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UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

UNIDO
1991
Annual Report
Industrial Development Board
Ninth session, 1992

ANNUAL REPORT OF UNIDO 1991

Industrial Development Board
Ninth session, 1992

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EXPLANATORY NOTE

The Industrial Development Board at its seventh session (IDB.7/Dec.11) approved the incorporation of the programme performance report in the annual report on the basis of a new format of programme and budgets, as proposed in documents IDB.7/3 and Add.1. While this new reporting system will not come fully into operation before 1993, an attempt was already made to reflect programme performance in the Annual Report of UNIDO, 1990 (IDB.8/10).

Subsequently, the General Conference in its resolution GC.4/Res.2, requested the Director-General to fully incorporate in future annual reports the programme performance report according to Board decision IDB.7/Dec.11, and to continue including therein the tabular presentation of significant performance indicators and the comparison of outputs implemented against outputs planned for the period covered by the annual report, as shown in document GC.4/35.

In complying with those requests, the present annual report also provides, parallel to the description of the activities carried out in 1991, the significant performance indicators and the comparison of outputs implemented against outputs planned for the biennium 1990-1991. In that respect, cross-references are made to the subprogrammes, programme elements and outputs described in the programme and budgets, 1990-1991, as adopted by the General Conference at its third session (GC.3/10/Rev.1).

ABBREVIATIONS

ACC	Administrative Committee on Co-ordination	COMFAR	UNIDO Computer Model for Feasibility Analysis and Reporting
ACT	Analysis of Technological Complexity	CPC	Committee for Programme and Co-ordination
AIOMO	Arab Industrial Development and Mining Organization	ECA	Economic Commission for Africa
ALIDE	Latin American Association of Development Financing Institutions	ECDC/TCDC	economic and technical cooperation among developing countries
AMU	Arab Maghreb Union	ECE	Economic Commission for Europe
ARCT	African Regional Centre for Technology	ECLAC	Economic Commission for Latin America and the Caribbean
ASEAN	Association of South-East Asian Nations	EOP	electronic data processing
CAD/CAM	computer-aided design/computer-aided manufacturing	ESCAP	Economic and Social Commission for Asia and the Pacific
CAE	computer-aided engineering	ESCWA	Economic and Social Commission for Western Asia
CCAQ	Consultative Committee on Administrative Questions	ESID	ecologically sustainable industrial development
CIM	computer-integrated manufacturing	FAO	Food and Agriculture Organization of the United Nations
CMFA	Council for Mutual Economic Assistance	GOIC	Gulf Organization for Industrial Consulting
CMMS	computerized maintenance management system	GTZ	German Agency for Technical Cooperation
CNC	computer numerical control		

ABBREVIATIONS (continued)

Habitat	United Nations Centre for Human Settlements	OLADE	Latin American Energy Organization
IAEA	International Atomic Energy Agency	PTA	Preferential Trade Area for Eastern and Southern African States
ICGEB	International Centre for Genetic Engineering and Biotechnology	R and D	research and development
IDDA	Industrial Development Decade for Africa	RENPAAC	regional pesticide analytical council
IDF	Industrial Development Fund	RENPAAP	Regional Network on Pesticides for Asia and the Pacific
ILO	International Labour Organisation	RP	regular programme
INECA	Industrial Energy Conservation Abstracts	SELA	Latin American Economic System
INSTRAM	United Nations International Research and Training Institute for the Advancement of Women	SIS	Special Industrial Services programme
INTIB	Industrial and Technological Information Bank	STAS	short-term advisory services
IPF	indicative planning figure	TIES	Technological Information Exchange System
IPS	Investment Promotion Services	TSS-1	technical support services at the programme level
ISO	International Organization for Standardization	TSS-2	technical support services at the project level
ITC	International Trade Centre UNCTAD/GATT	UCD	UNIDO Country Director
ITU	International Telecommunications Union	UNCTAD	United Nations Conference on Trade and Development
JIU	Joint Inspection Unit	UNDCP	United Nations Drug Control Programme
JPO	UNIDO Junior Professional Officer	UNDP	United Nations Development Programme
LDC	least developed country	UNEP	United Nations Environment Programme
LES	Licensing Executive Society	UNESCO	United Nations Educational, Scientific and Cultural Organization
MEPS	methodology for assessing and programming integrated production and consumption systems	UNICEF	United Nations Children's Fund
NGO	non-governmental organization	UNIFEM	United Nations Development Fund for Women
OAPI	African Intellectual Property Organization	UNOV	United Nations Office at Vienna
OAU	Organization of African Unity	VIC	Vienna International Centre
OECD	Organisation for Economic Co-operation and Development	WHO	World Health Organization
OEVG	Austrian Society for Traffic and Transport Science	WIPO	World Intellectual Property Organization

CHAPTER I. POLICY ISSUES

1. The Organization continued to fulfil its role in a year of unprecedented change. Most developing countries continued to face daunting problems: mass deprivation, local production overwhelmed by imports, capital flight, collapse of embryonic welfare systems in health and education, and high prices. Onerous debt servicing and lower commodity prices merely compounded the problems of sound governance - at a time when the universal need for industrial growth and restructuring could not be more obvious.

2. Major politico-economic trends emerged in many places: the shift towards democratization and a pluralistic society and a wider acceptance of market economy principles. Throughout the year, the nature of international economic relationships was gradually transformed by a host of different factors. These included changes in military spending, shifts in the international trading system and the regionalization of markets, while the disruptions caused by transitional economies of Central and Eastern Europe, in particular the collapse of the former Soviet Union, began to impinge on the economic fate of the developing countries. These changes were distinct from the continuing structural transformation of global industry away from energy-intensive and material-based productive processes to increasingly flexible information- or knowledge-based activities with corresponding changes in global productivity. At the same time, new product standards and environmental regulations in developed countries continued to induce changes in manufacturing processes and products and, as in years before, the price of oil and other primary commodities played a key role.

3. Greater access to markets, technology and finance were seen to be major determinants of economic success - especially for those countries with heavy debt burdens. To guard against the marginalization of the developing countries, momentous systemic reform, matched by equally momentous amounts of aid and economic support, was more essential than ever before. This in essence is the primordial challenge of global interdependence and one that has to be addressed firmly by the world community at the national, regional and interregional levels.

4. Recognition of the need for enlightened measures to hasten an end to the economic predicament in which so many developing countries are trapped also led to the spirit of reform that seized the United Nations in general and UNIDO in particular. In the course of the year, numerous proposals were put forward for strengthening the system of managing global

interdependence. As evidenced in the final report of the Nordic United Nations project in the field of operational activities, this spirit of reform went beyond fashioning the Organization into a more coherent and effective body. It extended to the specialized agencies whose role as "centres of excellence" in their respective areas was seen to be increasingly important in helping to manage growing areas of interdependence and meet global challenges. One of the key prerequisites in that process was that agencies be put on a sound financial footing and not be haunted by the spectre of insolvency.

5. All these developments bear profound implications for UNIDO. Foremost among them is the pending enlargement of the Organization's membership with the emergence of new Member States, some of which may ultimately be additional beneficiaries of the Organization's services without, however, being in a position to enhance its resource base. Their endeavours to effect a rapid transition to market economies give rise to demands for urgent assistance that, while brooking no further delay, impose an inordinate burden on the Organization. A more specific and positive aspect of the transition process is the reduction of military expenditures which offers the prospects of converting military-related production capacities to civilian uses. This is an area in which UNIDO could once again play its due role. UNIDO can assume these additional responsibilities only if it assured human and financial resources commensurate with the task and on the strict understanding that, as in the past, these new demands are not allowed to detract from its primary commitment to the developing countries.

