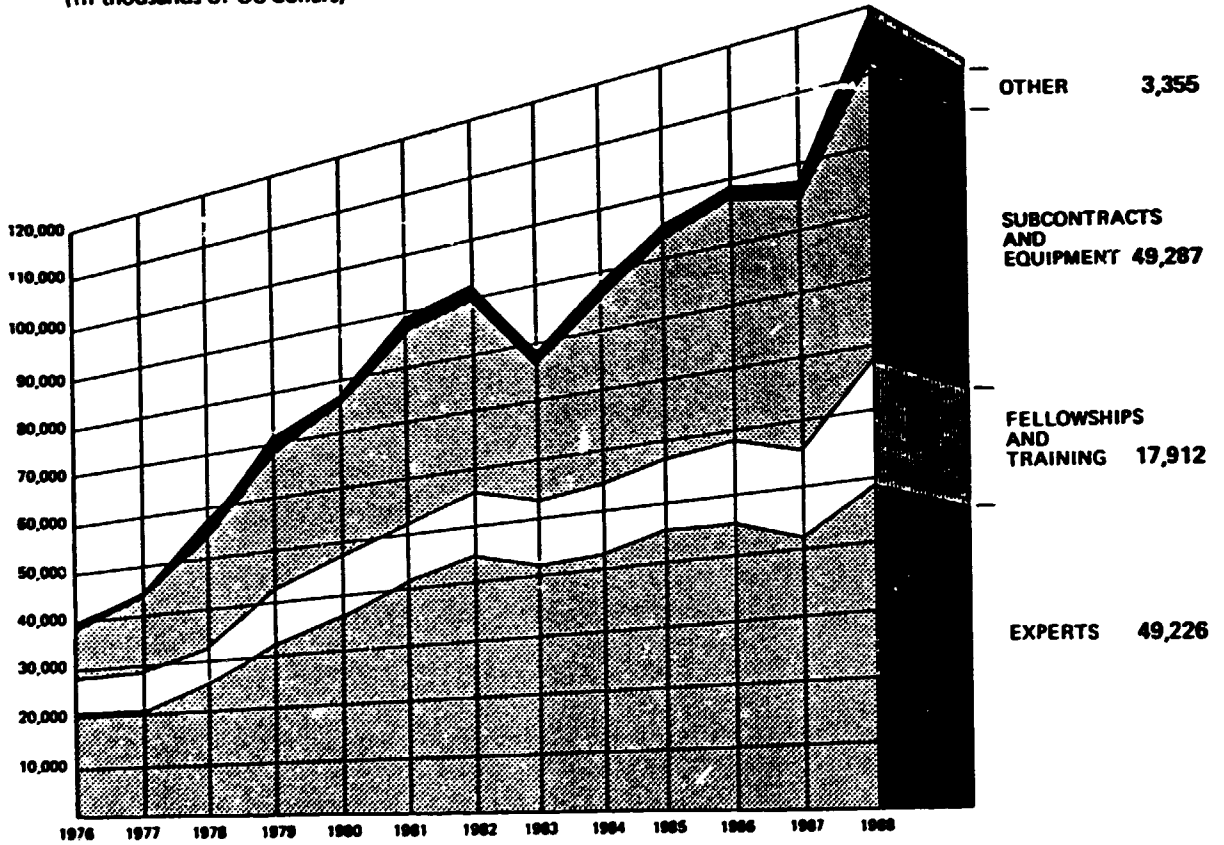
(Percentage)

Field of activity	Africa	The Americas	Arab States a/	Asia & the Pacific	Europe	Inter-regional/Global	Total
Agro-based industries	23.2	7.0	7.7 (7.0)	57.9	1.5	9.7	100.0
Chemical industries	37.8	4.3	27.7 (26.6)	48.1	3.7	5.0	100.0
Metallurgical industries	20.4	9.7	6.8 (6.0)	63.2	3.6	2.3	100.0
Engineering industries	29.1	10.2	3.1 (1.1)	51.9	6.4	0.4	100.0
Industrial planning	54.9	21.1	4.1 (0.1)	15.0	2.2	2.8	100.0
Institutional infrastructure	37.7	15.2	22.9 (5.6)	21.8	3.1	4.9	100.0
Industrial management and rehabilitation	36.5	15.1	19.1 (11.7)	36.0	4.3	0.7	100.0
Training	28.3	9.8	4.3 (4.2)	5.2	2.7	53.9	100.0
Feasibility studies	54.5	1.4	24.5 (9.9)	21.3	0.0	8.2	100.0
Other b/	14.6	7.5	6.0 (3.7)	13.2	4.6	57.8	100.0
Total technical co-operation expenditure	32.1	9.0	15.0 (10.6)	36.7	3.5	14.3	100.0

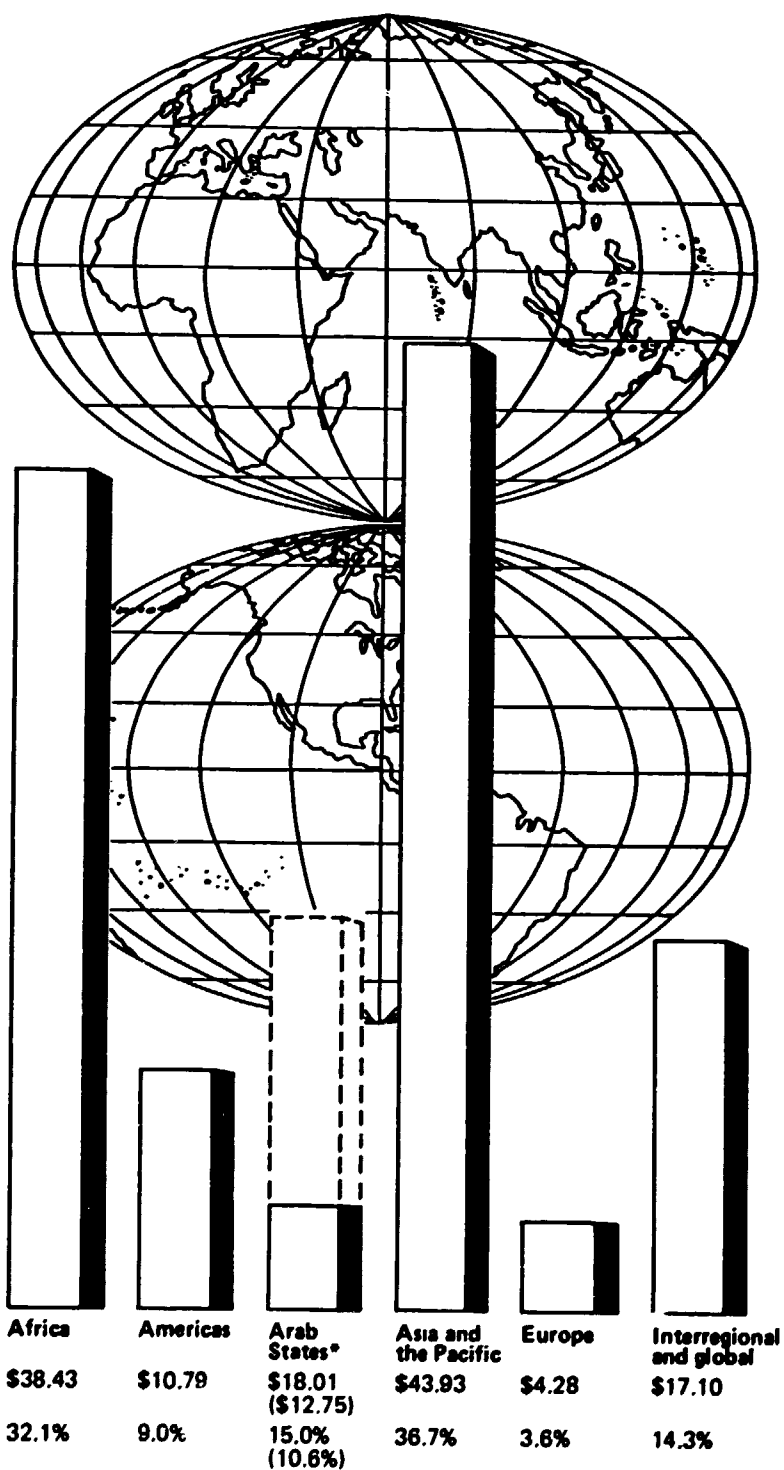
a/ Figures in parentheses relate to African Arab States and are already included under Africa.

b/ See statistical annex, table 6, Expenditure on technical co-operation activities in 1988, by department/programme component and geographical area, for breakdown.

**TECHNICAL CO-OPERATION PROJECT EXPENDITURES
BY PROJECT COMPONENT, 1976-1988**
(In thousands of US dollars)

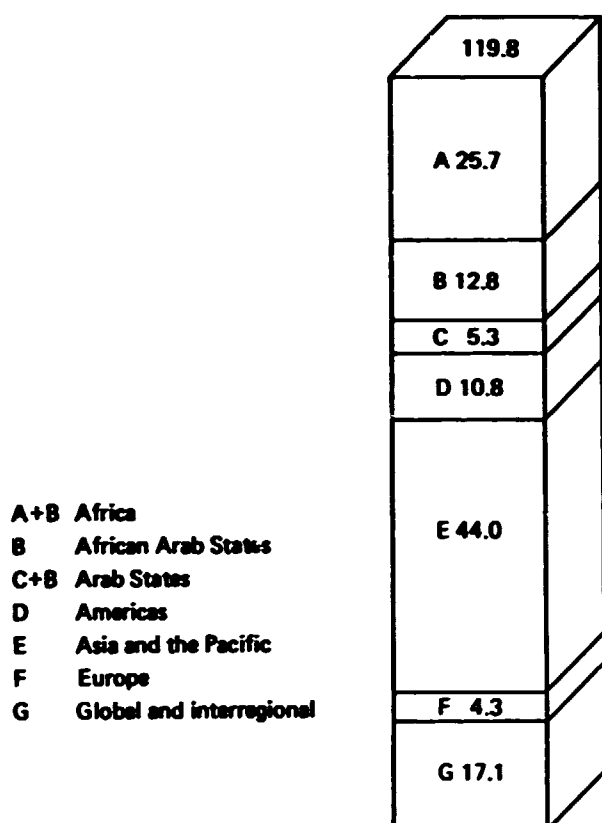


TECHNICAL ASSISTANCE DELIVERED BY UNIDO IN 1988
 (By geographical area, in millions of US dollars and percentages)

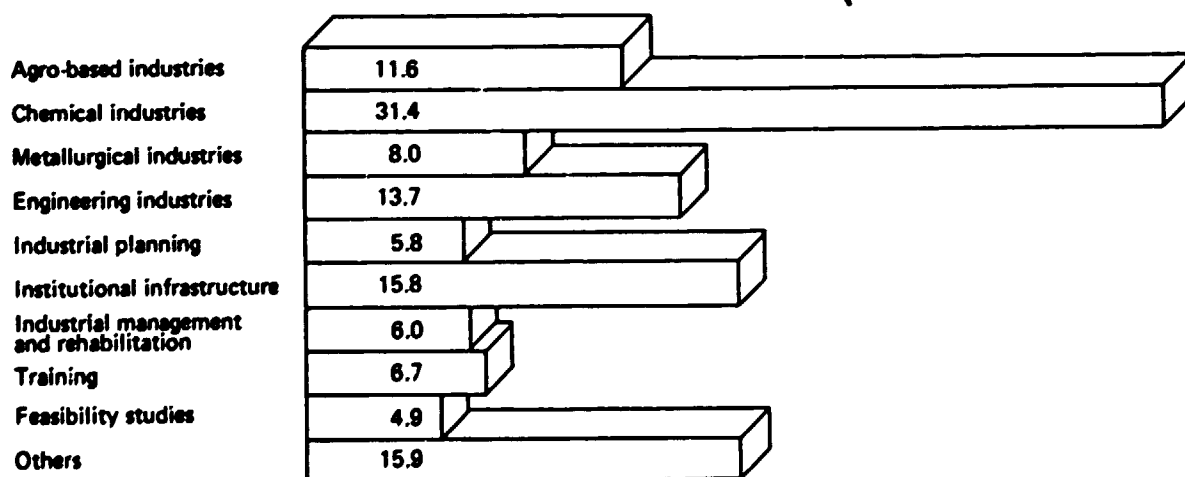


*Broken lines and figures in parentheses give an indication of the African Arab States which are also included under the column "Africa".

TECHNICAL ASSISTANCE DELIVERED BY UNIDO IN 1988
(In millions of US dollars)

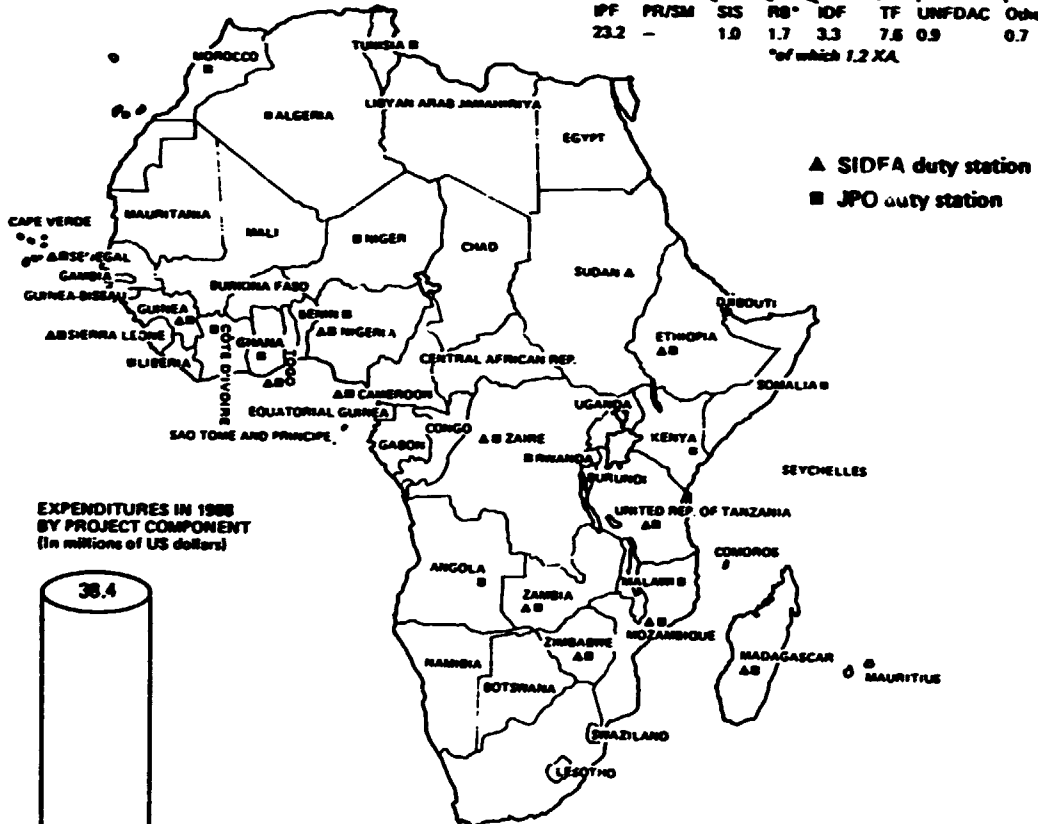
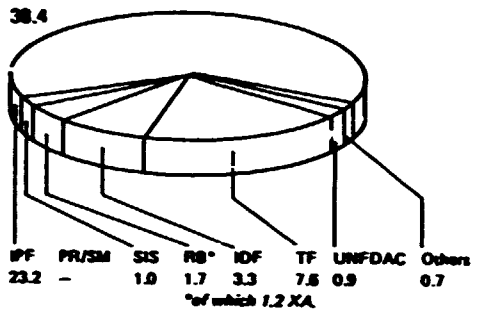


DISTRIBUTION OF TECHNICAL CO-OPERATION ACTIVITIES IN 1988
(In millions of US dollars)

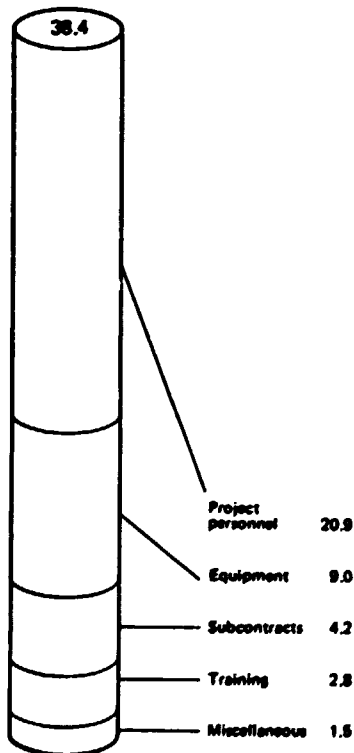


AFRICA

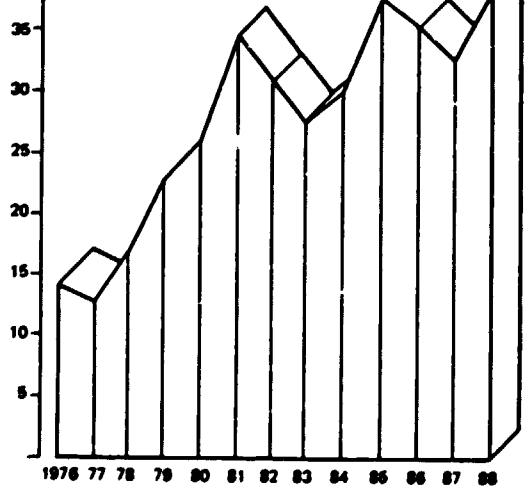
EXPENDITURES IN 1988 BY SOURCE OF FUNDS
(In millions of US dollars)



EXPENDITURES IN 1988 BY PROJECT COMPONENT
(In millions of US dollars)



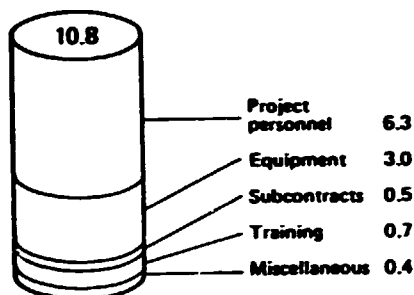
EXPENDITURES 1976 TO 1988
(In millions of US dollars)



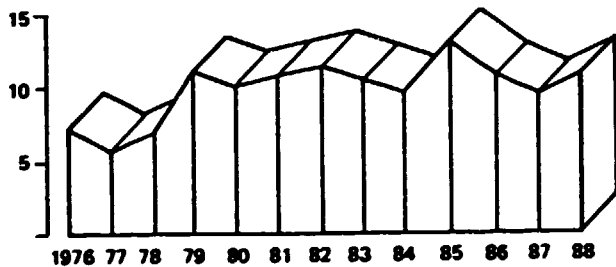
THE AMERICAS

▲ SIDFA duty station
 ■ JPO duty station

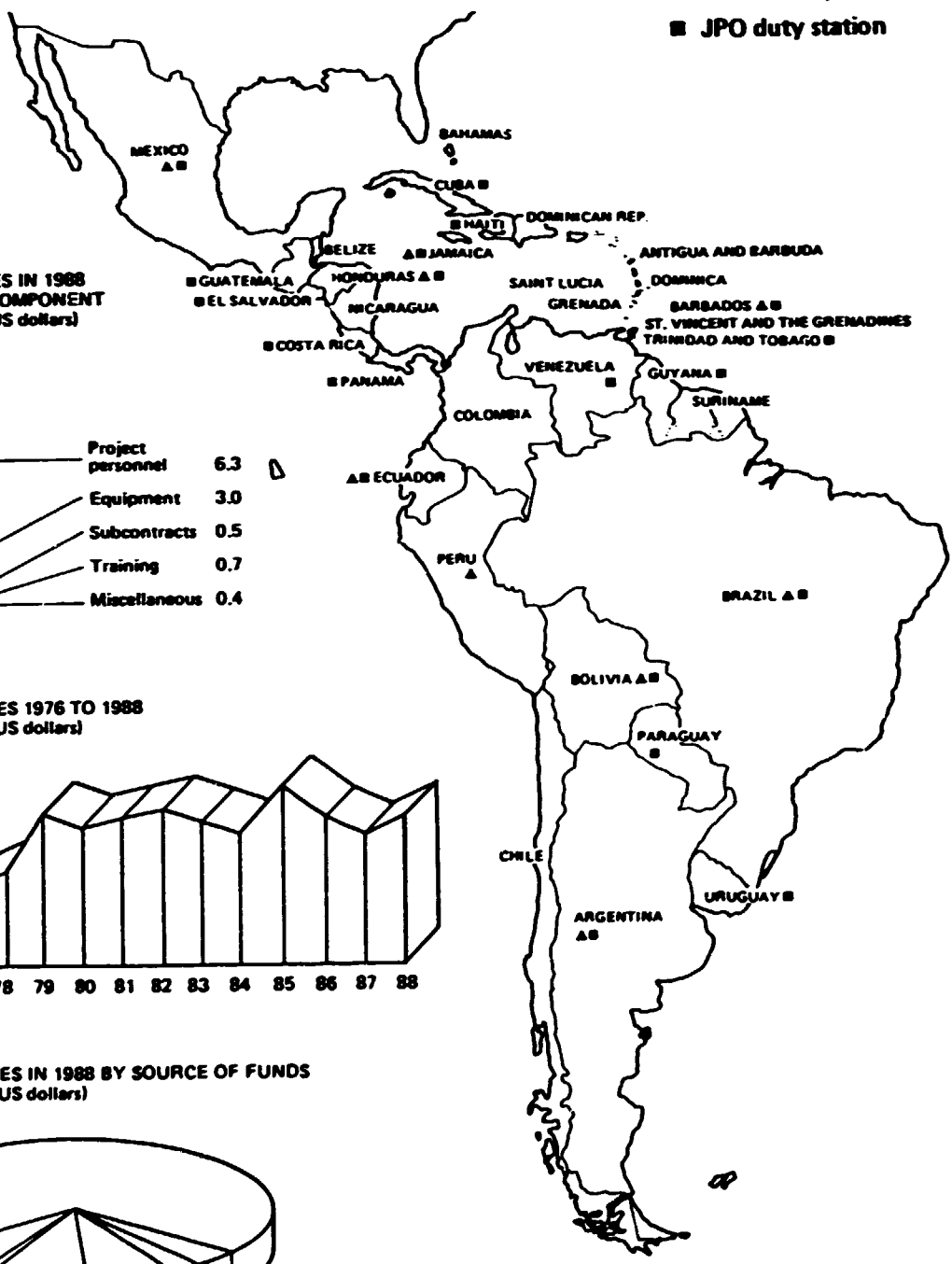
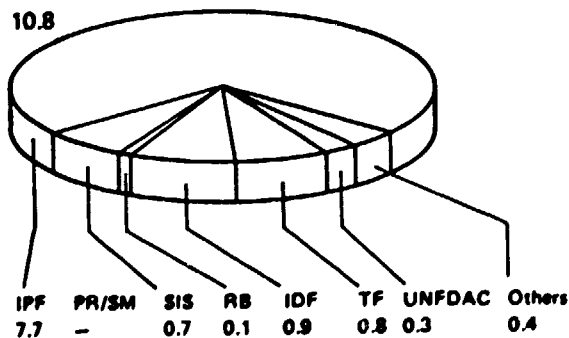
EXPENDITURES IN 1988 BY PROJECT COMPONENT
 (In millions of US dollars)

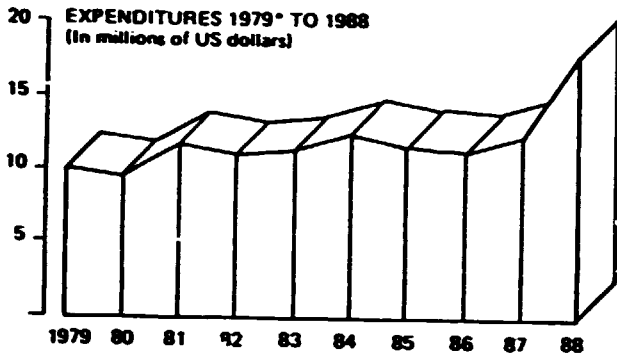


EXPENDITURES 1976 TO 1988
 (In millions of US dollars)



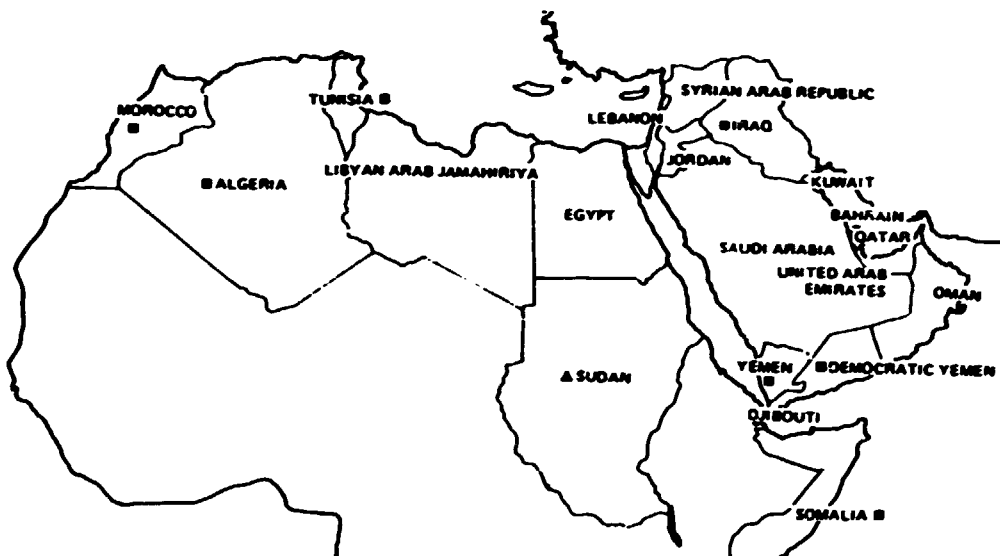
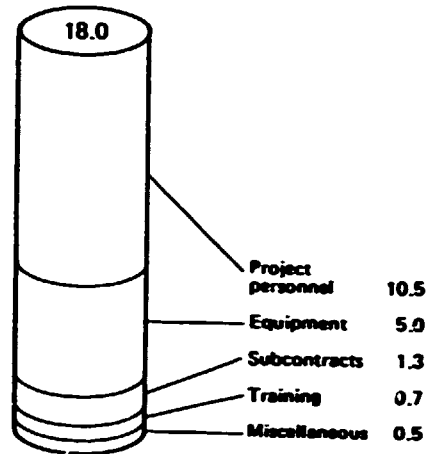
EXPENDITURES IN 1988 BY SOURCE OF FUNDS
 (In millions of US dollars)



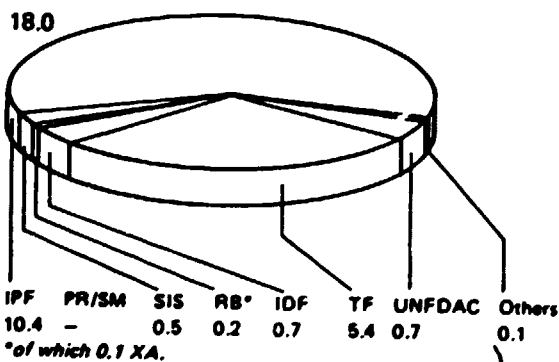


*For previous years, expenditures related to Arab States were reported partly under Africa and partly under Europe and Western Asia.

EXPENDITURES IN 1988 BY PROJECT COMPONENT
(In millions of US dollars)



EXPENDITURES IN 1988 BY SOURCE OF FUNDS
(In millions of US dollars)

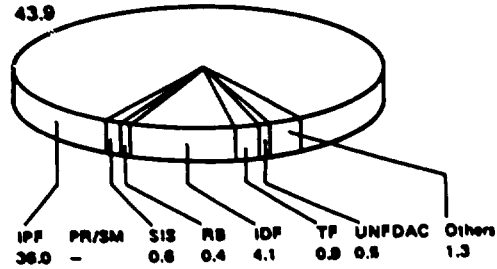


ARAB STATES

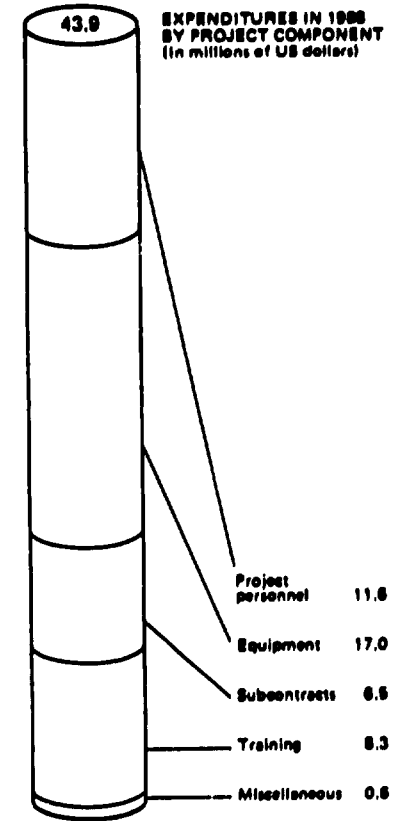
- ▲ SIDFA duty station
- JPO duty station

ASIA AND THE PACIFIC

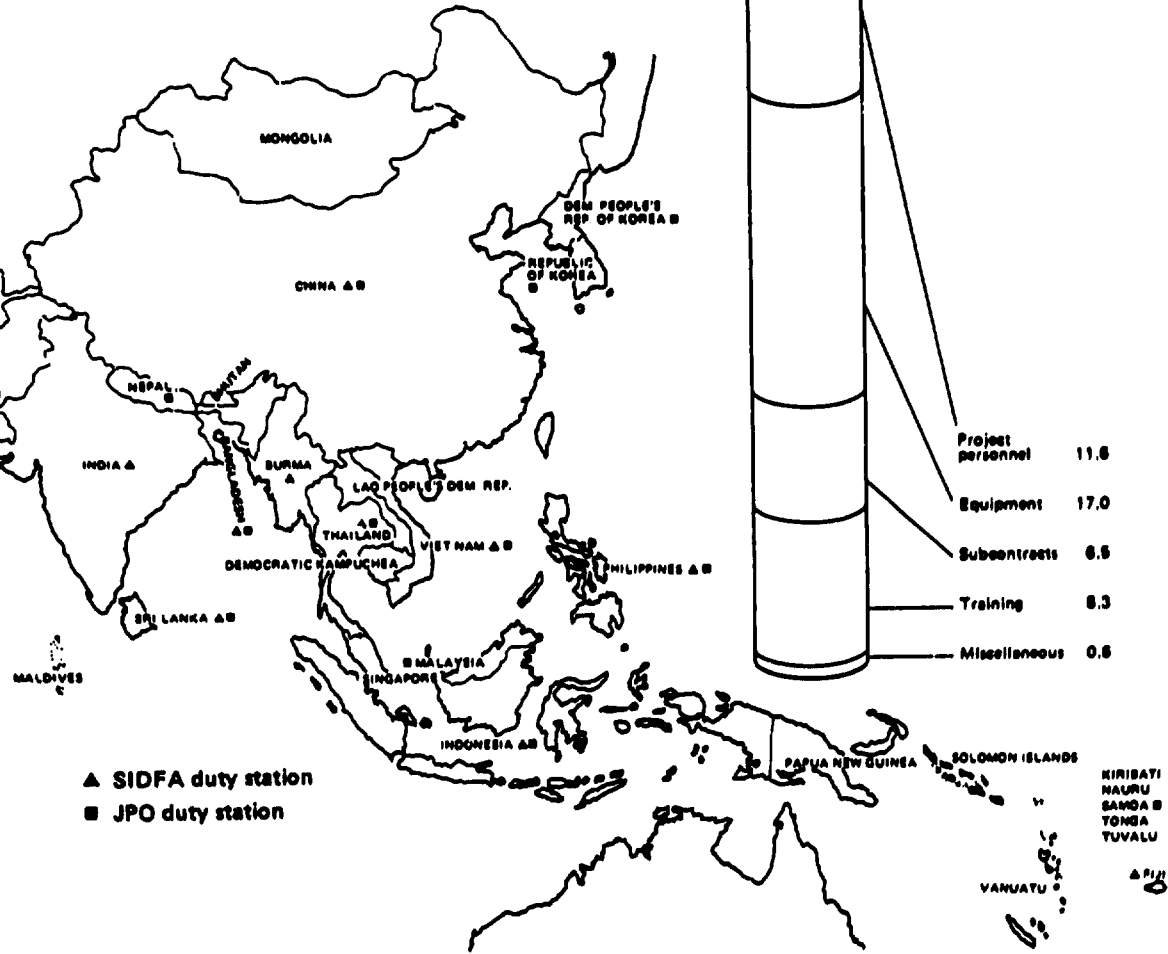
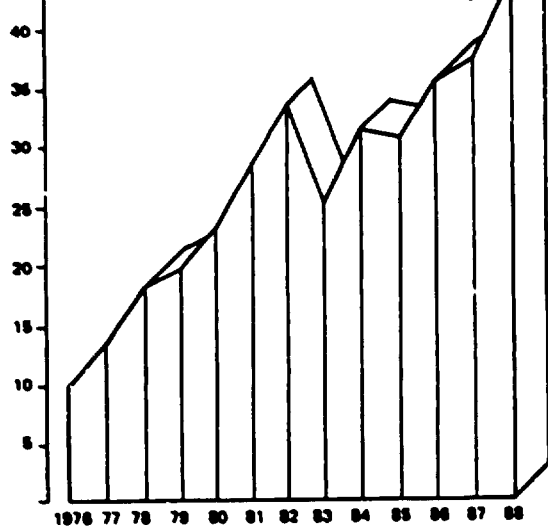
EXPENDITURES IN 1988 BY SOURCE OF FUNDS
(In millions of US dollars)

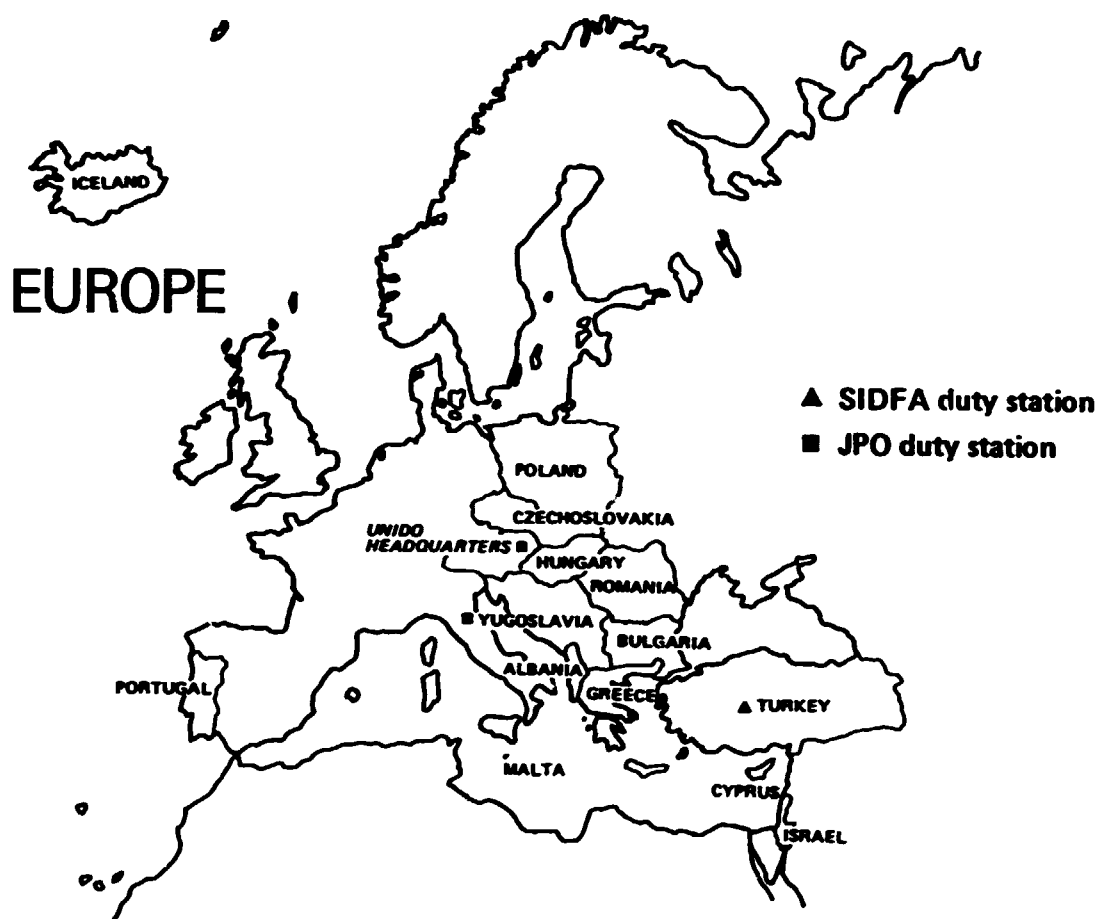


EXPENDITURES IN 1988 BY PROJECT COMPONENT
(In millions of US dollars)

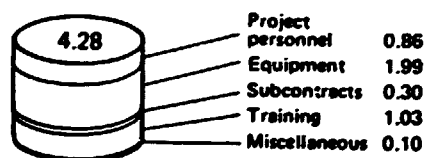


EXPENDITURES 1976 TO 1988
(In millions of US dollars)

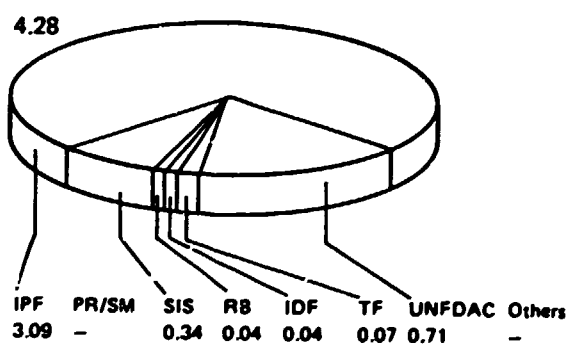




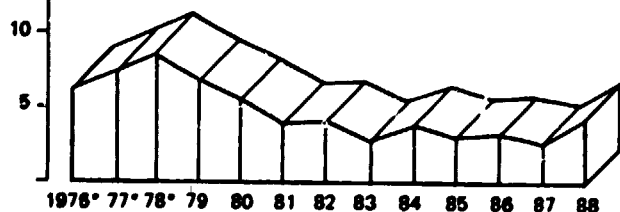
EXPENDITURES IN 1988 BY PROJECT COMPONENT
(In millions of US dollars)



EXPENDITURES IN 1988 BY SOURCE OF FUNDS
(In millions of US dollars)



EXPENDITURES 1976 TO 1988
(In millions of US dollars)



*The figures for 1976-1978 combine Europe and Western Asia and include twelve countries which, since 1979, are listed under Arab States.