6. Just as the Organization's clientele is changing, so too are the sources of funding for its operational activities. Whereas in 1986, UNDP funding accounted for 74 per cent of UNIDO's total technical cooperation, in 1991 it accounted for a mere 51.7 per cent. This shift, coupled with the changes in the tripartite system resulting from the successor arrangements for agency support costs (discussed in paras. 10-12 below), raises important organizational issues, such as the changing role of the country focus that hitherto was closely allied to UNDP policies and country programmes and the need for organizational flexibility in funding and executing technical cooperation projects. To an increasing degree, UNIDO will become an agency where specialization and excellence will be the keys to survival. To that end, it will be essential to engage in the long postponed debate and take political decisions on the prioritization of the Organization's activities.

7. That process of prioritization was initiated at the meeting of the Special Advisory Group to the Director-General in May 1991 which focused on the subject of UNIDO's preparing for the future. It took up its debate of the previous year on the long-term orientation of UNIDO so that the Organization would be in step with events, rather than merely reacting to them (see IDB.8/10, chap. I, paras. 14-16).

8. Agreed on the need to elaborate a strategic vision for UNIDO, the Group reviewed a strategy mix proposed by the Secretariat. It consisted of three elements: normative, policy support and consultancy. The normative strategy emphasized a central function of the United Nations system: the elaboration of internationally agreed concepts, norms and guidelines as well as provision of comparative information and analyses in critical areas of cross-country relevance. The policy support strategy aimed at providing advisory services primarily to Governments in the framework of specific projects and generally on a cost-coverage basis, while the consultancy strategy was directed at strengthening the position of UNIDO within the United Nations system as a provider of services to industry - public as well as private - on a cost-plus basis.

9. The findings of the Group (GC.4/23) will serve as essential inputs to the continuing discussion on the role of UNIDO as Member States and the Secretariat ponder the classic management questions as to the role of UNIDO and the exercise thereof, as well as the feasibility of achieving the aims and objectives of the Organization when shackled to zero or negative growth of its financial resources.

10. While numerous proposals for reform in the United Nations came to the fore in 1991, the most immediate impulse for change came from two decisions adopted in May 1991 by the Governing Council of UNDP, namely decisions 91/32 and 91/27 related to support costs and national execution, which had to be translated into practical reality. UNIDO urged that UNDP and the agencies jointly develop the guidelines, formats and other operational tools required for the introduction of the new support cost regime. UNIDO also emphasized the need to undertake a major joint training effort for government officials and United Nations staff in all countries concerned so as to facilitate the comprehension and implementation of the new approach. That viewpoint was accepted and work started on developing joint guidelines and initiating training.

11. In essence, the changes to the tripartite system entail a shift in the orientation of agencies towards greater technical inputs, a strengthening of the coordinating and funding role of UNDP and greater involvement and commitment on the part of recipient Governments in the various programmes and projects. The realignment of roles was to be accompanied

by a change in the mode of funding, the rates for which were negotiated between the agencies and UNDP in the latter part of the year.

12. In anticipation of that realignment and the changing requirements of Member States, the Secretariat had already presented a restructuring proposal (IDB.7/33) to the Board at its seventh session in November 1990. The main thrust of that proposal was to reduce the layer of upper management and sharpen the technical edge of the Organization; it also sought to strengthen the country, regional and interregional focus of UNIDO, while ensuring accountability and improving coordination. It placed particular emphasis on the essentiality of restructuring the Organization and of reflecting carefully the industrialization needs of the developing countries in a new structure that was to be simple, rational and transparent. The original proposal was subsequently modified (IDB.8/45) to reflect the comments of Member States expressed during the seventh session of the Board in November and in informal consultations, as well as the basic considerations of the open-ended working group on the organizational and staff structure of UNIDO. The matter was discussed at both the eighth session of the Board in July and in a series of informal consultations in October, in the course of which it transpired that, whereas there was general agreement on the need to restructure, opinion was divided on when to introduce the new structure, and particularly on the number of Deputy Directors-General. Ultimately, at the fourth session of the General Conference, no conclusive decision was reached on the proposed restructuring and the Board was requested to pursue its examination of the matter with a view to reaching a decision that could be adopted at the fifth regular session of the Conference (decision GC.4/Dec.22).

13. At the operational level, UNIDO sought to enhance its current activities and its efforts bore fruit. The technical assistance delivery of \$307.1 million in the biennium 1990-1991 (\$159.6 million in 1990, \$147.5 million in 1991) was around 60 per cent higher than the \$194.3 million delivered in the 1986-1987 biennium. Similarly, the approximately \$1,600 million of investment projects successfully promoted in the 1990-1991 biennium (\$700 million in 1990, some \$890 million in 1991) was four times greater than \$371.3 million promoted in the 1986-1987 biennium. At the same time however, project approvals dropped for the second year running, from \$162.7 million in 1990 to \$130.4 million in 1991, and the value of projects scheduled for implementation, the stock of UNIDO projects, suffered a decrease from \$255.6 million at the end of 1990 to \$238.5 million at the end of 1991. The impact of these decreases not uncommon in the final year of the UNDP programming cycle is evident in the table comparing

outputs programmed and outputs completed which shows a comparatively low rate of completion despite record deliveries in terms of both technical cooperation and investment promotion (see appendix J).

14. These developments bore out the note of caution struck in the previous Annual Report, 1/ where it was pointed out that technical cooperation delivery in the ensuing year would be governed primarily by three factors: (a) changes in the external environment that were difficult to predict in the light of the situation in the Gulf region which accounted for almost 11 per cent of the Organization's delivery; (b) the rate of approvals by the United Nations Development Programme (UNDP) of pipeline projects submitted by UNIDO; and (c) the assistance of a high collection rate of assessed contributions. During 1991, programmes in some 20 countries were disrupted as a result of the Gulf war or civil strife elsewhere, and with the imminent change to the new successor arrangements for support costs. UNDP approvals in the traditional sense were lower than in previous years. Furthermore, the Organization had to adopt a policy of strict financial stringency throughout the year because of Member States' failure to pay their assessed contributions in full (see para. 19 below). It should also not be overlooked that the output was achieved with a smaller staff complement than that in 1986, the first year of UNIDO as a specialized agency.

15. Along with increased project delivery during the biennium, project quality can be seen to have improved consistently over the past five years. Since 1986, there has been a perceptible improvement in project performance and effectiveness as borne out by evaluations of technical cooperation projects. A recent analysis of tripartite in-depth and self-evaluations in 1990 speaks of a slight improvement over the previous year. Although problems persisted with respect to project design and implementation, continuing efforts to strengthen both the appraisal and evaluation functions, as well as feedback between the two and with operational staff, helped to enhance the quality, relevance, feasibility, cost-effectiveness and sustainability of the Organization's projects. Further details of both the appraisal and evaluation exercises are to be found in chapter V.

16. These endeavours to assure project quality, relevance, feasibility, cost-effectiveness and sustainability were evident in the various priority areas identified in the medium-term plan. For example, in the field of human resource development, the emphasis lay on assisting developing countries to build up coherent

and sustainable systems for upgrading their technological skills and managerial and entrepreneurial capabilities. To that end, a large-scale regional programme for selected Asian countries was carried out based on a modular approach to managerial and entrepreneurial skill development. Work initiated in the previous year on the introduction of computers as an integral part of the design and production process was continued, for example with the preparation of a training manual. The sustainability of programmes was enhanced by the emphasis given to the training of trainers so as to generate an appropriate multiplier effect, for example in the assistance provided to two training institutions in the agro-industrial sector in Cameroon and Senegal. Africa featured prominently in the Organization's efforts to strengthen training capabilities and promote self-reliance in a variety of fields ranging from foundry operations and brickmaking to the design and manufacture of agricultural machinery and development.

17. The close link between the development and transfer of technology and human resource development was demonstrated by the training needs analysis carried out in the electronics sector in Viet Nam, as well as by the response to the group training programmes organized by various countries. These programmes also proved an appropriate vehicle for technical cooperation among developing countries (TCDC): Turkey and other developing countries contributed to the funding of an appreciable number of programmes which provide essential training to nationals from developing countries. This helped to offset the decrease in the group training programmes customarily held in the countries of Eastern and Central Europe where resource availability had been limited by the major structural changes currently taking place.

18. Training, albeit directed towards improving the capacity of UNIDO headquarters and field staff to render industry-related assistance was a prominent feature of the first subprogramme of the Organization's environmental programme. The second subprogramme, directed towards assisting developing countries in formulating industry-related environmental policies and legislation, also got off to a good start, while the technical cooperation activities under the third and fourth subprogrammes, clean technologies and pollution abatement, registered a sharp increase. A further increase can be expected in the light of the deliberations at the UNIDO Conference on Ecologically Sustainable Industrial Development (ESID) which, inter alia, mapped out future UNIDO action and outlined proposals for enhancing environmental sustainability in five industrial sub-sectors.

19. A growing number of environment-related queries were handled by the Industrial and Technological Information Bank (INTIB), an essential support system in the transfer of technology activities of

1/ IDB.8/10, chap. I, para. 5.

UNIDO. In addition to the comprehensive technical cooperation activities of the Department of Industrial Operations which constitute a major vehicle for the transfer of technology, the technology development and promotion activities, as described in chapter III, extended from the industrial application of informatics technology and developments in software through new materials and new and renewable energy technologies to marine industrial technology. The role of technology centres in providing developing country scientists and technologists greater access to selected areas of new and high technology was amply demonstrated by the International Centre for Genetic Engineering and Biotechnology, while the potential viability of an international centre for science and high technology was confirmed by pilot activities. Details of the centres' activities as well as the manner in which the Organization implemented the programme for the development and transfer of technology were submitted to the General Conference at its fourth session. 2/

20. In drawing up its various regional programmes as part of the all-important regional dimension of its activities, the Organization emphasized qualitative improvement and sustainability, while securing the active involvement of Member States. In Latin America and the Caribbean region, the region's economic upturn proved most propitious. As policy reform took grip of the region, with trade and investment liberalization, privatization and fiscal orthodoxy coming to the fore, the Regional Cooperation Programme for the Industrial Recovery of Latin America and the Caribbean got fully under way. Within that context, the project for the development of industrial subcontracting in the region involving 13 countries met with success and its extension is currently under negotiation. A second project, a regional programme for the industrial automation of the capital goods sector, carried out in cooperation with the national associations of capital goods manufacturers in the private sector, entered the operational stage. One of its main objectives is to assist manufacturers in their rehabilitation efforts through the incorporation of modern automation technologies, strategic management techniques and total quality assistance, as well as by giving direct advice to industry. The project reflected the new economic and industrial policies being pursued in the region which underpinned the role of the private sector as it sought new instruments for modernizing industry and enhancing competitiveness.

21. In the Asia and Pacific region, where many countries displayed economic resilience in the face of the global slowdown, some 15 projects worth \$2.6 million were approved

during 1991 for the Special Programme for the region. Work advanced on the least developed country component of the programme following a regional workshop on agro-related metalworking industries that identified a series of national and regional projects. The response among other agencies was also positive as demonstrated by the active participation of the Food and Agriculture Organization of the United Nations. UNIDO has since started to draft a series of country briefs related to the agro-processing industry in the region's least developed countries which, it is hoped, will enjoy an equally positive reception. Despite the constraining conditions prevailing in the region, it proved positive to formulate a number of projects under the Special Programme for Industrial Development in the Arab Countries and secure their approval. Although implementation was temporarily hindered in the first part of the year, conditions relaxed in the latter part. In close cooperation with the Arab Industrial Development and Mining Organization (AIDMO) and the Economic and Social Commission for Western Asia (ESCWA), foundations were laid for a regional inter-agency meeting to be held in early 1992 which will further elaborate the components of the Special Programme, identify the modalities of implementation and explore ways and means of stabilizing resources.

22. The programme for the Second Industrial Development Decade for Africa (CAMI.II:ICE/1991/6/Vol. 1 and Vol. 2), which was adopted by the Conference of African Ministers of Industry at its tenth meeting at Dakar, Senegal, in July 1991 and subsequently by the General Conference of UNIDO at its fourth session in November (GC.4/Res.8) is a prime example of a greatly strengthened and cohesive programmatic response to Africa's endeavours to assert itself industrially at a critical juncture in its history. In preparing the programme, no less than 47 of the 51 countries in the region submitted national programmes, an impressive display of solidarity and commitment. These efforts were matched by the close cooperation between the three lead agencies, the Organization of African Unity, the Economic Commission for Africa and UNIDO with significant inputs from both UNDP and the World Bank.

23. Close cooperation with the World Bank was also established in other areas. UNIDO started on a World Bank-financed project in the Sudan related to the training component of a major undertaking to rehabilitate the sugar industry and a second project was being considered for the same country related to privatization and small- and medium-scale enterprise development. The World Bank also asked UNIDO to provide procurement services for the Nigerian Government and secure equipment for a number of mechanical workshops funded under a Bank loan. At the same time, the World Bank and UNIDO discussed at length the applicability of the strategic management

2/ GC.4/39 and GC.4/11 and Add.1.

approach developed by UNIDO as a complement to the Bank's activities. Whereas the World Bank contributes to the macro-economic setting, liberalizing economies and inducing competitiveness, UNIDO ensures that entrepreneurial initiative is stimulated through appropriate technological and institutional policies down to the micro-economic level.

24. This complementarity of action through improved coordination with international financing organizations was also emphasized in General Conference resolution GC.4/Res.21 on the mobilization of financial resources for industrial development. In fact, as a result of discussions with major development financing institutions, openings for co-operation with the African Development Bank, the Asian Development Bank and the Inter-American Development Bank were identified. These may help in the years to come to increase the financial resources available for technical cooperation in the industrial sector.

25. Special trust funds also represent an additional source of funding, over and above those available for the traditional programmes of technical cooperation. Admittedly, the trust fund mechanism is not new to UNIDO, nor indeed to the United Nations system, but UNIDO has enjoyed unparalleled success in its utilization to promote enterprise-to-enterprise cooperation and special programmes related to areas of priority identified in the medium-term plan. In General Assembly resolution 45/196 on industrial development cooperation and the diversification and modernization of productive activities in developing countries, UNIDO was singled out on account of the contribution of the special trust fund schemes it had launched in developing alternatives to traditional cooperation programmes.

26. The degree of success achieved by UNIDO in mobilizing project financing resources is reflected in the continued growth in trust fund project delivery. Project expenditure under self-financed and third-party trust fund schemes increased from \$25.7 million in 1990 to \$31.2 million in 1991. Member States continued to lend financial support to the Industrial Development Fund; however, pledges in 1991 totalled \$28.9 million, a decrease of \$0.9 million over 1990. The Fund is still far below the desirable funding level of \$50 million.

27. The disparity between what the Organization could do and the resources it is given to go about its task continued to grow throughout the year. Whereas the international community's confidence in the ability of UNIDO to contribute effectively to industrial development was reflected in five new Member States (Chad, Djibouti, Liberia, Lithuania and Myanmar) joining and one (Australia) rejoining the Organization in the past two years, UNIDO once again found itself dogged by Member States' failure to honour their financial

commitments. At the end of September 1991, no less than 112 countries had failed to pay their assessed contributions in full and at that time the number of countries that had lost their voting rights stood at an all-time high of 41. At the beginning of the last quarter in 1991, the payments outstanding to the Organization were equivalent to three quarters of the Organization's annual regular budget. Under these circumstances, the imposition of a 15 per cent or even higher reserve can only have a deleterious effect upon the implementation of approved programmes. In a Joint Inspection Unit (JIU) note on the contingency margin of the UNIDO budget, 3/ the retention of financial resources corresponding to 15 per cent of the total budget pending full payment of assessed contributions is described as not assisting financial management, disrupting smooth planning and causing serious administrative difficulties. Furthermore, as the JIU inspector pointed out, a contingency margin of this kind does not encourage Member States to pay their assessed contributions in full and on time - and his words were borne out by the Organization's experience in 1991.