III. Implementation of industrial operations by field of activity

AGRO-BASED INDUSTRIES

62. Technical co-operation expenditures under the heading of agro-industries amounted to \$11.6 million. Some 62 per cent of the total implementation was financed from UNDP resources. A total of 136 projects were implemented or under implementation.

63. The bulk of the technical co-operation programme in the textile industry sector took place in the Asian region and was characterized by large-scale, institution-building projects focusing on high technology, R and D, and fashion. For several years, the trend towards high-technology projects has reflected the growing sophistication of textile manufacturing technology at all stages of processing. Developing countries have realized that in order to remain competitive they must keep pace with technological advances, despite their growing capital requirements and complexity. New technologies, rapidly replacing conventional manufacturing methods in developed countries and extensively based on the use of computer-aided design/computer-aided manufacturing/computer-integrated (CAD/CAM/CIM) manufacturing techniques, not only substitute capital for labour, but also contribute to the consistency of product quality and permit quick changes in production in response to changing market requirements. CAD/CAM techniques were thus introduced to textile industry projects already operational in China, Egypt and India. ^{6/} The development and application of appropriate technology for the spinning of short staple cotton were the aims of a project in Viet Nam, while another project in that country emphasized testing and quality control. Assistance in R and D involved, for example, jute ^{6/} and unconventional indigenous fibres in India and the Philippines.

64. In the food industry sector, efforts were concentrated mainly on better valorization of the existing industrial structures. Thus, programmes on adaptation, conversion and modernization of equipment financed from IDP in several South and Central American countries led not only to self-sufficiency of the local market, but also to improved quality of production that

conforms with the norms and qualifications required by the demands of the international market. Special emphasis has also been laid on (a) transferring technology and exchanging managerial and marketing experience, particularly in South America and Africa, with a view to reducing to a minimum the dependency of industry on imports and (b) improving the conditions obtaining in developing countries. The development trend worldwide - which is reflected in UNIDO project operations - branches towards the introduction of high technologies in large-scale centralized industrial production plants and towards the technical and economic improvement of traditional small- and medium-scale production units.

65. Activities aimed at substituting imported agricultural raw material with local products were carried out in West Africa for the possible use of sorghum-based products for the brewing industry and in Asia for introducing the use of cassava in the manufacture of biscuits and of soybean by-products or detoxified cakes from the oil industry in the production of vegetal milk. The development of technology to make edible raw material from protein-rich vegetal sources has increased the availability of low-cost protein in countries where protein from animal sources remains inaccessible for low income population. Through integrated agro-industrial development programmes financed by the United Nations Fund for Drug Abuse Control (UNFDAC), ^{7/} particular attention was given to the introduction of technologies aiming at the valorization of drug-based agricultural products to provide economic alternatives to the production of drugs. Assistance was provided in the installation of pilot vegetable- and fruit-processing plants, to develop new technologies for the production and packaging of food from local raw materials and to establish quality control laboratories. Assistance was also provided to several food technology institutes in developing production methods and adapting technologies to the local raw materials and market demands.

66. Alternative value-added food products of animal origin were developed and introduced for export, e.g. a first production line for baby food based on local milk powder and flour was established in Mongolia, enabling a variety of new foods for infants at the

^{6/} IDB.4/10, chap. II, para. 58.

^{7/} *Ibid.*, para. 60.

critical age of 1 to 2 years to be produced in the country. Efforts concentrated on improving the fish-processing industrial sector in many countries, e.g. in the Caribbean region special development work for the utilization of shark meat, and in Viet Nam, comprehensive development work on the improvement of quality and production of processed marine products. Also in Viet Nam large-scale projects were developed for the upgrading of food industry research institutes.

67. A large part of the work in the leather sector concentrated on the development of a large-scale programme for the improvement of hides and skins, as well as leather and leather products in Africa. The programme consists of one subregional project each for East and West Africa and is expected to be entirely financed through some \$20 million of special-purpose contributions to IDF. 8/ The programme was introduced at a pledging conference, where several donor countries showed their interest in the programme by announcing generous "pre-pledges" that will allow the projects in both subregions to start shortly. The Leather Development Centre at Nairobi, Kenya, 8/ which was created with UNIDO assistance, is nearing completion and will be in a position to provide a suitable base for the activities of the regional project for East Africa. Work also continued on the development and reinforcement of regional leather and leather-products centres in Asia. Important achievements were made in related projects in China, Indonesia and the Philippines. 8/ Other UNIDO activities in this area include the development of software for computerized costing systems in the footwear and leather industry, production control for small- and medium-sized shoe factories and the two-dimensional grading of patterns on a personal computer. This software was presented to participants from selected leather and footwear institutes at a seminar held at Budapest, Hungary, in November. The UNIDO Leather and Leather Products Industry Panel at its ninth session (Pecs, Hungary, October), discussed UNIDO technical co-operation in the leather and leather products sector, in particular the African programme mentioned above, tannery effluent treatment and the International Foot Measurement Programme.

8/ *Ibid.*, para. 64.

CHEMICAL INDUSTRIES

68. Technical co-operation expenditures under the heading of chemical industries amounted to \$31.4 million. Some 67 per cent of the total implementation was financed from UNDP resources. A total of 349 projects were implemented or under implementation.

69. In the cement, lime and related industries, activities continued to focus on promoting capacity utilization of existing cement plants in Egypt, Nigeria and Yemen, the operating and maintenance support being financed by the recipient countries. 9/ Projects related to the lime industry were initiated in Sao Tome and Principe and in Togo and the generation of efficient small-scale lime plants based on the latest technology started with the setting up of prototype plants, e.g. in Botswana and Gambia. 9/

70. The building materials programme, which focused on the promotion of small-scale production units using only local raw materials, gained momentum through inter- and intraregional co-operation. The regional network in Asia and the Pacific on low-cost building materials and construction systems, 10/ which for the last five years has effectively fostered a steadily increasing flow of know-how and expertise among the 13 participating countries, extended its assistance to other regions in particular for the rehabilitation of the building materials industries in disaster-affected countries such as Bangladesh, Jamaica and the Sudan. A host of regional activities in Asia were co-ordinated by the regional network secretariat. In Africa, experiences were exchanged on UNIDO projects in Cameroon, Chad, Guinea and Madagascar and study tours were organized to other African countries with relevant experiences. The activities in the ceramics sector took a dramatic turn towards the manufacture of high-technology products in such fields as electronics, engine construction, medicine and environmental protection. Projects involving R and D activities in ceramics were initiated in Hungary, Romania, Turkey and Yugoslavia, and other countries expressed strong interest in these new activities.

9/ *Ibid.*, para. 69.

10/ *Ibid.*, para. 71.

71. Priority was given to availability of raw material, quality control and energy conservation in projects concerning conventional ceramics and glass technology, such as the development of a building and sanitary ceramics centre in China.

72. Emphasis in the glass industry shifted from container glass towards more specialized products, such as ophthalmic glass, and scientific glass products as evidenced by projects in Turkey and Viet Nam.

73. Other projects included small-scale glassworks in India and designing and construction of large-scale float-glass furnaces in China. A workshop on non-metallic mineral sorbents, organized by the Joint UNIDO/CSSR Programme for International Co-operation in the Field of Ceramics, Building Materials and Non-metallic Minerals-based Industries, focused on the use of bentonite, perlite, pumice and zeolite in upgrading and reclaiming sandy or heavy agricultural soils and in the treatment of domestic and industrial wastewater. This important application of non-metallic minerals has shown significant achievements (up to a doubling of the crop yields) in Egypt, Ethiopia and Tunisia. It is a typical example of the search by UNIDO for new areas of utilization and industrial application of natural resources and the promotion of exchange of experience and know-how among interested developing countries.

74. Technical co-operation in the petrochemical industries continued to concentrate on the main petrochemical downstream and related industries, e.g. projects on the production of carbon fibres and related polymer composites in China and the Republic of Korea; the development of additives to prevent the degradation of polymers, the production of silicon-based materials, ^{11/} the recycling of plastics waste, the production - within the framework of the United Nations Decade of Disabled Persons - of artificial limbs using plastics and composites, all in China; the establishment of a specialized research and development centre for the development and production of catalysts in the Democratic People's Republic of Korea; and the establishment of national centres for the plastic and rubber-processing industries in Viet Nam. A new global project began for the production of truck tyre retreading material, based on natural rubber, with a view to increasing the

^{11/} Ibid., para. 7.

competitiveness of rubber vis-à-vis synthetic materials. In the third phase of a petrochemicals project in Argentina, over 100 technicians will be trained in the operation of a petrochemical complex at Bahfa Blanca. ^{12/} At petrochemical and fertilizer complexes in Algeria an assessment was made of the process plant design, state of equipment and plant operation procedures.

75. In the petroleum sector, a regional project involving the training centre at Sumbe, Angola, was extended until the end of 1986. ^{13/} In the Democratic People's Republic of Korea, the main refining plants were provided with technical programmes for optimization and increase of productivity.

76. Assistance related to the special technologies used in the petroleum refining sector, such as the fluid catalytic cracking process, was provided in Cuba and India. In the case of Cuba, prompt and efficient action on the part of experts provided by UNIDO, together with the organization of study tours, resulted in savings amounting to millions of dollars. Assistance was also provided to Guinea-Bissau and Albania, in the petroleum product sector and oil recovery, by steam injection, respectively, while in India a large-scale project dealt with the preparation of novel shape selective zeolite catalysts, used, for example, in the production of middle distillates. ^{13/}

77. In the fertilizers and related industries, assistance concentrated on the development of locally-available raw materials, especially the upgrading of low-grade raw materials for industrial application, the establishment of new R and D institutions and the organization of preventive plant maintenance. Besides broader issues such as environmental protection, the technical co-operation activities in a number of projects involved the development of computerized systems (e.g. for maintenance), the application of significant technologies for upgrading raw materials and the promotion of new formulations of fertilizers. An example of a comprehensive project in this field is provided in Egypt - it includes the creation of a fertilizer development centre and the testing and promotion of nitrogen, phosphorus and potassium fertilizers. ^{14/}

^{12/} IDB.3/10, chap. II, para. 41.

^{13/} IDB.4/10, chap. II, para. 78.

^{14/} Ibid., para. 73.

78. In the field of pharmaceuticals, activities were again wide and varied. In the area of medicinal and aromatic plants, six projects involved the setting up of versatile multifunctional pilot plants in developing countries; in Burkina Faso, Nepal, Rwanda, Thailand and Turkey pilot plants became operational at which technologies were developed for the production of plant-derived pharmaceuticals and aromatic chemicals. 15/

79. Similar projects in Madagascar and in Viet Nam 16/ were carried out. Also in Viet Nam, a major project involved the strengthening of the Centre national de recherche scientifique to serve as an R and D centre for the essential oil industry.

80. Preparatory projects involving the production of natural fragrances were implemented in Argentina, the Democratic People's Republic of Korea, India and the United Republic of Tanzania. In the field of biotechnology, within the framework of a regional programme for Latin America involving 13 countries, three joint research projects for the production of industrial enzymes were initiated. The production of industrial enzymes and antibiotics was also the aim of projects initiated in Cuba and Poland. In Tunisia, assistance to the National Centre of Biotechnology continued in the form of applied research programmes for products to be utilized by the local industry. Other projects included assistance in the establishment of a multi-purpose plant for the production of 13 essential synthetic drugs in the Islamic Republic of Iran; the establishment of a pilot demonstration plant for the production of intravenous fluids in Argentina; a techno-economic study on the establishment of a formulation unit for oral contraceptives in an Algerian plant already submitted to the United Nations Population Fund for possible financing; the provision of modern formulation and quality-control technologies relating to the production of sterile enzyme products derived from animal waste in Mongolia. 17/

81. In the field of pulp and paper, UNIDO continued to respond to the world-wide demand for the increased production of

paper through a variety of projects, e.g. assistance to paper mills in Jamaica and Sri Lanka in analysing the production processes and suggesting more efficient ways of manufacturing paper and the start-up in December of a desilication plant for a bamboo/reed pulp mill in India with a capacity of 50 tons per day. 18/ A double-wire washing machine for dewatering non-wood chemical pulps was tested in the Central Pulp and Paper Research Institute at Saharanpur, India, with excellent results. 18/ A possible co-operation of this Institute with a Danish wheat-straw pulp mill in the field of pulping and chemical recovery was arranged.

82. UNIDO co-sponsored with the China Technical Association of Paper Industry, and provided technical background papers for, the International Non-Wood Fibre Pulping and Paper-making Conference, which was held at Beijing in July. The Conference, which was attended by 220 participants from 26 countries, was followed by a workshop to discuss possible co-operation in this field.

83. In the fields of energy, fuel technology, pollution control and environment, new projects reflected the intention of developing countries to maximize their use of local energy resources.

84. At the same time, some developing nations exhibited environmental awareness and an appreciation of the potential conflict between optimum energy use and clean air and water. In response to these trends, projects in fuel technology and pollution control continued to stress efficient and environmentally acceptable use of biomass fuels and coal. The production of charcoal from wood waste and agricultural residues is being promoted through projects in Bhutan, the Sudan 19/ and other countries facing deforestation. New projects, aimed at combating atmospheric and ground-water pollution arising from the combustion of high-sulphur lignite for power generation and synthesis-gas production, were started in Yugoslavia. Resources were mobilized for the construction of a full-scale anaerobic digester (biogas plant) at the Dazing Distillery at Beijing, China, to be commissioned in 1991.

15/ IDB.3/10, chap. II, para. 46.

16/ IDB.4/10, chap. II, para. 75.

17/ Ibid., para. 76.

18/ Ibid., para. 79.

19/ Ibid., para. 77.

85. Municipal authorities in Bahrain, China, Ecuador and Oman were assisted in providing wastewater and solid-waste disposal and treatment facilities. The workshops and conferences held in that connection, which together were attended by more than 800 experts from 36 countries, had a significant impact on UNIDO's programmes in the areas of environmental resource management, the promotion of cleaner technologies and industrial safety. Activities related to increasing public awareness of cleaner technologies continued; the recommendations of the 1987 Workshop on Hazardous Waste Management, Industrial Safety and Clean Technologies, placed emphasis on information data banks, international co-operation and training. 20/

86. As part of the follow-up to that workshop, UNIDO in 1988, held in co-operation with the International Association for Clean Technology (IACT), an International Conference on Industrial Risk Management and Clean Technologies in Vienna in November, and, in co-operation with the Pollution Control Research Institute/Bharat Heavy Electricals Limited of India and IACT, an International Conference on Environmental Impact Analysis for Developing Countries, at New Delhi, India, in November/December.

87. As regards pesticides, activities focused on the utilization of local raw materials in pesticide formulation, technology transfer in the manufacture of active ingredients, training in formulation technology, safety, quality, and better effluent control measures.

88. In African countries, there was a trend towards assessing the suitability of raw materials for pesticide formulation, while in Asian countries the emphasis was on safety, advanced formulation technology, standardization of quality control measures and environmental safety. In some countries - China, Hungary, India, Poland and the Republic of Korea - importance was attached to the development of bio-assay facilities, newer formulations, toxicological evaluation and finding safer, unconventional pesticides. In Ethiopia, UNIDO provided assistance for a feasibility study on the establishment of a pesticide formulation plant. In the United Republic of Tanzania, UNIDO advisory services were used in a bilateral project for obtaining proven technology in the manufacture of copper oxychloride and in the testing of local raw materials for pesticide formulation. In Egypt, transfer

of technology enabled the manufacture of dimethoate and malathion at a pilot plant. In India, the first phase of a pesticide development programme provided hands-on training in formulation technology at the national and regional levels. 21/

89. In the basic chemicals industry, the technology of solar evaporation for producing salt and natron was further promoted in Central Africa. A search began for the origin of the salt brine resources in the Niger. In Egypt and Jamaica, the technology of growing artemia cysts, a biomass used for fodder in fish farms, was introduced in existing salt-works, thus providing additional income to salt-making. The production of higher-quality salt was achieved at the salt-works in Guatemala and Jordan through the introduction of better salt-refining equipment. Also in Egypt, studies were being carried out on the viability of the production of potash from salt bitterns. 22/

90. The methodological approach to co-ordinated planning of projects in the chemical industries was further developed and refined. 23/ This approach not only serves to define priority projects in selected subsectors of industry, but also contributes to the identification of groups of interrelated projects.

91. It assists Governments in their decisions concerning the preparation of feasibility studies and in proposing private industry ventures. In the Islamic Republic of Iran, for example, as a result of a project that involved the preparation of an integrated chemical industry plan, the Government was able to present some 30 projects for implementation. 24/ The same approach was used in an integrated development programme for member States of the Southern African Development Co-ordination Conference. As a result, many projects of an interrelated character were identified, and Governments were able to match their individual needs with the regional programme. A national workshop was held in Algeria within the framework of the petrochemical industry development programme. 24/

20/ Ibid., para. 81.

21/ Ibid., para. 74.

22/ Ibid., para. 80.

23/ Ibid., para. 82.

24/ IDB.3/10, chap. II, para. 56.

METALLURGICAL INDUSTRIES

92. Technical co-operation expenditures under the heading of metallurgical industries amounted to \$8.0 million. Some 90 per cent of the total implementation was financed from UNDP resources. A total of 135 projects were implemented or under implementation.

93. In the area of non-ferrous metals, particular emphasis was accorded to the development of the bauxite-processing sector for the production of alumina and aluminium, e.g. in Viet Nam ^{25/} and the Islamic Republic of Iran. ^{26/} Techno-economic and financial problems were identified with regard to prospecting geological reserves of alumina-bearing ores and the feasibility of processing them, e.g. in Mexico for the beneficiation and processing of low-grade bauxites into alumina; ^{26/} in China for the introduction of heat exchangers in the pre-heating stage of the digestion line at the Zheng Zhou alumina plant; ^{25/} in India for plant and operating modifications to be carried out with limited investment at the Bharat Aluminium Company at Korba; and in the Union of Soviet Socialist Republics for the processing of Chinese alunites into alumina, potassium sulphate fertilizer and sulphuric acid. The latter led to the sponsoring by UNIDO of follow-up consultations between Chinese and Soviet experts in preparation of a detailed feasibility report on the establishment of an industrial-scale plant for processing alunites in China, based on Soviet technology. ^{26/}

94. In the heavy non-ferrous metals sector, the projects under implementation mainly involved copper production, e.g. laboratory-scale testing with Indian ores using a new Soviet technology for smelting copper ores in a molten bath; heap leaching of copper, also in India; bacterial leaching of copper ores in Chile; pilot-scale testing and a feasibility study in Mauritania ^{27/} the aim of which is the establishment of a large-scale industrial plant for the extraction of gold from copper tailings. Previous UNDP/UNIDO assistance has led to the development of fundamental concepts of bacterial leaching through applied and

basic research, and subsequently the progressive application of this technology in industry. ^{28/}

95. In the iron and steel industry, technical co-operation and advisory services related to the modernization and development of this sector in Egypt, India, Mozambique, Uganda, Zimbabwe and countries of the Preferential Trade Area for Eastern and Southern African States. Under a regional project, testwork involving mineral beneficiation and direct reduction using iron ore from Nepal, together with non-coking coal from India, and direct reduction using coal from Viet Nam was completed at Sponge Iron India Limited, a pilot and demonstration plant for the production of sponge iron established in 1980 through UNDP/UNIDO assistance. Projects for the experimental production of sponge iron were carried out in Viet Nam ^{29/} and in Zambia. Special emphasis was placed on the production of special steels and alloys (e.g. high-strength-low-alloy) in Pakistan and Yugoslavia. In order to acquaint representatives from African countries with achievements in small-scale iron and steel technology in Brazil, UNIDO, the Brazilian Iron and Steel Institute and the Brazilian Metals Association held a workshop on iron and steel technologies for developing countries in October. The workshop was attended by 13 participants from 10 African countries.

96. In the foundry and metal transformation sector, UNIDO provided preparatory assistance for the establishment of a pilot demonstration foundry in Ethiopia. Other projects were related to the development of the foundry industry, the modernization of production and the introduction of quality control measures, e.g. in India, Indonesia, Lesotho, the United Republic of Tanzania and Viet Nam.

97. Based on the successful introduction of computerized managed maintenance systems in iron and steel plants in Czechoslovakia and Egypt, technical co-operation in this field was provided for iron and steel plants in Algeria, India, Mexico and countries of the Association of South-East Asian Nations (ASEAN). ^{30/} The Second Expert Group Meeting on Computerized Maintenance Systems

^{25/} IDB.3/10, chap. II, para. 59; IDB.4/10, chap. II, para. 85.

^{26/} IDB.4/10, chap. II, para. 85.

^{27/} IDB.3/10, chap. II, para. 59.

^{28/} IDB.3/40, chap. III, para. 212; IDB.2/10, chap. III, para. 239; IDB.3/10, chap. II, para. 59.

^{29/} IDB.4/10, chap. II, para. 87.

^{30/} *Ibid.*, para. 86.

in Metallurgy was held at Cairo, Egypt, in March for the purpose of examining the current situation and trends in the development of computerized managed maintenance systems in developing and developed countries. The National Centre for Managed Maintenance, which had been established in Egypt with UNIDO assistance, was inaugurated during the meeting.

98. UNIDO continued to strengthen and/or establish centres for metallurgical technology, e.g. in China with the establishment of a technical training and consultancy centre of metallic corrosion and protection at the University of Science and Technology, Beijing, a heat treatment centre at the Shanghai Institute for Machine Building Technology and a tungsten wire pilot plant at the Research Institute of Electric Light Source Materials of Nanjing; and in Nigeria with assistance to the National Metallurgical Development Centre. Projects related to the production of materials for the electronic industry were under implementation in China, India and Viet Nam. 31/

99. UNIDO continued to place emphasis on mineral beneficiation as evidenced by the considerable progress made on pilot plants in Cuba and Pakistan for ore beneficiation and hydrometallurgy and on preparation for the installation of a mineral-processing plant in Guatemala. In a new example of co-operation, important technological developments in the field were discussed at the Second Iranian Symposium on Exploration, Mining and Mineral Processing held at Kerman, Islamic Republic of Iran, in June, for which UNIDO provided lecturers.

100. Special care was given to environmentally sound projects and waste utilization, e.g. advisory services provided to Albania on dust catching, recycling and environmental protection in a metallurgical plant; tests and investigations carried out in Hungary for the processing of various secondary raw materials and the selection of appropriate technological routes for their industrial utilization; the development of a new family of materials, called tonplast, for application in the improvement of water retention in soils under semi-arid conditions; and a study of the economic feasibility of copper alloy scrap processing in China.

31/ Ibid., para. 89.

ENGINEERING INDUSTRIES

101. Technical co-operation expenditures under the heading of engineering industries amounted to \$13.7 million. Some 92 per cent of the total implementation was financed from UNDP resources. A total of 198 projects were implemented or under implementation.

102. Technical co-operation activities continued to focus on: rural development through the incorporation of agricultural implements and rural equipment in the metal sector; application of electronic high technology to industry; CAM in the machine tools sector; spare-parts manufacture for the transport industries; and equipment development for the energy sector.

103. In the area of agricultural tools, implements and equipment, the Governments of developing countries paid particular attention to improvement of nutrition in terms of quantity, quality and the rate of agricultural production growth. There was also a trend in pursuing an integrated approach to agricultural development by promoting local manufacture of agricultural tools, implements and equipment and establishing a sound relationship between agriculture and industry.

104. The difficulty in maintaining and repairing agricultural machinery on the spot and the lack of transportation facilities for that purpose remained a major concern in the African region. This has led to the strengthening of workshop facilities, which play a key role in providing maintenance and repair services, together with spare parts manufacturing, and to the diversification of production capacities to include additional products such as hand-pumps for water supply and silos, which are of great value to the rural community. A project on the strengthening of the Centre for Agricultural Mechanization and Rural Technology in the United Republic of Tanzania and a project involving the Société industrielle sahélienne de mécanique de matériels agricoles et de représentation in Senegal illustrate that concern. The latter aimed at designing and manufacturing a machine for decorticating ground-nuts adapted to the local conditions of the Sahelian region. Also in the African region, UNIDO contributed to the implementation of the Regional Network for Agricultural Machinery, assisted the African Regional Centre for Engineering Design and Manufacture, and co-operated with

the International Labour Organisation and the Food and Agriculture Organization of the United Nations in the elaboration of a project to develop an African subregional network for agricultural tools and equipment.

105. The most rapid progress, both in terms of the development of new projects and the implementation of a large variety of projects dealing with advanced technologies, occurred in the electrical and electronics machinery and equipment sector. In the electrical subsector, projects involving product development, vacuum technology and high-rupture capacity fuses were initiated in India, the Republic of Korea and Egypt, respectively. New technical co-operation projects in the electronics industry, launched in 1988 in Egypt, India, Malaysia and Turkey, dealt with micro-electronics in the manufacturing processes, computerized data acquisition and open-loop process control systems, failure analysis of micro-electronic components, semi-conductor technology, optical communication and application of metal-organic-chemical-vapour-deposition techniques and material processing in a vacuum. An interesting project in the area of advanced methods of processing materials in a vacuum was initiated in Bulgaria where R and D was carried out on heat treatment of tool steels, steel carburization, diffuse welding and the deposition of wear-resistant coatings in a vacuum. As a result, an improved technology involving heat treatment of press-stamps and steel carburization was developed, tested and transferred to industry. This technology will be made available to interested developing countries upon request.

106. Technical co-operation continued in other fields related to advanced technologies, such as the utilization of optic fibres in communication, instrumentation, industrial control, transportation, data processing and robotics. Steps were taken to strengthen national R and D capabilities and to accelerate the transfer of R and D to industry. Computers were increasingly utilized in all industrial activities, reflecting the overall trend in computer applications. In Bulgaria, a project was initiated for the establishment of an electromagnetic compatibility evaluation centre, which will work on improving the quality and reliability of electronic instrumentation designated for industrial plants and another project aims at developing instrumentation and systems for monitoring and processing data on concentrations of pollutants in air, water and soil.

107. UNIDO activities in the telecommunication equipment sector have only recently begun. However, there is already considerable evidence of a need for more UNIDO technical co-operation in this sector. A project in the African region involving an environmental testing, control and tropicalization centre for telecommunication equipment represents only an initial step in this direction.

108. In the metalworking and machine tools sectors, the major trends were plant-level operations and the strengthening of national technical institutional capabilities. Greater utilization of numerically controlled and computer numerically controlled machine tools has augmented productivity and improved quality, as well as export possibilities.

109. As regards developing technical institutional infrastructure, progress was made in the establishment of the Indonesian Machine Tools Design and Development Centre ^{32/} and the Ethiopian Engineering Design and Tool Centre, ^{33/} which also covered civil engineering design, while the Specialized Institute for Engineering Industries in Iraq, dealing with advanced design and manufacturing technologies, entered its second phase.

110. Activities in the field of industrial design and production automation have expanded considerably, with CAD/CAM emerging as a principal technique for improving engineering capabilities. Projects involved the development of an integrated manufacturing approach, application of CAD/CAM, primarily in the machine tools and machine-building sectors, and the development of training software for industrial personnel and engineers involved in CAD/CAM and computer-aided engineering. Examples of such projects are: the strengthening of a CAD/CAM centre in China, ^{32/} the introduction of CAD/CAM in the metalworking industry in India, the start-up of a CAD/CAM Centre at the University of Moratuwa in Sri Lanka, the introduction of computer-aided engineering training in Hungary, and the Training and Consultancy Centre at Sofia in Bulgaria. Other examples are: assistance in production technology using CAD/CAM in making tools and other metal products in China, the Republic of Korea and Tunisia

^{32/} *Ibid.*, para. 99.

^{33/} *Ibid.*, para. 100.

and assistance to the Bearing Test and Research Centre at Hangzhou in China, particularly in post-manufacturing testing. Evidence of the emphasis given to CAD/CAM, computer-aided drafting and artificial intelligence applications is also provided in other projects carried out in Egypt, India, Pakistan and Turkey.

111. Technical co-operation activities in the transport industries included both land- and water-transport equipment. In Pakistan, for example, component production for, among other things, automotive vehicles attained better quality through a vendor development and training cell project. The production of electrical generating and pumping sets and marine propulsion units positively influenced the development of new rural areas and river transport possibilities in many countries. The involvement of UNIDO in water-transport activities should be seen in the light of the potential available to developing countries in marine resources as underlined in the United Nations Convention on the Law of the Sea.

112. In the field of energy engineering applications, activities continued to cover the areas of conventional and new and renewable sources of energy. In the area of conventional energy, emphasis was placed on industrial energy efficiency, energy conservation measures and related equipment. Examples of energy-related activities are: the preparatory phase of a project aimed at modernizing transformer production in the Democratic People's Republic of Korea; a project initiated in Egypt for the manufacture and testing of wind turbines generating electricity on a large scale; the preparatory phase of a project in Viet Nam to develop prototype production of small hydropower equipment, particularly water turbines; a project in Sao Tome and Principe for the development of small and mini-hydropower facilities.

113. Repair and maintenance remained one of the most essential activities in the field of engineering industries. Characteristic projects are: the Electronic and Optical Maintenance and Repair Centre in Viet Nam, which started from a small service workshop that exclusively handled the maintenance of certain instruments and became the nucleus of an enlarged repair and maintenance centre for scientific and technical instruments; and assistance to the Central Electronics Engineering Research Institute at Pilani and the Electronics Service and Training Centre at Ramnagar in India, for development, production and assembly techniques of power electronics systems, semi-conductor devices and integrated circuits for road

vehicles, as well as for the provision of circuit boards and engineering services to industry, with an emphasis on repair and maintenance techniques.

INDUSTRIAL PLANNING

114. Technical co-operation expenditures under the heading of industrial planning amounted to \$5.8 million. Some 72 per cent of the total implementation was financed from UNDP resources. A total of 89 projects were implemented or under implementation.

115. Technical co-operation activities relating to strategies and policies revealed in many countries a number of weaknesses in the industrial planning system. These included unclear objectives and strategies at the sectoral and subsectoral levels, industrial policies inconsistent with changing needs and priorities, and insufficient co-ordination of planning and implementation between ministries and institutions. Newly emerging features were an increasing emphasis on industrial restructuring, decentralization of decision-making and operations, privatization and denationalization and the need for an adequate information basis, planning tools and decision support systems.

116. The weaknesses and new features identified were dealt with in various ways. Several major projects aiming at industrial restructuring were undertaken on the basis of an identification of comparative advantages. In Africa, a number of national workshops were held for national decision makers and representatives of industrial and financial institutions at which objectives and strategies for sectoral development were clarified and subsequent planning exercises prepared.

117. Many projects dealt with improvement of the decision support structure through, for example, proposals for the reorganization of the planning authorities, the introduction of new methodologies and computers and computer-aided planning tools. Other important projects included the upgrading of industrial statistical systems and the introduction of management information systems in, *inter alia*, Ghana, ^{34/} Nepal ^{34/} and Papua New Guinea. ^{35/}

^{34/} *Ibid.*, para. 105.

^{35/} IDB.3/10, chap. II, para. 81.

118. The use of computer-aided planning tools is a prerequisite for the efficient formulation and implementation of development plans and strategies. Under UNIDPLAN, which provides for computer-aided tools in industrial planning, ^{36/} a major effort was made to build up a network for international collaboration in developing, providing access to and transferring such planning tools. A large number of demonstration versions of planning models and methods were collected and national focal points for the collaboration were established in several developed and developing countries. At an expert group meeting held in October at Tbilisi, Union of Soviet Socialist Republics, several projects were formulated involving direct assistance in the introduction and use of computer-aided planning tools.

119. A large number of industrial master plans, sectoral surveys and sectoral plans was carried out. An industrial master plan is an action-oriented instrument for supporting and organizing concerted action by the Government, industrialists and donors with a view to developing a competitive industrial system. The industrial master plan of Cameroon was, for example, presented at a seminar attended by representatives of the public and private sectors. The seminar reviewed sectoral programmes and support and policy measures proposed for the next ten years. The sectoral programmes emphasized greater transformation of agricultural and forest resources, exploitation of associated gas from oil fields, further development of the aluminium industry, establishment of an iron and steel industry, development of pharmaceutical and fertilizer industries, and organization of the mechanical and engineering industries. Industrial master plans were also prepared for Cape Verde, ^{37/} Côte d'Ivoire, ^{37/} Niger and Senegal. ^{37/} Sectoral planning activities concentrated on strengthening the national capital goods sector. For example, in Colombia, ambitious investment and technology programmes, mainly involving the private sector, have been implemented on the basis of detailed sectoral studies. In addition, subsectoral surveys were carried out in Trinidad and Tobago.

120. A special planning activity in the capital goods sector involved the dissemination of industrial automation technologies. At an Economic and Social Commission for Asia and the Pacific/Asian

Network for Industrial Technology Information and Extension workshop held in co-operation with UNIDO at Singapore, in May, the requirements of developing countries with respect to industrial automation technologies were defined. Guidelines for the selection of CAD/CAM systems were worked out as a reference for decision makers in developing countries and a special programme was developed for the Andean Pact countries. Since it is recognized that the industrial automation process - through its impact on the international industrial environment - is significant for all developing countries, groundwork was laid for a more complete typology of industrial automation requirements.

121. During the year two projects were finalized on the integrated development of food-related industries in Peru and in the Latin American region as a whole.

INSTITUTIONAL INFRASTRUCTURE

122. Technical co-operation expenditures under the heading of institutional infrastructure amounted to \$15.8 million. Some 84 per cent of the total implementation was financed from UNDP resources. A total of 191 projects were implemented or under implementation.

123. Technical co-operation in this field, which continued to cover a broad range of multi-disciplinary programmes, ^{38/} was characterized by an increasing demand for assistance in an integrated approach that provides for a comprehensive package of technical services and includes co-ordinated inputs in one or more programme areas.

124. According to the experience gained by UNIDO, multibranch R and D institutions in developing countries, often suffer from a number of shortcomings resulting in inefficiency and duplication of activities. Such shortcomings include: (a) a lack of incentive for personnel when the institution is fully subsidized by the Government and the job mainly involves routine operations; (b) a gap between the complexity of the equipment and the ability of staff to operate it; (c) insufficient management, leading, for example, to a discrepancy between the level and quantity of the problems to be solved and the capabilities of the institution; (d) a lack of co-ordination and co-operation with the industry and other R and D bodies. Many of those

^{36/} IDB.4/10, chap. II, para. 107.

^{37/} *Ibid.*, para. 105.

^{38/} *Ibid.*, para. 111.

institutions could operate profitably if their work programmes would better reflect global trends in technology development, including high technologies, and if they would display more flexibility in adjusting their objectives to meet the current needs of domestic industry. An integrated quality concept was elaborated in 1988 as an instrument for achieving the balanced industrial performance of newly established or rehabilitated enterprises. It emphasizes the need for the dynamic adjustment of the three substantial cycles (techno-economical, environmental and operational) comprising the process of industrial functioning and provides a baseline for the diversified set of R and D activities aimed at obtaining the ways and means of selecting and running the best-suited technologies. The increasing diversification and complexity of the problems being tackled through R and D activities require more interdisciplinary co-operation at the international level. In view of this, co-operation was established or substantially increased with several international agencies and non-governmental organizations such as the International Atomic Energy Agency, the British Institute of Non-Destructive Testing, Euro-optica Services, the International Institute for Applied Systems Analysis and the International Association for Clean Technologies. Optical technology, computer modelling, non-destructive testing and evaluation, and information systems accounted for the largest part of the R and D activities, thus paving the way for future industrial progress in the countries involved, which included China, Egypt, Greece, Guyana, Syrian Arab Republic and several Latin American countries. In 1988, activities were initiated with a view to improving the effectiveness of technical co-operation programmes and projects in this field and two large-scale projects, one in Guyana and the other in the Syrian Arab Republic, became operational.

125. Industrialization depends to a great extent on the level and type of resources available and their effective utilization, which can only be achieved if industrial information is available. UNIDO has long provided technical co-operation aimed at establishing and strengthening capacities in industrial information services of developing countries. In recent years such co-operation has increasingly aimed at establishing computerized national networks as well as on-line links to international data banks, including the UNIDO Industrial and Technological Information Bank (INTIB), for instance, a pilot microcomputer-based terminal network in Mongolia, which became operational in May 1988 and linked remote terminal stations of the national information system with INTIB in Vienna.

126. The UNIDO programme in quality control, standardization and metrology is an important element of the integrated programmes mentioned above. Assistance in this field has been aimed at, on the one hand, helping entrepreneurs in industries, including small- and medium-scale industries, to assure the quality of their products for export in order to compete at the international level and, on the other hand, helping government authorities to assure the quality of both locally produced and imported goods for domestic consumption. This has been done by setting up or strengthening institutions such as standardization and quality control bureaux, and metrology and testing laboratories that establish and provide standards and conduct calibration and testing. In 1988, several large-scale technical co-operation projects in this field were under implementation, for instance in China, Ethiopia, Saudi Arabia and Yemen.^{39/} Lessor countries have expressed growing interest in funding technical co-operation in this field. One example is the project to assist the Thai Industrial Standards Institute, which was approved for funding by the French Government.

127. The promotion and development of small- and medium-scale industries continued to be the predominant programme element. Special activities and projects in support of such industries were strengthened, e.g. enterprise-to-enterprise co-operation, the Analysis of Technological Complexity (ACT),^{40/} national and international sub-contracting, assistance to chambers of commerce, and product adaptation for exports. The programme of enterprise-to-enterprise co-operation received new impetus in both North-South and South-South co-operation. An interregional project, financed by India, was initiated for co-operation between small- and medium-scale industries in the engineering sector (light engineering and metalworking industries) in India and those in Egypt, Malawi, Malaysia and the Philippines. The interregional project on enterprise-to-enterprise co-operation between small- and medium-scale industries in Italy^{41/} and those of selected developing countries is an example of the substantial progress made in North-South co-operation in 1988. Over 100 industries of small and medium size in India and more than 80 in Argentina were identified, and pre-feasibility studies were conducted with a view to

^{39/} Ibid., para. 123.

^{40/} IDB.3/10, chap. 11, para. 94.

^{41/} IDB.4/10, chap. 11, para. 115; IDB.3/10, chap. 11, para. 90.

matching them with industries of similar size in Italy. Similar enterprise-to-enterprise programmes executed in 1988 were funded by Belgium, France and the Federal Republic of Germany. 42/

128. The ACT method 40/ was further elaborated to form a valuable tool in the identification of investment projects and the assistance and diagnosis of small- and medium-scale industries in the electro-mechanical sector. The new method stimulates and supports enterprise-to-enterprise collaboration. The application of the ACT package continued in Algeria, Tunisia and Morocco, 43/ where assistance was provided for the establishment of the necessary institutional infrastructure and for the training of national teams. Participating decision makers, industrialists and ACT experts from developing and developed countries exchanged information and experiences on the use of ACT at an international meeting held in Vienna. New ideas were presented, including a proposal to establish an ACT network and an "ACT club" to intensify further collaboration and productivity, and the meeting recommended expanding the ACT projects to include other regions. As a result, an agreement of co-operation was signed with the Latin American Integration Association on the use of ACT in South America.