28. It is to be hoped that this will not be the case in the biennium 1992-1993, despite the fact that the budget adopted for that period represented negative real growth in the regular budget and Member States once again decided that an amount representing 15 per cent of the total appropriations should be kept in reserve by the Director-General pending receipt from Member States of their assessed contributions.

29. Against this background and given the almost insuperable problem of operating within the cash resources available to it, UNIDO focused on improving its management policies and procedures. In the latter part of 1991, the Secretariat set about the task of finalizing a system to enhance the monitoring of its performance so as to secure a more effective comparison of the output programmed with the output achieved. The risks inherent in a strictly tabular presentation in terms of number of outputs implemented (see appendix J) are well known. The new system, however, intends to achieve a more satisfactory categorization of outputs, taking into account their diversity and very different weights, as well as to bring about a more comprehensive monitoring of all activities of the Organization, including those described in general - as opposed to measurable - terms.

30. A major factor in improving efficiency within the Secretariat and enabling it to exercise its key functions in a rapidly changing environment is the assured availability of computer facilities: all

3/ JIU/NOTE/91/2, para. 5.

the more so, as close on 52 per cent of the Organization's mainframe computer time is devoted to the programming and delivery of technical cooperation and other mandated substantive activities. It was thus most important that in the course of 1991, agreement was reached on a revised and cost-effective computerization programme. Following a comprehensive consultant study of the computer requirements of UNIDO and extensive discussions within the Secretariat and in the electronic data-processing (EDP) Project Liaison Committee, which included representatives of the Working Group of Independent Experts on the Computerization of UNIDO, it proved possible to adopt a proposal that: (a) contained and minimized costs; (b) offered a realistic and pragmatic solution to the impasse that had been reached; and (c) ensured that current and future operations could support increased programme delivery, while accommodating the need for appropriate change.

31. In following through the recommendations of the consultants, the Organization placed special emphasis on achieving further cost reductions and carefully weighing the insights provided by the experts and consultants into technical revisions that could bring about improved efficiencies. In the months ahead, full account will also be taken of the rapid advances in technology that could have an impact on cost effectiveness. In any event, the Organization will remain strictly within the financial limits set by Member States in the programme and budgets for the biennium 1992-1993, which also contain a major object of expenditure specifically for electronic data-processing non-staff costs, as requested by Member States.

32. In anticipation of the need to enhance the effectiveness of the computerization programme of UNIDO, a Management Information Services Division comprising the Office of the Director, the Applications Development Section, the Operations Unit and the End-User Support Unit, was established in February 1991. Its basic objective is to ensure the effective and efficient use of the computer resources of UNIDO through the provision of services for the development and support of computerized information systems and the operation of the mainframe computer. In October 1991, an information technology steering committee was set up (cf. GC.4/50/Add.1, para. 7) as proposed in the final report on the strategic automation project (GC.4/CRP.1). Designed as an advisory body to the Director-General, the Committee has an extensive brief encompassing the strategic information systems programme of the Organization in all its aspects. As one of the first steps towards achieving effective EDP management and control, a project management methodology as recommended by the consultants was in the process of being introduced in the last quarter of the year, while an initial charge-back system for apportioning EDP costs among

Departments was in the final stages of development.

33. The first draft of the financial manual was completed by the end of the year and the General Conference adopted certain changes to financial regulations 4.1, 5.2 and 5.3 with corresponding amendments to staff regulation 6.8. The financial and staff rules were updated accordingly. At the same time the management system for the project cycle was undergoing revision, in the light of which an operational manual will be prepared. Guidelines for special trust funds were approved by the General Conference at its fourth session (cf. resolution GC.4/Res.28), and a bulletin on trust fund operations was in the final stage of preparation at the end of the year.

34. In tandem with the proposals for the reform of the organization and staff structure of UNIDO (see para. 12 above), firm steps were taken to improve the internal operations of the Secretariat. Beginning with the key resource of the Organization, its staff, increased emphasis was placed on staff training and career development. As reflected in the performance indicators cited in chapter VII, it can be seen that management development and technical skills upgrading continue to hold pride of place in the training programme, with close on 5,800 trainee hours being devoted to computer training to ensure as smooth a transition as possible to the electronic age that UNIDO has fully entered. Also significant was the upsurge in managerial assistance programmes aimed at making better managers of the Organization's staff. Furthermore, efforts to forge ever closer links between management and staff continued apace so as to promote a common approach to the challenges and changes confronting the Organization.

35. A vital element in enhancing co-operation between management and staff was improving the status of women in the Secretariat. By the end of December 1991, 79 women or 21.5 per cent of all Professional staff were occupying posts in that category subject to geographical distribution. UNIDO should be able to achieve its target of 25 per cent by the end of 1993.

36. These and other essential questions were mooted throughout the year in the Executive Management Committee. Composed of the Deputy Directors-General and other senior staff, the Committee met regularly throughout the year to consider policy and management issues. The Committee was served by the Executive Staff Coordination staff in the Office of the Director-General which, in addition to coordinating the activities of the Internal Audit, Evaluation and the Legal Service, also actively participated in the work of the Project Review Committee, Committee on Contracts and the recently established Informal Working Group of Major Donors (see chap. VIII).

37. As an integral part of the executive direction and management of the Organization, the Legal Service dealt centrally with all legal matters relating to UNIDO and provided comprehensive legal services to the Organization and its policy-making organs. Advisory and support services were provided in relation to the legal implications of substantive programmes covered in subsequent chapters II to IV and VI to VII as well as in appendix I. The Strategy Policy and Planning Office in the Office of the Director-General continued to perform its programme analysis function and put forward strategic recommendations related to policies, programmes, management initiatives and approaches aimed at enhancing the effectiveness of the Organization. In that context, it contributed to the preparation of the biennial programme and budgets, coordinated the finalization of the medium-term plan and drew up the proposals for the new organizational and staff structure of UNIDO. It was also closely involved in the negotiations surrounding the new successor arrangements and briefed Member States and UNIDO staff on their implications.

38. For all its achievements in 1991, the success of the Organization also fuelled expectations of Member States beyond the capacity of UNIDO to fulfil. The Secretariat's commitment to the Organization and its objectives remained firm, even when resources provided by Member States failed to match the expectations they placed in and the demands they made of UNIDO.

(Programme elements: D.O.1.01; D.O.4.01; D.O.6.01; D.O.7.01)

Intergovernmental organs

39. The fourth session of the General Conference was held in Vienna from 18 to 22 November. 4/ The Conference was preceded in 1991 by the eighth session of the Industrial Development Board which took place in July and August 5/ and the seventh session of the Programme and Budget Committee, held in April, June and August. 6/ In compliance with Board decision IDB.5/Dec.46 on conduct of business

4/ The decisions and resolutions adopted by the General Conference at its fourth session are contained in document GC.4/INF.4.

5/ For the report of the Industrial Development Board on the work of its eighth session see documents GC.4/4 and Add.1.

6/ For the report of the Programme and Budget Committee on the work of its seventh session see documents IDB.8/19 and Add.1 and 2.

and rationalization of proceedings, a special session of the Board was held immediately following the General Conference. 7/

40. The holding of sessions of policy-making organs accounted for a total of 33 working days during the biennium 1990-1991. The Secretariat of the Policy-making Organs provided services to all those sessions of the policy-making organs as well as to all working groups and consultations established by those organs including the informal contact group of Permanent Missions in Vienna for the preparation of the fourth session of the General Conference (26 meetings during the biennium). That secretariat also maintained close liaison with Governments and Permanent Missions on all matters pertaining to the policy-making organs so as to ensure effective coordination for substantive organization of the meetings and the documentary input.

41. At the first and second 1991 regular sessions of the Economic and Social Council, a number of resolutions relevant to the work of UNIDO were adopted. 8/ Decisions adopted by the Governing Council of UNDP at its thirty-eighth session, in particular, decisions 91/27 and 91/32 relating to national execution and support costs successor arrangements, hold far-reaching implications for UNIDO and other executing agencies.

42. The United Nations General Assembly at its forty-fifth resumed and forty-sixth sessions adopted decisions and resolutions calling for action by UNIDO. 9/ In particular, resolution 46/146 on international development cooperation and diversification and modernization of productive activities in developing countries dealt with the proposed study on the structure of world industrialization from the long-term perspective as a contribution to the overall assessment of and needs for industrial development in developing countries. 9/ The resolution recommended that the Industrial Development Board should report to the General Assembly at its forty-seventh session on its consideration of the proposal for the study.

7/ For the report of the Industrial Development Board on the work of its fourth special session see document GC.5/1.

8/ A list of the relevant resolutions and decisions of the United Nations General Assembly, the Economic and Social Council and the Governing Council of UNDP will be made available to the Board in a conference room paper.

9/ IDB.8/32, para. 12; A/46/455, paras. 2 and 4.

CHAPTER II. INDUSTRIAL STRATEGIES AND OPERATIONS

A. INDUSTRIAL POLICIES AND PERSPECTIVES

1. As regards industrial policy and perspectives, during the biennium 1990-1991 the Organization was engaged in basic policy research and action-oriented studies focused on the basic processes of industrial development, as described in the Annual Report 1990. 1/ Global, sectoral, sub-sectoral and country level analyses provided an important input to technical cooperation programming and as advisory services to national policy makers. Intra-secretariat activities were intensified in that respect. By the end of the biennium, the importance of such work was increasing with the expected build-up of requests for Technical Support Services at the Programme Level (TSSI) under the new United Nations Development Programme (UNDP) arrangements.

Country- and region-specific studies and programme support activities

2. The need perceived by the United Nations system to more systematically conceive, finetune and synchronize the technical cooperation programmes led to several requests for substantive country analyses aimed at identifying constraints to industrial growth and critical areas for assistance in development. In Africa, an industrial sector analysis and programming mission was undertaken for Ghana, while analytical support to identify key areas for technical cooperation was provided to programming missions sent to Angola, Botswana, Burundi, Ethiopia, Lesotho, Malawi, Mozambique, Niger, Nigeria, Sao Tome and Principe, Togo and the United Republic of Tanzania (E.3.2.01(iii)). A paper was prepared on emerging themes and implications for UNIDO technical cooperation arising from the National Seminar on Industrial Development held in Mauritius in May. Two studies were published: "The agro-based and other major industries in Kenya: key characteristics and rehabilitation issues" (PPD.190), and "The regeneration of Tanzanian industry, liberalization and privatization issues and potential" (PPD.193(SPEC.)) (E.3.2.04(ii)). Country industrial development reviews on Ethiopia and on Swaziland were also issued (E.3.2.01(i)). At the request of the Government of Ghana (E.3.2.02(i)) industrial policy advisory services were provided to elaborate the major foci of that country's industrial policy for the 1990s. Various studies on the rehabilitation of industries were also completed in Africa (E.3.2.04).

3. In addition to country level analyses, various regional activities were also undertaken in Africa. A paper on human resources and industrial development addressed features of human resources development that are common to most of Africa and outlined recommendations for national and international endeavours (E.3.2.02(iii)). The paper attempts to single out critical requirements for training but argues that human resource development issues need to be seen in the overall industrial development context. Attention is also given to the role of women. A study on regional industrial integration was finalized, together with a draft protocol on industry, which will be annexed to the treaty establishing the African Economic Community that was signed at the Organization of African Unity summit meeting held at Abuja, Nigeria, in June (E.3.2.03(i)). Also, an integrated industrial development programme prepared for the Preferential Trade Area for Eastern and Southern African States (PTA) was adopted by a special subcommittee of that organization which met at Kampala, Uganda, in March (E.3.2.03(i)). Studies were completed on computers for industrial management in Africa (PPD.187) and on international product standards (PPD.182) (E.3.2.03(ii)).

4. For Asia and the Pacific pre-programming work was carried out in connection with the preparation of the fifth UNDP intercountry programming cycle and analytical support was provided for the elaboration of technical cooperation priority areas for Pakistan (E.3.2.01(ii)). Country reviews were issued on China, Malaysia, and Viet Nam (E.3.2.01(i)). As an input to the meeting of Ministers of Industry and Technology organized by the Economic and Social Commission for Asia and the Pacific to be held in 1992, a study was prepared on industrial financing and capital markets in the region (E.3.2.03(i)). Upon request of the Committee on Industry, Minerals and Energy of the Association of South-East Asian Nations (ASEAN), a conceptual paper was prepared on new forms and mechanisms of ASEAN industrial cooperation (E.3.2.03(i)).

5. In the Arab countries, an industrial development analysis and needs assessment mission was undertaken to Egypt in the framework of the programme for the Second Industrial Development Decade for Africa. Programming and needs assessment missions, which included analyses of industrial policies and strategies and the formulation of UNIDO technical cooperation projects, were also undertaken to Algeria, Libyan Arab Jamahiriya, Mauritania, Morocco, Saudi Arabia, Syrian Arab Republic, Tunisia and Yemen (E.3.2.01(iii)). A study was prepared on cooperation between Arab countries and countries members of the Organization

1/ IDB.8/10, chap. II, para. 1.

for Economic Co-operation and Development (OECD) and the European Community (EC) in industrial investment and manufactured trade, taking into account the changing regional and international context. It was presented to a conference on cooperation prospects between Europe and the Arab World organized by the Organization of the Islamic Conference (E.3.2.03(i)). Following the recommendations of the Conference on Industrial Cooperation between Maghreb Countries held at Tunis in October, work started on a study on the development of local industrial consulting and engineering (E.3.2.03(i)).

6. A series of policy-oriented advisory services and analyses were carried out specially for countries in the Latin American and Caribbean region. In particular, industrial sector and policy analyses were implemented and follow-up action was formulated for Bolivia and Brazil (E.3.2.02(i)). A study project on Grenada began and the issues connected with the establishment of a free zone in Antigua and Barbuda were analysed (E.3.2.01(ii)). Progress was also made in the analysis of manufacturing productivity in Jamaica, in particular on the aspects of flexible specialization and the role played by the financial sector (E.3.2.02(i)). A joint mission with the Inter-American Development Bank was undertaken to Brazil to produce a socio-economic report on the country.

7. In Central and Eastern Europe, UNIDO participated in various activities connected with industrial policies formulation for the economic transformation process. The issue of regional development within these countries was the subject of a workshop and report (E.3.2.03(i)). A country review on Poland ^{2/} was issued and a country brief on Czechoslovakia was presented to the UNIDO Investment Forum, held at Prague in November (E.3.2.01(i)).

8. A project on industrial automation was brought to the final stage with the preparation of policy guidelines and technical cooperation programmes (E.3.2.02(i)). While a global project, it had included specific examination of industrial automation projects in a number of African countries. ^{3/} A Workshop on Industrial Development in the Least Developed Countries organized in Vienna in August reviewed proposals for an industrial action plan for the least developed countries which were subsequently submitted to the General Conference at its fourth session (GC.4/40). The associated studies and the report of the Workshop were issued as documents ID/WG.515/1 to 10 (E.3.2.02(iv)). Work was under way in preparation of a meeting on the implications of the single European market for developing countries,

which is financed by a special-purpose contribution to the Industrial Development Fund (IDF) and will be held in Vienna early 1992 (E.3.2.02(i)).