129. The UNIDO programme for the development of industrial sub-contracting is a means of promoting and developing small- and medium-scale industries and generating increased industrial production through increased capacity utilization, with better quality and at lower cost. Technical co-operation projects in this field were developed and implemented at the regional and national levels. At the regional level, an Arab programme for the development of sub-contracting, 44/ has accomplished two objectives: first, to design, survey and develop the necessary technical, economic, commercial, legal and informatic instruments for setting up an integrated Arab sub-contracting system and network and for the co-ordination of sub-contracting monitored by a regional Arab committee; and second, to carry out the preparatory assistance required to set up national sub-contracting exchanges. At the national level, as complementary and supportive activities to the regional Arab

42/ IDB.4/10, chap. II, para. 115; IDB.3/10, chap. II, para. 94.

43/ IDB.4/10, chap. II, para. 115.

44/ IDB.4/10, chap. II, para. 117; IDB.3/10, chap. II, para. 88.

programme, national sub-contracting exchanges were either set up or initiated in Algeria, Egypt, Iraq, Morocco and Tunisia.

130. Recognizing the important role played by chambers of commerce and industry, federations of industry and manufacturers' associations, UNIDO provided technical co-operation in the establishment of such institutions or in strengthening the functions of and the services offered by existing chambers of commerce and industry to their industrial affiliates. Within the framework of the UNIDO programme of product adaptation for export, technical co-operation efforts continued in the establishment of an industrial design centre in the Republic of Korea. 45/

31. UNIDO embarked upon an innovative approach to the promotion and development of rural industries in African countries through South-South co-operation. The transfer from Morocco to Guinea of technical know-how in this field, combined with capital seed money from UNDP resources provided to small-scale industry promoters, is an example of such co-operation. The seed money was made available to the project as part of a revolving fund, an approach that generated considerable interest in other developing countries in the region.

132. In 1988, for the first time, the UNIDO entrepreneurship development programme was pursued as a programme element. UNIDO promoted innovative and growth-oriented projects as part of an integrated programme that focuses on the entrepreneur as the primary agent for starting or expanding entrepreneurial activities. The programme was conducted according to country-specific needs identified in Bhutan, Indonesia, Kenya, Malawi and Malaysia. 46/ The entrepreneurship development programme was used to promote handicraft innovation, as well as technology for export-oriented small-scale industries, through regional technical co-operation projects in the Caribbean, Central America and ASEAN countries. In order to promote the development of entrepreneurship in small- and medium-scale industries and to raise the awareness of government officials and loan officers from development banking institutes, a workshop was held in Fiji within the context of a regional project in the South Pacific. Another regional

45/ IDB.4/10, chap. II, para. 118.

46/ Ibid., para. 116.

project in Europe aimed at establishing a network to enable entrepreneurs, especially those in pioneering and innovative industries, to set up mutually reinforcing contacts, either through joint venture activities or the sharing of information on a systematic basis.

INDUSTRIAL MANAGEMENT AND REHABILITATION

133. Technical co-operation expenditures under the heading of industrial management and rehabilitation amounted to \$6.0 million. Some 88 per cent of total implementation was financed from UNDP resources. A total of 115 projects were implemented or under implementation.

134. Because of the high priority attached to rehabilitation, 47/ 1988 saw considerable project activity in this field. Emphasis continued to be placed on developing comprehensive programmes and approaches reflecting the real needs of developing countries. In implementing such projects, particular attention has to be given to co-operation within the Organization since requests for rehabilitation received by UNIDO often involve different types of specialized assistance.

135. Considerable attention was devoted to the modernization of management structures and to the application of computers in management, in particular personal computers - because of their low initial investment - and to the development of appropriate software. An example is a project covering computerized management systems in the European region, which became operational in 1988. In the projects under implementation that dealt with general management problems, considerable effort was made to foster technological upgrading and facilitate technology absorption through appropriate management approaches and organizational schemes. 48/ There was an increase in the number of projects dealing with specialized (i.e. financial, production, maintenance) management aspects.

136. With regard to energy conservation and management activities, a self-sustained network was developed in aid-recipient countries in the European region 49/ to be

used not only to exchange information but also to co-ordinate R and D and training in this field. Co-operation was obtained from developed countries, and links were established with developing countries in other regions and relevant networks of other specialized agencies within the United Nations system. Related to this was the increased number of seminars organized to upgrade skills and develop training material and manuals, especially for management information systems.

137. Experience has shown that it is necessary to develop a philosophy of rehabilitation at the government policy level, make appropriate use of diagnostic tools and prepare action plans, including follow-up technical assistance at the plant level. Projects illustrating the broad scope of rehabilitation included: advising a public sector secretariat in Guyana responsible for 38 firms on its reorganization, on the introduction of a management information system and "schemes" for better management of the firms, and on how to improve the efficiency of the individual firms; assistance in improving the efficiency of the Secretariat of State for Industry in Argentina in designing and processing industrial rehabilitation projects; 50/ and advising the Government of Sao Tomé and Príncipe on the restructuring and privatization of important sectors and enterprises, leading to detailed plans of action for their rehabilitation, modernization or liquidization. Most of the rehabilitation programmes required a full diagnostic analysis at the enterprise level. Thus, considerable progress was made in the development of diagnostic methods to assist individual firms and to identify specific areas for technical or managerial input.

138. Assistance continued to be provided - e.g. in China and Somalia - in developing local consultancy organizations to deal with general, financial and production management and accountancy problems of industries in the public and private sectors. 51/ Important aspects were the follow-through from diagnosis to solution, and the training of counterparts in methods and techniques. Question of human resource management and retraining programmes have been carefully considered. As a matter of policy, national expertise and consultancy services were used as much as possible in technical co-operation projects.

47/ *Ibid.*, para. 125.

48/ *Ibid.*, para. 126.

49/ *Ibid.*, para. 131.

50/ *Ibid.*, para. 130.

51/ *Ibid.*, paras. 127-128.

139. Activities in the wood sector followed the pattern of rehabilitation and restructuring of large and small enterprises. Technical co-operation was also provided on specific industrial problems relating to wood drying, preservation and processing through projects involving, for example, window fabrication in Chile, prefabricated housing in Bhutan and the establishment of a pilot furniture plant in the Democratic People's Republic of Korea. Wooden bridge projects were successfully completed in Ecuador and Peru and a demonstration prefabricated wooden bridge was being built in Austria to help publicize UNIDO activities in this subsector. A large project was begun to assist the Cameroonian wood industry in introducing serial production of furniture in order to reduce imports and in making best use of available timber resources in construction. Contact was established at the technical level with the International Tropical Timber Organization with a view to working on joint projects.

140. There was an increase in the number of projects of a mainly diagnostic and rehabilitation nature funded by loans from the World Bank, development banks or special funds having a stake in the commercial outcome. In three large-scale projects (in Ethiopia, the Philippines and the European region) evaluated by independent consultants, the findings were positive and the schemes of project management were recommended to other organizations (among others, UNDP) for project design and formulation.

INDUSTRIAL TRAINING

141. Expenditures for fellowships and training components in all technical co-operation projects implemented by UNIDO amounted to \$17.9 million. Of that total, \$12.2 million was spent on fellowships and study tours and \$5.7 million on group training activities and meetings. Technical co-operation expenditure under the heading of training that received substantive backstopping from the Training Branch amounted to \$6.7 million. Some 17.8 per cent of the total implementation was financed from UNDP resources. A total of 176 projects were implemented or under implementation.

142. The UNIDO fellowship programme continued to respond to the need of developing countries to have tailor-made training programmes for managerial and technical personnel of industrial projects.

A detailed breakdown of in-plant and other group training programmes and of fellowships and study tours is given in appendix I, including the number of female participants and participants from least developed countries and African countries.

143. In many developing countries the shortage of qualified personnel continued to be a major handicap in promoting and sustaining development efforts in the field of industry. Even though efforts have continued to be intensified by involving a greater number and more types of institutions and a higher number of participants, they have, in many cases, not been sufficient to meet the needs for professional upgrading and retraining of engineers and managers.

144. In assisting developing countries to meet the challenges of advanced technologies in the field of education and training, special attention was given to computer-aided training programmes through a selective approach to institution building and a better utilization of existing capabilities for continued education including distance learning. In this connection two studies were carried out, one on advanced computer-aided training methods and techniques and another on the development of educational software for engineering education and training, the latter in collaboration with the United Nations Educational, Scientific and Cultural Organization (UNESCO). In addition, a large-scale project for the Asian Institute of Technology (Bangkok) was designed and formulated to strengthen its educational, research and training capacities and its capabilities in such fields as computer-integrated management systems and computer-aided design, manufacturing and instructions.

145. A group training programme was held in France, in co-operation with the Latin American Centre for Development Administration (CLAD), on production automation techniques for selected Asian countries; a seminar was held in Uruguay, in co-operation with the country's National Civil Service Office, on advanced training systems for public administrations, training institutions and industrial enterprises in Latin America, and an interregional group training programme was held in Belgium on computer-aided maintenance and spare-parts production.

146. A series of studies on in-service training in Africa was carried out in collaboration with the Development Centre of the Organisation for Economic Co-operation and Development. The studies

aimed at optimizing the role of industry in human resource development and creating a dialogue between government officials and those responsible for the implementation of industrial projects in both public and private sectors.

147. In connection with the Industrial Development Decade for Africa (IDDA), priority was given to a number of training projects in Africa in various industrial sectors involving training institutions at the regional level. A subregional programme for training of trainers was jointly organized with the Central African Customs and Economic Union on the basis of an exhaustive overview of the situation on the manpower requirements of small- and medium-scale industries in Cameroon, Central African Republic, Chad, Congo, Equatorial Guinea and Gabon, carried out in 1987.^{52/} The programme revolved around a series of case studies that were prepared by the participants, drawing on the experience and expertise available in each of the six countries and the subregion as a whole. Moreover, a new training programme on maintenance and repair for Moroccan managers and engineers from public or private enterprises was organized together with the Mohammedia Engineering School (EMI) with the aim of boosting industrial productivity. Because of its success, a similar programme will be organized with EMI for other French-speaking African countries.

148. Group training programmes for English-speaking African countries took place in Poland on small-scale enterprises for senior policy and decision makers engaged in the development of industrial co-operatives and in Bulgaria, on increasing productivity through the application of management skills and a system of personnel development.

149. A workshop on energy auditing was held in Zimbabwe for 12 participants from the private and public sectors. The workshop focused on practical methods of measuring energy use and on energy conservation in various industrial sectors.

150. UNIDO contributed to the design and development of the modular training programme for women managers and cadres in public enterprises, which is currently being finalized by the International Research and Training Institute for the Advancement of Women. Governments were again urged to nominate more female candidates for the UNIDO training programmes.

^{52/} IDB.4/10, chap. 11, para. 141.

FEASIBILITY STUDIES

151. Technical co-operation expenditures under the heading of feasibility studies amounted to \$4.9 million. Some 68 per cent of the total implementation was financed from UNDP resources. A total of 106 projects were implemented or under implementation.

152. Some 80 opportunity, pre-feasibility and feasibility studies were implemented leading to new investment projects and the rehabilitation or expansion of existing enterprises. In Ethiopia a set of opportunity studies to be promoted during a forthcoming national investment promotion campaign was prepared in the fields of engineering, chemical and agro-based industries. Funding was provided by UNDP and from the proceeds of a credit granted by the International Development Association, an affiliate of the World Bank. Ten opportunity studies, financed from an Italian contribution to the UNIDO Industrial Project Preparation Facility, were prepared for the UNIDO Investors' Forum for the Philippines held in November at Manila. For most of the opportunity studies, letters of intent were signed by potential private investors.

153. Five feasibility studies, financed by the Government of the Netherlands, were finalized for private Indonesian investors for the construction of boat-yards. Investment funding for the construction of these boat-yards is under negotiation with Indonesian development banks and the Netherlands Development Finance Company. Four feasibility studies were under preparation for China, Malawi and Zimbabwe with funding from the Governments of France and the Federal Republic of Germany. For three of the investment projects under consideration, capital funding from bilateral sources is already envisaged, subject to the outcome of the studies. Work was carried out on the development of a new approach to a feasibility study on the boat-building industry in Cameroon, where a new technology, developed by UNIDO and a private enterprise in Indonesia, was introduced for building wooden fishing boats using pre-fabricated components. The project was initiated with the International Financial Corporation for Investment and Development in Africa. The quality of the assistance provided by UNIDO was confirmed by the strong demand by developing countries for such technical co-operation and by the widespread willingness of donor countries to finance such projects through a large volume of contributions to the UNIDO Industrial Project Preparation Facility.

154. The UNIDO methodology for industrial investment project preparation, evaluation and financing, as well as the application of the Computer Model for Feasibility Analysis and Reporting (COMFAR), were the subjects of 30 national, regional and international seminars at which more than 800 professionals from development banks, consulting firms and ministries were trained. Sixteen seminars with 380 participants were carried out as individual projects in 15 countries, and 14 seminars with 430 participants - financed within the framework of UNIDO-executed field projects - were carried out in six countries. The fourth seminar held in China on project evaluation was not only very successful, but also resulted in UNDP-financed technical co-operation projects. A seminar implemented in co-operation with the Hamburger Weltwirtschafts Archiv led to the development of a post-experience seminar on project preparation, evaluation and financing. The programme of inter-university co-operation on project preparation and evaluation was further expanded to include nine universities and specialized institutes at Algiers, Belgrade, Bradford, Delft, Eindhoven, Hamburg, Helsinki, Warsaw and Zagreb. Further arrangements were under negotiation with universities in France, the Union of Soviet Socialist Republics and the United States of America.

155. The standardized UNIDO methodology for the preparation, evaluation and financing of investment projects, as presented in the Manual for the Preparation of Industrial Feasibility Studies (ID/206), has become both a hallmark of UNIDO and an effective public relations tool. Co-operation involving the UNIDO methodology was carried out with ministries, development agencies, industrial banks and private and public enterprises to strengthen their project preparation capacity, and a number of developing countries and national and regional development banks have already introduced the UNIDO methodology into their industrial project preparation process. Work continued on the second, revised edition of the Manual. Considerable progress was made in the preparation of a similar manual, financed by a special contribution from the Government of Austria, for small industrial investment projects.

156. The number of COMFAR licensees reached 300, and the system was operational in over 100 countries. As further evidence of its success, COMFAR was chosen by the Union of Soviet Socialist Republics to be the basic software programme used in its joint venture negotiations. The programme has

also generated a number of large-scale institution-building projects in Ghana, Indonesia, Seychelles, Togo and Zambia. A second edition of the COMFAR user's guide, distributed with the software, was published in English, followed by versions in French and Spanish, and work began on an Arabic version. The updating of the Arabic and Russian versions of the COMFAR software was completed, and a Chinese translation was finalized in co-operation with the Computing Centre of the Ministry of Foreign Economic Relations and Trade at Beijing. The costs to the Organization of designing, programming, maintaining and updating COMFAR have been minimal, as they have been covered largely by licence fees.

157. In response to the high priority given to industrial rehabilitation, several projects on the subject were initiated for sub-Saharan Africa, such as plans for carrying out diagnostic studies on a group of private industrial enterprises in Senegal with a view to increasing their profitability. Increased attention was also devoted in the feasibility studies to techno-economic environmental aspects.

INTEGRATED INDUSTRIAL PROJECTS

158. The Section for Integrated Industrial Projects, established within the Department of Industrial Operations as of 1 September 1987, is entrusted with the development, co-ordination and monitoring of the implementation of multidisciplinary projects. It works closely with other Branches of UNIDO, depending on the nature and requirements of the projects. During its first year of operation, the Section was entrusted with the overall co-ordination of the implementation of a number of multidisciplinary technical co-operation projects, examples of which are provided below.

159. In Egypt, a project for strengthening the efforts of the Ministry of Industry in providing advisory services to the private and public sectors involved several industrial branches and included the provision of highly specialized consultants for solving urgent technical problems in industrial plants, the improvement of processes and equipment, as well as training and study tours for production engineers and managers. A large-scale project in Jordan, for which implementation began in 1988, is to provide specialized services to private and public enterprises and to assist in utilizing the capabilities of the Ministry of Industry and Trade in the area of planning, standardization and technology transfer.

160. In Indonesia, a project to promote the development of medium-scale industries was put into effect. The objective will be achieved by strengthening the capacity of the Institute for Industrial Entrepreneurship to prepare commodity-based opportunity studies on a regional basis, to maintain an industrial data base, and to provide assistance and services to entrepreneurs in the establishment, expansion and implementation of industrial investment projects.

161. A large-scale project in the Sudan is related to the rehabilitation of the Sudanese sugar industry. It involves \$2.84 million to be financed through the World Bank in two phases. The component for which UNIDO has been sub-contracted mainly concerns the strengthening of the training capabilities of the Sugar Training Centre at Sennar. The Centre will be the basis for upgrading the capabilities and skills of managers, engineers and technicians in the sugar industry through the application of modular training systems supported by audio-visual methods and materials. The first phase of the project started in July 1988 and the second is expected to start in July 1989. A project initiated in the Syrian Arab Republic aims at improving the performance of the country's industry at the sectoral level with the main objective of utilizing the existing capacities in different branches of the public sector including the engineering, cement, sugar and chemical industries.

162. The Section was also given the responsibility for the overall co-ordination of technical co-operation projects in the areas of environment (for details on activities related to environment, see paras. 164-169 below), energy and computer systems. Emphasis was placed on the development of energy in rural areas and the introduction of low- and non-waste technologies in the energy sector and energy-saving conservation measures in industry. A number of proposals for technical co-operation projects were prepared, the implementation of which is expected to begin in 1989. These include the use of innovative technologies in energy production for the Latin American region and workshops on energy conservation in industry for African countries. Technical co-operation activities with other United Nations specialized agencies and regional organizations were identified in the field of new and renewable energy sources. In the area of computer systems, preparatory assistance involving software development centres was provided to the Arab States and the Asian region. A request was received from Saudi Arabia for preparatory assistance in examining the possibility of

creating a cadre of software developers to assist in developing software packages in Arabic by adapting existing packages to suit local conditions. The project is to be implemented in two phases, at the end of which a centre for software development is to become operational. Similar services may also be extended to neighbouring Gulf States.

163. A pipeline project data base system was set up in June 1988 on a network system of personal computers within the Department of Industrial Operations. The system contains more than 1,300 records on active pipeline projects covering the next four years in the pipeline file and more than 1,500 in the history file. This information system will assist programme managers in accurately planning their staff resources so that they may better deal with future work and technical co-operation programmes.

ENVIRONMENT

164. The General Assembly in its resolutions 42/186 and 42/187 called upon UNIDO, *inter alia*, to include the aspect of environmentally sound development in its programmes; the Industrial Development Board, in its decision IDB.4/Dec.19, recalled those resolutions and requested the Director-General to ensure that UNIDO projects bore in mind the ecological concerns of Member States. Accordingly, a focal point for environment activities has been established in the UNIDO Secretariat within the Section for Integrated Industrial Projects to develop and monitor environmental projects and ensure that technical co-operation projects executed by the Organization are designed on a sound environmental basis.

165. Negotiations are under way between UNIDO and the United Nations Environment Programme on the establishment of a framework for the activities called for in the United Nations System-wide Medium-term Environment Programme (UNEP/GCSS.1/7/Add.1). It is expected that, as a result of these negotiations, at least three environment-related activities will start in 1989. Consultations are also taking place between UNIDO and other concerned specialized agencies in the United Nations system, such as ILO, UNESCO and the World Health Organization, whose work has a direct bearing on the work of UNIDO in the area of industrial environment.

166. UNIDO's technical co-operation programme to assist developing countries in maintaining or developing a healthy environment consists of activities related

to the assessment of pollution, the transfer of clean technologies, the identification and treatment of hazardous wastes, the reduction of industrial by-products (recycling), the conservation of resources and the treatment of effluents to reduce the emission of hazardous substances into the environment.

167. In 1988, 51 environment-related projects were implemented and 84 were in the pipeline. The potential for even more projects is growing as a result of the increased interest on the part of developing countries in improving existing industries, reducing wastes and making use of industrial by-products by transforming them into new products.

168. In applying its methodology for pre-investment analysis, UNIDO stresses the importance of evaluating each potential investment project from a commercial point of view (i.e. that of the individual investor) as well as from a national economic point of view. Among the factors that are of primary importance in evaluating an industrial project from a

national economic point of view is the impact of the project on the environment. Similarly, COMFAR applies economic cost-benefit analysis to each potential investment project and provides for the alteration of all prices to include costs to the environment. Under the use of computer-aided tools in industrial planning (UNIDPLAN) programme, activities related to the environmental aspects in industrial planning were initiated. Contributions to UNIDPLAN were made at an international seminar on environment-related aspects of planning held at Saint Valery-sur-Somme, France, in September and at the UNIDPLAN expert group meeting held at Tbilisi, Union of Soviet Socialist Republics, in October.

169. A review system for all technical co-operation projects is under preparation, with the objective of integrating environmental considerations into those projects. The first guide designed for UNIDO officers for use in evaluating the environmental impact of industrial projects will form the foundation of such a review system.

CHAPTER III. INDUSTRIAL PROMOTION

SYSTEM OF CONSULTATIONS

Consultations convened in 1988

1. The First Interregional Consultation on the Food-Processing Industry with Emphasis on Sugar-cane Processing, which took place at Havana, Cuba, from 26 to 30 September, was organized in close co-operation with the secretariat of the Group of Latin American and Caribbean Sugar Exporting Countries. Of the 118 participants, 54 were from industry. Of the 45 countries represented, 31 were developing countries. Recommendations derived from the consideration of two issues: diversification of the sugar-cane industry and improvement of the productivity in the sugar-cane sector. The Consultation proposed that UNIDO establish a committee of experts acting as a panel to advise the Organization on various aspects of technical assistance in the sugar-cane sector.

2. The Regional Consultation on the Phosphatic Fertilizers and Pesticides Industries in Africa took place at Yamoussoukro, Côte d'Ivoire, from 12 to 16 December. Of the 49 participants, 17 came from industry; developing countries accounted for 20 of the 24 countries represented at the Consultation. Recommendations encompassed the integrated approach to the development of the fertilizer and pesticide industries, international co-operation for information, training of manpower, improved financing arrangements, transfer of technology, strengthening of infrastructure and the establishment of joint ventures, mini-fertilizer plants and multi-purpose pesticide plants. The issues dealt with at the Consultation had been identified at the Global Preparatory Meeting held at Lomé, Togo, in February and discussed at the Asian Preparatory Meeting held at Lahore, Pakistan, in October.

3. At the two 1988 Consultations there were notable increases in the participation of industry and developing countries: 42.5 per cent of the participants represented industry and 74 per cent represented developing countries. Opportunities were provided

for bilateral contacts on technical co-operation and investment projects. A number of potential projects were identified.

Follow-up to the earlier Consultations

4. As follow-up to the First (1987) Consultation on the Fisheries Industry, preparatory work was initiated on a workshop that will concentrate on removing obstacles to improve the productivity in the Caribbean region.

5. The UNIDO Leather and Leather Products Industry Panel ^{1/} at its ninth session at Pecs, Hungary, in October, considered a programme for the treatment of tannery effluent in selected South-East Asian countries and concepts on the International Foot Measurement Programme and software development for simple leather and shoe costing and pattern grading (see chap. II, para. 67). Concepts were discussed for a possible regional Consultation on leather and leather products tentatively envisaged for the biennium 1992-1993.

6. As part of the follow-up to the Second (1987) Consultation on the Training of Industrial Manpower, a number of technical co-operation projects identified at the Consultation were developed through an in-house co-ordinating committee. Co-operation continued with the International Labour Organisation on the preparation of manuals on maintenance. A questionnaire was circulated to assess the impact of the Consultation. Case-studies were completed on in-service training in four African countries, which had been undertaken jointly with the Development Centre of the Organisation for Economic Co-operation and Development.

7. As part of the follow-up to the Third (1987) Consultation on the Pharmaceutical Industry, inputs were provided to the Latin American regional meeting on the pharmaceutical industry organized by the Latin American Economic System (SELA) and

^{1/} IDB. 4/10, chap. III, para. 11.

the Latin American Association of Pharmaceutical Industries. Work continued on the preparations for two workshops: one on improving local production of pharmaceutical ancillary industries in the Arab region and the other on African-Asian co-operation in the pharmaceutical industry. A survey was initiated of research institutes specializing in the genetic improvement and the propagation of medicinal plants. A workshop on the industrial utilization of medicinal plants and on the development of a design for a multi-purpose pilot plant was planned.

8. In the petrochemical sector, preparations continued for a workshop in north Africa on the use of plastics in agriculture in arid and semi-arid zones. Work continued on the expansion and computerization of the petrochemical data base. ^{2/}

9. Following the First (1987) Consultation on the Non-ferrous Metals Industry, preparations were carried out for a meeting scheduled for March 1989 on production complementarities in the Latin American and Caribbean region. Inputs were provided for two workshops on iron and steel technology for developing countries organized by UNIDO and held in Brazil in October.

10. In the capital goods sector, an expert group meeting on offshore oil- and gas-drilling industries was held at Hamburg in October. It centred on international co-operation for the development of capital goods and services in the sector, the dissemination of technological and market information, and the training of personnel in the operational management and maintenance of drilling platforms and related equipment. The study on the standardization of civil works for mini-hydropower plants, prepared for the 1987 expert group meeting on standardized small hydro-power plant, ^{3/} was expanded to include other standard features.

11. In the area of building materials, a regional expert group meeting on co-operation and development in the field of building materials production, was held in Guatemala in co-operation with the General Treaty on Central American Economic Integration in October. ^{4/} The orientation for the Consultations on building materials and on wood and wood

products, to be convened in the biennium 1990-1991, was also discussed.

**Preparations for Consultations
scheduled for the period
1989-1991**

12. In preparation for the Consultation on the food-processing industry with emphasis on fruit and vegetable processing, to be held in September 1989 in the Union of Soviet Socialist Republics, an expert group meeting for the Asian and Pacific region was held at Beijing, China, in November, to discuss the pre-conditions for the development of the fruit- and vegetable-processing industry in developing countries. Similar meetings are planned for Africa and Latin America.

13. In preparation for the Consultation on small- and medium-scale enterprises, including co-operatives, to be held in Italy in October 1989, an expert group meeting for the African region was conducted at Harare, Zimbabwe, in June; another for the Asian region was held at Manila, Philippines, in November. Recommendations focused on the integration of small- and medium-scale enterprise in overall development plans, the strengthening of institutional infrastructure for the promotion and development of the sector, financing, sub-contracting and international co-operation. Preparations were made for a global preparatory meeting scheduled to be held in March 1989 in the Union of Soviet Socialist Republics.

14. In preparation for the first Consultation on the electronics industry, to be held in Malta in October 1989, a global preparatory meeting was held at Grenoble, France, in November/December, on strategies for integrated development of the sector, approaches for new technologies, including software development, and financing problems.

15. A global study and three regional studies were undertaken on the upkeep, optimal use and possible manufacture of transport equipment in preparation for a global preparatory meeting for the Consultation on capital goods with emphasis on transport equipment, to be held in June 1989.

16. For the regional Consultation on the petrochemical industry for the Arab countries, envisaged for the 1990-1991 biennium, work concentrated on possible elements of K and D in the petrochemical industry and case-studies were carried out on the development of downstream petrochemical industries.

^{2/} IDB.4/14, para. 19.

^{3/} *Ibid.*, para. 28.

^{4/} *Ibid.*, para. 30.

DEVELOPMENT AND TRANSFER OF TECHNOLOGY

17. The work of UNIDO in the field of development and transfer of technology followed the programme approach outlined in document IDB.3/26. The monitoring and assessment of new technologies were a major component of the programme, and quarterly monitors continued to be issued on micro-electronics, materials, and genetic engineering and biotechnology. As an experimental measure, the monitor on materials carried paid advertisements. In February a joint UNIDO/SELA meeting on technology monitoring for Latin America was held in Venezuela, resulting in the preparation of a regional project.

18. An important development in the field of informatics was the initiation of preparatory activities, in co-operation with the Eastern and Southern African Management Institute, to establish an informatics development centre for the Eastern and Southern African subregion. A consultancy mission to five countries of the subregion to prepare a state-of-the-art review on informatics and micro-electronics was undertaken in October and November; the second leg of the mission was scheduled for January 1989. A proposal was elaborated for and preparatory work started on an investors' and donors' conference on telecommunications for Africa. In May 1989, a technical preparatory meeting will be held in Brazil that will form the basis for the investors' and donors' conference.

19. Several significant activities related to genetic engineering and biotechnology were carried out. In March, a workshop on protein engineering and a forum of scientists from 21 member countries of the International Centre for Genetic Engineering and Biotechnology (ICGEB) were held at Trieste. The forum promoted mutual interaction between ICGEB and scientists from its member countries and clarified the research and training needs of those countries. The New Delhi Component of ICGEB started functioning in May 1988. Between the Trieste and New Delhi Components, five research groups have been initiated and another is in the process of being formed. Visits of ICGEB staff were made to all affiliated centres during which the needs of those centres and possible areas of co-operation with ICGEB were ascertained. In response to a call from ICGEB, proposals for research co-operation were received from affiliated centres and were reviewed. Training courses in Argentina and Nigeria were assisted with grants from ICGEB. Applications for long-term and short-term

training were under scrutiny. An important offshoot of the ICGEB activities has been the provision of advisory services or assistance in the field of biotechnology to Argentina, Egypt, Kuwait and Viet Nam. A programme for a meeting on biotechnology in the Arab region was developed in co-operation with the Economic and Social Commission for Western Asia. A five-year programme for ICGEB was under preparation in response to a decision of its Preparatory Committee.

20. A major development in the area of new technologies was the initiation in June of a \$1.55 million project funded by the Government of Italy for preparations leading to the establishment of an international centre for science and high technology at Trieste. The centre will be composed of three entities: an institute for pure and applied chemistry; an institute for earth sciences and the environment; and an institute for high technology and materials. A series of consultations and meetings with eminent scientists and technologists from Italy and other countries has brought into focus the subject areas to be covered in the new centre; some pilot activities will start early in 1989.

21. Activities in the area of new materials included steps to establish a network of materials-related centres for developing countries, with emphasis on new materials and materials testing and control. Co-operation began with the American Society of Metals (ASM). During the 1988 World Materials Congress, organized by ASM International and in which UNIDO participated, UNIDO sponsored a one-day symposium on the future of developing countries in a restructured materials world. As a follow-up to a meeting on materials held in 1987, ^{5/} and in response to a request by the Government of Brazil, discussions were initiated on the establishment of an international material assessment and applications centre.

22. In the area of marine industrial technology, preparations were under way for a meeting on the establishment of a Mediterranean regional centre on marine industrial technology, to be held in April 1989. As part of the follow-up to earlier UNIDO work on deep-sea-bed mining technology, a programme is under way to assist the Government of India in preparing an inventory of the industrial and technological capabilities of that

^{5/} IDB.4/10, chap. III, para. 21.

country in deep-sea-bed exploration and mining, in the context of the pioneer investor status accorded to India under the United Nations Convention on the Law of the Sea.

23. Activities related to new and renewable sources of energy concentrated on expanding the successful system of networks for R and D training and information exchange among institutions in developing countries. For example, the Regional Network on Small Hydropower in Asia and the Pacific now covers some 20 countries and others are in the process of joining. It is being used by the Economic and Social Commission for Asia and the Pacific, the United Nations Development Programme (UNDP) and other organizations as a model for networks on other new and renewable energy technologies. Technical manuals for the design, standardization and fabrication of equipment for small hydropower stations were completed in co-operation with the Latin American Energy Organization and will be disseminated to interested developing countries. Activities related to biomass energy were also strengthened. A new technology for small-scale alcohol production from sugar was introduced in Kenya with Brazilian assistance and a demonstration project for the gasification of agricultural waste was started in Zimbabwe. Both programmes are being implemented within the framework of the Industrial Development Decade for Africa. The technologies, if proven viable, may be applied throughout Africa and in other regions.

24. Assistance continued to developing countries in the formulation of technology policies. Special emphasis was placed on Africa, where two national workshops were prepared, one for Tunisia and the other for the United Republic of Tanzania; in addition, UNIDO contributed to the National Workshop on Science and Technology organized by the Government of Ethiopia. A report on the management of technological change was prepared.

25. In the area of technology acquisition and negotiation, the technical advisory services were expanded considerably, a number of workshops and seminars were held and assistance was provided to the National Steel Company of Algeria and to the Nigerian Office of Industrial Property. Country profiles on regulations and practices regarding technology acquisition in developing countries were finalized. A compendium of 80 sample technology transfer contracts was prepared that covers a variety of sectors and forms of collaboration. Within the framework of

the Technological Information Exchange System, the Computerized Registry Information System was installed in Indonesia, Malaysia, Philippines, Thailand and Tunisia, and arrangements are under way for its installation in China. In addition, a promotional programme for strengthening basic technological infrastructure has been initiated, with special attention directed to Africa and Central America.

26. Projects on plant-level co-operation for technology transfer included a seminar at Stockholm to evaluate the results of a nearly completed project that was funded by the Government of Sweden and involved India and Kenya and an enterprise identification mission in a project funded by the Government of Poland that involved Ghana and Nigeria. A forum on appropriate industrial technology for Africa was being prepared, as well as revised versions of the monographs on appropriate technology. A concept of technology to meet the essential needs of the poor was developed. Profiles on how to start manufacturing industries are being revised in order to orient them to the needs of the small-scale industries in developing countries and to provide technology options.

27. At the end of the year, the Industrial and Technological Information Bank (INTIB) networking system had over 50 participating national focal points and four regional focal points. Guidelines were being prepared to clarify their role, modus operandi and internal organization. Screenmail, an electronic mail system, is being used to facilitate communication between INTIB and its focal points. A workshop for UNIDO/INTIB/national focal points on information networking and co-operation was held in Moscow. Training in the use of INTIB and other UNIDO information systems and data bases was organized and projects were under implementation to strengthen national information organizations and their linkages with INTIB in Algeria, Cameroon, Mongolia, Nigeria, Poland, Senegal and Viet Nam.

28. The Industrial Inquiry Service supplied assessed information in response to over 1,500 inquiries. Directories on research and technological institutions dealing with sugar and sugar by-products and with fruit and vegetables were completed and published. At the end of the year, the Technology Supply Data-Base had over 2,000 entries. Twelve issues of the UNIDO Newsletter in five languages and four volumes of the Industrial Development Abstracts series were published.

29. In the area of computer applications, electronic publishing has been successfully linked with various data-base applications making it possible to produce the Industrial Development Abstracts, directories and guides easily, cheaply and quickly in both electronic and high-quality printed forms. Work started on data bases for pharmaceuticals and petrochemicals. The Industrial Energy Conservation Abstracts data base was completed, and a training course was held on its use. A review is being carried out of existing electronic communication networks and software to improve communication linkages with INTIB focal points at low cost.

INDUSTRIAL INVESTMENT PROGRAMME

30. In 1988, the prospects for renewed private lending to indebted developing countries were not bright. The choice therefore for these countries was to mobilize increasingly other sources of external financing, and especially foreign direct investment oriented towards specific projects. ^{6/} Hence UNIDO continued to assist developing countries in identifying sound investment projects with local sponsors and in finding foreign partners - usually small- to medium-scale firms - to provide a share of the financial and other resources required for their implementation. Such projects include the rehabilitation, modernization and expansion of existing facilities, as well as the establishment of new ones.

31. The contribution of the foreign partner included, inter alia, marketing expertise, plant and equipment, technical know-how and licences, management support, training of local staff and finance. Potential foreign partners were identified:

(a) Through the UNIDO Investment Promotion Service (IPS) network established by agreement with, and financial support from, the countries concerned; ^{7/}

(b) Through subsectoral programmes that seek to identify potential partners in developed countries and determine the technological, financial and other resources they are to supply;

^{6/} Industry and development: global report 1988/89 (UNIDO publication, Sales No. 88.III.E.6), p. 22.

^{7/} Austria, France, Germany, Federal Republic of, Italy, Japan, Poland, Republic of Korea, Switzerland, United States of America.

(c) Through direct links with industrialists and industry associations in countries where there is no IPS.

32. To help entrepreneurs in developing countries identify possible industrial opportunities, UNIDO publishes a series of descriptions of manufacturing processes and plants entitled "How to start manufacturing industries: technological and investment perspectives". Volume IV of the series, containing profiles of 80 industrial processes, was published in 1988, bringing the total number of profiles to 457.

33. Businessmen and government officials from developing countries met executives from industry and commerce and financial institutions from industrialized countries at 50 country presentation meetings organized by the IPS offices, the aim of which was to provide up-to-date information on investment conditions and on opportunities for joint business ventures in the developing countries represented.

34. A total of 476 new investment projects were identified and formulated; 121 industrial investment projects were successfully promoted, representing a total investment of \$413.8 million, as compared with 43 projects and a total investment of \$106 million in 1987. A total of 30 delegates from 15 developing countries (Africa: 4; Asia: 23; Latin America: 3) participated in on-the-job orientation programmes for officials from developing countries organized by the IPS offices.

35. To facilitate the development of small- and medium-scale industries in developing countries, UNIDO launched a project development facility at the IPS, Cologne, which is financed by a special-purpose contribution from the Federal Republic of Germany. The facility is designed to assist local project sponsors and their potential partners in the Federal Republic of Germany by bearing part of the cost of preparing pre-investment studies and joint venture agreements.

36. An expert group meeting, held in Tallinn, Union of Soviet Socialist Republics, on international industrial joint ventures was organized by UNIDO, the USSR State Committee for Science and Technology and the Estonian Chamber of Commerce and Industry. Some 150 participants from 20 countries attended.

37. Implementation commenced of a global programme for the food industries and agro-industries jointly organized by the Government of France, UNIDO and the International Finance Corporation.

Implementation also began of the key phase of an Italy/UNIDO programme on equipment for producing new and renewable energy, in which Ethiopia, Somalia, Sudan, Thailand and Zimbabwe are participating with 28 investment projects. Co-operation was strengthened with development and financing institutions, such as the Food and Agriculture Organization of the United Nations, the International Trade Centre UNCTAD/GATT, the Latin American Association of Development Financing Institutions (ALIDE), the Andean Development Corporation, the Commonwealth Development Corporation and the Centre for Industrial Development (CID) of the European Economic Community (EEC).