Global issues and policy analysis

9. Major emphasis continued to be placed on the analysis and formulation of the UNIDO perspective on global industrialization, in particular through the publication of Industry and Development: Global Report (E.3.1.01(i)). The 1991/92 Report (ID/376), made available to Member States prior to the fourth session of the General Conference in November and also submitted to the Conference in the form of an Executive Summary (GC.4/32), presents an assessment of the current situation and medium-term outlook of the world industrial economy, and gives an insight of the progress made towards international industrial restructuring (E.3.1.01(ii)). The Report contains an analysis of the industrial performance, policy and prospects for major regions of the world, as global transition continues under increased uncertainties. A special chapter on industrial energy consumption and industrial development focuses on energy intensity and efficiency in the manufacturing sector and provides an analysis of change in manufacturing energy consumption in selected countries (E.3.1.02(i)). Another chapter presents a survey of new financial mechanisms used for industrial investment in a number of developing countries, with a focus on debt-equity swaps, country funds in emerging stock markets, venture capital financing, industrial leasing, and build-operate-transfer arrangements in the financing of industrial infrastructure (E.3.1.02(ii)). The Report also provides surveys of a wide range of selected manufacturing industries with the development trends and prospects for those industries.

10. Policy-oriented documents were prepared for the fourth session of the General Conference, e.g. on external debt and industrial development (GC.4/31), and on mobilization of financial resources for industrial development (GC.4/33) (E.3.1.02(i), (ii)). Furthermore, in response to the United Nations General Assembly resolution 45/196 on industrial development cooperation and the diversification and modernization of productive facilities in developing countries, a report with recommendations on that subject was submitted to the Board (IDB.8/32) and subsequently to the General Assembly (A/46/455) through the Administrative Committee on Coordination, and the Economic and Social Council (E.3.1.02(i)). In complying with another request in General Assembly resolution 45/234, a document on the implementation of the commitments and policies agreed upon in the Declaration on International Economic Co-operation, in particular the revitalization of economic growth and development of the developing countries (IDB.8/3) was also submitted to the Board and subsequently to the

^{2/} IDB.8/10, chap. II, para. 9.

^{3/} IDB.8/10, chap. II, para. 4.

Economic and Social Council (E.3.1.02(ii)). Contributions were also made to governing bodies of other United Nations organizations and specialized agencies, including inputs to the series of thematic analyses under preparation by the Economic and Social Council to assist in policy formulation, priority setting, resource allocation, coordination and monitoring of United Nations programmes in the economic and social sectors (E.3.1.02(i)). An issue of the journal Industry and Development was prepared, containing articles on foreign direct investment trends, subcontracting in small-scale industries in Sri Lanka, the capital goods sector in Ghana, and an application of the domestic resource cost indicator to Mexican manufacturing. Three further journals forecast for 1991 could not be issued for lack of funds (E.3.1.02(iii)).

Industrial statistics and sectoral surveys

11. Work under this heading continued in the areas of industrial statistics, sectoral surveys and technical cooperation. The database on industrial statistics was maintained, updated and supplemented with more detailed statistics (E.3.3.01(ii)). Special emphasis was placed on those industrial sectors experiencing the most rapid change, both in developed and in developing countries, such as fine chemicals and high-technology industries. A sales publication, Africa in figures (E.3.3.01(vi)), and a statistical handbook on countries members of ASEAN were issued, while the expanded version of the industrial map of Africa (E.3.3.01(vii)) could not be prepared for lack of funds. A total of 50 copies of

the UNIDO database were sold and/or exchanged with international organizations, commercial firms, and research institutes (E.3.3.01(iv)).

12. Work continued on sectoral surveys dealing with non-ferrous metals, fine chemicals and the leather industry 4/ (E.3.3.02(ii)). The sectoral survey on non-ferrous metals industries was completed and scheduled for publication by a commercial publisher in early 1992. The sectoral survey on fine chemicals was also completed and will be commercially published at the beginning of 1992. The portion of the survey on the leather industry that deals with issues of corporate strategy and the behaviour of firms in the international context was presented at the tenth session of the Leather and Leather Products Industry Panel held at Madras, India, from 4 to 8 November.

13. As regards technical cooperation activities in data collection and computer systems for industrial statistics as well as on statistical process control - important aspects of manufacturing efficiency - five projects were ongoing and a number of further projects were prepared for implementation in 1992 (E.3.3.01(iii)). Activities in support of programme and project development for technical cooperation continued to increase (E.3.3.01(i)), particularly in connection with NISP - the National Industrial Statistics Programme - a software programme developed by UNIDO, which has already been presented to 63 countries (E.3.3.02(iii)).

4/ IOB.8/10, chap. II, para. 13.

Table 1

Significant performance indicators: Industrial policy and perspectives

Activities	Planned 1990-1991	Achieved 1990 - 1991	
<u>Regional and Country Studies</u>			
Country industrial development reviews (E.3.2.01(i))	20	6	5
Ad hoc country analysis and framework studies for UNIDO country programming (E.3.2.01(ii))	-	6	8
Industry-wide programming studies and exercises at the national, subregional and regional levels (IDDA) (E.3.2.01(iii), (iv))	22	9	21
Policy advisory reports in response to specific country requests (E.3.2.02(i))	2	3	5

Activities	Planned 1990-1991	Achieved 1990 - 1991	
Country studies on policies and measures to foster small-scale industry development (E.3.2.02(ii))	2	1	1
Country studies on policies and measures related to human resource development (E.3.2.02(iii))	2	-	3
Studies for the formulation of industrial development strategies in LOCs (E.3.2.02(iv))	2	1	10
Policy-oriented studies for development of regional and subregional programmes (E.3.2.03(i))	2	3	6
Advisory services and analytical reports provided to countries and subregional groupings on key issues (E.3.2.03(ii))	-	1	1
Pre-diagnostic analyses of selected industrial subsectors and enterprises in African countries (E.3.2.04(i))	2	2	2
Reports on industrial restructuring and rehabilitation programmes in Africa (E.3.2.04(ii))	2	1	5
Pre-diagnostic studies of selected groups of enterprises in priority subsectors of industry in Africa, for the preparation of concrete rehabilitation plans (E.3.2.04(iii))	-	1	-
<u>Global issues and policy analysis</u>			
Global Report (E.3.1.01(i))	2	1	1
Annual reports on industrial restructuring (E.3.1.01(ii))	2	1	1 a/
Analytical reports to assist in process of policy formulation (E.3.1.02(i))	-	6	8
Technical studies on major issues of industrial development (E.3.1.02(ii))	2	7 a/	2 a/
Journal on <u>Industry and Development</u> (E.3.1.02(iii))	8	1	1
<u>Industrial statistics and sectoral surveys</u>			
Copies of UNIDO statistical data base sold or exchanged (E.3.3.01(iv))	50	33	50
Handbook of Industrial Statistics (E.3.3.01(v))	1	-	
Regional statistical handbooks (E.3.3.01(vi))	1	2	
Expanded version of industrial map of Africa (IODA) (E.3.3.01(vii))	1	-	
Analysis of comparative advantage and competitive abilities in specific industries (E.3.3.02(i))	1	1	-
Surveys of key subsectors (E.3.3.02(ii))	3	2	

a/ Published in the Global Report.

B. TECHNICAL COOPERATION

I. Programme and Project Development

11. Programme and project development at all levels and the monitoring of programme implementation continued to represent a dual focus in all area programmes during 1991. As in the past, the work included the building up of a portfolio of pipeline projects and the undertaking of programming, programme review and project formulation missions. However, concerning programmes financed by UNDP there was until late in the year a lack of common understanding of the "programme approach", owing to the fact that procedures to develop programmes and projects under the new UNDP successor arrangements for agency support costs were not available in due time. These delays affected the work of UNIDO both at programme and project levels. Besides, there was a substantial increase in the proportion of projects assigned for government execution. Project approvals under the heading of indicative planning figure (IPF)/cost sharing (including government counterpart and special measures) decreased from \$81.4 million in 1990 to \$48 million in 1991. On the other hand, the adoption in 1991 of the programme for the Second Industrial Development Decade for Africa (GC.4/Res.8) and the industrial action programme for the least developed countries (GC.4/Res.10) provided firm bases for future UNIDO activities in these areas. These and other efforts compensated to a great degree the shortfall of UNDP and resulted in overall project approvals of \$130.4 million in 1991 (1990: \$162.7 million). Chapter VIII, part A, and table 3 A of the statistical annex provide additional details by sources of funds. The highlights of programme and project development in the individual regions are described in the following paragraphs, while significant performance indicators of each area programme are provided in table 2.