38. In sub-Saharan Africa the economic situation continued to be of concern, since the gross domestic product for the region declined in 1987, while annual population growth continued to be over 3 per cent. Assistance was provided to the Chamber of Commerce and Industry of Zambia to strengthen the role of private industry, and preparations began for two investment project promotion forums - one for Gambia, Ghana, Liberia, Nigeria and Sierra Leone, and the other for the member States of the Preferential Trade Area for Eastern and Southern Africa.

39. UNIDO concluded a co-operation agreement with CID (EEC), implementation of which commenced with an industrial investment programme in the building materials sector in eight African countries. Assistance from UNIDO and CID enabled the sponsors of nine of the 24 projects identified through this programme to attend a seminar on stabilized clay bricks and to meet potential partners at the second International Exposition for Co-operation and Development Aid. The discussions led to the signing of letters of intent for all nine projects. Also together with CID (EEC), UNIDO prepared and participated in the Eighth Industrial Forum for West Africa, in Dakar, Senegal, which was attended by some 650 project sponsors and potential foreign partners. Fifty-five of the project sponsors had been invited by UNIDO and CID to negotiate personally their investment projects. The co-operation agreement with CID provides that investment projects identified by UNIDO can be promoted through CID and that projects identified by CID in ACP (African, Caribbean and Pacific States) countries can be promoted by all UNIDO IPSs. Discussions carried out during the year have led to the planning of joint activities for 1989 such as: an industrial investment forum in Central Africa in the food industries subsector; an integrated industrial investment programme in the

food industries in East Africa; follow-up to the building materials programme; and follow-up to the Dakar Industrial Forum.

40. Follow-up activities began for 16 projects in Madagascar that had been identified at the Mauritius Forum in 1987. ^{8/} A total of \$60,000 was provided by UNDP for assistance to the sponsors of five of those projects - all in agro-based industry - in pursuing their negotiations with potential foreign partners (CID (EEC) has expressed interest in co-financing these activities with UNIDO). In the framework of the foreign investment advisory services of UNIDO to Member States, investors' guides to Ghana and Mozambique were prepared.

41. An industrial investment programme was approved for implementation for the electronics industry in the Arab region, covering Algeria, Egypt, Iraq, Jordan, Kuwait, Morocco, Saudi Arabia, Syrian Arab Republic, Tunisia and United Arab Emirates. Assistance was provided to the Sudan in promoting a large cotton-spinning project for which the pre-investment study was prepared by the Arab Industrial Development Organization.

42. In the Asia and Pacific region, follow-up activities focused on China, Indonesia, Thailand and the Philippines. In China, a workshop was held on the preparation of investment project profiles that led to the selection of 63 projects from 15 provinces for promotion at the 1989 Hanover Fair. The Investors' Forum for Indonesia resulted in some 20 projects that are under serious negotiation. Follow-up activities for the agro-industry programme in Thailand ^{9/} included the completion of four project development and negotiation studies by local and foreign partners, of which two have reached the implementation stage; 49 new contacts were arranged between foreign partners and Thai sponsors, seven of which have resulted in the signing of letters of intent. At an investment projects promotion forum for the Philippines held at Manila, 140 projects were identified and promoted by UNIDO and were discussed between Philippine project sponsors and potential foreign partners. The forum led to the signing of 72 letters of intent for investment projects with a total investment value of some \$220 million.

^{8/} IDB.4/10, chap. III, para. 52.

^{9/} ibid., para. 56.

43. In the Latin American and Caribbean region, industrial investment activities were based on a strategy aimed at addressing the full range of issues relevant to foreign investment, while allowing for the special features of each country, global economic trends and reduced investment flows to small and medium-sized enterprises in the region. Attention was given in particular to: evaluating investment projects in the context of their particular subsectors; investment legislation and incentives; the competence of local sponsors; improving the quality of project formulation and screening; greater emphasis on effective marketing and promotion strategies; and establishing a computerized investment project management system. Special emphasis was also placed on enhancing the skills of national experts in order to strengthen local project identification and formulation capabilities. This approach is an essential component of ongoing programmes in Ecuador and Bolivia and will be used in other national programmes. At the regional level, a

programme was designed specifically for the Andean Group under which the support of a leading development finance institution and UNDP was enlisted.

44. A programme was formulated for Central America in the framework of the UNDP Special Plan of Economic Co-operation for Central America. In addition, preliminary discussions were held on a possible joint UNIDO/ALIDE programme that envisages local development finance institutions acting as financial partners in implementing investment projects identified and promoted by UNIDO. A France/Latin America programme to promote international joint ventures was extended for a further year, 10/ while activities with a bilateral focus, such as the France/UNIDO/Brazil programme, became operational.

10/ ibid., para. 60.

CHAPTER IV. SPECIAL THEMES

INDUSTRIAL DEVELOPMENT DECADE FOR AFRICA

1. The General Conference of UNIDO at its second session allocated \$8.6 million in the 1988-1989 regular budget for the programme for the Industrial Development Decade for Africa (IDDA) (GC.2/Res.2, para. 7) thus clearly underlining the importance of this programme. The question of additional financial resources for projects in Africa in general, and IDDA-related activities in particular, continued to receive the special attention of the Secretariat, which undertook measures to secure funds for projects suspended during the previous biennium (some \$5.9 million worth of projects were suspended due to financial constraints faced by the Organization). Those efforts resulted in pledges to the Industrial Development Fund (IDF) amounting to \$12.7 million for the purpose of implementing those projects. In fact, in 1988 UNIDO succeeded in mobilizing over \$20.0 million of IDF resources, in addition to UNDP resources and trust funds, for projects in Africa in support of IDDA objectives.
2. Under the IDDA programme, technical co-operation activities concentrated on the establishment of pilot and demonstration plants, the accelerated development of human resources and institutional infrastructure for industrial development. The technical co-operation activities were supplemented by the provision of technical advisory services and other activities at national, subregional and regional levels including intra-African industrial co-operation. Particular emphasis was put on industrial rehabilitation (see IDB.4/11, para. 10 and chap. II, para. 5). Technical co-operation programmes amounting to about \$22.0 million covering such fields as leather and leather products, food and agro-industries, telecommunications, industrial rehabilitation and training were formulated and promoted among potential donors.
3. UNIDO contributed to the United Nations Programme of Action for African Economic Recovery and Development, 1986-1990 (UNPAAERD). ^{1/} It participated in the meetings of the United Nations Inter-agency Task Force on follow-up to the implementation of UNPAAERD as well as in the meetings of the Permanent Steering Committee of the Organization of African Unity (OAU). Co-operation among the secretariats of OAU, the Economic Commission for Africa (ECA) and UNIDO continued to progress positively. Thus UNIDO hosted the eighth meeting of the Joint Committee on IDDA of the secretariats of those organizations in February and contributed, at the request of OAU, to the Fifth All-Africa Trade Fair held at Kinshasa, Zaire, in July, in the form of a seminar on IDDA with focus on the linkage between agriculture and industry, demonstrations of African-developed food-processing technologies and general information on UNIDO. UNIDO also collaborated with ECA and OAU, in activities related to the proclamation of an Africa Industrialization Day. In addition, a co-operation agreement was signed between UNIDO and ECA and one between OAU and UNIDO was finalized.
4. Following the call by the Eighth Conference of African Ministers of Industry for an independent mid-term evaluation of the programme for IDDA, a mid-term evaluation project was jointly formulated by the secretariats of OAU, ECA and UNIDO and \$375,000 was obtained from the United Nations Development Programme (UNDP) for that purpose. UNIDO enlarged the scope of the exercise and provided resources for two additional experts to supplement the work of the core team of four experts financed from the resources provided by UNDP. The evaluation began in August and is expected to be finalized in March 1989.
5. Intra-African industrial co-operation, continued to receive prominence in IDDA activities. Meetings on the promotion of intra-African industrial co-operation for the Northern and Eastern/Southern African subregions were organized by UNIDO in co-operation with ECA and relevant inter-governmental organizations. Both meetings adopted a revised subregional programme consisting of core (investment) and support projects, along with a strategy to accelerate its implementation. The meetings also adopted a programme for the promotion of subregional co-operation for the development of industrial training, industrial consultancy and engineering services, and industrial entrepreneurship.

^{1/} IDB.4/15.

6. In order to enhance the quality and impact of the programme for IDDA, an integrated programme approach with a focus on agro-industries was initiated to lay the groundwork for the preparation of the programme for the 1990-1991 biennium. This will draw on and synthesize the main thrust of IDDA and UNPAAERD priorities and adopt a systematic and integrated programme approach to the identification, formulation and promotion of projects in specific subsectors of agro- and agro-related industries.

7. More details on the implementation of the IDDA programme are provided in document IDB.4/11 submitted to the Board at its fourth session, in the progress report on major UNIDO programmes to be submitted to the Board at its fifth session, and under each of the major programmes in the present report. With respect to technical co-operation, the total value of projects executed in Africa financed from all sources of funds amounted to \$38.4 million. This reflects a significant increase of \$5.9 million or 18 per cent over the amount of \$32.5 million achieved in 1987.

ASSISTANCE TO THE LEAST DEVELOPED COUNTRIES

8. The economic performance of the least developed countries (LDCs) continued to remain far below the expected target of 7.2 per cent annual growth rate set by the Substantial New Programme of Action for the 1980s for the Least Developed Countries.^{2/} Apart from their original poor resource endowment, several inter-related factors - rapid population growth combined with food and water shortages, malnutrition and other health risks, adverse terms of trade, low investment rates, poor performance of the agricultural sector and the lack of a soundly based manufacturing sector - continued to be responsible for the inability of the LDCs, in particular those in Africa, to achieve a more rapid economic growth. Most LDCs are also drought-stricken or adversely affected by natural catastrophes, exemplified by recent floods in Bangladesh and the Sudan. It is therefore not surprising that the main objective in most LDCs is still survival, rather than economic and industrial expansion.

^{2/} Report of the United Nations Conference on the Least Developed Countries, Paris, 1-14 September 1981 (United Nations publication, Sales No. E.82.1.8), part one, section A.

9. Since food production and food security continue to be the dominant problems in the LDCs, the bulk of UNDP-financed technical assistance is channelled to the agricultural sector. Within the fourth country programming cycle of UNDP, the total programmed for 40 of the LDCs^{3/} amounts to \$1,076.0 million, of which the share of UNIDO as an executing agency comes to \$86.6 million, or some 8.3 per cent. However, some \$174 million has been recently added to the total indicative planning figures (IPFs) for the LDCs which, once programmed, may increase the UNIDO share.

10. As a result of various project review and project formulation missions and extensive negotiations with UNDP offices and the LDCs concerned, total IPF resources approved for UNIDO execution amounted to \$14.2 million in 1988, an increase of almost 8 per cent over 1987.

11. UNIDO also continued its efforts to mobilize other sources of funds to assist the LDCs in the promotion of their industrial sector. Thus project approvals under other sources of funds included: the regular programme of technical co-operation \$1.8 million (1987: \$0.05 million); the Industrial Development Fund (IDF) \$2.4 million (1987: \$2.0 million) and other trust funds \$2.1 million.

12. Projects approved under all sources of funds in 1988 totalled \$20.5 million (1987: \$15.9 million), of which \$16.8 million accounted for new projects (1987: \$8.6 million). Thus, the total resources allocated to the industrial sector in the LDCs were almost doubled. Delivery of technical assistance to the LDCs reached \$17.0 million (1987: \$15.2 million).

13. High priority was granted to projects dealing with food processing, food preservation, and research and development on food production technology. However, the main thrust of UNIDO assistance continued to be the development and promotion of small- and medium-scale industries using locally available raw materials, industrial planning and programming and the preparation of pre-feasibility and feasibility studies for investment projects. Another priority area was the development and execution of industrial rehabilitation programmes as many industrial plants in the LDCs continue to suffer from underutilized

^{3/} UNDP assistance to an additional LDC, Afghanistan, continues to be administered on an ad hoc basis.

production capacities. Assistance in project formulation and project identification remained at the forefront of UNIDO activities for the LDCs.

INDUSTRIAL CO-OPERATION AMONG DEVELOPING COUNTRIES

14. Many activities related to economic and technical co-operation among developing countries (ECDC/TCDC) were implemented in 1988 and are reported under various headings. ^{4/} Promotional activities included one solidarity ministerial meeting, one working group meeting, three technical workshops, one expert group meeting and follow-up on projects agreed at previous meetings.

15. Over 40 co-operation agreements were reached at the solidarity ministerial meeting organized on behalf of Cape Verde and held at Praia in June. It was attended by 18 participants and six observers. As an immediate follow-up, contributions were made to a seminar on the maintenance of agricultural machinery for Portuguese-speaking African countries that was organized by the Instituto de Tecnologia Alimentaria and UNDP and held at Buenos Aires in November.

16. Nearly 50 participants from 19 countries identified 43 technical and other co-operation projects at a working group meeting on co-operative arrangements among selected developing countries that was held at Buenos Aires from 31 May to 4 June. The meeting was organized in co-operation with the Argentine Association of Machine Tools, Accessories and Ancillaries and the Argentine National Institute of Industrial Technology.

17. Two technical workshops were held in Yugoslavia: at Ljubljana where experts from eight developing countries met with Yugoslav experts and agreed on concrete measures to ensure a permanent flow of information between them in the field of small- and medium-scale industries, and at Novi Sad, where the focus was on agricultural machinery and agro-industries and where participants from 21 countries identified 35 industrial projects for follow-up action and implementation. In

August, at an expert group meeting on the processing of raw materials held in Vienna, 16 experts from developing countries and representatives of international organizations prepared conclusions and recommendations on food processing, non-metallic minerals and textile fibres in preparation for the Action Committee on Raw Materials, scheduled to meet in Nigeria in April 1989.

18. In preparation for an expert group meeting that is to identify areas of co-operation in the field of petrochemicals, a report was prepared on R and D facilities of institutions in that field in North Africa and the Middle East.

19. Some 60 projects in the field of small- and medium-scale agro-industries were identified at a workshop organized as an interregional meeting between China and Africa and held at Beijing. Similar interregional meetings on agro- and metalworking industries in Latin America and Africa were under preparation.

20. As part of the follow-up on projects identified in the 1986 Afro-Asian Industrial Co-operation Meeting, and the 1987 meeting to promote joint ventures between Islamic countries, preparations were initiated for a donors' conference to be held in Cameroon in 1989. The follow-up of preliminary agreements stemming from the latter meeting was enhanced by a project development facility financed from a contribution by Saudi Arabia to the Industrial Development Fund (IDF).

21. Also stemming from preliminary agreements and recommendations of previous meetings were activities promoting a number of bilateral industrial co-operation projects, e.g. between China and Lesotho for the manufacture of selected builders' hardware items; between the Republic of Korea and Turkey for the adaptation of a desulphurization process; and between China and Cuba in the development of micro- and mini-hydropower plants and the manufacture of newsprint from bagasse. Also as a follow-up to an earlier meeting, activities leading to the establishment of an African association of iron and steel producers were initiated with the help of a special IDF contribution by the Government of France.

22. Other promotional activities included: negotiations with the Korean Institute for Economics and Technology that prepared the way for an industrial forum on enterprise-to-enterprise co-operation in the Asian region; preparations for a meeting on the establishment of multinational production enterprises among developing countries;

^{4/} Special attention was given to incorporating ECDC and TCDC elements into projects or project components of the technical co-operation programme of UNIDO (see IDB.4/30).

initial work on a programme of inventories to help match the industrial requirements of developing countries by drawing on the industrial and service capacities of other developing countries (inventories of Brazilian capabilities for small- and medium-scale industries and of Romanian capabilities in the field of chemical and petrochemical industries were published and distributed and a similar inventory of Turkish industrial capabilities was in preparation); preparatory work on an ECDC data base to be operated within the Industrial and Technological Information Bank and made available to regional information centres.

23. Close liaison was maintained with the UNDP Special Unit for Technical Co-operation among Developing Countries with a view to expanding joint activities. In particular, UNIDO made substantial contributions to a bilateral TCDC consultation meeting held at Karachi by UNDP in April where a number of projects were identified for possible follow-up by UNIDO.

INTEGRATION OF WOMEN IN INDUSTRIAL DEVELOPMENT

24. The number of technical co-operation projects specifically targeting women increased in 1988. Twenty-one projects with a total value of over \$3.1 million were under implementation and 13 projects with a total value of \$8.5 million were in the pipeline.

25. Special attention was given to the problems involved in the development and dissemination of appropriate food-processing technologies for rural women, and research was carried out on how UNIDO should deal with these problems in co-operation with the International Fund for Agricultural Development and the United Nations Development Fund for Women (UNIFEM). A survey of the conditions in four Sahelian countries was undertaken for that purpose. It became evident that the macro-economic problems faced by those countries have their parallels at the microlevel and are experienced in various ways by rural women.

26. Credit, income generation, administration and training must be the pillars of any technical co-operation effort to bring appropriate food technologies to rural women. A detailed report on the subject is being finalized for use by the UNIDO Secretariat and other interested parties. A project proposal is being developed for the introduction of

labour-saving technologies in cereal processing, one of the most time-consuming daily chores of West African women. The proposed project is to concentrate on local prototype development, batch production and the distribution of threshers and machinery for grinding millet. After it is successfully introduced in one country, similar technical co-operation projects are to be initiated in other countries of West Africa. The proposed project will also deal with the problems of credit, income generation and administration thus involving both technical and social development.

27. New approaches were developed that should lead to a more systematic consideration of women in technical co-operation and research activities. For example, the integration of women was incorporated into a series of internal training workshops or a programme approach to project identification and formulation. At these workshops the need became apparent for a more methodological approach to statistics and data collection on women's participation in specific industrial subsectors. Therefore UNIDO entered into consultations with the United Nations Statistical Office, the Centre for Social Development and Humanitarian Affairs of the United Nations Office at Vienna, UNDP, the International Research and Training Institute for the Advancement of Women, the International Labour Organisation, the United Nations Educational, Scientific and Cultural Organization and UNIFEM as well as with relevant intergovernmental, national, non-governmental and research entities producing statistics on women, and an exchange of statistical and other information on women in industrial activities was agreed upon. This is expected to create a more functional data base and to enhance the analytical capacity of UNIDO to determine both qualitatively and quantitatively the current industrial participation patterns of women. This will, in turn, facilitate adequate consideration of women in UNIDO activities and set priorities for evaluating the impact of UNIDO projects on women as required by the system-wide medium-term plan for women and development.

CO-OPERATION WITH INDUSTRIAL ENTERPRISES AND NON-GOVERNMENTAL ORGANIZATIONS

28. Efforts were intensified to further expand and strengthen co-operation with industrial enterprises and related

non-governmental organizations. The activities resulted in increased interaction and co-operation between enterprises from industrialized and developing countries in areas such as the introduction and transfer of technology, marketing, financing and management techniques for the benefit of developing countries.

29. The co-operation with the industrial sector was much enhanced by third-party trust fund arrangements, i.e. contributions from donor companies or their federations, stand-by agreements and company presentations at UNIDO Headquarters. In 1988, several companies and industrial groups from developing countries made use of third-party trust funds to organize joint studies, missions and promotional workshops for participants from developing countries. Co-operation with UNIDO through these joint projects provided companies from industrialized countries with a unique opportunity to enter into partnerships with enterprises from developing countries. Several projects in the form of promotional workshops were held for participants from developing countries, where the costs were borne by the industrial enterprises or shared with UNIDO. These workshops, held at the site of the host organization, provided enterprises from industrialized and developing countries a forum to meet potential partners for industrial co-operation activities. They also provided an opportunity for participants from developing countries to become acquainted with latest technologies, to discuss direct co-operation with resource enterprises, and to profit from special arrangements, such as for training or expert services under favourable conditions, sometimes with technical

assistance from UNIDO. This type of co-operation is well illustrated by the international forum organized in collaboration with the Belgian Federation of Agricultural and Horticultural Equipment and a workshop organized within the framework of the Novi Sad Fair (Yugoslavia), which was attended by 26 entrepreneurs and government officials from African developing countries.

30. Besides the organization of joint workshops, several project identification missions were carried out, aimed at enterprise-to-enterprise co-operation among industrialized and developing countries. In order to make optimal use of the offers by companies to provide UNIDO with expertise, training or financing joint activities, a computerized roster has been set up to provide information on available resources for the preparation of technical co-operation and promotional activities, as well as to identify resources for studies and fact-finding missions.

31. At present, 77 international non-governmental organizations (NGOs) are in consultative status with UNIDO, which allows UNIDO to draw upon their experience for advice on substantive matters, training opportunities and the identification of experts. Close contact is also kept with national NGOs, which can provide UNIDO with low-cost expertise. Co-operation with NGOs in 1988 covered areas such as the promotion of industrial co-operatives and of co-operation among developing countries in small and medium enterprises. UNIDO also co-operated with international conventions organized by NGOs to use them as forums for the development of industrial co-operation activities.

CHAPTER V. APPRAISAL AND EVALUATION

1. In 1988, a total of 551 project proposals were appraised. These fell into three categories: all those financed by UNIDO-administered funds irrespective of their size (461 projects); those financed by the United Nations Development Programme (UNDP) over \$700,000 in value (49 projects); and those financed from special trust funds (STF) (41 projects). UNDP project formulation frameworks (PFFs) and preparatory assistance projects were reviewed and informal advice was provided with respect to the design of over 50 other project proposals. Two project preparatory missions were conducted to test the new project document format and the project formulation framework introduced by UNDP in early 1988.

2. While the projects requiring no modification in design increased from 11 per cent in 1987 to 17 per cent in 1988, some 68 per cent (70 per cent in 1987) did require various degrees of reformulation. The remainder were either the subject of disagreement (3 per cent), or were temporarily suspended (12 per cent). The main weaknesses in project design were the lack of clear specifications of the problems addressed by the project proposal and of Government counterpart contributions; this finding was also confirmed in the analysis of in-depth evaluations mentioned in paragraph 7 below.

3. A major goal in 1988 was therefore to improve project design capacity through: (a) discussion of the design of each project proposal with responsible officers; (b) briefing of Senior Industrial Development Field Advisers (SIDFAs); (c) six workshops on the preparation of PFFs; and (d) five workshops (four at Headquarters and one in the field) on design and evaluation of technical co-operation projects (participants in workshops included 37 Headquarters staff, 13 Junior Professional Officers (JPOs) and 49 government officials).

4. A second goal was to raise the potential impact of UNIDO technical co-operation programmes. While Appraisal Notes transmitted to approval authorities in UNIDO included an assessment of the potential impact of the project, the appraisal

process selectively applied the programme approach to project identification and formulation. This approach enables the preparation of an integrated subsectoral programme comprising a set of interrelated technical co-operation and investment projects and policy recommendations that support the development or rehabilitation of the concerned subsector of industry. The potential impact of such a coherent programme is generally higher than that of isolated small projects. In 1988, over 70 per cent of the projects appraised were below \$50,000 in value.

5. Four workshops on the subject of leather and leather products, agro-industry, building materials and pharmaceutical industries were held to familiarize staff with the programme approach. Suggestions were made on how to prepare country programming missions in a more cost-effective manner. To assist staff in the application of the programme approach, a paper was prepared on the application of a programme approach to project identification and formulation and a sample project document, including corresponding terms of reference for field work, was drawn up for preparatory assistance projects to develop integrated sectoral programmes. In addition, a proposal was prepared for the formulation of an integrated sectoral programme to develop agro-related industries in Africa. Contributions were also made to the indicative sectoral programmes for the development of the fisheries industries in a group of West African countries.

6. Plans were completed in 1987 for self-evaluation to cover all types and sizes of projects, with the introduction of a simplified Project Evaluation Report (PER) for small-scale projects (less than \$150,000). The first such evaluation reports were received at the end of 1988; an analysis of the compliance and usefulness of these reports will be made when a sufficient number is available. During 1988 206 project performance evaluation reports (PPERs) were processed, 41 of which related to group training programmes. Compliance with the timely preparation of PPERs has now reached an acceptable level and reports are increasingly used as the main background

document for tripartite reviews. Twenty-seven tripartite in-depth evaluations were carried out, of which four were related to projects financed from the Industrial Development Fund (IDF). UNIDO Headquarters staff participated in six. Funding organizations were showing an increasing interest in results of in-depth evaluations.

7. Over 85 per cent of Headquarters staff who are directly involved in programming and implementation of technical co-operation have now attended design and evaluation workshops and detailed guidelines for project formulation were prepared and issued, giving positive results. An analysis of the PPERs and in-depth evaluations carried out in 1987 showed that the quality of reporting on, and the follow-up to, evaluations was constantly improving. Average processing time of PPERs in the Department of Industrial Operations has been reduced from 33 to 23 calendar days in the period 1986-1988. The number of projects that are progressing successfully has increased, while the amount of projects experiencing problems has decreased. Inadequate project design appeared less frequently as a cause for slow progress of projects.

8. Evaluation of group training programmes concentrated on the project evaluation reports at the self-evaluation level, on the analysis of ex-post questionnaires sent to former participants and in-depth evaluations. Forty-one PPERs for group training programmes were processed, one of which was completed by visit of evaluation staff at the end of the programme. Ex-post questionnaires were sent, collected and analysed in respect of group training programmes for medicinal plants and investment project preparation, evaluation and financing. The thematic evaluation of the rural small industrial enterprise was concluded with the publication of the final study, which will be the subject of a UNDP programme advisory note.

9. Headquarters programmes, sub-programmes and programme elements became subject to evaluation for the first time in 1988. Such evaluations will be carried out at two levels, namely self-evaluation and in-depth evaluation. An in-depth evaluation of the System of Consultations with emphasis on two subprogrammes - leather and leather products and industrial training - was started and will be completed during 1989.

CHAPTER VI. CO-ORDINATION, FIELD AND LIAISON ACTIVITIES AND PUBLIC INFORMATION

RELATIONS WITH GOVERNMENTS AND INTERGOVERNMENTAL ORGANIZATIONS

1. As at 31 December 1988, the membership of UNIDO comprised 151 Member States. Agreements, including memoranda of understanding, were concluded with a number of Governments or governmental agencies (see appendix J). These agreements cover specific areas of co-operation for the benefit of developing countries.

2. The activities relating to joint programmes or similar co-operation arrangements established between UNIDO and a number of Member States continued to develop. The joint committees set up to monitor these activities held annual meetings to review the progress achieved and decide on future activities. The Committee for the Joint UNIDO/Hungary Programmes for International Co-operation emphasized that all UNIDO programme activities related to the sectors covered by the Joint Programmes should involve the Committee, including activities such as the Industrial and Technological Information Bank (INTIB), transfer of technology and the System of Consultations. The Joint UNIDO/USSR Committee adopted its work programme for 1989 that includes additional areas of co-operation such as the System of Consultations, and industrial technology development and promotion. The Joint UNIDO/CSSR Programme for International Co-operation reviewed joint activities in the field of metallic and non-metallic industries - such as workshops, study tours and provision of experts - and adopted its work programme for 1989-1990, with a structure and content flexible enough to meet urgent and ad hoc requests and unexpected changes. The Joint UNIDO/Romania Committee examined on-going and future joint activities. The Joint UNIDO/Poland Committee adopted its work programme for 1989 which focuses on enterprise-to-enterprise co-operation. The Joint UNIDO/Turkey Committee for Co-operation reviewed the 1988-1989 joint training programme and ECDC/TCDC activities with specific emphasis on the African region.

3. The International Symposium on Industrial Development held at Athens in 1967 recommended the establishment of

national committees for UNIDO. The National Committees are composed of representatives not only of government departments and agencies but also of academic and research institutions as well as public and private industrial and business establishments concerned with industrialization. They serve Governments and the national institutions in an advisory capacity with regard to any questions related to the activities of UNIDO. To date there are 63 National Committees in all regions of the world.

4. During the reporting period, 18 Government delegations - mostly at ministerial level - visited UNIDO Headquarters to discuss on-going and planned technical co-operation activities, as well as policy issues. Twenty-seven Permanent Representatives presented their credentials to the Director-General. At present, 119 Member States maintain Permanent Missions to UNIDO of which 77 are located in Vienna, 18 in Geneva, 13 in Bonn, four in Brussels, two each in Bern, Paris and Rome, and one in Bratislava. In addition, there are six Permanent Observer Offices and one Government Liaison Office.

5. In accordance with Article 19.1 (a) of the Constitution, relationship agreements were concluded with a number of intergovernmental organizations (see appendix J). Negotiations for concluding further relationship agreements continued during the year and, it is expected that agreements will be signed with a number of other intergovernmental organizations during 1989. The agreements provide, inter alia, for reciprocal representation in the governing bodies of the respective organizations, exchange of information and documents and the definition of specific areas of co-operation, thus providing the legal instrument for elaborating joint activities. Visits also took place between high-level officials from intergovernmental organizations and UNIDO staff to follow up on the implementation of the agreements.

INTER-AGENCY CO-ORDINATION

6. Negotiations continued with specialized agencies and other organizations of the United Nations system on

either new relationship agreements or working arrangements. Texts of relationship agreements established in accordance with Article 19.1 (a) of the Constitution were mutually agreed upon between the Director-General and the executive heads of the Food and Agriculture Organization of the United Nations (FAO), the International Fund for Agricultural Development, the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the World Health Organization (WHO) and were approved by the Industrial Development Board at its fourth session. With regard to UNESCO, the agreement was also approved by its Executive Board in June and will be signed by the executive heads of both agencies in due course. In implementing the relationship agreement concluded with the International Labour Organisation (ILO) in 1987, negotiations began on concluding a working arrangement that will further stipulate and define the areas of co-operation between ILO and UNIDO. Conclusion of a working arrangement with the International Trade Centre UNCTAD/GATT is also under negotiation.

7. Whilst these relationship agreements and working arrangements will constitute the legal basis for co-operation, collaboration and consultations with the organizations of the United Nations system continued through various activities. Examples of such collaboration between UNIDO and other specialized agencies within the United Nations system are: the FAO/UNIDO joint technical working groups on the development of agricultural machinery and on the fisheries industries; the UNIDO/FAO/World Bank Group on Fertilizers, which continues to concentrate on fertilizer statistics and prospects of fertilizer production; contacts with the International Maritime Organization for the development of water-borne transport and the introduction of safety regulations for transport cargo and fishing vessels; UNIDO/ILO co-operation in training of personnel in the transport and shipbuilding industries; and consultations with the United Nations Conference on Trade and Development (UNCTAD) on transportation technology issues.

8. At the multilateral policy-making level, co-ordination was implemented through participation in the United Nations General Assembly, the Economic and Social Council, the Advisory Committee on Co-ordination (ACC), the Committee for Programme and Co-ordination (CPC), as well as in the governing bodies of the specialized agencies. Inter-agency co-ordination activities included exchange of comments on medium-term plans and programme budgets, supply of information on study programmes and technical

co-operation projects, joint programming and project formulation missions, visits by Headquarters' staff and project personnel, as well as inputs to documents for meetings organized by the United Nations system. All these activities were geared to the aim of ensuring maximum complementarity, thus avoiding duplication and the consequent waste of resources. UNIDO was represented at inter-agency meetings on topics such as narcotic drugs, human settlements, population activities, environmental matters, the World Decade for Cultural Development, and the follow-up to the implementation of the United Nations Programme of Action for African Economic Recovery and Development 1986-1990.

9. A working arrangement outlining the overall framework of co-operation between the secretariats of UNIDO and the United Nations Volunteers was signed in 1987. The United Nations Volunteer programme is an integral part of development efforts in nearly 100 developing nations. The programme includes some 1,000 young professionals (25 to 35 years old) from 80 countries, who possess a university or technical degree and have several years of experience in a specific area. The majority of the Volunteers work with projects involving assistance by agencies of the United Nations system. As at 31 December 1988, 20 Volunteers had been assigned to 13 UNIDO-executed projects and four Volunteers served in a project executed by the Government of Guyana in co-operation with UNIDO.

FIELD ADVISER AND JUNIOR PROFESSIONAL OFFICER PROGRAMMES

10. In 1988, the Senior Industrial Development Field Adviser (SIDFA) programme was the subject of special attention by the governing bodies of UNIDO and UNDP. The open-ended working group set up by the Industrial Development Board at its third session, ^{1/} reached consensus on a draft decision which the Board subsequently adopted as decision IDB.4/Dec.10. The main thrust of that decision was to request the Director-General to undertake negotiations with the United Nations Development Programme (UNDP) to revise the memorandum of understanding signed with UNDP in 1967 concerning the UNIDO field service at the country level. The Director-General has consulted the Administrator of UNDP to that effect. The Board also adopted decision IDB.4/Dec.11 on improvement of the SIDFA system.

^{1/} IDB.4/10, chap. VI, para. 15.

11. In its decision 88/45, the Governing Council of UNDP reiterated its wish for the continued co-operation with UNIDO in providing the services of SIDFAs to developing countries. It referred to proposals made in paragraph 11 of document DP/1987/58 in connection with the conclusion of a new memorandum of understanding and recalled that the contribution of UNDP to the SIDFA programme was linked to the question of the integration of SIDFAs into the UNDP field offices. The Governing Council also agreed to review its decision on the classification of the SIDFAs ^{2/} at its thirty-sixth session.

12. In 1987, a Field Representative Advisory Committee was established within the UNIDO Secretariat to advise on issues related to the SIDFA programme (UNIDO/DG/B.55). One of the main activities of the Committee in 1988 was to lay the groundwork for a set of guidelines for establishing work targets and introducing periodic work programmes for SIDFAs (and Junior Professional Officers (JPOs)). The aim is to enable the field offices to contribute systematically to the work of UNIDO and to establish a mechanism for assessing UNIDO's performance in the field. The co-operation of the Resident Representatives/Co-ordinators and UNDP

^{2/} Ibid., paras. 14 and 16.

headquarters has been sought in carrying out this exercise.

13. The breakdown of SIDFA posts by region and source of funds is shown in table 1 below. The country coverage in 1988 was as follows: 13 posts covering 43 countries in Africa, 11 posts 32 countries and territories in Asia and the Pacific, nine posts 37 countries and territories in Latin America and the Caribbean and three posts covering seven countries in Europe and Arab States. A SIDFA who covers several countries visits each country at least once each quarter.

14. The JPOs continued to provide valuable support to the technical co-operation and other programmes of UNIDO. Twelve donor Governments to the UNIDO JPO programme continued their support in 1988 (see table 2 below). The Government of the Netherlands also continued to finance JPOs from developing countries in addition to its own nationals. A total of 74 JPOs, including eight nationals from developing countries, were on board during 1988; 25 JPOs were in countries with resident SIDFAs, 34 in countries with non-resident SIDFA coverage, 12 in countries where there was no SIDFA coverage in 1988, and three were at UNIDO Headquarters. During the year, 15 new JPOs began work and, by the end of October, seven further candidates had been submitted to UNCP for consideration.

Table 1
Distribution of SIDFA posts
(by region and source of funds)

Region	Source of funds											
	UNDP			Regular budget			Voluntary contributions			Total		
	1986	1987	1988	1986	1987	1988	1986	1987	1988	1986	1987	1988
Africa	6	5	7	5	7	5	1	1	1	12	11	13
Asia and the Pacific	6	6	8	2	2	2	1	1	1	9	9	11
Arab States	1	1	2	-	-	-	-	-	2	1	1	2
Europe	-	-	-	-	-	-	-	1	1	-	1	1
Latin America and the Caribbean	5	7	7	2	2	2	-	1	1	7	9	9
TOTAL	18	19	24	9	9	9	2	3	3	29	31	36

Table 2
JPOs financed in 1988

Donor Government	No.
Austria	1
Belgium	4
Denmark	9
Finland	3
France	2
Germany, Federal Republic of	14
Italy	9
Japan	4
Netherlands	21
Norway	3
Sweden	3
Switzerland	1
TOTAL	74

15. One briefing meeting for 12 new JPOs and two mid-assignment review meetings for a total of 29 JPOs were held in Vienna. The Government of Cuba hosted a JPO regional meeting at Havana, in which 13 JPOs participated.

16. The JPOs carried out missions to destinations outside the regular duty stations either to consult with non-resident SIDFAs or to monitor UNIDO projects and participate in evaluation missions. They also contributed to meetings organized by UNIDO in their countries of assignment and represented UNIDO as observers at meetings where representation by Headquarters staff or SIDFAs was not feasible.

17. UNIDO continued to co-ordinate visits of senior officials from UNDP headquarters and field offices to the Vienna International Centre. A total of 30 Resident Representatives/Co-ordinators visited UNIDO for consultations not only on pipeline and ongoing technical co-operation projects, but also on other activities of the Organization.

PUBLIC RELATIONS AND INFORMATION

18. Activities related to public relations and information concentrated on projecting an image of UNIDO as a unique implementing agency in the field of technical co-operation for industrial development. For example, in connection with the North-South Campaign of the

Council of Europe, information material and films were provided to national organizing committees, highlighting UNIDO's role in promoting industrial development in the third world as well as fostering North-South co-operation.

19. The UNIDO Update continued to be published and some 70 press releases, features, information notes and publication notes were issued for news media, Governments and other interested parties to highlight the main aspects of the activities of UNIDO. The pamphlet "What is UNIDO?" was translated into and published in German, in response to a number of requests from Austria and the Federal Republic of Germany for general information on the Organization. All major UNIDO meetings held in 1988 were given written press coverage, including the sessions of the policy-making organs and Consultation meetings. In connection with these meetings, press conferences were organized for the Director-General.

20. Publicity of the Industrial Development Decade for Africa continued to be strongly emphasized throughout the year. In collaboration with the Yugoslav Institute for Developing Countries, a special issue of the international development journal Razvoj was prepared, focusing on the Decade and on the role of UNIDO in African industrialization. Photo exhibitions on UNIDO activities were mounted at the 24th International Fair at Algiers and the All-Africa Trade Fair at Kinshasa.

21. The audio-visual operation aimed at depicting the achievements of the Organization in specific regions and sectors. Five feature films on technical co-operation were completed, Blazing the Industrial Trail in the Andes, Moving Ahead in the ASEAN Region, Biotechnology Holds Promise for the Future, Industrial Subcontracting Exchanges and The Leather Industry. In connection with the filming, the opportunity was taken to make an extensive addition to the photo library of visual material on UNIDO projects in Latin America and South-East Asia. With regard to radio programmes, the audio-visual service also produced, or assisted radio correspondents to produce some 50 radio programmes.

22. More than 1,600 photographs covering 85 UNIDO events were taken during the course of the year and six photo exhibitions were mounted. As audio-visual services continued to be provided to the United Nations organizations based in Vienna, some 400 photographs of United Nations events and seven United Nations photo exhibitions were mounted.

NEW YORK LIAISON

23. The Office continued to serve as the main link with United Nations Headquarters. During the forty-third session of the General Assembly it provided representation and services, particularly with regard to items related to the repayment of the United Nations loan, the Economic and Social Council, operational activities for development, the external debt crisis and development, the responsibility of States for the protection of the environment, the international development strategy for the fourth United Nations development decade, trade and development, food problems, development of the energy resources of developing countries, long-term strategy for sustainable and environmentally sound development, special economic and disaster relief assistance, and financial and personnel matters related to the United Nations common system.

24. The Liaison Office also provided representation at, coverage of, and reporting on some 140 intergovernmental and inter-agency meetings which took place in New York or elsewhere in the Western Hemisphere, including those of the Economic and Social Council and its Special Commission on the In-Depth Study of the United Nations Intergovernmental Structure and Functions in the Economic and Social Fields, the Governing Council of UNDP, the Ad Hoc Committee of the Whole on the review and appraisal on the implementation of the United Nations Programme of Action for African Economic Recovery and Development, 1986-1990 (UNPAAERD), the 1988 United Nations Pledging Conference for Development Activities, the Committee on the Development and Utilization of New and Renewable Sources of Energy, the United Nations Commission on International Trade Law, ACC and its subsidiary bodies, the Committee for Development Planning, CPC, the meeting of the senior officials of the AFRICA 3/ Fund Committee and Sub-Committee held at Lima, Peru, and the third biennial Meeting of National Agencies for Technical Co-operation held in Panama.

25. The Office continued to assist UNIDO Headquarters in the development, formulation, approval and implementation of technical co-operation projects, including recruitment and briefing of experts, placement of fellowship holders, procurement of equipment and organization

^{3/} Action for Resisting Invasion, Colonialism and Apartheid Fund.

of study tours. Assistance was provided in an effort to further strengthen UNIDO's relationship with UNDP, which has resulted in a significant increase in the number of approved projects and their implementation.

26. In pursuance of the UNIDO approach to strengthen its relationship with the private sector, contacts were established with representatives of manufacturing companies aimed at promoting co-operation with industry.

27. The Office continued its efforts toward making the International Industrial Development Foundation (IIDF) fully operational (see also chap. I, para. 11 above). During the period under review the Internal Revenue Service of the United States of America granted IIDF a tax exempt status and the Foundation held the first meeting of its core secretariat. Arrangements were also completed for the first meeting of the IIDF board held in New York early 1989 to adopt a work programme for that year.

28. For the promotion of a better understanding of the role of UNIDO as a specialized agency by the international academic community, a two month training programme was organized, in collaboration with the United Nations Department of Public Information, on the activities of UNIDO in investment promotion and on the role of women in industrial development for three graduate students from the American University and the University of North Carolina. An exhibit on the work of UNIDO was presented at a festival of world development activities held in New York and sponsored by the Society for International Development. The Office continued its activities as the focal point for industrial development-related inquiries from North and South America and maintained the extensive collection of documentation and information on UNIDO used by Permanent Missions to the United Nations in New York, industries, research organizations, government agencies, technical experts, academic institutions and libraries.

GENEVA LIAISON

29. The staff of the Geneva Liaison Office attended, served or participated in 54 intergovernmental and inter-agency meetings (a total of 252 working days). Of specific importance to UNIDO were the thirty-fifth session of the Governing Council of UNDP and the second regular session of the Economic and Social Council, which adopted decisions of

system-wide significance. The Office was actively involved in the complex, often delicate, negotiations that preceded adoption of such decisions.

30. Equally significant meetings, which were related to the policy-making organs of the specialized agencies and other United Nations organizations based in Geneva, included those held by the Economic Commission for Europe (ECE), ILO, the International Trade Centre UNCTAD/GATT (ITC), UNCTAD and WHO. In addition, the Liaison Office participated in interagency meetings held by: the United Nations Humanitarian and Economic Assistance Programmes relating to Afghanistan, UNPAAERD, the Consultation Committee on Substantive Questions of ACC, the Substantial New Programme of Action for the 1980s for the Least Developed Countries, the Advisory Committee on Administrative and Budgetary Questions and the Global Strategy for Shelter to the Year 2000.

31. The Liaison Office was also involved in the negotiation and finalization of the relationship agreements with ILO and WHO.

32. Every attempt was made to deepen and expand the existing and continuing dialogue with the Permanent Missions at Geneva (18) and Bern (2) representing Member States accredited to UNIDO. In so doing, the Liaison Office provided services related to preparatory arrangements for, and participation in, UNIDO Consultations and Investment Promotion meetings and

disseminated information on UNIDO policies, procedures, programmes and activities.

33. Substantive and logistical support was provided to Headquarters staff and to visitors which included, *inter alia*, the Director of the International Centre for Genetic Engineering and Biotechnology and the team of high-level experts that conducted a study on the operational budget of UNIDO and its relationship to the regular budget. Regular contact was maintained with the UNIDO Investment Promotion Office in Zurich on issues of common concern.

34. Preparation of, and follow-up to, the activities undertaken within the framework of the System of Consultations entailed liaison with officials of other organizations and agencies on subjects such as industrial manpower, small- and medium-scale industries, sugar-cane processing, wood and wood products and electronics.

35. The Liaison Office continued to act as a channel for the provision of information on UNIDO policies, programmes and activities and processed requests of documentation emanating from United Nations organizations, intergovernmental and non-governmental organizations, educational institutions, private enterprises and individuals. Whenever required, lectures on UNIDO and its role in the United Nations system and the global development process were organized for students.

CHAPTER VII. GENERAL ADMINISTRATION

STAFFING

1. On 31 December 1988, the total number of persons being administered by UNIDO was 2,247 (1987: 2,134), comprising 1,257 (1987: 1,286) at UNIDO Headquarters and 990 (1987: 848) in the field.

2. In the course of the year, 2,211 internationally recruited technical co-operation experts (1987: 2,102) were administered, together with 330 national experts (1987: 367) and 320 local support staff (1987: 312). This field personnel covered 91 different nationalities distributed in 135 countries. The average duration of the initial appointment of experts was 2.63 months (1987: 2.73). During the year, 60 internationally recruited female experts undertook 76 assignments (1987: 57 experts, 69 assignments). UNIDO's policy of encouraging Headquarters staff to undertake field assignments in the developing countries resulted in 29 Professional staff members (1987: 30) being detailed to 37 field assignments (1987: 53).

3. Particular attention continued to be devoted to measures intended to balance the regular and operational budgets of UNIDO while ensuring that the priority programmes and activities of the Organization were not disrupted. A continuing review of available human resources was pursued to ensure their optimal use. In this connection 33 Professional and 71 General Service staff were redeployed within the Secretariat.

4. Regular consultations with staff representatives continued and harmonious staff/management relations were maintained.

5. The payment of salary increases to UNIDO General Service and Manual Worker staff, which had been delayed in 1987 due to financial constraints, was carried out in two stages, one in April 1988 and the other (with retroactive effect to 1 October 1987) in November 1988. There is now a common salary scale for all the Vienna-based organizations.

6. The new staff regulations of UNIDO came into effect on 1 July 1988. Detailed staff rules, designed to implement the

staff regulations, were issued by the Director-General (UNIDO/DG/B/Staff Rules) and came into force on 5 October 1988.

7. Following consultation with the Staff Council, a new performance appraisal system was developed which emphasizes the evaluation of performance on the basis of achievement of well-identified objectives, targets and main assignments. The new system also encourages a continuing dialogue between supervisors and staff members as an effective management tool.

8. UNIDO continued to contribute to the formulation and harmonization of personnel policies affecting the United Nations common system through participation in inter-agency meetings related to the common system. In November UNIDO participated in a place survey of the cost of living in Vienna, to assist in the establishment of a post adjustment multiplier for the Vienna duty station.

9. Although UNIDO continued its very restricted recruitment policy, the situation slightly improved towards the end of the year when selective recruitment was undertaken, mainly to maintain the momentum gained through the increase in the number of technical co-operation projects in the pipeline and to enhance project implementation. As of 31 December 1988 there were 72 vacancies (1987: 80) in the Professional category. Within the Professional category 35 staff members (1987: 28) were recruited (27 men and 8 women), of which 9 men and 2 women were language staff. Separations amounted to 42 (1987: 61), 36 men and 6 women, of whom 7 men and 3 women were language staff. In addition, 2 outside candidates were recruited and 2 staff members assigned to Senior Industrial Development Field Adviser (SIDFA) posts. Of the 20 General Service staff members recruited, 15 were language staff, while 4 appointments were made in the Manual Worker category. Separations in these two categories amounted to 46 (1987: 104).

10. The number of short-term contracts issued to conference service staff was 639 (1987: 587) and 155 short-term contracts were issued for Secretariat staff (1987: 6). In addition, contracts were issued for 384 consultants and individual contractors (1987: 259).

11. In October, the Industrial Development Board considered the representation of developing countries in the UNIDO Secretariat and noted with concern that these countries, as a whole, are represented below the UNIDO informal range of geographical representation. In decision IDB.4/Dec.33, the Board requested the Director-General to intensify his efforts to increase adequately, particularly at the senior level and the top Professional grades, the number of staff members drawn from developing countries, taking due account of the need for equitable geographical distribution. During the remainder of the year, additional measures were introduced to build up the roster of candidates recruited from developing countries.

12. The Board, in decision IDB.4/Dec.32, noted with concern the slow progress in increasing the number of women in the UNIDO Secretariat at the Professional level and requested the Director-General, *inter alia*, to take action to ensure that a definite upward trend be registered in the number of Professional and decision-making positions held by women by 1990, taking account of Article 11.5 of the Constitution of UNIDO. Subsequently, the Director of the Personnel Services Division was appointed high-level co-ordinator for the improvement of the status of women in the Secretariat, and a meeting of selected staff members was held to exchange views on the implementation of Board decision IDB.4/Dec.32. In January 1989, the Director-General introduced a plan of action to improve the status of women in the Secretariat (UNIDO/DG/B.101) with measures concentrating on four areas: recruitment (including roster-building as a means of increasing the possibilities of

recruiting women at all levels), placement, promotion and attitudes.

13. Training was provided in the six official languages of the United Nations and in German. For the autumn semester 804 persons (1987: 893) were enrolled in 69 classes (1987: 70). As of 1 September 1988, a fee was introduced for UNIDO staff and the staff of the International Atomic Energy Agency (IAEA) attending German classes. UNIDO continued to administer the biannual language proficiency examinations for an average of 115 candidates per session and provided post-proficiency writing classes in English, French and Spanish. At the request of IAEA, an intensive English report-writing class was organized for the IAEA Operational Safety Review Team. Forty-eight university graduates (1987: 33) were accepted into the *Ad hoc* Internship Programme of UNIDO, either to obtain practical experience in the work of the Organization or to do research on items of direct relevance to the UNIDO programme.

14. Advice, information and administrative services were provided on all matters concerned with pensions, health and life insurance, compensation claims and staff welfare. Monitoring the group medical insurance plan was started in order to prepare for an international bidding process scheduled to take place in 1989.

15. Table 1 below gives the composition of the staff of the UNIDO Secretariat as at 31 December 1988, according to category and sex, and with comparable figures for 1987. In addition, tables 2 and 3 below provide details of female representation by level.

Table 1

Composition of the UNIDO Secretariat ^{a/}

Category	As at 31 December 1987		As at 31 December 1988	
	Male	Female	Male	Female
P-5 and above	123)	3)	124)	5)
P-1 to P-4	231) ³⁵⁴	73) ⁷⁶	221) ³⁴⁵	73) ⁷⁸
General Service	172	567	168	549
Manual Worker	106	4	106	4
Language teachers	2	5	2	5
Subtotal	634	652	621	636
TOTAL	1,286		1,257	

^{a/} Figures include 11 interregional and special technical advisers attached to UNIDO Headquarters but not short-term staff or Senior Industrial Development Field Advisers (with the exception of 3 staff members temporarily serving in the latter capacity).

Table 2 (a)

Professional staff in the UNIDO Secretariat, December 1986-1988

Grade	MALE			FEMALE			TOTAL		
	1986	1987	1988	1986	1987	1988	1986	1987	1988
DDG	5	5	5				5	5	5
D-2	6	6	4				6	6	4
D-1	29	23	30	2	2	2	31	25	32
P-5	97	89	85	3	1	3	100	90	88
P-4	122	126	127	22	26	24	144	152	151
P-3	91	88	76	37	35	35	128	123	111
P-2/1	31	17	18	18	12	14	49	29	32
TOTAL	381	354	345	82	76	78	463	430	423
	82.3%	82.3%	81.6%	17.7%	17.7%	18.4%	100%	100%	100%

Table 2 (b)

Percentage of Professional staff in the UNIDO Secretariat, December 1986-1988

Grade	MALE			FEMALE		
	1986 %	1987 %	1988 %	1986 %	1987 %	1988 %
DDG	100	100	100			
D-2	100	100	100			
D-1	94	92	94	6	8	6
P-5	97	99	97	3	1	3
P-4	85	83	84	15	17	16
P-3	71	72	68	29	28	32
P-2/1	63	59	56	37	41	44

Table 3 (a)

Professional staff subject to geographical distribution,
in the UNIDO Secretariat, December 1986-1988

Grade	MALE			FEMALE			TOTAL		
	1986	1987	1988	1986	1987	1988	1986	1987	1988
DDG	5	5	5				5	5	5
D-2	6	6	4				6	6	4
D-1	21	19	28	2	2	2	23	21	30
P-5	78	71	72	1		2	79	71	74
P-4	103	103	100	17	20	18	120	123	118
P-3	65	66	57	30	28	25	95	94	82
P-2/1	23	12	9	9	8	8	32	20	17
TOTAL	301	282	275	59	58	55	360	340	330
	83.6%	82.9%	83.3%	16.4%	17.1%	16.7%	100%	100%	100%

Table 3 (b)

Percentage of Professional staff subject to geographical distribution,
in the UNIDO Secretariat, December 1986-1988

Grade	MALE			FEMALE		
	1986 Z	1987 Z	1988 Z	1986 Z	1987 Z	1988 Z
DDG	0	100	100			
D-2	100	100	100			
D-1	91	90	93	9	10	7
P-5	99	100	97	1	0	3
P-4	86	84	85	14	16	15
P-3	68	70	70	32	30	30
P-2/1	72	60	53	28	40	47

PROJECT PERSONNEL RECRUITMENT

16. During the reporting period, 1,910 experts were appointed (1987: 1,904) and 943 experts' appointments were extended (1987: 879). Of the project personnel appointed, 420 (22 per cent) served as experts under the 200 series of the UNIDO Staff Rules (including 31 associate experts), 1,259 (66 per cent) as consultants ("experts on mission") and 231 (12 per cent) as national professional project personnel. Female experts accounted for 114 or 6 per cent of the appointments (1987: 79 or 4.1 per cent).

17. Total expert services amounted to 9,221.6 work-months (1987: 8,301), representing in financial terms \$49.2 million or 41 per cent of the implementation of UNIDO technical co-operation (1987: \$41.9 million or 42.8 per cent). This constituted a growth rate of 11.1 per cent in work-months and 17.4 per cent in financial terms, a level never before reached in the history of UNIDO. The growth was all the more remarkable considering the fact that the average initial appointment was for only 2.63 months (2.73 months in 1987). Approximately 50.6 per cent (967) of these appointments were for one month or less, averaging 0.66 months each.

18. The trend towards shorter missions of specialized experts has reached a point where it is becoming questionable whether further shortening would yield satisfactory results and justify the high level of expenses for experts particularly in terms of travel, recruitment and administration costs.

19. In 1988, UNIDO recruited 231 national experts in 43 different countries, accounting for 12 per cent of all experts' appointments (compared with 263 national experts and 13.8 per cent in 1987).

20. In order to ensure that the quality of the experts appointed by UNIDO constantly improves, efforts continued to be made to strengthen the UNIDO roster of experts, in particular to increase representation of expertise in advanced technological areas through closer co-operation with national recruitment services, industrial associations, firms and research and development institutions. Outdated or otherwise obsolete candidatures continued to be replaced by new roster entries that better reflect the prospective requirements of UNIDO programmes and projects and offer a more equitable representation of nationalities.

21. The outposted project personnel recruitment staff (two Professional and two General Service posts in the United Nations Technical Assistance Recruitment and Fellowships Office in Geneva and one Professional and one General Service post at Cairo) continued to strengthen the co-operation with national recruitment services in Europe and increase the number of qualified expert candidates in the UNIDO roster by undertaking recruitment missions and interviewing candidates for UNIDO in European and North African countries. They also assisted in setting up national focal points for recruitment with a view to identifying and interviewing more candidates from African countries.

22. In 1988, UNIDO recruited international and national project personnel from 98 countries as shown in table 1 of appendix D. Table 2 of the same appendix lists, also by country of origin, the number of experts appointed since 1971. Table 4 below indicates the overall pattern of recruitment, government submission and clearance and the composition of the UNIDO roster by regional groups.

Table 4

Distribution of experts by regional groups of countries
(1 January - 31 December 1988)

	<u>Number of experts</u>					Percentage of appointments
	UNIDO roster <u>a/</u>	Percent- age of roster <u>a/</u>	Submitted to Government	Selected by Government <u>b/</u>	Appointed <u>c/</u>	
Developing countries <u>d/</u>	4 060	31	426	728	626	33
List B countries <u>e/</u>	6 973	53	997	1 374	1 038	54
List D countries <u>f/</u>	<u>2 065</u>	<u>16</u>	<u>254</u>	<u>328</u>	<u>244</u>	<u>13</u>
	13 098	100	1 677	2 430	1 910	100

a/ As of 31 December 1988, excluding roster candidates for Secretariat posts only (3,267).

b/ Including government nominees.

c/ Including appointment of 231 national professional experts.

d/ States in lists A and C of Annex I to the UNIDO Constitution plus Albania, Cyprus, Greece, Malta, Portugal, Romania and Turkey.

e/ States in list B of Annex I to the UNIDO Constitution, excluding Cyprus, Greece, Malta, Portugal and Turkey.

f/ States in list D of Annex I to the UNIDO Constitution, excluding Albania and Romania.

GENERAL SERVICES

23. The General Services Division continued to provide major support services to UNIDO technical co-operation activities and for the operation, maintenance and repair of the VIC complex. Within the latter context, IAEA and the United Nations Office at Vienna (UNOV) receive benefit from the work of the Division and share in the relevant staff costs.

24. The total value of equipment and supplies purchased for UNIDO technical co-operation projects was some \$36.2 million for a total of 2,350 individual orders, of which 342 (14.5 per cent) were placed with manufacturers and vendors from developing countries to a value of \$4.36 million (12 per cent). Some 220 orders (9.4 per cent of the total) for equipment, supplies, spare and replacement parts for those projects were placed with

manufacturers and vendors from under-utilized major donor countries to a total value of approximately \$1.3 million (3.5 per cent). For the operation, maintenance and repair of the VIC complex, 907 orders were placed to a value of more than \$2.9 million for the acquisition of equipment, materials, spare parts and supplies.

25. Under corporate contracts, the services of consulting engineering organizations and institutions were provided to UNIDO technical assistance programmes. The 136 contracts awarded for that purpose in 1988 amounted to a total value of \$12.4 million. Payments in connection with those contracts and for contracts awarded in previous years amounted to \$14.3 million. Of the contracts signed in 1988, 46 (33.8 per cent), totalling \$2.4 million (19.4 per cent) were awarded to enterprises from developing countries while 6 contracts (4.4 per cent) totalling some \$0.4 million

CONFERENCE SERVICES

(3.3 per cent) were awarded to companies in under-utilized major donor countries. Contracts concluded in relation to the operation, maintenance and repair of the VIC complex as well as those concluded on behalf of and for the account of UNOV numbered 139 and amounted to some \$6.4 million.

26. In the building management operations, savings were achieved in comparison with 1987 in cooling (8.7 per cent) and heating (19.1 per cent), but an increase (0.8 per cent) in electricity consumption was observed, which can be attributed to the expansion of electrical installations in the VIC and to the hot, dry summer. Modifications to the premises included the installation of a fire suppression system using halon gas in the IAEA computer rooms, the accesses to the Austria Center Vienna and Checkpoint 3. Other activities included a major service of the diesel emergency generators, the design and commissioning of inter-communication systems for the IAEA nuclear emergency response unit, installation of security surveillance systems and a feasibility study on the new VIC telephone exchange.

27. Substantial progress was made in the computerization of the records for inventory control and property management, which accounted for some 29,660 items (1987: 28,021 items). Transfer-of-title documents were finalized for equipment for 173 technical co-operation projects - the total value of the equipment transferred to developing countries exceeded \$20 million, and 98 recommendations for write-offs were submitted to the UNIDO Property Survey Board for review.

28. As a consequence of significant staff reductions, restrictions were introduced to the archives and records services with priority given to substantive operations. The holding of archives and non-current records for UNIDO and UNOV at end 1988 stood at 650 linear metres (1987: 420).

29. Some 10,150 authorizations were processed for official missions, home leave travel and education grant travel of UNIDO and UNOV staff members, experts, conference participants, consultants and fellows amounting to some \$9.8 million. Approximately 1,800 shipments were also arranged involving personal effects for Headquarters staff and experts as well as documents and equipment related to operations of the Organization; in connection with the shipments there were 79 insurance claims of which 75 were settled. Some 2,400 visas were obtained for UNIDO and UNOV staff members and experts.

30. UNIDO continued providing language and documentation services to United Nations entities established in Vienna under the arrangements explained in the Annual Report of UNIDO, 1987. 1/

31. For the joint United Nations and UNIDO Meetings Planning and Interpretation Service operated by the United Nations Office at Vienna (UNOV) 2/ 10 of the 20 permanent posts approved for the purpose of forming a nucleus of regular interpretation services to service meetings at the Vienna International Centre were filled during 1988 and the balance is expected to be filled during 1989.

32. The translation and interpretation services provided for both UNIDO and the United Nations are illustrated by tables 5, 6 and 7 below.

33. Progress was made in the conversion of the English, French and Spanish typing pools into word processing units. Word processing was started in the Arabic and Russian typing pools on an experimental basis with very encouraging results.

34. In April 1988 the Editorial Control Section and Publications Section of UNIDO were merged, with the functions remaining the same as those carried out in the past by its two antecedent sections, namely: to edit sales and non-sales publications, project and meeting reports, administrative circulars, newsletters and pre-session documentation; to provide in-session editorial assistance to UNIDO and United Nations meetings; to provide copy-preparing, type-setting (composition), proof-reading and graphic presentation services; and to provide documents distribution and photocopying services. This work is cost-shared between UNOV and UNIDO. Details of the workload are given in table 8 below.

35. A new, money-saving photocopying system was introduced throughout UNOV and UNIDO. In the first six months of operating the new system photocopying costs in UNIDO alone were AS 850,000 lower than in the same period of 1987.

36. Experiments with desk-top publishing equipment continued and possibilities were explored of modernizing publishing operations by acquiring high-tech electronic equipment that would be equally versatile in at least three languages.

1/ IDB.4/10, chap. VII, para. 29.

2/ Ibid, para. 30.

Table 5

Translation services provided by the UNIDO Languages and Documentation Division in 1987 and 1988
(in thousands of words translated)

Organizations served	1987	1988
UNIDO	8 592 <u>a/</u>	6 481 <u>b/</u>
United Nations	12 958 <u>c/</u>	14 877 <u>d/</u>

a/ Includes 3,930,000 words for the policy-making organs of UNIDO.

b/ Includes 3,191,000 words for the policy-making organs of UNIDO.

c/ Includes 1,307,000 words for the International Conference on Drug Abuse and Illicit Trafficking.

d/ Includes 1,659,000 words for the United Nations Conference for the Adoption of a New Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances.

Table 6

Interpretation services provided by the Meetings Planning and Interpretation Service (UNOV) in 1987 and 1988
(in interpreter-days)

Organizations served	1987	1988
UNIDO	1 264 <u>a/</u>	586 <u>b/</u>
United Nations	2 902 <u>c/</u>	3 695 <u>d/</u>

a/ Includes 245 interpreter-days for the second session of the General Conference of UNIDO, 170 interpreter-days for the third session of the Industrial Development Board and 221 for the third session of the Programme and Budget Committee.

b/ Includes 204 interpreter-days for the fourth session of the Programme and Budget Committee and 251 for the fourth session of the Industrial Development Board.

c/ Includes 528 interpreter-days for ICDAIT and 198 interpreter-days for the Interregional Consultation on Developmental Social Welfare Policies and Programmes.

d/ Includes 1,160 interpreter-days for the United Nations Conference for the Adoption of a Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances.

Table 7

Conferences and meetings with and without interpretation, serviced by the Meetings Planning and Interpretation Service (UNOV) in 1988

Conferences/ meetings held	Number of half-day meetings			United Nations		
	With interpre- tation	Without interpre- tation	Total	With interpre- tation	Without interpre- tation	Total
In Vienna	60	372	432 <u>a/</u>	436	364	800 <u>b/</u>
Elsewhere	100	262	362	24	9	33
TOTAL	160	634	794 <u>a/</u>	460	373	833 <u>b/</u>

a/ UNIDO meetings include 26 meetings with interpretation, 21 meetings without interpretation held in connection with the fourth session of the Programme and Budget Committee (20-24 June) and the second special session of the Industrial Development Board (21 June) and the fourth session of the Industrial Development Board (10-18 October).

b/ United Nations meetings include 177 meetings with interpretation, 45 meetings without interpretation held in connection with the Open-ended Intergovernmental Expert Group Meeting to consider the Draft Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, (25 January - 5 February), the Review Group on the Draft Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, (27 June - 8 July) and the United Nations Conference for the Adoption of a Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, (25 November - 20 December).

Table 8

Editorial Control and Publications Section: distribution of
work-load in 1988

Figures for 1987 are enclosed in parentheses)

UNIDO		United Nations	
<u>Editing</u>			
<u>Thousands of words</u>	<u>Per cent of total</u>	<u>Thousands of words</u>	<u>Per cent of total</u>
2 328 (1 964)	52 (51)	2 151 (1 905)	48 (49)
<u>Editorial assistance at meetings</u>			
<u>Days</u>	<u>Per cent of total</u>	<u>Days</u>	<u>Per cent of total</u>
6 (120)	10 (22)	53 (71)	90 (78)
<u>Preparation of camera-ready pages</u>			
<u>Pages</u>	<u>Per cent of total</u>	<u>Pages</u>	<u>Per cent of total</u>
2 127 (2 457)	30 (37)	4 980 (4 148)	70 (63)
<u>Documents and publications distributed; reproduction and distribution services provided at meetings</u>			
<u>Documents and publications distributed</u>	<u>Per cent of total</u>	<u>Documents and publications distributed</u>	<u>Per cent of total</u>
2.9 million (3.4 million)	47 (54)	3.3 million (2.8 million)	53 (46)
<u>Meetings serviced (days)</u>	<u>Per cent of total</u>	<u>Meetings serviced (days)</u>	<u>Per cent of total</u>
20 (47)	13 (27)	137 (129)	87 (73)

CHAPTER VIII. SOURCES OF FUNDS

A. FINANCING OF TECHNICAL CO-OPERATION ACTIVITIES

1. Technical co-operation for the benefit of the developing countries continued to be the main activity of UNIDO and the year under review witnessed a substantial increase in overall figures of net approval of projects which rose from \$117.2 million (1987) to \$161.4 million (1988).

2. The main sources of finance for UNIDO technical co-operation activities were the indicative planning figures (IPFs) of the United Nations Development Programme (UNDP), the Special Industrial Services (SIS) programme of UNDP, the Industrial Development Fund (IDF), the UNIDO regular programme of technical co-operation (RP) ^{1/} and the Industrial Development Decade for Africa (IDDA) ^{1/} both within the regular budget of UNIDO, trust funds (TF) and self-financing arrangements with developing countries and a number of United Nations funds.

UNDP INDICATIVE PLANNING FIGURE AND COST SHARING

3. The largest source for financing the technical co-operation activities of UNIDO continued to be the UNDP/IPFs. The pledges for 1988 voluntary contributions to UNDP amounted to \$965.0 million. The programming level (authorized budget level) was set at \$973.3 million with an expenditure target of \$660.0 million for 1988.

4. A remarkable increase was again recorded for projects funded under UNDP/IPFs and cost sharing. Approvals of new projects increased in value as compared with 1987, from \$54.3 million to \$67.5 million in 1988. The overall net approvals (i.e. including revisions of ongoing projects) under this fund reached \$109.5 million in 1988, \$26.3 million higher than in 1987 or an increase of 31 per cent. The expenditures amounted to

^{1/} Reflected in figures of chapter II and tables of appendix G as "XP" and "XA" respectively.

\$74.0 million, as compared to \$66.5 million in 1987.

5. By the end of 1988, 144 country programmes had been approved by the Governing Council of UNDP for the fourth UNDP programming cycle (1987-1991). Within these country programmes, UNIDO was designated executing agency for 575 projects (162 ongoing and 413 new) amounting to approximately 12.0 per cent of the total programmed resources although the allocations for the industry sector had originally been estimated at 11.0 per cent (see appendix E).

SPECIAL INDUSTRIAL SERVICES PROGRAMME

6. For the fourth programming cycle (1987-1991), the Governing Council of UNDP allocated \$15 million to UNIDO for the financing of the SIS programme, to be distributed in equal annual instalments of \$3 million throughout the cycle. ^{2/}

7. Revised operational guidelines for the SIS programme entered into force in June. They aim at streamlining the overall operation of the programme and provide in particular for closer involvement of the UNDP field offices and for an optimum flexibility in the utilization of the SIS funds to quickly solve urgent and clearly identified problems through short-term interventions. Under these guidelines, the maximum total cost per project was increased from \$75,000 to \$150,000. The role of the recipient countries in identifying, formulating and consolidating the information related to a given SIS project request, in close co-operation with the local UNDP field office and the UNIDO Senior Industrial Development Field Adviser or Junior Professional Officer, has been strengthened to ensure a well targeted intervention and an efficient and speedy implementation. In addition, the financial and substantive reporting procedures have been more clearly established.

^{2/} IDB. 4/10, chap. VIII, para. 6.

8. The number of requests for SIS assistance continued to increase in 1988. However, as in previous years, in the light of the limited resources available, UNIDO applied a cautious, highly selective policy and followed jointly agreed programming criteria with regard to the approval of individual projects. Efforts were also made to ensure a reasonable geographical distribution among the projects approved and to promote the SIS programme particularly in the least developed countries. Total approvals during 1988 amounted to \$5.7 million, covering 95 projects related mainly to agro-, chemical, metallurgical and engineering industries. The value of approvals of SIS-financed projects in 1988 by geographical area is shown below:

Geographical area	Value (in thousands of \$)	Percentage of total value
Africa <u>a/</u>	1 149	31.4
Americas	925	25.2
Arab States <u>a/</u>	457	12.5
(African Arab States) <u>b/</u>	(215)	(5.9)
Asia and the Pacific	658	18.0
Europe	677	18.5
Interregional	<u>12</u>	<u>0.3</u>
TOTAL	3 663	100.0

a/ Includes African Arab States.

b/ Deducted since included under both "Africa" and "Arab States".

TECHNICAL CO-OPERATION! - REGULAR BUDGET ALLOCATIONS

Regular programme of technical co-operation

9. For the regular programme of technical co-operation (excluding the Industrial Development Decade for Africa (IDDA)) a total of \$2,939,300 was approved by the General Conference for the biennium 1988-1989. The distribution of the regular

programme allocation and the corresponding delivery in 1988 are provided in appendix C. In programming the funds, every effort was made to achieve an equitable geographical distribution, while taking into consideration the needs of the African and least developed countries.

Allocations for the Industrial Development Decade for Africa (IDDA)

10. Under the regular programme of technical co-operation for 1988-1989, the General Conference approved a separate allocation of \$4,054,500 for IDDA to cover the following activities: establishment of pilot and demonstration plants, development of human resources and technological capabilities, and the development of industrial institutional infrastructure. (For the distribution of the allocations and delivery in 1988, see appendix C.) In addition, \$4,750,000 (adjusted for inflation) was allocated under the 1988-1989 regular budget to cover the following supplementary activities in support of the Decade: short-term advisory services, studies and research, meetings, and promotional activities.

OPERATIONAL BUDGET

11. Financial Regulation 3.4 (b) stipulates that the operational budget shall show the expected income and expenditures in respect of voluntary contributions to the Industrial Development Fund, in respect of such trust funds, reserve and special accounts as have been established by the Director-General and in respect of support costs of technical assistance activities. In compliance with Board decision IDB.4/Dec.26, information on the activities financed under the operational budget is provided under the respective headings of the present chapter.

12. The General Conference approved estimated expenditure totalling \$34.2 million, for the purpose of the operational budget for the biennium 1988-1989 to be financed from voluntary contributions and such other income as may be provided for in the Financial Regulations. Expenditure recorded in 1988 amounted to \$14.8 million.

13. Strenuous efforts were made in 1988 to reduce costs in the operational budget. There were 300.5 staff (68 Professionals and 232.5 General Service)

on board in the operational budget in December 1988 compared with 324 in December 1987 (60 Professionals and 264 General Service).

14. Recalling Board decision IDB.3/Dec.20 (j), the Programme and Budget Committee in conclusion 1988/7 requested the Director-General as a matter of urgency to prepare an in-depth study on the required scope and content of the operational budget and its relationship to the regular budget for consideration by the Committee at its fifth session in 1989. A team of four experts to carry out this study (PBC. 5/16) was appointed in November 1988.

INDUSTRIAL DEVELOPMENT FUND

15. Announced pledges to the Industrial Development Fund (IDF) increased in 1988 to \$25.9 million (1987: \$23.3 million). The breakdown of 1988 pledges by the segments of the Fund is: general-purpose convertible \$0.7 million, special-purpose convertible \$21.4 million, and non-convertible \$3.8 million. The net value of projects approved rose to \$26.4 million (1987: \$21.3 million). Details of the utilization of the Fund in 1988 by segment, region and project component are provided in document IDB.5/3 - PBC.5/7. Appendix H provides, as at 31 December 1988, information on statement of firm pledges and receipts, status of resources and cumulative project approvals.

16. Programming flexibility was relatively limited owing to the fact that contributions to the special-purpose segment again increased in relation to the rest of the Fund. Efforts continued nevertheless to ensure a reasonable geographical distribution of the resources available and special attention was given to global, regional and interregional projects.

17. Noteworthy examples of projects launched in 1988 are those aimed at matching technological resources and capabilities of private industrial enterprises in developed countries with the needs of enterprises in developing countries, such as the project for upgrading of technical capabilities of selected shoe factories in Egypt sponsored by the Government of Switzerland. Enterprise-to-enterprise co-operation of small- and medium-scale industries was also promoted within the framework of economic and technical co-operation among developing countries through projects such as those in the engineering sector financed by the Government of India.

18. Other significant examples are the integrated programme in the leather and leather products sector for the benefit of 15 African countries (see chap. II, para. 67) and the programme for the agro-industry sector of selected Latin American countries, sponsored by the Government of France (see chap. II, para. 44). In response to specific requests from some of the major IDF donors, other large-scale sectoral programmes are under preparation which will be co-ordinated with the multi- and bilateral assistance available in the recipient countries.

TRUST FUNDS AND SELF-FINANCING ARRANGEMENTS

19. The results achieved in 1988 proved that self-financed and third-party-financed trust fund schemes are an excellent mechanism through which UNIDO can provide useful services to industrial enterprises and institutions in the developing countries, as well as to development finance institutions and development aid agencies. Flexibility, direct negotiations, and quick response are the features which make the trust fund programme particularly suitable for providing direct support to manufacturing industries and for bringing industrial partners in the developed and developing countries together in industrial co-operation projects which are partly or wholly executed by UNIDO. The trust fund schemes are particularly suited for private sector development, especially in cases where funds provided by a development bank or donor agency are to be channelled to the private sector in developing countries or where such funds are to be supplemented by local or foreign contributions from private companies. The trust fund schemes therefore complement UNIDO activities financed by multilateral sources such as UNDP and IDF. A further advantage is that trust fund activities can cover the entire project cycle from conception of the project idea to completion of the industrial plant and its operation as a viable industrial entity. The range of services includes complete project planning and management services covering pre-investment studies and activities; supervision, inspection, and procurement services during the construction phase; technical and managerial support programmes and manpower development programmes during the early years of plant operation; diversification and expansion programmes when the plant reaches maturity. They are also suited to revamping, retrofitting and rehabilitation programmes when industrial plants fall ill.

20. Trust fund project development work is considerably complex and demanding because, particularly for self-financed projects, UNIDO is essentially trying to offer its services to the potential recipient and/or financing parties, who are mostly public or private sector companies in the developing countries and who need to be convinced that they are going to benefit from (a) the intermediary and advisory roles of UNIDO and (b) the quality, timeliness and price-competitiveness of the goods and services that UNIDO proposes to obtain for them. The challenge is great and so is the potential for growth. The facts and figures given below indicate that industrial partners in the developing and the developed countries are increasingly prepared to utilize UNIDO as an important and unique intermediary and are willing to finance the costs for UNIDO to play this role.

21. In 1988 trust fund projects were developed in countries such as Cameroon, Egypt, Hungary, Indonesia, Libyan Arab Jamahiriya, Nicaragua, Nigeria, Philippines, Saudi Arabia, Senegal, Sudan, Thailand, United Republic of Tanzania and Zambia; and in sectors such as agricultural implements, food processing, fish processing, cement, petroleum refining, textiles, metal working and engineering industries. The development finance institutions involved were the International Development Association and the Nigerian Industrial Development Bank, while financial support was received from donor agencies in Austria, Denmark, Japan and Norway, as well as from companies and industry associations in several industrialized countries. The number of new projects approved was 57 (1987: 56) with a net Project Allotment Document (PAD) value of \$9.3 million (1987: \$3.9 million). The total expenditure on projects financed by trust funds was \$14.2 million, representing 11.9 per cent of the technical co-operation activities (1987: \$6.0 million or 6.1 per cent). The total volume of trust fund projects under implementation was \$38.2 million.

PROGRAMME SUPPORT COSTS

22. The operational budget is partly funded from income earned in the delivery of technical co-operation projects. This income is calculated as a fixed percentage (generally 13 per cent) of the value in United States dollars of the technical co-operation projects delivered and is to cover the support costs of the Organization in implementing these projects. Since most of the UNIDO

expenditure on support costs (mainly staff costs) is incurred in Austrian schillings, while support costs are fixed nominally in US dollars, operational budget programmes are vulnerable to fluctuations in the dollar/schilling exchange rate. In 1988, the actual exchange rate varied from \$1 = AS 11.10 to \$1 = AS 13.10.