15. In the biennium 1990-1991, 302 country programme reviews and 10 regional programme reviews were undertaken. For all areas and for all sources of funds, a total of 1,200 projects (1,065 forecast) in the pipeline at the start of the biennium were processed and 1,897 new project proposals (1,515 forecast) were identified for development and formulation. Of this pipeline portfolio of 3,097 project proposals a total of 1,176 projects were approved (1,105 forecast) of which 155 projects were under the IPF and 1,021 projects under other sources of funds (285 under IPF and 820 under other sources of funds forecast for the biennium). (E.2.1.01, E.2.2.01, E.2.3.01, E.2.4.01, E.2.4.02, E.2.5.01)

16. An important feature of the biennium was the launching of the three special regional programmes to promote industrial development established in 1989 for the Arab countries, for Asia and the Pacific and for Latin America and the Caribbean

respectively, with their corresponding regional and subregional projects geared to a rapid growth of the developing countries of the region concerned (E.2.2.01(vi), E.2.3.01(vi), E.2.5.01(viii)), and with special emphasis on the least developed countries (E.2.6).

Africa Region

17. Economic development in Africa continued to be characterized by major political and social problems that seriously affect its industrial development. Many Governments have therefore departed from their previous planning policies and have started to implement structural adjustment programmes consisting of major economic reforms. Taking into consideration that trend, UNIDO technical cooperation activities in the region have been progressively more centred on assisting Governments in facing the consequences of a rapid entry into a highly competitive economic environment. At the policy level, UNIDO provided assistance to Burkina Faso, Burundi, Cape Verde, Congo, Mozambique, Nigeria, Rwanda, Senegal, Togo and Zaire in the preparation of strategies and action plans in the industrial sector. Those plans focused on the involvement of the private sector in the decision-making process and on the implementation measures of jointly approved strategies with the respective Government. Also at the operational level, UNIDO projects were strongly oriented towards the promotion and enhancement of the private sector, with special emphasis on support action leading to the development of a dynamic small- and medium-scale industrial sector. Such projects were under execution in Angola, Burkina Faso, Burundi, Cameroon, Congo, Guinea, Guinea-Bissau, Kenya, Madagascar, Mali, Mauritania, Mozambique, Nigeria, Rwanda, Sierra Leone, Togo, Uganda, Zaire and Zimbabwe.

18. In 1991, the net approvals from all sources of funds amounted to \$31.9 million (1990: \$37.9 million) of which \$21.2 million was from IPF (1990: \$24.9 million), \$1.1 million from the regular programme of technical cooperation, including the Industrial Development Decade for Africa (IDDA) (1990: \$4.6 million), \$3.0 million from IDf (1990: \$2.7 million), \$3.8 million from trust funds (1990: \$1.2 million) and \$2.8 million from other sources (1990: \$4.5 million).

19. Technical cooperation at the national level continued to be centred on such main issues as: maintenance and rehabilitation of industrial production equipment (Angola, Kenya, Madagascar and Sierra Leone); valorization of natural resources (Guinea, Madagascar, Mali, Nigeria and Senegal); development and acquisition of new and appropriate technologies (Mali, Nigeria and the United Republic of Tanzania); and export promotion through product adaptation, quality improvement, standardization and creation of export processing zones (Cape Verde, Kenya, Nigeria, Togo and

Uganda). Human resource development, including the upgrading of national capabilities and the integration of women in industrial development, was stressed in all UNIDO technical cooperation activities and also reflected in specific projects. Furthermore, because of the increased emphasis being placed on private sector development, investment promotion projects and pre-investment studies were becoming more and more important. At the regional and subregional levels, projects executed in association with the Economic Community of Central African States, the Economic Community for West African States, the Central African Customs and Economic Union and the Preferential Trade Area for Eastern and Southern African States were aimed at fostering cooperation in the industrial sector through the setting up of common policies and strategies, the establishment of adequate legal and financial measures and the identification, preparation and promotion of regional/subregional investment projects.

20. Activities in preparation of the fifth UNDP country programming cycle, e.g. country reviews and programming missions, focused on the identification of national, regional and subregional priorities and the formulation of related integrated programmes. In that context, full account was taken of the programme for the Second IDDA (see chap. IV, paras. 1-7). Country review and programming missions took place in Burundi, Ghana, Guinea, Malawi, Niger, Rwanda, Sao Tome and Principe, Sierra Leone, Togo and the United Republic of Tanzania. At the regional and subregional levels, UNIDO assisted various intergovernmental organizations in the Central, Western and Eastern/Southern African subregions in the preparation of integrated industrial sector programmes as inputs to the fifth UNDP inter-country programming cycle for Africa. These programmes also lend themselves to financing by donor agencies. The programming missions were undertaken within the framework of recent UNDP decisions concerning national execution, programme approach and the new arrangements for project support costs. In that respect, discussions took place with technical departments, mainly in the respective ministries of industry, and with professional organizations in the industrial sector of targeted countries.

Arab States

21. The Gulf war had serious negative consequences for the socio-economic development of many of the Arab States. Problems of food security and external imports, indebtedness and environmental pollution were aggravated by the slow-down of direct foreign investment and technical cooperation provided by the United Nations agencies and other international development institutions.

22. The net approvals in 1991 from all sources of funds amounted to \$13.5 million (1990: \$21.5 million) of which \$2.5 million

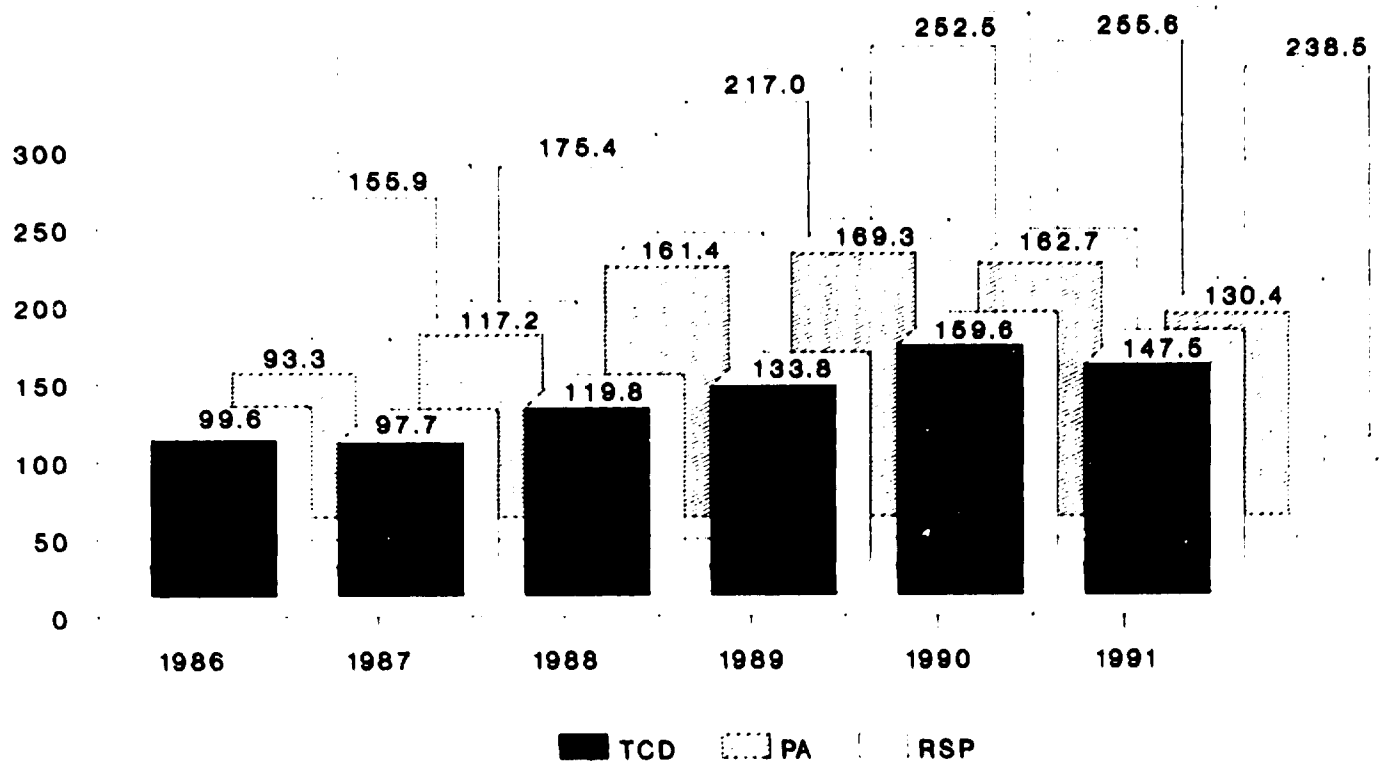
was from IPF (1990: \$8.3 million), \$0.1 million from the regular programme of technical cooperation (1990: \$1.3 million), \$1.8 million from IDF (1990: \$0.8 million), \$8.4 million from trust funds (1990: \$9.4 million) and \$0.7 million from other sources (1990: \$1.7 million).