23. In January 1988, representatives of organizations within the United Nations system whose support-cost earnings from UNDP-financed projects had suffered the sharpest decline in purchasing power due to the changes in United States dollar exchange rates agreed to request from the Governing Council of UNDP an increase in the support-cost reimbursements payable in respect of 1987, in addition to the limited compensation permitted under the relevant provisions of Governing Council decision 81/40. A statement on the subject, subsequently prepared by the Consultative Committee on Administrative Questions (Financial and Budgetary Matters) (CCAQ (FB)), was submitted by the Administrative Committee on Co-ordination (ACC) to the Governing Council at its thirty-fifth session (DP/1988/66). The Governing Council at that session, adopted four decisions relating to support costs (88/50, 51, 52, and 53).

24. While expressing its concern at the increase in the ratio between agency support cost expenditures and total technical co-operation project expenditures and requesting the Administrator to continue to submit, on a biennial basis, an ex post facto report on agency support costs (decision 88/51), the Council authorized the Administrator (decision 88/53) to reimburse the nine (larger) executing agencies with headquarters in Europe for their support costs in 1987, in accordance with the provisions of paragraph 5 (a) of decision 81/40. Furthermore, in decision 88/52 the Council authorized the Administrator to make a special ad hoc additional support-cost reimbursement for 1987 to the executing agencies identified in document DP/1988/66.

25. At the same time, Governing Council decision 88/50 dealt with the procedures to be followed for determining the arrangements that would succeed the current arrangements for project support-cost which will expire in 1991. In particular, the Council decided to establish a small group of experts to make a thorough study of all the issues relevant to agency support costs, to be made available no later than 28 February 1990. A report by the Administrator with proposals related to the expert group (DP/1989/6) was provided to the Inter-agency Consultative Meeting in

December 1988. Additionally, the Consultative Committee on Substantive Questions (Operational Activities) (CCSQ (OPS)) established a Task Force, under the chairmanship of UNIDO, to elaborate the views of the agencies on the terms of reference of the expert group. The report of the Administrator and the report of the Task Force would be considered at the special session of the Governing Council of UNDP in February 1989. It is envisaged that the governing bodies of the United Nations agencies will be consulted in the process of determining successor arrangements to the present support mechanism.

26. Under the methodology developed by UNIDO for identifying support costs, distribution of direct and indirect costs of the substantive activities and the percentage relationship of these costs to technical co-operation delivery for the last five years are shown in the table below. To the extent possible, the table also provides information on a biennial basis, assuming that the ratio of 23 per cent dollar-based and 77 per cent schilling-based is applied to support-cost expenditures. The average 1984 exchange rate of \$1 = AS 19.80 is used as a base for comparison purposes.

27. Technical co-operation delivery in 1988 reached \$119.8 million as compared to \$97.7 million in 1987, thus, the level of technical co-operation delivery increased by 22.6 per cent over the 1987 level. Support costs in 1988 amounted to \$27.8 million as compared to \$29.4 million in 1987, thus, support costs as a percentage of delivery decreased by 22.9 per cent over the 1987 level (see table on programme support costs, 1984 to 1988 below). ^{3/} That notwithstanding, the present 13 per cent reimbursement provided to UNIDO for technical co-operation delivery would appear to be inadequate compared to the percentages reflected in the table below.

28. A statement of income and expenditures for programme support costs for 1988 is provided in the interim financial

performance report for the biennium 1988-1989 (PBC.5/12, statement VI).

B. REGULAR BUDGET

29. Activities other than technical co-operation projects were financed from appropriations from the regular budget for UNIDO. The General Conference, approved net appropriations of \$32,895,100 plus AS 1,480,937,770 (total equivalent of \$154,283,442 at \$1 = AS 12.20) for the biennium 1988-1989. During 1988, the actual exchange rate varied from \$1 = AS 11.10 to \$1 = AS 13.10. The average exchange rate for the year was \$1 = AS 12.22. Since the General Conference decided to adopt for the fiscal period 1988-1989 a system of assessment of contributions to the regular budget under which each assessment of a Member State is established in United States dollars and in Austrian schillings (decision GC.2/Dec.21), the impact of exchange-rate fluctuations on the appropriations has been minimized during 1988. UNIDO, however, continued to experience serious cash-flow problems during 1988 as a result of delayed receipt from and withholding of contributions by Member States. As at 31 December 1988, unpaid contributions represented 32 per cent of the 1988 assessments.

30. Concerning the question of the United Nations loan, ^{4/} the Industrial Development Board, at its fourth session decided that the repayment of the loan should be made from the collection of outstanding assessed contributions without thereby increasing the financial liabilities of Member States and authorized the Director-General to negotiate a revised modality of repayment, including a specific schedule of a regular payment of \$1 million per annum commencing in 1990 (decision IDB.4/Dec.29). The United Nations General Assembly subsequently accepted the proposal of UNIDO to commence repayments of the loan in 1990 at the minimum rate of \$1 million per annum (resolution 43/217, section V).

^{3/} At a constant exchange rate of \$1 = AS 19.80; reflects comparison of 1988 to 1987 only.

^{4/} IDB. 4/10, chap. VIII, para. 35.

Programme support costs, 1984 to 1988
(in thousands of US dollars)

A. At actual dollar expenditure per year

	1984	1985	1986	1987	1988
Technical assistance delivery	87 200	94 500	99,600	97,700	119,800
Support costs					
Indirect	6 029	6 695	6 191	9 234	6 392
Direct	<u>17 824</u>	<u>18 928</u>	<u>25 128</u>	<u>31 365</u>	<u>33 045</u>
TOTAL	23 853	25 623	31 319	40 599	39 437
Exchange rate in AS	19.80	20.70	15.30	12.70	12.20

B. At a constant exchange rate of \$1 = AS 19.60

	1984	1985	1986	1987	1988
Total support costs					
Dollar-based (23%)	5 486	5 893	7 203	9 338	9 071
Schilling-based (77%)	<u>18 367</u>	<u>20 627</u>	<u>18 635</u>	<u>20 051</u>	<u>18 710</u>
TOTAL	23 853	26 520	25 838	29 389	27 781

	1984-1985	1985-1987	1988
Total support costs	<u>50 373</u>	<u>55 227</u>	<u>27 781</u>
Technical assistance delivery	181 700	197 300	119 800
Support costs as a percentage of technical assistance	27.7	28.0	23.2

Note: Prior to 1 January 1986, UNIDO accounts were structured as part of the United Nations. The information reported for the 1986-1987 biennium reflects the accounts following the conversion of UNIDO to a specialized agency. In future bienniums, support costs for 1986-1987 will therefore be used as the basis for comparison.

STATISTICAL ANNEX

List of tables

	<u>Page</u>
1. Expenditures, 1972 to 1988	86
2. Technical co-operation programmes: project budget approvals and expenditures, 1972 to 1988	87
3A. Technical co-operation activities: projects approved in 1987 and 1988, by source of funds	90
3B. Technical co-operation activities: comparison of the value of projects as at 31 December 1987 and as at 31 December 1988, by source of funds	91
4. Expenditure on technical co-operation activities in 1987 and 1988, by source of funds and project component	92
5. Expenditure on technical co-operation activities in 1988, by source of funds and Department/Programme component	93
6. Expenditure on technical co-operation activities in 1988, by Department/Programme component and geographical area	94
7. Expenditure on technical co-operation activities, by geographical area, 1981 to 1988	95
8. Technical co-operation activities: project expenditure in 1988	96
9. Expenditure of regular budget and operational budget in 1988, by Department/Programme component and object of expenditure	97

TABLE 1 EXPENDITURES, 1972 to 1988
(In millions of US dollars)

	1972-1976	1977-1981	1982	1983	1984	1985	1986	1987	1988
Technical co-operation programmes	141.8	334.4	81.9	78.0	87.2	94.5	99.6	97.7	119.8
United Nations regular programme / UNIDO regular budget	8.7	15.2	3.1	4.0	3.7	9.0	3.6	2.1	2.5 a)
UNDP/IPF and cash counterpart	98.7	229.9	64.2	46.2	54.4	56.6	67.9	66.5	74.0
UNDP/SIS	14.3	17.2	3.1	3.0	1.8	2.7	3.6	2.8	3.0
UNDP/Special programme resources and special measures	3.1	5.3	0.9	1.0	0.5	0.3	0.4	0.3	-
UNDP-administrated trust funds	-	3.4	3.1	2.7	3.6	1.8	1.6	1.1	1.0
Other trust funds	6.2	17.9	5.3	6.5	7.9	6.3	6.7	6.1	14.2
UNIDF/IDF	10.8	41.9	11.6	13.1	14.6	10.9	13.2	16.6	19.8
United Nations Fund for Drug Abuse Control (UNFDAC)	-	-	-	-	0.1	1.5	0.8	0.6	2.6
Non-UNIDO funds	-	3.6	0.6	1.6	0.8	1.3	1.6	1.6	2.5
Headquarters	100.5	232.4	45.4	50.3	47.7	49.3	65.5	76.1	71.7 b)
Regular budget	65.2	160.7	35.6	39.8	37.4	38.1	48.9	60.7	58.9
Overheads	15.3	41.7	9.8	10.5	10.3	11.2	16.6	15.4	14.8
Total expenditure	242.3	536.8	137.3	128.3	134.9	143.8	165.1	173.8	191.5
Technical co-operation programmes as percentage of total expenditure	29.5%	62.3%	66.9%	60.6%	64.6%	65.7%	60.3%	56.2%	62.6%

a) Includes regular programme and Industrial Development Decade for Africa (IDDA) (see appendix C)

b) Figure also includes expenditures for programmes and activities of a technical assistance nature.

TABLE 2 TECHNICAL CO-OPERATION PROGRAMMES: PROJECT BUDGET APPROVALS AND EXPENDITURES, 1972 TO 1988

(In millions of US dollars)

	1972-76	1977-81	1982	1983	1984	1985	1986	1987(a)	1988
A. All sources of funds									
1. Residual value of projects brought forward	37.4	72.8	136.4	153.7	164.8	161.0	162.2	155.9	175.4
2. Value of project budgets approved in the year (net)	177.2	398.0	109.2	89.1	103.4	75.6	83.3	117.2	161.4
3. Total of approved projects under implementation	214.6	470.8	245.6	242.8	268.2	236.6	255.5	273.1	336.8
4. Expenditures in the year	141.8	334.4	91.9	78.0	87.2	94.4	99.6	97.7	119.6
5. Residual value of projects carried forward	72.8	136.4	153.7	164.8	161.0	162.2	155.9	175.4	217.0
B. United Nations regular programme (b) / UNIDO regular budget									
1. Residual value of projects brought forward	-	-	-	2.7	-	3.5	-	1.2	-
2. Value of project budgets approved in the year (net)	8.7	15.2	5.8	1.3	7.2	5.5	5.0	0.9	7.1
3. Total of approved projects under implementation	8.7	15.2	5.8	4.0	7.2	9.0	5.0	2.1	7.1
4. Expenditures in the year	8.7	15.2	3.1	4.0	3.7	9.0	3.6	2.1	2.5
5. Residual value of projects carried forward	-	-	2.7	-	3.5	-	1.2	-	4.6
C. UNDP/IFF and cash counterpart									
1. Residual value of projects brought forward	29.7	59.8	105.8	118.2	115.5	114.9	108.4	99.3	116.0
2. Value of project budgets approved in the year (net)	128.8	275.9	76.8	43.5	53.8	52.1	58.8	83.2	109.5
3. Total of approved projects under implementation	158.5	335.7	182.4	161.7	169.3	167.0	167.2	182.5	225.5
4. Expenditures in the year	98.7	229.9	64.2	48.2	54.4	56.8	67.9	66.5	74.0
5. Residual value of projects carried forward	59.8	105.8	118.2	115.5	114.9	108.4	99.3	116.0	151.5
D. UNDP/SIS (c)									
1. Residual value of projects brought forward	5.3	5.8	2.8	5.0	2.4	2.8	4.9	3.1	2.1
2. Value of project budgets approved in the year (net)	14.8	14.2	5.3	0.4	2.2	4.8	2.0	1.8	3.4
3. Total of approved projects under implementation	20.1	20.0	8.1	5.4	4.6	7.6	6.9	4.9	5.5
4. Expenditures in the year	14.3	17.2	3.1	3.0	1.8	2.7	3.8	2.8	3.0
5. Residual value of projects carried forward	5.8	2.8	5.0	2.4	2.8	4.9	3.1	2.1	2.5

	1972-75	1977-81	1982	1983	1984	1985	1986	1987	1988
E. UNDP/Special programme resources and special measures									
1. Residual value of projects brought forward	-	1.7	0.9	0.7	1.0	0.6	0.6	0.3	-
2. Value of project budgets approved in the year (net)	4.6	4.5	0.7	1.3	0.1	0.3	0.1	-	-
3. Total of approved projects under implementation	4.6	6.2	1.6	2.0	1.1	0.9	0.7	0.3	-
4. Expenditures in the year	3.1	5.3	0.9	1.0	0.5	0.3	0.4	0.3	-
5. Residual value of projects carried forward	1.7	0.9	0.7	1.0	0.6	0.6	0.3	-	-
F. UNDP-administered trust funds (d)									
1. Residual value of projects brought forward	-	-	4.7	2.9	2.7	6.3	2.4	1.5	0.1
2. Value of project budgets approved in the year (net)	-	6.1	1.3	2.5	7.2	(2.0)	0.7	(0.1)	1.0
3. Total of approved projects under implementation	-	6.1	6.0	5.4	9.9	4.3	3.1	1.4	1.1
4. Expenditures in the year	-	3.4	3.1	2.7	3.8	1.9	1.8	1.3	1.0
5. Residual value of projects carried forward	-	4.7	2.9	2.7	6.3	2.4	1.5	0.1	0.1
G. Other trust funds (e)									
1. Residual value of projects brought forward	0.4	1.3	5.7	5.4	21.9	34.2	24.2	26.7	26.4
2. Value of project budgets approved in the year (net)	7.1	22.3	5.0	23.0	20.2	(1.7)	11.2	3.7	11.6
3. Total of approved projects under implementation	7.5	23.6	10.7	28.4	42.1	32.5	35.4	32.3	38.2
4. Expenditures in the year	6.2	17.9	5.3	6.5	7.9	6.3	9.7	6.0	14.2
5. Residual value of projects carried forward	1.3	5.7	5.4	21.9	34.2	24.2	26.7	26.4	24.0
H. UNIDF (f) / IDP									
1. Residual value of projects brought forward	2.0	4.2	14.6	17.1	19.4	16.0	17.6	17.6	22.3
2. Value of project budgets approved in the year (net)	13.0	52.3	14.1	15.4	11.2	12.7	13.0	21.3	26.4
3. Total of approved projects under implementation	15.0	56.5	28.7	32.5	30.6	28.7	30.6	38.9	48.7
4. Expenditures in the year	10.8	41.9	11.6	13.1	14.6	10.9	13.2	16.6	19.6
5. Residual value of projects carried forward	4.2	14.6	17.1	19.4	16.0	17.6	17.6	22.3	26.9

	1972-76	1977-81	1982	1983	1984	1985	1986	1987	1988
I. UNFDAC									
1. Residual value of projects brought forward	-	-	-	-	-	0.6	0.1	0.3	0.1
2. Value of project budgets approved in the year (net)	-	-	-	-	0.7	1.0	0.8	0.4	3.6
3. Total of approved projects under implementation	-	-	-	-	0.7	1.6	0.9	0.7	3.7
4. Expenditures in the year	-	-	-	-	0.1	1.5	0.6	0.6	2.8
5. Residual value of projects carried forward	-	-	-	-	0.6	0.1	0.3	0.1	0.9
J. Non-UNIDO funds (g)									
1. Residual value of projects brought forward	-	-	1.9	1.7	1.9	2.1	3.8	4.0	6.4
2. Value of project budgets approved in the year (net)	-	5.5	0.4	1.7	0.8	2.9	1.8	6.0	(1.4)
3. Total of approved projects under implementation	-	5.5	2.3	3.4	2.7	5.0	5.6	10.0	7.0
4. Expenditures in the year	-	3.8	0.8	1.5	0.8	1.2	1.8	1.6	2.8
5. Residual value of projects carried forward	-	1.9	1.7	1.9	2.1	3.8	4.0	6.4	4.5

- (a) Some of the 1987 figures differ slightly from those reflected in document IDB.4/10 owing to minor accounting adjustments.
- (b) Excludes the value of projects approved but not implemented within the year (prior to 1976) or within the biennium (after 1977), as appropriate.
- (c) Includes SIS Trust Funds prior to 1973.
- (d) Include United Nations Trust Fund for Sudano-Saharan Activities; United Nations Financing System for Science and Technology for Development; UNDP trust fund for projects financed by the United Nations Development Fund for Women; United Nations Capital Development Fund; third-party trust funds.
- (e) Include special-purpose trust funds financed by recipient or third parties; government cash counterpart contribution paid to UNIDO; United Nations Population Fund; projects financed from World Bank loans.
- (f) Includes UNIDO General Trust Fund.
- (g) Include projects executed by other agencies for which UNIDO is the associated or co-operating agency.

TABLE 3A TECHNICAL CO-OPERATION ACTIVITIES: PROJECTS APPROVED IN 1987 AND 1988, BY SOURCE OF FUNDS

Source of funds	New projects approved			Existing projects revised			Total net value of approvals/revisions (\$000)
	Number of projects	Net value of approvals (\$000)	Average value of approvals (\$000)	Number of projects	Net value of revisions (\$000)	Average value of revisions (\$000)	
	----- 1987 -----						
UNIDO regular budget	50	1382	27	123	124	1	1486
UNDP/IPF and cash counterpart	180	54278	302	621	26990	47	83268
UNDP/SIS	71	2581	36	189	(791)	(4)	1790
UNDP/Special programme resources and special measures	-	-	-	8	(20)	(2)	(20)
UNDP-administered trust funds	10	854	85	22	(948)	(43)	(95)
Other trust funds	58	3945	70	85	(278)	(3)	3667
IDF	231	20792	90	355	493	1	21285
UNFDAC	1	67	67	3	339	130	466
Non-UNIDO funds	17	5988	352	30	(27)	(1)	5959
TOTAL	616	89885	146	1438	27931	19	117798
	----- 1988 -----						
UNIDO regular budget	123	7110	58	-	-	-	7110
UNDP/IPF and cash counterpart	162	67451	416	689	42067	61	109518
UNDP/SIS	95	3664	39	131	(282)	(2)	3382
UNDP/Special programme resources and special measures	-	-	-	6	6	1	6
UNDP-administered trust funds	12	967	82	15	38	3	1025
Other trust funds	57	9256	162	90	2578	29	11833
IDF	194	24714	127	343	1673	5	26387
UNFDAC	12	3454	288	1	131	131	3585
Non-UNIDO funds	21	1780	85	34	(3193)	(94)	(1413)
TOTAL	676	118415	175	1309	43018	33	161433

TABLE 3B. TECHNICAL CO-OPERATION ACTIVITIES: COMPARISON OF THE VALUE OF PROJECTS AS AT 31 DECEMBER 1987 AND AS AT 31 DECEMBER 1988, BY SOURCE OF FUNDS.

	Number of projects		Total value of projects (\$000)		Average value of projects (\$000)	
	1987	1988	1987	1988	1987	1988
UNIDO regular budget	231	127	6451	7195	28	57
UNDP/IPF and cash counterpart	884	928	490087	556689	557	601
UNDP/SIS	295	288	10788	10439	36	39
UNDP/Special programme resources and special measures	14	9	3595	2767	257	307
UNDP-administered trust funds	34	40	15407	14817	453	370
Other trust funds	164	191	59751	60854	364	319
IDF	739	713	76633	66943	104	125
UNFDAC	4	15	2938	5501	735	367
Non-UNIDO funds	69	80	16217	14262	235	179
	-----	-----	-----	-----	-----	-----
TOTAL	2414	2387	681814	761487	282	322

The following is a breakdown by status of projects

	Number of projects		Total value of projects (\$000)	
	1987	1988	1987	1988
New and ongoing	1452	1531	513284	562350
Operationally completed	256	254	50370	76178
Financially completed	704	582	118150	122959
	-----	-----	-----	-----
TOTAL	2414	2387	681814	761487

TABLE 4 EXPENDITURE ON TECHNICAL CO-OPERATION ACTIVITIES IN 1987 AND 1988, BY SOURCE OF FUNDS AND PROJECT COMPONENT

Source of funds	Project personnel		Subcontracts	Fellowships and training		Equipment	Miscellaneous expenses		Total
	Number of experts work-months	\$000		\$000	\$000		\$000	\$000	
	----- 1987 -----								
UNIDO regular budget	110 9	888	155	569	282	189		2079	
UNDP/IPF and cash counterpart	5343 1	26784	9591	7491	21182	1486		66544	
UNEP/SIS	270 9	2018	197	221	332	88		2838	
UNDP/Special programme resources and special measures	35 8	214	-	40	8	2		284	
UNDP-administered trust funds	7 1	83	90	738	233	7		1148	
Other trust funds	1887 8	5392	81	44	800	(88)		8048	
IDF	647 6	5219	4186	4786	1704	705		16810	
UNFDCAC	112 2	388	57	31	114	58		626	
Non-UNIDO funds	104 1	908	-	597	15	47		1567	
TOTAL	8318 1	41874	14367	14815	24470	2500		87728	
	----- 1988 -----								
UNIDO regular budget	42 6	580	239	610	971	133		2513	
UNDP/IPF and cash counterpart	4982 0	26180	7483	10034	28186	2128		73981	
UNEP/SIS	219 6	2073	337	209	233	124		2876	
UNDP/Special programme resources and special measures	3 6	19	-	-	-	7		28	
UNDP-administered trust funds	8 0	133	21	729	97	24		1004	
Other trust funds	2947 2	11958	244	353	1847	(13)		14187	
IDF	662 5	7124	4943	5033	1885	664		19849	
UNFDCAC	31 6	180	54	120	2424	40		2798	
Non-UNIDO funds	104 5	1041	124	824	429	48		2488	
TOTAL	9221 6 a)	49276	13445	17812	35842	3355		119780	

a) Categories are as follows

	Work-months
International experts and consultants	7597 6
Operational assistance experts	1624 0
National experts	
TOTAL	9221 6

TABLE 5. EXPENDITURE ON TECHNICAL CO-OPERATION ACTIVITIES IN 1966, BY SOURCE OF FUNDS AND DEPARTMENT/PROGRAMME COMPONENT
(In thousands of US dollars)

Department/Programme component	Regular budget	UNDP/ JPP and cash counter-part	UNDP/SIS	UNDP/ Special Programme and resources and special measures	UNDP-administered trust funds	Other trust funds	IDF	UNPDAC	NON-UNIDO funds	Total
Executive Direction and Management	-	220	-	-	-	81	8	-	-	309
Programme and Project Development	283	174	95	-	-	1735	887	-	34	2979
Industrial Promotion, Consultations and Technology										
Industrial Investment	48	983	8	-	-	243	3840	-	-	5189
System of Consultations	59	-	-	-	-	-	380	-	-	419
Industrial Technology Promotion	41	148	48	-	-	15	324	-	-	577
Industrial Technology Development	-	20	-	-	-	3298	382	-	-	3698
Subtotal	146	1131	54	0	-	3555	5008	-	-	9892
Industrial Operations										
Agro-based Industries	108	6789	452	-	15	72	3787	182	208	11801
Chemical Industries	879	19980	990	-	(2)	5853	3055	-	704	31439
Metallurgical Industries	118	8920	280	-	(18)	108	311	-	237	7957
Engineering Industries	248	11894	850	-	106	318	188	-	284	13889
Industrial Planning	74	4143	53	6	-	1034	281	-	250	5821
Institutional Infrastructure	155	13278	28	-	27	897	1282	-	332	15779
Industrial Management and Rehabilitation	38	4884	328	20	-	205	304	-	180	6018
Feasibility Studies	116	3297	50	-	-	388	1050	-	58	4939
Industrial Training	441	1191	(1)	-	873	173	3920	-	104	6701
Subtotal	2179	72438	2827	28	1004	8825	14148	182	2338	103942
External Relations, Public Information, Language and Documentation Services										
Other	(85)	-	-	-	-	(9)	-	2638	97	2699
TOTAL	2513	73981	2978	28	1004	14187	19849	2798	2488	118760

TABLE 8 EXPENDITURE ON TECHNICAL CO-OPERATION ACTIVITIES IN 1986, BY DEPARTMENT/PROGRAMME COMPONENT AND GEOGRAPHICAL AREA
(In thousands of US dollars)

Department/Programme component	Africa a)	The Americas	Arab States b)	Asia and the Pacific	Europe	Global and Interregional	Total
Executive Direction and Management	308	-	-	-	-	-	308
Programme and Project Development	744	198	88 (-18)	745	-	1206	2976
Industrial Promotion, Consultations and Technology							
Industrial Investment	38	883	11 (-13)	889	1	3783	5198
System of Consultations	94	12	-	-	23	290	419
Industrial Technology Promotion	191	120	127 (127)	29	-	237	577
Industrial Technology Development	20	48	10 (20)	-	(1)	3843	3898
Subtotal	343	881	148 (134)	898	23	7953	9892
Industrial Operations							
Agro-based Industries	2698	810	893 (815)	8713	178	1124	11801
Chemical Industries	11887	1349	8717 (8367)	15115	1147	1581	31439
Metallurgical Industries	1819	789	545 (474)	5031	287	180	7957
Engineering Industries	3988	1399	417 (150)	7103	878	54	13889
Industrial Planning	3193	1230	238 (8)	878	130	182	5821
Institutional Infrastructure	5848	2401	3815 (885)	3440	490	770	15779
Industrial Management and Rehabilitation	2194	911	1150 (704)	2166	259	40	6016
Feasibility Studies	2698	89	1207 (490)	1049	-	408	4939
Industrial Training	1895	857	290 (262)	348	181	3614	6701
Subtotal	38120	9595	17070 (12163)	41839	3550	7931	103942
External Relations, Public Information, Language and Documentation Services							
Other	915	138	727 (474)	845	704	8	2859
TOTAL	38431	10790	18013 (12753)	43927	4277	17095	119780

a) Includes figures related to country projects in African Arab States.

b) Figures in parentheses relate to country projects in African Arab States only and are deducted from the column "Total" since they are already included under "Africa".

TABLE 7. EXPENDITURE ON TECHNICAL CO-OPERATION ACTIVITIES, BY GEOGRAPHICAL AREA, 1961 TO 1966.
(In thousands of US dollars)

Area	1961	1962	1963	1964	1965	1966	1967	1968
Africa								
Country projects	32758	28137	25083	29300	31431	31574	28102	34042
Regional projects	1589	1826	1773	4713	5781	4089	3488	4388
Subtotal	34345	30063	27456	30013	37222	35743	32570	38431
The Americas								
Country projects	9477	8601	9188	7897	11022	9402	8482	9882
Regional projects	855	1121	877	1013	836	1148	838	1137
Subtotal	10332	10742	10045	9000	12018	10580	9302	10780
Arab States								
Country projects	11355	10726	11274	11807	11449	11193	11934	17714
Regional projects	458	957	593	1104	532	731	818	299
Country projects (African Arab States)	(6803)	(6881)	(7030)	(6808)	(8123)	(8505)	(8660)	(12783)
Subtotal	5008	5142	4837	4108	2857	3378	2990	8280
Asia and the Pacific								
Country projects	27185	32558	23888	28795	29313	35418	36820	41874
Regional projects	1539	1034	1082	1437	1028	1884	1311	1883
Subtotal	28724	33692	24861	31232	30401	37073	37831	43827
Europe								
Country projects	3487	3241	2813	3608	3047	3022	2307	3848
Regional projects	48	410	348	49	39	208	318	432
Subtotal	3533	3651	2761	3658	3086	3230	2625	4277
Global and interregional projects	8701	7887	8258	8183	8884	8825	12308	17085
TOTAL	88643	81879	78019	87181	94488	99800	87726	118780

a) Includes African Arab States.
b) Figures deducted since already included under "Africa".

TABLE 6 TECHNICAL CO-OPERATION ACTIVITIES: PROJECT EXPENDITURE IN 1988
(In thousands of US dollars)

	Africa a)	The Americas	Arab States b)	Asia and the Pacific	Europe	Global and Interregional	Total
----- A. By source of funds and geographical area -----							
UNIDO regular budget	1,653	52	188	(147)	352	388	2,513
UNDP/IFP and cash counterpart	23,193	7,654	10,370	(8,343)	35,986	3,091	73,951
UNDP/SIS	1,022	708	527	(249)	626	7	2,978
UNDP/special programme resources and special measures	8	-	-	-	20	-	28
UNDP-administered trust funds	80	-	-	-	51	873	1,004
Other trust funds	7,600	777	5,398	(5,138)	840	71	14,187
IFP	3,289	897	710	(371)	4,104	39	18,349
UNFDAC	916	298	726	(474)	548	79	2,788
Non-UNIDO funds	892	404	113	(33)	1,290	-	2,466
TOTAL	38,431	10,780	18,013	(12,753)	43,927	4,277	119,780
----- B. By project component and geographical area -----							
Project personnel	20,948	6,261	10,525	(8,211)	11,557	856	49,228
Subcontracts	4,195	474	1,293	(1,227)	8,452	299	13,445
Fellowships and training	2,619	708	650	(315)	8,292	1,032	17,912
Equipment	8,950	2,997	5,000	(2,598)	17,012	1,991	35,842
Miscellaneous	1,521	350	545	(402)	614	99	3,355
TOTAL	38,431	10,780	18,013	(12,753)	43,927	4,277	119,780

a) Includes figures related to country projects in African Arab States.

b) Figures in parentheses relate to country projects in African Arab States only and are deducted from the column "Total" since they are already included under "Africa".

TABLE 9. EXPENDITURE OF REGULAR BUDGET AND OPERATIONAL BUDGET IN 1988, BY DEPARTMENT/PROGRAMME COMPONENT AND OBJECT OF EXPENDITURE ^{a/} (In thousands of US dollars)

Department/Programme Component	Staff costs	Consultants	Expert group meetings	Other	Total
Policy-making Organs	56	-	-	442	498
Executive Direction and Management	2 258	37	96	177	2 568
Programme and Project Development					
Project Review and Appraisal	1 240	-	-	21	1 261
Area Programmes	4 659	29	-	299	4 987
Industrial Policy and Perspectives	4 023	468	-	270	4 781
Special Programmes and Activities	1 747	59	30	103	1 939
Office of the Deputy Director-General	574	-	-	15	589
SIDFA and JPO support services	1 343	-	-	406	1 749
Subtotal	13 586	576	30	1 114	15 306
Industrial Promotion, Consultation and Technology					
Industrial Investment	1 635	121	53	60	1 869
System of Consultations	1 923	225	46	160	2 354
Development and Transfer of Technology	2 517	199	20	163	2 899
Office of the Deputy Director-General	604	-	-	9	613
Subtotal	6 679	545	119	392	7 735
Industrial Operations					
Industrial Operations Technology	5 691	33	82	244	6 050
Industrial Institutions and Services	4 315	92	3	134	4 544
Industrial Operations Support	4 204	62	-	90	4 356
Interregional Advisers	506	-	-	62	568
Central Monitoring Office	267	-	-	-	267
Office of the Deputy Director-General	1 095	6	-	42	1 143
Subtotal	16 078	193	85	572	16 928
External Relations, Public information, Language and Documentation Services					
External Relations	1 654	-	3	203	1 860
Public Relations and Information	309	6	-	103	418
Languages and Documentation	6 901	-	-	413	7 314
Office of the Deputy Director-General	375	-	-	19	394
Subtotal	9 239	6	3	738	9 986
Administration					
Personnel Services	3 315	-	-	421	3 736
Financial Services	3 667	-	-	25	3 692
General Services	8 132	-	-	12 456	20 588
Electronic Data Processing and Office Automation	1 154	64	-	941	2 159
Office of the Deputy Director-General	612	44	-	2 449	3 105
Subtotal	16 880	108	-	16 292	33 280
Total expenditures	64 776	1 465	333	19 611	86 301
Other income					14 634
GRAND TOTAL					71 667

^{a/} Expenditures for technical co-operation (IDDA and the regular programme) excluded.

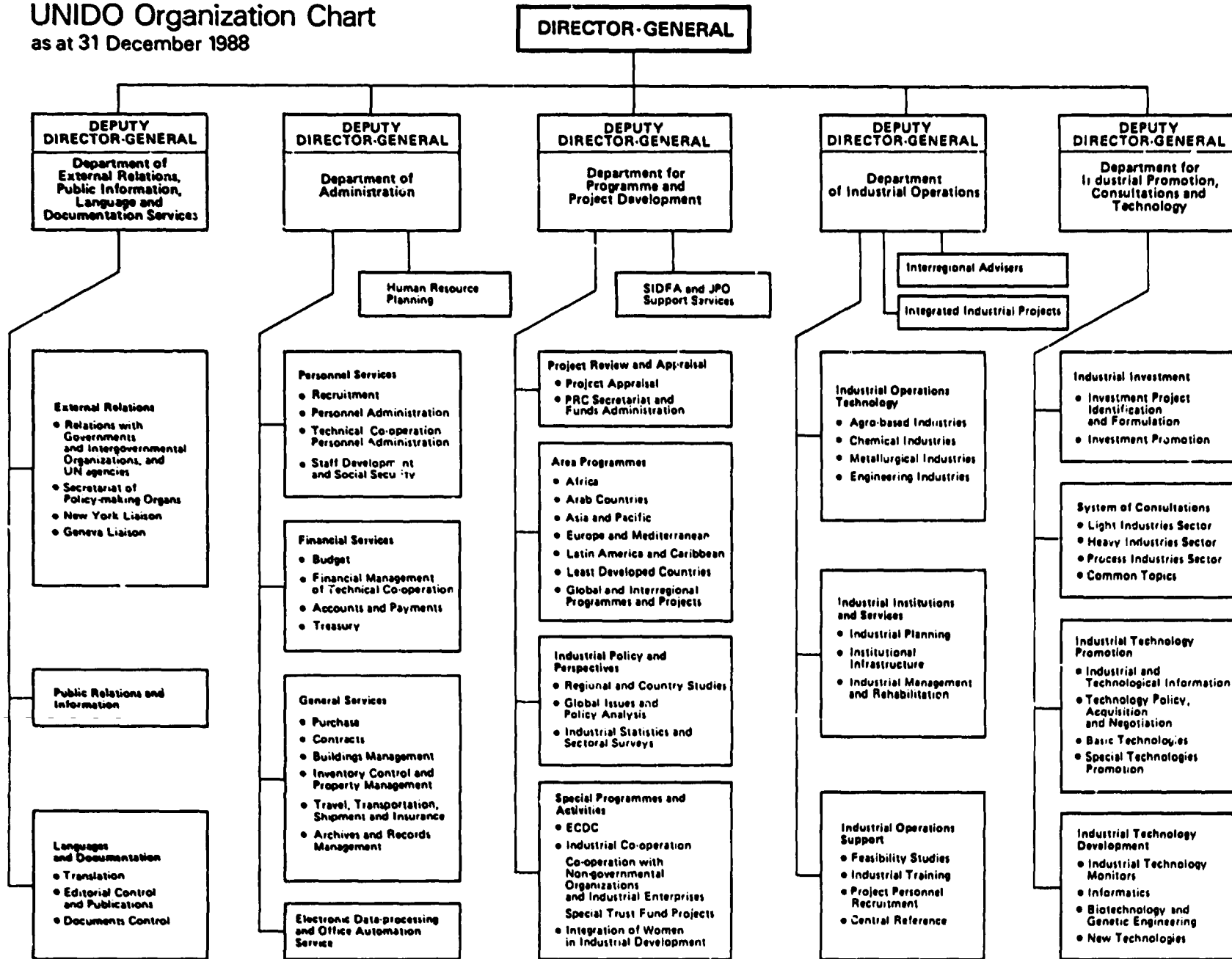
APPENDICES

CONTENTS

	<u>Page</u>
A. UNIDO organization chart	100
B. Expert group meetings, symposia, seminars, workshops, courses and other meetings of a non-training character held during 1988	101
C. Technical co-operation - regular budget allocations for the biennium 1988-1989 and deliveries in 1988	108
D. Geographical distribution of experts	109
E. UNIDO involvement in UNDP country programmes	111
F. Major studies, reports and series publications issued by UNIDO in 1988	113
G. UNIDO technical assistance to the least developed countries, 1 January to 31 December 1988	114
H. Industrial Development Fund	120
I. Training activities in 1988	128
J. Agreements concluded by UNIDO in 1988.....	137

UNIDO Organization Chart

as at 31 December 1988



APPENDIX B

EXPERT GROUP MEETINGS, SYMPOSIA, SEMINARS, WORKSHOPS, COURSES AND
OTHER MEETINGS OF A NON-TRAINING CHARACTER HELD DURING 1968

Date		Place
OFFICE OF THE DIRECTOR-GENERAL		
30 May - 3 June	Follow-up subregional meeting on the promotion of intra-African industrial co-operation within the framework of the Industrial Development Decade for Africa	Tangier Morocco
31 October - 4 November	Follow-up subregional meeting on the promotion of intra-African industrial co-operation within the framework of the Industrial Development Decade for Africa	Harare Zimbabwe
DEPARTMENT OF EXTERNAL RELATIONS, PUBLIC INFORMATION, LANGUAGE AND DOCUMENTATION SERVICES		
20-24 June	Programme and Budget Committee, fourth session	Vienna Austria
10-18 October	Industrial Development Board, fourth session	Vienna Austria
DEPARTMENT FOR PROGRAMME AND PROJECT DEVELOPMENT		
<u>Area Programmes Division</u>		
26-29 September	Network steering committee meeting on industrial robotics applications <u>a/</u>	Sofia Bulgaria
<u>Industrial Policy and Perspectives Division</u>		
4-5 July	National workshop on the role of women in the industrial development of Nepal <u>b/</u>	Kathmandu Nepal
27-28 October	First preparatory meeting in connection with ninth international conference on input-output techniques to be held 4-9 September 1989	Keszthely Hungary

a/ Organized jointly with Industrial Operations Technology Division.

b/ Organized jointly with Special Programmes and Activities Division.

Date		Place
<u>Special Programmes and Activities Division</u>		
8-11 February	Workshop on promotion of North-South co-operation with emphasis on agro-related activities	Brussels Belgium
22-23 March	UNIDG/NGO meeting on the contribution of women to human resource development in industry	Vienna Austria
12-14 April	Expert group meeting on exchange of information among developing countries on available technologies in the field of small and medium industries	Ljubljana Yugoslavia
16-20 May	Workshop on industrial co-operation among developing countries in the field of agricultural machinery and agro-industries	Novi Sad Yugoslavia
31 May - 4 June	Working meeting on co-operative arrangements among selected developing countries on production and application of machine tools	Buenos Aires Argentina
6-10 June	Solidarity ministerial meeting for co-operation in the industrial development of the Republic of Cape Verde	Praia Cape Verde
22-26 August	Expert group meeting on the processing of raw materials	Vienna Austria
14-16 September	Symposium on food aid and co-operatives	Vienna Austria
24-28 October	Workshop on co-operation between China and African countries in the field of small- and medium-scale agro-industries	Beijing China
DEPARTMENT OF INDUSTRIAL OPERATIONS		
<u>Industrial Operations Technology Division</u>		
6-12 March	Second expert group meeting on computerized maintenance systems in metallurgy	Cairo Egypt
17-19 May	Symposium on the continuous industrial hydroponic crop production system in artificial climate	Moscow Union of Soviet Socialist Republics
11-14 July	International non-wood fibre pulping and papermaking conference	Beijing China
15-16 July	Workshop on non-wood fibre pulping and papermaking	Beijing China
28 September - 1 October	Regional meeting on production and distribution of biologicals for human and veterinary use in Africa	Dakar Senegal
28 November - 2 December	Seminar on environmental aspects of production and use of pesticides	Jakarta Indonesia

Date		Place
<u>Industrial Institutions and Services Division</u>		
13-19 April	Technical workshop and symposium on entrepreneurial small and medium-size industries in urban and rural areas <u>c/</u>	Rome Italy
19-23 September	National workshop on industrial strategies and policies within the framework of the Industrial Development Decade for Africa	Monrovia Liberia
24-28 October	National workshop on industrial strategies and policies within the framework of the Industrial Development Decade for Africa	Conakry Guinea
24-28 October	Expert group meeting on the development of industrial planning methodologies and computer-aided tools and setting up institutional network for UNIDPLAN programme implementation	Tbilisi Union of Soviet Socialist Republics
DEPARTMENT FOR INDUSTRIAL PROMOTION, CONSULTATIONS AND TECHNOLOGY		
<u>Industrial Investment Division</u>		
29 February	Country presentation meeting - Mongolia	Tokyo Japan
15-16 March	Country presentation meeting - Malaysia	Milan Italy
16 March	Country presentation meeting - Bolivia	Tokyo Japan
21-26 March	Expert group meeting on international industrial joint ventures	Tallinn Union of Soviet Socialist Republics
23 March	Country presentation meeting - China	Warsaw Poland
27 March	Country presentation meeting - Costa Rica	Paris France
30 March	Country presentation meeting - Mexico	Kotra Republic of Korea
11 April	Country presentation meeting - Malaysia	Seoul Republic of Korea
15 April	Country presentation meeting - Sri Lanka	Pusan Republic of Korea

c/ Organized jointly with Area Programmes Division.

Appendix B

Date		Place
19-26 April	Country presentation meeting - Jordan	Braunschweig, Cologne, Hamburg, Wadgassen Federal Republic of Germany
21 April	Country presentation meeting - Indonesia	Tokyo Japan
27 April - 4 May	Country presentation meeting - Nepal	Cologne, Hamburg Federal Republic of Germany
5 May	Country presentation meeting - Tunisia	Geneva Switzerland
10 May	Country presentation meeting - Hong Kong	Seoul Republic of Korea
16-18 May	Workshop on UNIDO's investment project screening and pre-appraisal information system (PROPSPIN)	La Paz Bolivia
18-20 May	Workshop on UNIDO's investment project screening and pre-appraisal information system (PROPSPIN)	Quito Ecuador
1 June	Country presentation meeting - Mauritius	Paris France
14 June	Country presentation meeting - China	Tokyo Japan
16 June	Country presentation meeting - Zimbabwe	Warsaw Poland
16-21 June	Country presentation meeting - Thailand	Zurich Switzerland
17-19 June	Country presentation meeting - Tunisia	Tunis Tunisia
6-7 July	Country presentation meeting - China, Indonesia, Malaysia, Philippines, Thailand	Milan Italy
15 July	Country presentation meeting - Philippines	Seoul Republic of Korea
22-23 July	Country presentation meeting - Thailand	Vienna Austria
20 September	Country presentation meeting - Brazil	Besançon France
30 September	Country presentation meeting - Egypt	Paris France
2-8 October	Country presentation meeting - Philippines	Washington D.C. United States of America

Date		Place
3 October	Country presentation meeting - Philippines	Vienna Austria
4 October	Country presentation meeting - Philippines	Tokyo Japan
4-5 October	Country presentation meeting - Republic of Korea	Warsaw Poland
5-6 October	Country presentation meeting - Philippines	Zurich Switzerland
7 October	Country presentation meeting - Philippines	Paris France
18 October	Country presentation meeting - Madagascar	Vienna Austria
19 October	Country presentation meeting - Chile	Seoul Republic of Korea
21 October	Country presentation meeting - Brazil	Seoul Republic of Korea
21 October	Country presentation meeting - China	Paris France
25 October	Country presentation meeting - Philippines	Seoul Republic of Korea
27 October	Country presentation meeting - Indonesia	Seoul Republic of Korea
4-24 November	Country presentation meeting - Ghana	Accra Ghana
7 November	Country presentation meeting - Philippines	Shizuoka Japan
7-10 November	Philippine investors' forum	Manila Philippines
8 November	Country presentation meeting - China	Lyon, Nantes France
18 November	Country presentation meeting - Latin America	Paris France
21-24 November	Country presentation meeting - Indonesia	Dijon, Le Havre, Lille, Lyon France
28 November - 1 December	West Africa industrial forum	Dakar Senegal
6 December	Country presentation meeting - China	Seoul Republic of Korea
8 December	Country presentation meeting - Latin America	Montpellier France

Date		Place
<u>System of Consultations Division</u>		
3-6 February	Global preparatory meeting for the first African regional Consultation on the phosphatic fertilizer and pesticides industry	Lome Togo
22-24 March	Expert group meeting for the Asia and Pacific region, in preparation for the first Consultation on the sugar-cane processing industry	Guangzhou China
7-10 June	Expert group meeting on small- and medium-scale enterprises including co-operatives	Harare Zimbabwe
26-29 September	Expert group meeting on the offshore oil and gas industries in developing countries	Hamburg Federal Republic of Germany
26-30 September	First Interregional Consultation on the Food-Processing Industry With Emphasis on Sugar-cane Processing	Havana Cuba
17-20 October	Asian preparatory meeting for the regional Consultation on the phosphatic fertilizer and pesticides industries	Lahore Pakistan
24-27 October	Regional expert group meeting on co-operation and development in the field of building materials production	Guatemala City Guatemala
24-27 October	Ninth session of the leather and leather products industry panel	Pécs Hungary
14-17 November	Expert group meeting on small- and medium-scale enterprises including co-operatives	Manila Philippines
22-24 November	Expert group meeting for the Asia and Pacific region, in preparation for the Consultation on the food-processing industry with emphasis on fruit and vegetable processing	Beijing China
28 November - 1 December	Global preparatory meeting for the first Consultation on the electronics industry	Grenoble France
12-16 December	Regional Consultation on the phosphatic fertilizers and pesticides industries in Africa	Yamoussoukro Côte d'Ivoire
<u>Industrial Technology Promotion Division</u>		
26-28 April	Workshop on negotiation of transfer of technology contracts	Port-of-Spain Trinidad and Tobago
30 May - 3 June	Workshop for UNIDO/INTIB national focal points on industrial information networking and co-operation	Moscow USSR
12 September - 7 October	Workshop on technology acquisition and project preparation d/	Warsaw Poland
24-25 October	Seminar on transfer of technology	Athens Greece

d/ Organized jointly with Industrial Operations Support Division.

Date		Place
<u>Industrial Technology Development Division</u>		
8-12 February	Workshop on biotechnology for Latin American and Caribbean countries	Havana Cuba
27-29 March	Forum of scientists of member states of the International Centre for Genetic Engineering and Biotechnology	Trieste Italy
27 June - 1 July	Third meeting of the Technical Advisory Group for Small Hydropower	Suva Fiji
15-25 October	Workshop on construction management for small hydropower	Lahore Pakistan
6-14 December	Workshop on site selection and hydrology for small hydropower	Hangzhou China

APPENDIX C

TECHNICAL CO-OPERATION - REGULAR BUDGET ALLOCATIONS FOR THE
BIENNIUM 1988-1989 AND DELIVERIES IN 1988

(In thousands of US dollars)

Component	Allocation for the biennium 1988-1989	Delivery in 1988
A. REGULAR PROGRAMME OF TECHNICAL CO-OPERATION (RP)		
Training of developing countries' personnel in various industrial fields		
Individual fellowships	376.5	41.7
Group training programmes	537.6	413.2
Establishment and strengthening of training facilities in developing countries	430.0	270.2
Special activities for the least developed among the developing countries	1 111.3	353.7
Co-operation among developing countries	383.3	213.8
Consultation with Governments	100.6	33.2
	2 939.3	1 325.8
TOTAL - RP		
B. INDUSTRIAL DEVELOPMENT DECADE FOR AFRICA (IDDA)		
Establishment of pilot and demonstration plants	2 106.0	1 036.1
Human resources development and related activities	1 579.5	149.2
Industrial institutional infrastructure	369.0	1.9
	4 054.5	1 187.2
TOTAL - IDDA		

APPENDIX D

GEOGRAPHICAL DISTRIBUTION OF EXPERTS

(Listed in descending order)

Table 1

Appointments of experts, 1 January to 31 December 1988

Country/area/territory	Number of appointments	Country/area/territory	Number of appointments
United Kingdom	213	Benin	5
United States of America	154	Israel	5
France	138	Lebanon	5
Poland	104	Romania	5
Germany, Federal Republic of	99	Sudan	5
India	80	Turkey	5
Italy	71	Zambia	5
Hungary	62	Zimbabwe	5
Austria	56	Jamaica	4
Belgium	56	Kenya	4
Mexico	42	Nicaragua	4
Netherlands	41	Togo	4
Philippines	38	Botswana	3
Brazil	36	Burkina Faso	3
USSR	30	Ghana	3
Colombia	29	Honduras	3
Czechoslovakia	29	Indonesia	3
Sweden	29	New Zealand	3
Yugoslavia	29	Palestine	3
Canada	28	Paraguay	3
Spain	28	Somalia	3
Republic of Korea	26	Uganda	3
Argentina	25	Chad	2
Cameroon	24	Costa Rica	2
Chile	23	Cuba	2
Denmark	23	Ethiopia	2
Venezuela	20	Iran (Islamic Republic of)	2
Australia	19	Jordan	2
Egypt	19	Niger	2
Norway	19	Senegal	2
Ireland	18	Singapore	2
Peru	17	Trinidad and Tobago	2
Japan	16	Zaire	2
Portugal	16	Bangladesh	1
Finland	12	Côte d'Ivoire	1
Bolivia	11	Democratic Kampuchea	1
Ecuador	11	Democratic People's Republic of Korea	1
German Democratic Republic	11	Dominican Republic	1
Switzerland	10	Fiji	1
Morocco	9	Gabon	1
Algeria	8	Guinea	1
Sierra Leone	8	Libyan Arab Jamahiriya	1
Sri Lanka	8	Malawi	1
Thailand	8	Nigeria	1
Bulgaria	7	Papua New Guinea	1
Nepal	7	Stateless	1
Uruguay	7	Syrian Arab Republic	1
China	6	Tunisia	1
Iraq	6	Yemen	1
		TOTAL (98)	1 910

Appendix D

Table 2

Cumulative list of appointments of experts, 1971-1988

Country/area/territory	Number of appointments	Country/area/territory	Number of appointments
United Kingdom	2 201	Iran (Islamic Republic of)	20
Poland	1 640	Malaysia	20
United States of America	1 516	Stateless	20
France	1 361	Mali	19
India	1 038	Greece	17
Germany, Federal Republic of	979	Jordan	17
Austria	592	Nicaragua	16
Belgium	529	Lebanon	14
Italy	507	El Salvador	13
Sweden	476	Nepal	13
Hungary	473	Uganda	13
Netherlands	392	Zimbabwe	13
Egypt	362	Cuba	12
Yugoslavia	358	Ghana	12
Spain	290	Mauritius	12
Argentina	284	Nigeria	12
Denmark	269	Thailand	12
Czechoslovakia	263	Niger	11
USSR	262	Sierra Leone	11
Canada	254	Madagascar	10
Brazil	204	Panama	10
Japan	202	Somalia	10
Switzerland	200	Benin	9
Chile	198	Kenya	9
Mexico	190	Guatemala	8
Finland	186	Haiti	8
Australia	181	Costa Rica	7
Norway	172	Zambia	7
Peru	164	Liberia	6
Philippines	151	Honduras	5
Romania	146	Paraguay	5
Ireland	141	United Republic of Tanzania	5
Israel	129	Burkina Faso	4
Sri Lanka	117	Guinea	4
Portugal	102	Guyana	4
Bulgaria	95	Palestine	4
Pakistan	87	Rwanda	4
New Zealand	86	Viet Nam	4
Colombia	84	Botswana	3
Venezuela	84	Democratic People's Republic of Korea	3
Republic of Korea	59	Libyan Arab Jamahiriya	3
German Democratic Republic	55	Malta	3
Algeria	52	Barbados	2
Cameroon	52	Burma	2
Turkey	43	Byelorussian SSR	2
Côte d'Ivoire	40	Chad	2
Zaire	37	Congo	2
Bangladesh	36	Dominican Republic	2
Ecuador	36	Fiji	2
Tunisia	36	Mauritania	2
Bolivia	35	Singapore	2
Indonesia	34	Trinidad and Tobago	2
Morocco	33	Antigua and Barbuda	1
Syrian Arab Republic	30	Cape Verde	1
Uruguay	30	Cyprus	1
Jamaica	27	Democratic Kampuchea	1
Senegal	27	Gabon	1
Sudan	27	Malawi	1
Togo	26	Montserrat	1
China	25	Mozambique	1
Ethiopia	23	Papua New Guinea	1
Iraq	21	Yemen	1
		TOTAL (124)	18 191 g/

g/ Total of appointments includes repeated separate appointments and reassignments of the same expert to other projects.

APPENDIX E

UNIDO INVOLVEMENT IN UNDP COUNTRY PROGRAMMES

Table 1

UNIDO share of UNDP country programmes approved by the Governing Council of UNDP, June 1985 to June 1988
(By geographical area)

Geographical area	Number of countries for which programmes have been approved	Total IPF allocations	Total amount programmed (in millions of US\$)	Allocations for UNIDO projects	UNIDO share of amount programmed (percentage)	Number of projects	
						Ongoing	New
Africa	51	1 335.79	1 772.27	120.02	6.77	51	111
The Americas	42	275.34	504.97	49.42	9.79	27	82
Arab States a/	19	248.91	416.69	37.05	8.89	14	53
(African Arab States) b/	(8)	(170.64)	(258.31)	(19.22)	(7.44)	(6)	(28)
Asia and the Pacific	30	1 082.82	983.25	213.95	21.76	66	150
Europe	10	47.04	42.15	13.13	31.15	10	45
TOTAL	144	2 819.26	3 461.02	414.35	11.97	162	413

a/ Includes African Arab States.

b/ Figures deducted since already included under both "Africa" and "Arab States".

Table 2

UNIDO share of UNDP country programmes approved by the Governing Council of UNDP, June 1985 to June 1988
(By substantive branches of UNIDO)

UNIDO substantive branches	Number of projects		Value of UNDP input (\$000)	Percentage of total value	Distribution of projects by size		
	Ongoing	New			Under \$150,000	\$150,000 to \$1,000,000	Over \$1,000,000
Agro-based Industries	15	73	68 420	16.51	17	54	17
Chemical Industries	42	84	90 4.3	21.83	28	82	16
Metallurgical Industries	9	19	31 820	7.68	9	14	5
Engineering Industries	32	68	83 134	20.06	24	58	18
Industrial Planning	10	24	26 778	6.46	7	18	9
Institutional Infrastructure	29	71	62 028	14.97	19	66	15
Industrial Management and Rehabilitation	6	17	12 909	3.12	7	11	5
Industrial Training	2	17	10 648	2.57	3	14	2
Feasibility Studies	15	23	20 874	5.04	7	26	5
Industrial Investment	1	11	4 340	1.05	3	9	0
Industrial Technology Development	1	0	61	0.01	1	0	0
Industrial Technology Promotion	0	3	1 070	0.26	0	3	0
Others	0	2	1 800	0.43	0	2	0
TOTAL	162	13	414 355	100.00	125	358	92

Table 3

Comparison of country programmes approved during June 1985 - June 1988 for the fourth cycle with programmes of the same countries in the third cycle (1982-1986) a/ (By geographical area)

	Third cycle (1982-1986)				Fourth cycle (June 1985 - June 1988)			
	IPF ----- (in millions of US\$)	Amount programmed	Total value	UNIDO projects	IPF ----- (in millions of US\$)	Amount programmed	Total value	UNIDO projects
Percentage share of amount programmed				Percentage share of amount programmed				
Africa (50) b/	932.90	1 213.66	154.23	12.71	1 323.82	1 755.40	120.02	6.84
The Americas (38) c/	214.31	346.89	53.55	15.44	271.34	500.80	49.01	9.79
Arab States (18) d/	192.22	421.17	46.93	11.14	248.20	407.49	36.53	8.96
(African Arab States) (8) e/	(129.11)	(203.42)	(36.02)	(17.71)	(170.64)	(258.31)	(19.22)	(7.44)
Asia and the Pacific (29) f/	774.41	1 078.49	189.61	17.58	1 017.13	895.83	200.86	22.42
Europe (10) g/	<u>39.72</u>	<u>66.42</u>	<u>16.11</u>	24.25	<u>47.04</u>	<u>42.15</u>	<u>13.13</u>	31.15
TOTAL (137)	2 024.45	2 923.21	424.41	14.52	2 736.89	3 343.36	400.33	11.97

a/ Excluded from the comparison are the following:

Africa: National liberation movements (first country programme in the fourth cycle).

The Americas: Anguilla, Aruba, St. Helena (first country programme in the fourth cycle); Suriname (no country programme in the third cycle).

Arab States: Qatar (no country programme in the third cycle).

Asia and the Pacific: Indonesia because of the time-frame of the second (1979-1983) and third (1985-1989) country programmes which overlap the second, third and fourth programming cycles, it is difficult to make a comparison. The UNIDO share for Indonesia was 15.31 per cent in the second country programme and 14.97 per cent in the third country programme.

b/ The 50 countries in Africa comprise: Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo, Côte d'Ivoire, Djibouti, Egypt, Equatorial Guinea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Libyan Arab Jamahiriya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, Sudan, Swaziland, Togo, Tunisia, Uganda, United Republic of Tanzania, Zaire, Zambia and Zimbabwe.

c/ The 38 countries and territories in the Americas comprise: Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, British Virgin Islands, Eastern Caribbean States, Cayman Islands, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Montserrat, Netherlands Antilles, Nicaragua, Panama, Paraguay, Peru, Saint Lucia, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Trinidad and Tobago, Turks and Caicos Islands, Uruguay and Venezuela.

d/ The 18 Arab States comprise: Algeria, Bahrain, Democratic Yemen, Djibouti, Egypt, Iraq, Jordan, Kuwait, Libyan Arab Jamahiriya, Morocco, Oman, Saudi Arabia, Somalia, Sudan, Syrian Arab Republic, Tunisia, United Arab Emirates and Yemen.

e/ The 8 African Arab States comprise: Algeria, Djibouti, Egypt, Libyan Arab Jamahiriya, Morocco, Somalia, Sudan and Tunisia (relevant figures are deducted since they are already included under both "Africa" and "Arab States").

f/ The 29 countries and territories in Asia and the Pacific comprise: Bangladesh, Bhutan, Burma, China, Cook Islands, Democratic People's Republic of Korea, Fiji, India, Kiribati, Lao People's Democratic Republic, Malaysia, Maldives, Mongolia, Nepal, Niue, Pakistan, Papua New Guinea, Philippines, Republic of Korea, Samoa, Singapore, Solomon Islands, Sri Lanka, Thailand, Tokelau, Tonga, Tuvalu, Vanuatu and Viet Nam.

g/ The 10 countries in Europe comprise: Albania, Bulgaria, Cyprus, Hungary, Malta, Poland, Portugal, Romania, Turkey and Yugoslavia.

APPENDIX F

MAJOR STUDIES, REPORTS AND SERIES PUBLICATIONS
ISSUED BY UNIDO IN 1988 ^{a/}

SYMBOL	TITLE	LANGUAGE
ID/SER.M/22*	Industry and development No. 22	E
ID/SER.M/23*	Industry and development No. 23	E
ID/SER.M/24*	Industry and development No. 24	E
ID/348*	Industry and development: Global report 1987	F
ID/349*	Guidelines for industrial planning in developing countries: Basic principles and practices	E
ID/353 (ID/WG.469/15)	Second Consultation on the Training of Industrial Manpower, Paris, France, 14-19 September 1987. Report	A C E F R S
ID/354* (UNIDO/LIB/SER.B/62)	Industrial development abstracts Nos. 15401 - 15700	E (F/R/S introduction)
ID/356 (ID/WG.466/24)	Third Consultation on the Pharmaceutical Industry, Madrid, Spain, 5-9 October 1987. Report	A C E F R S
ID/357 (ID/WG.470/11)	First Consultation on the Non-ferrous Metals Industry, Budapest, Hungary, 30 November - 4 December 1987. Report	A C E F R S
ID/359*	Handbook of industrial statistics 1988 Manuel de statistiques industrielles 1988	E/F
ID/360*	Industry and development: Global report 1988/89	E
ID/361* (UNIDO/LIB/SER.B/63)	Industrial development abstracts Nos. 15701 - 16000	E (F/R/S introduction)

^{a/} Sales publications are indicated by an asterisk in the "Symbol" column.

UNIDO TECHNICAL ASSISTANCE TO THE LEAST DEVELOPED COUNTRIES, 1 JANUARY TO 31 DECEMBER 1988

Table 1

Delivery, by source of funds and country a/

(In US dollars)

Region/country	Regular budget XP/XA	UNDP/IDF	SIS	UNDP/special measures	IDF b/	Other sources g/	Total
Africa							
Benin	-	128 461	499	-	82	-	129 042
Botswana	-	419 801	5 946	-	34 205	21 984	481 936
Burkina Faso	258 377	82 783	70 714	-	24 038	-	435 912
Burundi	4 995	105 960	8 007	-	(738)	-	118 224
Cape Verde	88 148	215 650	-	-	1 788	-	305 586
Central African Republic	-	-	(3 907)	-	-	-	(3 907)
Chad	-	770 727	-	-	-	-	770 727
Comoros	-	-	-	-	-	-	-
Equatorial Guinea	-	-	-	-	-	-	-
Ethiopia	-	3 345 037	192 572	-	63 957	-	3 601 566
Gambia	1 500	56 445	-	-	-	-	57 945
Guinea	8 420	795 408	8 937	-	(424)	-	812 341
Guinea-Bissau	-	58 620	76 068	-	-	-	134 688
Lesotho	-	80 993	-	-	-	42 668	123 661
Malawi	-	509 989	-	-	75 213	-	585 202
Mali	-	297 434	25 905	-	114 967	3 284	441 590
Mauritania	-	23 156	-	-	-	-	23 156
Niger	17 702	610 642	11 735	-	-	-	640 079
Rwanda	6 400	56 343	9 887	-	19 651	-	92 281
Sao Tome and Principe	6 911	237 812	-	-	-	-	303 723
Sierra Leone	2 525	397 957	-	-	34 342	27 546	462 370
Togo	-	315 118	23 201	6 617	-	33	344 969
Uganda	97 500	216 108	-	-	27	727 655	1 041 290
United Republic of Tanzania	15 715	238 289	8 855	-	438 464	15 264	716 587
Subtotal	567 193	8 962 733	438 419	6 617	805 572	838 434	11 618 968
Americas							
Haiti	-	22 524	(7 289)	-	-	-	15 235

Table 1 (continued)

Region/country	Regular budget XP/XA	UNDP/IPF	SIS	UNDP/special measures	IDF ^{b/}	Other sources ^{c/}	Total
Arab States							
Democratic Yemen	21 644	327 516	46 817	-	6 652	-	402 629
Djibouti	-	33 855	-	-	-	-	33 855
Somalia	4 988	659 246	56 516	-	30 360	-	751 110
Sudan	21 953	112 164	-	-	1 213	465 727	601 057
Yemen	-	806 097	-	-	-	136 198	942 295
Subtotal	48 585	1 938 878	103 333	-	38 225	601 925	2 730 946
Asia and the Pacific							
Afghanistan	-	-	-	-	-	-	-
Bangladesh	-	1 138 358	-	-	-	(3 095)	1 135 263
Bhutan	-	63 348	43 126	19 698	57 887	-	189 059
Burma	-	-	-	-	-	-	-
Kiribati	-	(30)	-	-	-	-	(30)
Laos People's Democratic Republic	-	(584)	-	-	-	-	(584)
Maldives	18 903	(13 076)	-	-	-	-	5 827
Nepal	-	1 289 979	-	87	(234)	(537)	1 289 295
Samoa	-	-	-	-	-	-	-
Tuvalu	-	78 475	-	-	-	-	78 475
Vanuatu	-	-	28 780	-	(4 338)	-	24 442
Subtotal	18 903	2 556 470	76 906	19 785	53 315	(3 632)	2 721 747
Regional, interregional and global projects especially designed for LDCs	(9 933)	-	-	-	(45 656)	-	(55 589)
TOTAL	624 748	13 480 605	611 369	26 402	851 456	1 436 727	17 031 307

^{a/} The table does not include regional, interregional and global projects or individual fellowships and group training programmes in which LDCs have been involved together with other developing countries; such activities are usually financed from non-least developed countries funds.

^{b/} Excluding 14 per cent overhead costs.

^{c/} Other sources include trust funds, United Nations Capital Development Fund and United Nations Financing System for Science and Technology for Development.

Table 2
New project approvals, by country and source of funds a/
(In US dollars)

Region/country	Regular budget XP/XA	UNDP/IPP	SIS	UNDP/special measures	IDF b/	Other sources g/	Total
Africa							
Benin	-	-	-	-	537 300	-	537 300
Botswana	-	-	-	-	-	-	1 205 074
Burkina Faso	358 674	846 400	-	-	-	-	5 060
Burundi	5 060	-	56 000	-	-	-	154 145
Cape Verde	98 145	-	-	-	-	-	-
Central African Republic	-	-	-	-	-	-	-
Chad	-	-	-	-	-	-	-
Comoros	-	-	-	-	-	-	-
Equatorial Guinea	-	160 000	166 900	-	2 027 240	-	2 354 140
Ethiopia	-	-	-	-	-	-	1 500
Gambia	1 500	-	-	-	-	-	346 600
Guinea	16 600	330 000	-	-	-	-	80 900
Guinea-Bissau	80 900	-	-	-	-	100 453	498 653
Lesotho	13 350	384 850	-	-	23 000	-	2 282 094
Malawi	-	2 259 094	-	-	-	-	-
Mali	-	-	-	-	-	-	316 605
Nauritania	-	316 605	-	-	-	-	878 300
Niger	31 000	802 600	44 700	-	-	-	967 000
Rwanda	91 400	875 600	-	-	-	-	394 226
Sao Tome and Principe	87 800	273 926	32 500	-	-	99 071	213 421
Sierra Leone	85 000	-	29 350	-	-	-	164 077
Togo	79 827	-	84 250	-	-	-	706 945
Uganda	118 000	32 750	-	-	-	556 195	289 160
United Republic of Tanzania	259 410	20 900	8 850	-	-	-	-
Subtotal	1 326 666	6 302 725	422 550	-	2 587 540	755 719	11 395 200
Americas							
Haiti	-	26 500	-	-	-	-	26 500

Table 2 (continued)

Region/country	Regular budget XP/XA	UNDP/IPF	SIS	UNDP/special measures	IDF ^{b/}	Other sources ^{c/}	Total
Arab States							
Democratic Yemen	2 750	694 000	19 600	-	-	-	716 350
Djibouti	-	310 000	-	-	-	-	310 000
Somalia	28 200	730 287	28 500	-	-	-	786 987
Sudan	141 991	-	-	-	128 000	696 820	966 811
Yemen	-	1 345 843	-	-	-	-	1 345 843
Subtotal	172 941	3 080 130	48 100	-	128 000	696 820	4 125 991
Asia and the Pacific							
Afghanistan	-	-	-	-	16 000	-	16 000
Bangladesh	-	-	-	-	-	-	-
Bhutan	-	133 000	32 500	-	-	-	165 500
Burma	-	-	-	-	-	-	-
Kiribati	-	347 000	-	-	-	-	347 000
Lao People's Democratic Republic	-	-	-	-	-	-	-
Maldives	42 000	-	-	-	-	-	42 000
Nepal	41 000	70 000	66 800	-	-	-	177 800
Samoa	-	-	27 000	-	-	-	27 000
Tuvalu	-	-	-	-	-	-	-
Vanuatu	-	287 250	-	-	-	-	287 250
Subtotal	83 000	837 250	126 300	-	16 000	-	1 062 550
Regional, interregional and global projects especially designed for LDCs	180 926	-	-	-	17 699	-	198 625
TOTAL	1 763 533	10 246 605	596 950	-	2 749 239	1 452 539	16 808 866

^{a/} The table does not include regional, interregional and global projects or individual fellowships and group training programmes in which LDCs have been involved together with other developing countries; such activities are usually financed from non-least developed countries funds.

^{b/} Excluding 14 per cent overhead costs.

^{c/} Other sources include trust funds.

Table 3

Total project approvals (new projects, plus additional allocations to ongoing projects, minus cancellations), by source of funds and country a/

(In US dollars)

Region/country	Regular budget XP/XA	UNDP/IPF	SIS	UNDP/special measures	IDF b/	Other sources c/	Total
Africa							
Benin	-	47 350	7 209	-	(18 451)	-	36 108
Botswana	-	87 154	(10 070)	-	534 806	-	611 890
Burkina Faso	358 674	845 563	2 722	-	1 147	-	1 208 106
Burundi	5 060	35 137	-	-	-	-	40 197
Cape Verde	98 145	48 713	56 000	-	4 298	-	207 156
Central African Republic	-	-	-	-	-	-	-
Chad	-	56 859	-	-	-	-	56 859
Comoros	-	-	(4 683)	-	-	-	(4 683)
Equatorial Guinea	-	-	-	-	-	-	-
Ethiopia	-	596 232	177 901	-	2 042 740	-	2 816 873
Gambia	1 500	101 242	-	-	2 245	(4 262)	100 725
Guinea	16 600	745 111	-	-	3 590	-	765 301
Guinea-Bissau	80 900	-	28 612	-	(91)	-	109 421
Lesotho	13 350	374 183	-	-	-	99 273	486 806
Malawi	-	2 829 465	-	2 100	23 000	-	2 854 565
Mali	-	(5 771)	(13 567)	-	5 000	6 725	(7 613)
Mauritania	-	355 005	-	-	-	-	355 005
Niger	31 000	793 932	44 700	(3 500)	-	-	866 132
Rwanda	91 400	918 235	(38 400)	-	660	-	971 895
Sao Tome and Principe	87 800	273 926	32 500	-	(368)	-	393 858
Sierra Leone	85 000	(21 485)	28 696	-	2 244	86 408	180 863
Togo	79 827	133 450	84 250	(7 161)	-	45 675	336 041
Uganda	118 000	164 772	-	-	24	556 195	838 991
United Republic of Tanzania	259 410	257 218	8 850	-	(7 174)	(2 826)	515 478
Subtotal	1 326 666	8 636 291	404 720	(8 561)	2 593 670	787 188	13 739 974
Americas							
Haiti	-	14 856	-	-	(25 914)	-	(11 058)

Table 3 (continued)

Region/country	Regular budget XP/XA	UNDP/IPF	SIS	UNDP/special measures	IDF b/	Other sources g/	Total
Arab States							
Democratic Yemen	2 750	723 804	14 021	-	(20 212)	-	720 363
Djibouti	-	310 000	-	-	-	-	310 000
Somalia	28 200	1 026 288	28 500	-	(22 267)	-	1 060 721
Sudan	141 991	-	-	-	60 573	696 126	898 690
Yemen	-	2 864 543	-	-	-	-	2 864 543
Subtotal	172 941	4 924 635	42 521	-	18 094	696 126	5 854 317
Asia and the Pacific							
Afghanistan	-	(181 304)	(678)	-	16 000	-	(165 982)
Bangladesh	-	71 096	-	12 803	-	-	83 899
Bhutan	-	(892 594)	42 500	-	-	-	(850 094)
Burma	-	-	-	-	-	-	-
Kiribati	-	347 000	-	-	-	-	347 000
Lao People's Democratic Republic	-	2 702	-	-	-	-	2 702
Maldives	42 000	-	-	-	-	-	42 000
Nepal	41 000	1 070 499	67 094	1 747	(4 642)	1 564	1 177 262
Samoa	-	-	27 000	-	-	-	27 000
Tuvalu	-	-	-	-	-	-	-
Vanuatu	-	278 614	-	-	950	-	279 564
Subtotal	83 000	696 013	135 916	14 550	12 308	1 564	943 351
Regional, interregional and global projects especially designed for LDCs	180 926	-	-	-	(247 461)	-	(66 535)
TOTAL	1 763 533	14 271 795	583 157	5 989	2 350 697	1 484 878	20 460 049

a/ The table does not include regional, interregional and global projects or individual fellowships and group training programmes in which LDCs have been involved together with other developing countries; such activities are usually financed from non-least developed countries funds.

b/ Excluding 14 per cent overhead costs.

c/ Other sources include trust funds, United Nations Capital Development Fund, and United Nations Financing System or Science and Technology for Development.

INDUSTRIAL DEVELOPMENT FUND

Table 1

UNIDF/IDF statement of pledges and receipts, as at 31 December 1988

(in US dollars)

Country/ Organisation	Unpaid balances/ advances by donors brought forward from UNIDF 1.1.1986	Adjust- ment to prior pledges	IDF firm pledges for				Collections in		Exchange adjust- ments	Unpaid balance	Advances by donors
			1986	1987	1988	1989 and future years	1986-1987	1988			
<u>General-purpose convertible</u>											
Afghanistan	1 500	-	1 500	-	1 500	-	-	3 000	1 500	-	-
Algeria	-	-	-	-	25 000	-	-	-	-	-	25 000
Angola	10 000	-	10 000	10 000	-	-	-	10 000	20 000	-	-
Argentina	-	150 000	-	-	-	-	-	149 990	-	10	-
Austria	-	-	57 143	70 423	81 967	76 336	-	152 390	76 336	-26 190	83 333
Bahrain	5 000	-	-	-	-	-	-	5 000	-	-	-
Bangladesh	-	-	2 420	2 420	2 420	741	-	8 001	-	-	-
Barbados	-	-	20 000	-	-	-	-	20 000	-	-	-
Bhutan	1 320	-	1 450	-	-	-	-	2 770	-	-	5 000
Bolivia	2 000	-	14 313	1 000	1 000	1 000	-	14 313	-	-	-
Brazil	15 000	-	15 000	-	-	-	-	30 000	-	-	-
Burkina Faso	-	-	-	-	6 601	-	-	-	-	-225	6 826
Burma	-	-	1 000	1 000	-	-	-	-	2 000	-	-
Cameroon	-	-	-	2 985	-	-	-	-	-	-428	3 413
Chile	-	-	10 000	10 000	-	-	-	20 000	-	-	-
Colombia	1 425	40	5 700	5 700	5 700	5 700	-	12 944	5 977	-	5 344
Congo	11 426	-	-	5 700	-	-	-	3 410	-	76	7 949
Costa Rica	8 080	-	10 000	-	10 000	-	-	18 279	8 553	-	1 248
Cyprus	-	-	1 852	2 335	-	-	-	4 495	-	-308	-
Democratic Yemen	-	-	4 400	-	-	-	-	-	-	-	4 400
Dominica	-	-	1 852	-	-	-	-	1 840	-	12	-
Ecuador	5 440	-	6 500	43 235	-	6 500	-	6 637	36 735	-	18 303
Egypt	-	-	-	2 000	-	-	-	2 000	-	-	-
Ethiopia	-	-	1 111	-	-	-	-	1 111	-	-	-
Fiji	-	-	1 009	-	-	-	-	-	-	206	803
German Democratic Republic	-	-	-	18 736	-	-	-	18 736	-	-	-
Ghana	-	-	-	-	5 000	-	-	-	-	-	5 000
Greece	36 000	-	-	-	-	-	-	36 000	-	-	-

Table 1 (continued)

Country/ Organization	Unpaid balances/ advances by donors brought forward from UNIDF 1.1.1986	Adjust- ment to prior pledges	IDF firm pledges for				Collections in		Exchange adjust- ments	Unpaid balance	Advances by donors	
			1986	1987	1988	1989 and future years	1986-1987	1988				
<u>General-purpose convertible (continued)</u>												
Guatemala	-	-	15 000	10 000	12 421	-	-	5 000	-	874	31 547	-
Guinea	-	-108 600	-	-	-	-	-	-108 600	-	-	-	-
Guyana	723	-	1 184	712	331	348	-	1 184	1 043	422	649	-
Haiti	-	-	-	-	5 000	-	-	-	5 000	-	-	-
Honduras	-	509	1 000	-	7 000	7 000	-	1 509	7 000	-	7 000	-
Hungary	-	-	-	-	5 976	18 519	-	-	5 976	-	18 519	-
India	500 000	-	250 000	250 000	250 000	-	-	750 000	250 000	-	250 000	-
Indonesia	-	-	50 000	-	-	-	-	50 000	-	-	-	-
Iraq	161 291	-	-	-	-	-	-	-	-	-	161 291	-
Jamaica	4 000	-	-	4 000	-	-	-	8 000	-	-	-	-
Kenya	10 000	-	14 110	-	13 529	-	-	-	-	2 502	35 137	-
Kuwait	-	-	75 000	75 000	-	-	-	-	-	-	150 000	-
Lao People's Democratic Republic	1 500	-	1 500	-	-	-	-	1 500	-	-	1 500	-
Lesotho	-	1 308	1 477	1 478	-	-	-	4 104	-	159	-	-
Luxembourg	-	-	7 392	9 524	10 568	10 256	-	17 674	11 940	-2 955	11 081	-
Madagascar	-	-	1 661	1 391	813	-	-	1 385	1 494	986	-	-
Malawi	-	-	3 321	2 051	1 794	-	-	3 148	1 949	389	1 680	-
Malaysia	450	-	20 000	20 000	20 000	20 000	-	40 450	20 000	-	20 000	-
Mali	2 611	-	-	-	-	-	-	-	-	-802	3 413	-
Mauritius	-	-	699	759	1 000	-	-	786	1 000	-59	731	-
Mexico	-	4 503	15 000	-	-	-	-	4 503	15 000	-	-	-
Mongolia	-	-	2 162	2 402	2 588	2 450	-	4 583	2 663	-94	2 450	-
Morocco	5 037	5 010	5 000	-	-	-	-	10 020	3 400	1 627	-	-
Mozambique	4 925	-	5 063	-	-	-	-	5 563	-	4 425	-	-
Nepal	-	-	700	700	-	700	-	1 400	-	-	700	-
Nigeria	50 000	-	-	-	-	-	-	-	-	-	50 000	-
Oman	12 000	-	12 000	-	-	-	-	12 000	-	-	12 000	-
Panama	-	-	2 000	2 000	-	-	-	2 000	-	-	2 000	-
Papua New Guinea	-	-	12 871	-	-	-	-	-	14 773	-1 902	-	-
Paraguay	30 000	-	-	-	-	-	-	24 000	-	-	6 000	-
Peru	25 000	-	-	-	-	-	-	5 000	-	-	20 000	-
Philippines	6 006	-	10 000	-	5 000	5 000	-	5 108	2 570	-	18 398	-
Portugal	-	-	15 000	15 000	-	-	-	30 000	-	-	-	-
Republic of Korea	-	-	28 000	28 000	30 000	35 000	-	56 000	30 000	-	35 000	-
Rwanda	-	-	4 000	4 000	4 000	-	-	8 000	4 000	-	-	-
Saudi Arabia	-	-	1 000 000	1 000 000	-	1 000 000	-	1 000 000	1 000 000	-	1 000 000	-
Senegal	29 113	-	2 000	2 000	-	-	-	20 900	-	-	12 213	-

Table 1 (continued)

Country/ Organization	Unpaid balances/ advances by donors brought forward from UNIDF 1.1.1986	Adjust- ment to prior pledges	IDF firm pledges for			Collections in		Exchange adjust- ments	Unpaid balance	Advances by donors
			1986	1987	1988	1989 and future years	1986-1987			
General-purpose convertible (continued)										
Sierra Leone	94	3 184	4 380	1 137	374	-	0 539	628	2	-
Somalia	2 467	-	-	-	-	-	-	67	-	2 400
Sri Lanka	-	-	3 000	3 000	3 333	-	5 964	3 333	36	-
Sudan	102 712	-	-	-	-	-	-	-	-	102 712
Suriname	2 000	-	-	-	-	-	-	-	-	2 000
Swaziland	1 532	1 802	1 498	2 073	1 970	1 606	5 745	2 073	-726	3 389
Syrian Arab Republic	-	5 372	2 149	2 149	1 871	-	9 670	1 871	-	-
Thailand	-	-	19 925	20 623	20 784	-	41 087	20 784	-539	-
Togo	3 917	-	1 493	1 506	1 656	-	5 838	-	-679	3 413
Trinidad and Tobago	-	8 375	13 400	13 400	-	-	36 850	-	-1 675	-
Tunisia	-	-	24 220	22 105	23 602	22 102	44 210	23 602	1 382	22 835
Uganda	1 000	1 000	3 000	3 000	3 000	-	2 000	-	-	9 000
United Republic of Tanzania	-	-	1 212	649	833	714	2 046	-	764	598
Venezuela	-	-	11 467	-	-	-	11 467	-	-	-
Viet Nam	1 000	-	-	-	-	-	1 000	-	-	-
Yemen	-	-	-	-	-	2 000	-	-	-	2 000
Zaire	3 000	-	3 000	-	100 000	10 000	-	-	-	116 000
Zambia	517	-	2 342	4 707	4 707	5 089	7 049	4 707	135	5 471
Zimbabwe	-	8 075	7 879	9 175	12 121	-	15 954	8 486	2 228	10 582
Organizations										
King Abdulaziz City for Science & Technology, Saudi Arabia	-	-	-	-	32 760	-	-	-	-	32 760
S.G. des Eaux Minerales de Vittel, France	-	-	-	-	3 108	-	-	3 108	-	-
Computech Engineering Services, Inc., United States of America	-	-	30 000	-	-	-	30 000	-	-	-
Co-operation Council for the Arab States of the Gulf	-	-	-	-	11 587	-	-	-	-	11 587
Total	1 058 086	80 578	1 850 355	1 682 375	730 914	1 231 061	2 713 543	1 597 431	-20 280	2 342 675

Table 1 (continued)

Country/ Organization	Unpaid balances/ advances by donors brought forward from UNIDF 1.1.1986	Adjust- ment to prior pledges	IDF firm pledges for a/				Collections in		Exchange adjust- ments	Unpaid balance	Advances by donors
			1986	1987	1988	1989 and future years	1986-1987	1988			
<u>Special-purpose convertible</u>											
Argentina	-	-	-	-	-	-	-	60 000	-	-	-60 000
Australia	-68 815	-	152 382	9 216	12 097	72 816	166 523	-	-	11 173	-
Austria	-121 788	-	759 547	795 400	934 841	375 930	1 679 409	1 212 766	-	-	-148 245
Belgium	-480 520	-	367 644	477 593	874 961	559 489	648 649	687 679	-	462 839	-
Brazil	-	-	-	-	-	-	15 000	15 000	-	-	-30 000
Bulgaria	-	-	-	-	5 650	-	-	5 000	-	650	-
China	-289 639	-	177 124	166 492	181 395	208 311	570 000	-	-	-	-126 317
Côte d'Ivoire	108 765	-	-	-	-	-	-	-	-	108 765	-
Democratic Yemen	-2 474	-	2 418	-	-1 169	1 225	-	-	-	-	-
Democratic People's Republic of Korea	-	-	-	-	-	-	43 507	22 831	-	-	-66 338
Denmark	-	-	4 719	-	22 508	796 589	5 029	409 288	-	409 499	-
Egypt	-190 893	-	148 713	94 893	48 683	9 684	-	-	-	111 080	-
Finland	-259 801	-	238 650	1 396	-729	1 206 946	1 375 836	-	-	-	-189 374
France	-817 302	-	1 103 172	1 528 329	2 457 038	2 972 333	6 999 251	-	-	244 319	-
German Democratic Republic	-95 802	-	-	28 355	63 147	-139	213 028	79 040	-	-	-296 507
Germany, Federal Republic of	-1 429 443	-	2 769 882	4 085 719	4 133 265	8 310 696	7 708 500	5 242 337	-	4 919 282	-
Hungary	5 597	-	-740	123	-	-	-	4 980	-	-	-
India	79 685	-	213 427	3 316	8 757	258 292	550 000	250 000	-	-	-236 523
Italy	-597 640	-	1 121 394	2 424 022	3 708 623	8 195 674	5 756 469	10 898 894	-	-	-1 803 290
Japan	-662 483	-	1 087 822	1 221 307	1 173 435	1 189 982	1 599 614	1 769 386	-	641 063	-
Malta	31 628	-	-	-	-	-	-	-	-	31 628	-
Netherlands	-292 528	-	133 342	169 690	346 194	420 823	160 000	1 025 031	-	-	-407 510
Norway	-282	-	-	-	-	-	-	-	-	-	-282
Republic of Korea	-	-	-	100 763	174 269	68 628	100 000	243 660	-	-	-
Spain	-38 245	-	36 089	-	-	-	-	-	-	-	-2 156
Sveden	72 067	-	136 201	53 867	56 959	226 896	135 000	-	-	410 990	-
Switzerland	-1 608 536	-	479 516	1 801 355	792 922	2 069 947	1 055 260	1 245 042	-	1 234 902	-
United Kingdom of Great Britain and Northern Ireland	-150 310	-	556 825	712 227	1 318 022	739 230	1 163 358	1 261 830	-	750 806	-
Yugoslavia	-1 041	-	-	-	-	-	-	-	-	-	-1 041

a/ Constitutes the value of project approvals including programme support costs.

Table 1 (continued)

Country/ Organization	Unpaid balances/ advances by donors brought forward from UNIDF 1.1.1986	Adjust- ment to prior pledges	IDP firm pledges for a/				Collections in		Exchange adjust- ments	Unpaid balance	Advances by donors	
			1986	1987	1988	1989 and future years	1986-1987	1988				
<u>Special-purpose convertible</u> (continued)												
Organizations												
Arab Industrial Development Organisation	-19 877	-	-	-	-	-	-	-20 000	-	-	123	-
African Institute for Higher Technical Training and Research, Kenya	1 253	-	-5 564	-	-	-	-	-	-	-	-	-4 311
Banque ouest africaine de développement (BOAD), Togo	-	-	2 800	28	-	-	-	2 800	-	-	28	-
Egyptian Iron and Steel Company	-10 576	-	5 863	-	-	-	-	-	-	-	-	-4 713
Kuwait Institute for Scientific Research	-48 229	-	21 253	51 025	2 388	-273	-	-	-	-	26 164	-
S.G. des Eaux Minerales de Vittel, France	-	-	17 224	4 587	35	8 045	25 554	-	-	-	4 337	-
Nobel Chematur, Sweden	-	-	9 040	-	-	-	9 040	-	-	-	-	-
Apple Computer Inter- national, United States of America	-	-	-	-	22 549	11 351	-	-	-	-	33 900	-
Total	-6 887 229	-	9 538 743	13 729 703	16 335 840	27 702 475	30 021 827	24 372 764	-	9 401 548	-3 376 607	

a/ Constitutes the value of project approvals including programme support costs.

Table 1 (continued)

Country/ Organization	Unpaid balances/ advances by donors brought forward from UNIDF 1.1.1986	Adjust- ment to prior pledges	IDF firm pledges for b/				Collections in		Exchange adjust- ments c/	Unpaid balance	Advances by donors
			1986	1987	1988	1989 and future years	1986-1987	1988			
Non-convertible c/											
Bulgaria	-222 203	-	28 254	172 437	158 797	203 507	201 690	95 420	-	43 682	-
China	-54 661	-	-35 918	168 494	166 911	23 233	217 535	-	-	50 524	-
Cuba	-219 864	-	28 615	1 750	177 829	61 849	51 906	27 963	-	-	29 690
Czechoslovakia	-78	-	189 061	351 623	493 041	28 094	627 267	405 893	-	28 581	-
Egypt	-8 368	-	8 683	56 580	-15 368	46 040	72 492	-	-	15 075	-
German Democratic Republic	-282 596	-	365 806	397 425	520 132	-22 851	1 112 165	711 377	-	-	-845 626
Hungary	3 301	-	110 232	122 165	222 466	96 724	238 124	114 962	-	201 802	-
India	-399 558	-	189 538	-48 804	-26 423	347 109	500 000	502 336	-	-	-940 474
Mongolia	-15 925	-	-	-	-	-	-	-	-	-	-15 925
Pakistan	-98 888	-	40 569	21 257	6 296	20 824	67 967	-	-	-	-77 909
Poland	-26 495	-	214 653	262 166	244 311	452 910	507 273	213 310	-	426 962	-
Romania	-2 471	-	-	66 218	-4 227	3 333	-	65 104	-	-	-2 251
Turkey	-2 258	-	141 043	193 820	163 053	82 136	437 970	200 429	-	-	-60 605
Union of Soviet Socialist Republics	-402 605	-	1 107 616	1 018 555	1 074 921	134 415	1 702 196	1 085 217	-	145 489	-
Yugoslavia	-57 228	-	26 842	169 805	-25 271	190 158	275 277	81 426	-	-	-52 397
Organizations											
Egyptian Iron and Steel Company	-26 747	-	-5 195	-	-	-	-	-	-	-	-31 942
Total non-convertible	-1 816 644	-	2 409 799	2 953 491	3 156 468	1 667 481	6 011 862	3 503 437	-	912 115	-2 056 819
GRAND TOTAL	-7 645 787	80 578	13 798 897	18 365 569	20 223 222	30 601 017	38 747 232	29 473 632	-20 280	12 656 338	-5 433 426

b/ Constitutes the value of project approvals excluding programme support costs.

c/ Combines general-purpose and special-purpose non-convertible contributions.

Appendix H

Table 2

Status of resources of the Industrial Development Fund as at 31 December 1988

(In thousands of US dollars)

	Convertible		Non-convertible	Total
	General-purpose	Special-purpose		
Available for programming				
Balance from UNIDF	4 671	-	1 096	6 567
Fledges, 1986-1989	5 490	70 316	13 473	89 279
Revaluation of pledges	-	2 651	184	2 835
Interest income	3 430	-	-	3 430
Other income	(22)	-	-	(22)
TOTAL AVAILABLE	13 569	72 967	15 553	102 089
Approvals				
Projects				
Expenditure, 1986-1988	5 952	35 257	8 515	49 724
Commitments, 1989 and future	40	4 186	83	4 309
Not yet implemented	2 577	20 370	1 589	24 536
Subtotal	8 569	59 813	10 187	78 569
Support costs, 1986-1988				
General-purpose convertible	774	-	-	774
Special-purpose convertible	9	4 349	-	4 358
Non-convertible a/	1 049	22	-	1 071
Subtotal	1 832	4 371	0	6 203
Reserve for support costs, 1989 and future				
General-purpose convertible	340	-	-	340
Special-purpose convertible	-	3 048	-	3 048
Non-convertible a/	214	3	-	217
Subtotal	554	3 051	0	3 605
TOTAL APPROVALS	10 955	67 235	10 187	88 377
PROGRAMMABLE BALANCE	2 614	5 732	5 366	13 712
Cash position				
Balance from UNIDF	5 231	9 524	3 400	18 155
Contributions received	4 311	54 395	9 515	68 221
Interest and other income	3 408	4 496	(767)	7 37
Subtotal	12 950	68 415	12 148	93 513
Disbursements, 1986-1988 (including support costs)	8 255	37 935	8 876	55 066
CASH BALANCE	4 695	30 480	3 272	38 447
Unliquidated obligations, 1988 and prior				
Commitments, 1989 and future	705	4 329	1 222	6 256
Reserve for support costs, 1989 and future	40	4 186	83	4 309
Residual value of projects	554	3 051	-	3 605
Residual value of projects	2 577	20 370	1 589	24 536
TOTAL COMMITMENTS	3 876	31 936	2 894	38 706
UNCOMMITTED CASH BALANCE	919	(1 456)	378	259

a/ Support costs for projects financed from non-convertible currencies are normally charged to the general-purpose convertible segment. However, some donors have agreed that support costs on such projects financed by them should be charged to their convertible contributions.

Table 3

Cumulative) Projects approved for financing under UNIDF/IDF, 1978-1988,
classified according to priority area, as at 31 December 1988

<u>UNIDF/IDF priority area</u>	<u>Number of projects</u>	<u>Special-purpose convertible (excluding overheads) (in US dollars)</u>	<u>General-purpose convertible (in US dollars)</u>	<u>Special/general-purpose non-convertible (US dollar equivalent)</u>	<u>Total (in US dollars)</u>
Special measures for industrial development of the least developed countries	133	8 465 625	3 003 461	1 889 779	13 358 865
Transfer and adaptation of technology and development of appropriate technology and industrial information	369	22 560 134	7 057 400	2 203 216	31 820 750
Economic and technical co-operation among developing countries	119	604 449	3 834 234	1 413 217	5 851 900
Group training and strengthening industrial training institutions in developing countries	701	19 877 379	4 999 055	17 947 412	42 823 846
Industrial institutional infrastructure	100	4 215 944	2 340 022	674 705	7 230 671
Industries processing local natural resources including export-oriented industries	136	12 265 522	2 153 387	530 140	14 949 057
Industries satisfying basic needs and support to rural industries	88	5 911 540	1 867 215	412 763	8 191 518
Promotional activities	240	30 171 433	4 134 724	1 632 553	35 938 710
Other activities	58	580 379	2 237 103	134 902	2 952 384
TOTAL	1 944	104 652 405	31 626 601	26 838 695	163 117 701

TRAINING ACTIVITIES IN 1988 a/

Table 1

In-plant group training programmes in 1988

Field of study	Type of programme			Host country	Number of participants			
	National	Regional	Inter-regional		All developing countries	of which		
						LDCs	Female	African participants
Plastics technology	-	-	x	Austria	14	4	2	6
Man-made fibres	-	-	x	Austria	13	7	1	7
Mould-making	-	-	x	Austria	5	3	-	4
Railway maintenance	-	-	x	Belgium/Gabon	10	3	-	10
Agricultural machinery	-	-	x	China	13	6	-	7
Diesel engines	-	-	x	China	15	7	-	8
Diesel engines	-	-	x	Czechoslovakia	14	4	-	4
Maintenance - refrigeration equipment	-	x	-	France	17	5	-	17
Maintenance - gas/oil transportation network	-	-	x	Hungary	9	2	-	2
Maintenance - biomedical electronic equipment	-	-	x	Hungary	15	3	-	5
Production management	-	-	x	Japan	8	3	-	1
Cast spare parts design and manufacture	-	-	x	Poland	9	2	-	4
Dyes and chemicals	-	x	-	Switzerland	12	3	5	-
Cement industry	-	-	x	Turkey	11	7	-	11
Fruit and vegetable processing	-	-	x	Turkey	8	2	2	6
Beet and cane sugar industry	-	-	x	Turkey	10	3	1	4
Utilization of medicinal and aromatic plants in pharmaceutical industry	-	-	x	Turkey	9	3	3	4
Iron and steel industry	-	-	x	Turkey	13	2	-	6
Small-scale foundry operations	-	-	x	Turkey	12	6	-	10
Maintenance - railway equipment	-	x	-	United Kingdom/Egypt	14	7	-	14
Maintenance - railway track	-	x	-	United Kingdom/Kenya	14	6	-	14
Metalworking industry b/	-	-	x	Union of Soviet Socialist Republics	29	6	-	7

APPENDIX I

Table 1 (continued)

Field of study	Type of programme			Host country	Number of participants			
	National	Regional	Inter- regional		All developing countries	of which		
						LDCs	Female	African participants
Electric welding ^{b/}	-	-	x	Union of Soviet Socialist Republics	32	8	1	12
Fertilizer industry	-	-	x	Union of Soviet Socialist Republics	15	5	-	3
Grain milling and storage	-	-	x	Union of Soviet Socialist Republics	13	5	1	5
Iron and steel ^{b/}	-	-	x	Union of Soviet Socialist Republics	40	15	-	13
Industrial information	-	-	x	Union of Soviet Socialist Republics	14	2	4	12
Rice processing	-	-	x	Union of Soviet Socialist Republics	15	-	-	2
Management of agro- industrial enterprises	-	-	x	Yugoslavia	11	3	2	6
TOTAL					414	127	22	204

^{a/} The figures do not include participants in training activities organized within the framework of UNIDO-executed field projects.

^{b/} Two programmes carried out in 1988.

Table 2 a/
Other group training programmes in 1988

Field of study	Type of programme			Host country	Number of participants			
	National	Regional	Inter-regional		All developing countries	of which		
						LDCs	Female	African participants
COMFAR workshop	-	-	x	Austria	3	-	2	1
Computer-aided spare parts production	-	-	x	Belgium	12	-	-	8
Iron and steel	-	x	-	Brazil	13	2	1	3
Management - medium-size industrial enterprises	-	x	-	Bulgaria	14	10	1	14
Hydrodynamic investigation and design in shipbuilding and marine engineering	-	x	-	Bulgaria	6	-	-	-
Financial analysis and COMFAR application	x	-	-	Cape Verde	25	25	8	25
Training of trainers for small and medium-size enterprises	-	x	-	Chad	20	9	3	20
Industrial project evaluation	x	-	-	China	50	-	19	-
Single-piece and small-batch production control systems	-	-	x	Czechoslovakia	15	3	1	10
CAD/CAM applications in basic engineering industries with emphasis on maintenance and repair	-	x	-	Czechoslovakia	15	2	1	5
Management of building materials production	-	x	-	France	11	-	1	11
Production automation	-	x	-	France	13	-	-	-
Printing industry	-	-	x	German Democratic Republic	20	7	1	11
Industrial planning	-	-	x	German Democratic Republic	24	11	6	10
Pesticide formulation	-	-	x	German Democratic Republic	20	7	3	8
Management and planning of development projects	x	-	-	German Democratic Republic	7	-	-	-
Financial and economic evaluation of industrial investments	-	-	x	Federal Republic of Germany	21	4	3	7
Application of computer software in the shoe industry	-	-	x	Hungary	12	1	-	4
Industrial project preparation, evaluation and financing	-	x	-	Iraq	26	6	9	7
Analysis and evaluation of investment feasibility studies	-	-	x	Italy	10	1	2	2
Maintenance - industrial equipment	x	-	-	Morocco	20	-	-	20

Table 2 a/ (continued)

Field of study	Type of programme				Number of participants			
	National	Regional	Inter-regional	Host country	All developing countries	of which		
						LDCs	Female	African participants
Feasibility studies for mining projects	-	x	-	Morocco	80	4	7	36
Financial analysis and COMFAR application	x	-	-	Nigeria	14	-	3	14
Management of industrial co-operatives	-	x	-	Poland	12	3	1	12
Technology acquisition and project preparation	-	-	x	Poland	22	4	5	11
Industrial project preparation, evaluation and financing	-	-	x	Poland	20	4	4	6
Financial analysis and COMFAR application	-	x	-	Qatar	15	-	-	-
Financial analysis and COMFAR application	x	-	-	Seychelles	17	-	3	17
UNIDO/ESCAP - Asian workshop on CAD/CAM system for small- and medium-scale enterprises in the engineering industry in selected ESCAP developing countries	x	-	-	Singapore	18	1	-	-
Project management	x	-	-	Somalia	47	47	4	47
Financial analysis and COMFAR application	x	-	-	Sudan	12	12	-	12
Railway engineering	-	x	-	Syrian Arab Republic	26	-	4	6
Financial analysis and COMFAR application	x	-	-	Trinidad	19	-	6	19
Financial analysis and COMFAR application	x	-	-	Tunisia	11	-	-	11
Cement industry - follow-up and evaluation seminar for former participants	-	-	x	Turkey	11	5	-	5
Management of human resources	-	-	x	Union of Soviet Socialist Republics	13	5	2	8
Advanced training systems	-	x	-	Uruguay	19	-	4	-
Financial analysis and COMFAR application	-	x	-	Zambia	12	8	3	12
Energy auditing	x	-	-	Zimbabwe	12	-	-	12
TOTAL					737	181	107	404

a/ These figures do not include participants in training activities organized within the framework of UNIDO-executed field project.

Table 3

Number of fellowships and study tours started in 1988,
by nationality/home area, country or territory

Nationality/home area, country or territory	Number of individuals placed									
	UNDP			Regular programme			Other programmes			Total
	Male	Female	Total	Male	Female	Total	Male	Female	Total	
AFRICA a/										
Angola	5	-	5	-	-	-	-	-	-	5
Botswana	1	-	1	-	-	-	-	1	1	2
Burkina Faso	-	-	-	1	-	1	1	-	1	2
Burundi	-	-	-	1	1	2	-	-	-	2
Cameroon	1	1	2	-	-	-	1	-	1	3
Cape Verde	6	1	7	-	-	-	-	-	-	7
Chad	1	-	1	-	-	-	-	-	-	1
Comoros	-	-	-	-	-	-	2	-	2	2
Congo	4	-	4	-	-	-	-	-	-	4
Côte d'Ivoire	2	-	2	-	-	-	-	1	1	3
Ethiopia	32	2	34	-	-	-	1	-	1	35
Ghana	1	-	1	-	-	-	1	-	1	2
Guinea	7	-	7	-	1	1	-	-	-	8
Guinea-Bissau	2	-	2	-	-	-	-	-	-	2
Kenya	3	-	3	-	-	-	3	-	3	6
Madagascar	3	-	3	-	-	-	2	-	2	5
Malawi	-	1	1	-	-	-	-	-	-	1
Mauritius	-	-	-	-	-	-	2	-	2	2
Mozambique	1	-	1	-	-	-	2	-	2	3
Niger	10	2	12	-	-	-	-	-	-	12
Nigeria	5	7	12	-	-	-	-	-	-	12
Sao Tome and Principe	2	-	2	-	-	-	-	-	-	2
Seychelles	-	-	-	-	-	-	2	-	2	2
Sierra Leone	-	-	-	-	-	-	1	-	1	1
Togo	4	-	4	-	-	-	-	-	-	4
Uganda	-	-	-	-	-	-	2	-	2	2
United Republic of Tanzania	4	-	4	-	-	-	-	-	-	4
Zaire	6	-	6	-	-	-	-	-	-	6
Zambia	5	1	6	-	-	-	-	-	-	6
Zimbabwe	4	-	4	-	-	-	-	-	-	4
Total Africa	109	15	124	2	2	4	20	2	22	150

Table 3 (continued)

Nationality/home area, country or territory	Number of individuals placed									
	UNDP			Regular programme			Other programmes			Total
	Male	Female	Total	Male	Female	Total	Male	Female	Total	
AMERICAS										
Antigua	1	-	1	-	-	-	-	-	-	1
Argentina	2	-	2	-	-	-	4	-	4	6
Bolivia	2	-	2	-	-	-	2	-	2	4
Brazil	-	-	-	-	-	-	1	-	1	1
Chile	1	1	2	-	-	-	-	-	-	2
Colombia	1	-	1	-	-	-	-	-	-	1
Costa Rica	4	2	6	-	-	-	-	-	-	6
Cuba	8	-	8	-	-	-	14	4	18	26
Ecuador	4	1	5	-	-	-	-	-	-	5
Guatemala	1	1	2	-	-	-	-	1	1	3
Guyana	5	1	6	-	-	-	2	4	6	12
Honduras	-	1	1	-	-	-	-	-	-	1
Jamaica	2	-	2	-	-	-	-	1	1	3
Mexico	11	-	11	-	-	-	-	-	-	11
Nicaragua	5	-	5	-	-	-	-	-	-	5
Paraguay	5	-	5	-	-	-	-	-	-	5
Trinidad	5	-	5	-	-	-	-	-	-	5
Uruguay	3	1	4	-	-	-	-	-	-	4
Venezuela	2	3	5	-	-	-	-	-	-	5
Total Americas	62	11	73	-	-	-	23	10	33	106
ARAB STATES										
Algeria	18	5	23	-	-	-	2	-	2	25
Bahrain	1	-	1	-	-	-	-	-	-	1
Democratic Yemen	11	-	11	-	-	-	-	-	-	11
Egypt	19	2	21	-	-	-	2	-	2	23
Iraq	2	1	3	-	-	-	-	-	-	3
Jordan	4	-	4	-	-	-	-	-	-	4
Libyan Arab Jamahiriya	-	-	-	-	-	-	1	-	1	1
Morocco	6	-	6	-	-	-	-	-	-	6
Somalia	3	-	3	-	-	-	-	-	-	3
Sudan	1	-	1	-	-	-	1	-	1	2
Syrian Arab Republic	6	-	6	-	-	-	-	-	-	6
Tunisia	9	1	10	-	-	-	2	-	2	12
Total Arab States	80	9	89	-	-	-	8	-	8	97

Table 3 (continued)

Nationality/home area, country or territory	Number of individuals placed									
	UNDP			Regular programme			Other programmes			Total
	Male	Female	Total	Male	Female	Total	Male	Female	Total	
ASIA AND THE PACIFIC										
Afghanistan	2	-	2	-	-	-	-	-	-	2
Bangladesh	5	-	5	1	-	1	-	-	-	6
Burma	11	1	12	-	-	-	-	-	-	12
China	157	52	209	6	-	6	52	10	62	277
Democratic People's Republic of Korea	22	-	22	-	-	-	-	-	-	22
India	163	2	165	-	-	-	5	-	5	170
Indonesia	16	4	20	-	-	-	-	-	-	20
Iran (Islamic Republic of)	27	6	33	-	-	-	-	-	-	33
Malaysia	7	1	8	1	-	1	-	-	-	9
Mongolia	2	-	2	4	-	4	-	-	-	6
Nepal	29	3	32	-	-	-	-	-	-	32
Pakistan	4	-	4	-	-	-	-	-	-	4
Papua New Guinea	1	2	3	-	-	-	-	-	-	3
Philippines	12	4	16	-	-	-	1	1	2	18
Republic of Korea	17	3	20	-	-	-	1	-	1	21
Samoa	1	-	1	-	-	-	-	-	-	1
Sri Lanka	7	1	8	-	-	-	2	1	3	11
Thailand	2	1	3	-	-	-	1	-	1	4
Tuvalu	1	-	1	-	-	-	-	-	-	1
Viet Nam	60	5	65	-	-	-	-	-	-	65
Total Asia and the Pacific	546	85	631	12	-	12	62	12	74	717
EUROPE										
Albania	24	2	26	-	-	-	-	-	-	26
Bulgaria	77	4	81	-	-	-	-	-	-	81
Cyprus	9	-	9	-	-	-	-	-	-	9
Czechoslovakia	14	3	17	-	-	-	-	-	-	17
Greece	-	1	1	-	-	-	-	-	-	1
Hungary	43	6	49	-	-	-	-	-	-	49
Poland	55	15	70	1	-	1	-	-	-	71
Portugal	-	1	1	-	-	-	-	-	-	1
Romania	12	2	14	-	-	-	-	-	-	14
Turkey	16	2	18	-	1	1	10	-	10	29
Yugoslavia	41	11	52	2	-	2	-	-	-	54
Total Europe	291	47	338	3	1	4	10	-	10	352
GRAND TOTAL	1 088	167	1 255	17	3	20	123	24	147	1 422 ^{b/}

^{a/} African Arab States (Algeria, Egypt, Libyan Arab Jamahiriya, Morocco, Somalia, Sudan, Tunisia) included under "Arab States".

^{b/} Including 194 females; 157 individuals from least developed countries; 222 individuals from African countries (including African Arab States).

Table 4

Fellowships and study tours started in 1988, by country,
geographical area or territory of study a/, b/

Country/geographical area/ territory of study	Number of individuals placed			Total
	UNDP	Regular programme	Other programmes	
Argentina	6	-	-	6
Australia	21	-	1	22
Austria	102	4	12	118
Austria (UNIDO Headquarters)	120	-	6	126
Bahamas	2	-	-	2
Bangladesh	3	-	-	3
Belgium	26	1	7	34
Brazil	18	-	-	18
Bulgaria	10	-	-	10
Burma	3	-	-	3
Cameroon	2	-	-	2
Canada	17	-	4	21
Chile	3	-	-	3
China	16	-	1	17
Colombia	2	-	2	4
Congo	3	-	-	3
Côte d'Ivoire	7	-	-	7
Cuba	1	-	-	1
Czechoslovakia	29	2	1	32
Denmark	26	-	-	26
Ecuador	1	-	-	1
Egypt	12	-	-	12
Ethiopia	2	-	-	2
Finland	24	-	1	25
France	147	5	17	169
German Democratic Republic	16	-	1	17
Germany, Federal Republic of	241	-	15	256
Greece	2	-	-	2
Guatemala	1	-	-	1
Guinea-Bissau	6	-	-	6
Hong Kong	5	-	-	5
Hungary	28	-	2	30
India	39	-	-	39
Indonesia	10	-	-	10
Ireland	13	-	-	13
Italy	100	1	14	115
Jamaica	1	-	1	2
Japan	52	1	1	54
Kenya	4	-	2	6
Malawi	4	-	-	4
Malaysia	7	-	-	7
Mauritius	7	1	-	8
Mexico	15	-	1	16

Table 4 (continued)

Country/geographical area/ territory of study	Number of individuals placed			Total
	UNDP	Regular programme	Other programmes	
Morocco	3	-	-	3
Netherlands	40	3	7	50
New Zealand	17	-	-	17
Nicaragua	4	-	-	4
Nigeria	3	-	-	3
Norway	19	-	-	19
Pakistan	9	-	-	9
Peru	3	-	-	3
Philippines	10	-	-	10
Poland	17	-	-	17
Portugal	4	-	-	4
Republic of Korea	15	-	-	15
Reunion	-	-	8	8
Romania	4	2	-	6
Senegal	4	-	-	4
Singapore	24	-	-	24
Spain	15	-	2	17
Sri Lanka	2	-	-	2
Sweden	45	-	1	46
Switzerland	49	-	4	53
Syrian Arab Republic	1	-	-	1
Thailand	40	-	1	41
Togo	3	-	-	3
Tonga	1	-	-	1
Trinidad and Tobago	-	-	3	3
Tunisia	4	-	-	4
Turkey	1	-	-	1
Union of Soviet Socialist Republics	15	6	-	21
United Kingdom	264	-	31	295
United Republic of Tanzania	1	-	1	2
United States of America	195	2	28	225
Venezuela	-	-	1	1
Yugoslavia	14	-	-	14
Zambia	1	-	1	2
Zimbabwe	2	-	-	2
TOTAL	1,983	28	177	2,188

a/ Where a fellowship/study tour included more than one country/geographical area/territory, it is listed against each one concerned. Thus the totals in table 4 do not correspond to those in table 3.

b/ Of these placements 360 or 16.4 per cent were arranged in developing countries, thus contributing to technical co-operation among developing countries.

APPENDIX J

AGREEMENTS CONCLUDED BY UNIDO IN 1988

Agreements with StatesBolivia

Basic co-operation agreement between the United Nations Industrial Development Organization and the Government of the Republic of Bolivia, signed on 1 December

Cameroon

"Communiqué final" on the Director-General's visit to Cameroon from 17 - 21 July 1988 to discuss co-operation between Cameroon and UNIDO in the field of industrial development, signed on 21 July

Chile

Basic co-operation agreement between the United Nations Industrial Development Organization and the Government of the Republic of Chile, signed on 26 April

Côte d'Ivoire

Agreement between the United Nations Industrial Development Organization and the Government of Côte d'Ivoire regarding the arrangements for the UNIDO Consultation on the Phosphatic Fertilizers and Pesticides Industries, signed on 7 December

Cuba

Agreement between the United Nations Industrial Development Organization and the Government of Cuba regarding the arrangements for the United Nations Industrial Development Organization's First Interregional Consultation on the Food-Processing Industry With Emphasis on Sugar-cane Processing, signed on 20 September

France

Exchange of letters between the Permanent Representative of France to UNIDO and the Director-General concerning the extension of the UNIDO Investment Promotion Service in Paris for three years with effect from 1 January 1989, dated 5 and 9 December

India

Agreement between the Government of India and the United Nations Industrial Development Organization on basic terms and conditions governing UNIDO projects envisaged by the interim programme for the International Centre for Genetic Engineering and Biotechnology, signed on 25 March 1988

Trust fund agreement between the Government of India and the United Nations Industrial Development Organization, signed on 25 March in connection with above agreement on basic terms and conditions

Exchange of letters between the Director-General and the Permanent Representative of India to UNIDO regarding above agreement on basic terms and conditions, dated 25 March

Italy

Agreement between the United Nations Industrial Development Organization and the Government of Italy on basic terms and conditions governing the UNIDO project concerning the preparatory phase for the establishment of an International Centre for Science and High Technology, signed on 29 June

Japan

Exchange of letters between the Director-General and the Permanent Representative of Japan to UNIDO concerning the recruitment of associate experts for the provision of technical assistance to developing countries, dated 14 April

Memorandum concerning the interregional project of the UNIDO Service in Japan for the promotion of industrial investment in developing countries, signed on 30 June

Morocco

Basic co-operation agreement between the United Nations Industrial Development Organization and the Government of his Majesty the King of Morocco, signed on 6 September

Niger

Basic co-operation agreement between the United Nations Industrial Development Organization and the Government of the Republic of the Niger, signed on 20 September

Philippines

Memorandum of understanding between the Government of the Republic of the Philippines and the United Nations Industrial Development Organization on co-operation in the field of low-cost building materials technologies and construction systems, signed on 12 November

Portugal

Memorandum of understanding between the Government of the Portuguese Republic and the United Nations Industrial Development Organization, signed on 7 April

Note of understanding between the Government of the Portuguese Republic and the United Nations Industrial Development Organization on their co-operation for the establishment of the Centre for Pharmaceutical Technology Information Training and Development (ITPT), signed on 7 April

Note of understanding on training between the Government of the Portuguese Republic and the United Nations Industrial Development Organization, signed on 7 April

Sudan

Basic co-operation agreement between the United Nations Industrial Development Organization and the Government of the Republic of the Sudan, signed on 8 March 1988

Protocol regarding procurement by UNIDO of equipment, supplies and other property pursuant to the agreement for technical services on training under the Sudan sugar rehabilitation project (signed on 14 June and 14 September 1987), signed on 29 January and 9 March, 1988

Joint communiqué on the official visit of the Minister of Industry of the Sudan to UNIDO Headquarters, 30 November - 2 December 1988 signed on 2 December

United Arab Emirates

Basic co-operation agreement between the United Nations Industrial Development Organization and the Government of the United Arab Emirates, signed on 1 December

Agreements with the United Nations and other organizations within the United Nations system

United Nations

Agreement between the United Nations and the United Nations Industrial Development Organization for the transfer of assets, signed on 11 March

Agreement between the United Nations and the United Nations Industrial Development Organization on arrangements for the sale of UNIDO publications, signed on 6 and 20 June

Subsidiary organs of the United Nations

ECA

Working arrangement between the Secretariat of the Economic Commission for Africa and the Secretariat of the United Nations Industrial Development Organization, signed on 28 May

UNFDAC

Letter of agreement between United Nations Fund for Drug Abuse Control and United Nations Industrial Development Organization concerning the continued participation of UNIDO in the implementation of UNFDAC-funded law enforcement and other drug control projects in 1989, signed on 24 and 31 October

Agreements with other intergovernmental organizations

AfDB

Co-operation agreement between the United Nations Industrial Development Organization and the African Development Bank and the African Development Fund, entered into on 6 February

ARCT

Relationship agreement between the United Nations Industrial Development Organization and the African Regional Centre for Technology, signed on 13 August

AOMR

Relationship agreement between the United Nations Industrial Development Organization and the Arab Organization for Mineral Resources, signed on behalf of UNIDO on 22 August

ASMO

Relationship agreement between the United Nations Industrial Development Organization and the Arab Organization for Standardization and Metrology, signed on 31 May and 15 June

APCC

Relationship agreement between the United Nations Industrial Development Organization and the Asian and Pacific Coconut Community, signed on 25 March

CDI

Memorandum of understanding between the United Nations Industrial Development Organization and the Centre for Development of Industry, signed on 21 September

CACEU

Relationship agreement between the United Nations Industrial Development Organization and the Central African Customs and Economic Union, signed on 23 September

ICH

Relationship agreement between the United Nations Industrial Development

Organization and the Intergovernmental Committee for Migration, signed on 22 April

ICPE

Relationship agreement between the United Nations Industrial Development Organization and the International Center for Public Enterprises in Developing Countries, signed on 12 May

OMVS

Relationship agreement between the United Nations Industrial Development Organization and the Organization for the Development of the Senegal River, signed on 12 August

Agreements with other institutions

Memorandum of understanding between the United Nations Industrial Development Organization and the European Group for the Development of Enterprises through International Co-operation, signed on 30 June and 6 July 1988

Co-operation agreement between the United Nations Industrial Development Organization and the University of Paris I Panthéon-Sorbonne signed on 17 May