23. The decline in the overall level of project approvals as compared with 1990 is attributed to the consequences of the Gulf war, while the decline in the level of new approvals was a combined effect of the fourth UNDP programming cycle coming to an end and preparations for the fifth programming cycle not yet having crystallized into concrete project approvals. Approvals for 1991 included large projects in the areas of leather industries, industrial restructuring, trust fund projects for the cement industry, industry planning and advisory services as well as subcontracting schemes at the regional level.

24. Arab regional and subregional cooperation activities slackened with the exception of those in the Maghreb subregion, which witnessed an upward trend in the plans and programmes related to coordination among the member States of the Arab Maghreb Union. However, in late 1991 the Arab Industrial Development and Mining Organization (AIDMO) and agencies and organs of the League of Arab States reactivated their regional and subregional cooperation programmes including those dealing with industrial development. A number of projects were formulated and approved under the Special Programme for Industrial Development in the Arab Countries. The implementation process of these projects was hindered temporarily because of the difficulties mentioned in paragraph 21 above, but new developments emerged at the end of the year that augured well for the speeding up of the activities under this Programme, particularly through the reactivation of AIDMO's programmes and joint activities with UNIDO. Furthermore, preparations were under way, in cooperation with AIDMO and the Economic and Social Commission for Western Asia (ESCWA), for the convening of a regional inter-agency meeting in February 1992 at which the components of the Special Programme will be further elaborated, the modalities of projects implementation will be identified, and proposals for resources mobilization will be discussed (E.2.2.01(vi)).

25. For the preparation of the fifth UNDP country programming cycle, a number of programming missions were undertaken in Arab States, and the UNIDO inputs were subsequently submitted to the UNDP offices in the respective countries. However, the new orientation of the UNDP programme approach has slowed down UNIDO plans for future cooperation. This is regrettable, since the current situation in many of the Arab States calls for stronger and closer cooperation particularly in priority areas, such as attainment of food security, environmental protection, human resource development, acquisition and transfer of technology, promotion of private sector

**Technical cooperation delivery (TCD),
project approvals (PA), and residual
stock of projects (RSP)**
(In millions of US dollars)



activities and small- and medium-scale industries. A political settlement of the chronic problems affecting the Arab countries is an essential factor for furthering industrial development through technical cooperation activities and regional economic integration.

Asia and the Pacific Region

26. During the biennium 1990-1991 six country programmes were approved for the Asia and Pacific region within the fifth UNDP programming cycle, namely those of Bangladesh, China, Fiji, India, Indonesia and Tonga. In 1991, UNIDO continued to be involved in the country programming exercises for the region as well as in the preparation of individual programmes and projects. Missions were sent to China, the Islamic Republic of Iran, Mongolia, Nepal, Pakistan, Philippines, Sri Lanka, Thailand and Viet Nam. Proposals for intercountry projects were submitted to UNDP, account being taken of the priority areas listed in General Conference resolution G.C.3/Res.18 by which the Special Programme for the Industrial Development of Asia and the Pacific was approved. These project proposals also reflect UNIDO involvement in supporting the process of integration in the region and helping countries in their industrialization efforts, with special emphasis on the least developed countries.

27. In 1991 the net approvals from all sources of funds amounted to \$33.2 million (1990: \$52.4 million) of which \$20.6 million was from IPF (1990: \$41.7 million), \$0.5 million from the regular programme of technical cooperation (1990: \$1.0 million), \$3.5 million from IDP (1990: \$4.4 million), \$1.9 million from trust funds (1990: \$1.1 million) and \$6.7 million from other sources (1990: \$4.2 million).

28. Despite the large portfolio of projects in the pipeline and the special efforts to formulate projects, approvals were slow. This was partly due to the transition to the new cycle and the new mandates on the programme approach and national execution. The existing pipeline projects had to be reconsidered in light of the successor arrangements, the priorities of individual country programmes and those enjoined by the Governing Council for the fifth programming cycle. The application of the new programme approach has been slow, as explained in paragraph 1 above. In the region, only two proposals using the programme approach were approved by UNDP, one dealing with machine tool industry development in China (\$12 million) and the other with leather development in India (\$15 million). The application of the approach is further complicated by the trend to assign such programmes for national execution making it difficult to predict in those cases the amount likely to be allocated for agency involvement.

29. Under the Special Programme for the Industrial Development of Asia and the

Pacific, a total of 23 projects worth \$3.4 million were approved during the biennium. Eighteen of these projects with a value of \$3.1 million were for strengthening the existing regional programme, while five projects worth \$0.3 million were specifically intended for least developed countries in the region. Regarding the least developed countries (LDCs) component of the programme, the regional workshop on agro-related metalworking industries ^{5/} led to the drafting of a major project that was submitted to the UNDP offices concerned for study and comments. Of the country-specific projects identified in the workshop the first to be approved was the Agricultural Tools Factory in Nepal, to be financed under the UNIDO regular programme of technical cooperation; others were at various stages of preparation or consideration. The Food and Agriculture Organization of the United Nations (FAO) responded positively to the findings and recommendations of the workshop, and FAO consultants subsequently recommended that Kiribati, Samoa and Vanuatu become members of the Regional Network for Agricultural Machinery and that a programme be initiated in those countries to provide training workshops in the field of blacksmithing and agricultural tasks. Using the same approach as for the agro-related metalworking industries, and also within the LDC component of the Special Programme, a similar regional workshop is envisaged in the subsector of the food-processing industry, including marine-based industry. For that purpose, a number of country briefs were under preparation at the end of the year (E.2.3.01(vi)).

30. With UNDP/IPF still being the main source for UNIDO technical cooperation projects, the global priorities for the fifth UNDP programming cycle were beginning to influence the kind of projects that will be included in the country programmes. These priorities coincide in many ways with those of the UNIDO medium-term plan, 1992-1997. Economic management, technology and human resource development, promotion of small- and medium-scale industries, investment and trade development, energy and environment are the general areas of concern in the region. Since the programmes being developed will require selectivity and greater focus on those priorities, the trend will probably be towards the development of a limited number of projects which are responsive to the priority themes and which will be, in all likelihood, dealt with on a large-scale basis, such as those under execution in China and India (cf. para. 28 above).

Europe and Mediterranean Region

31. By the end of 1991 almost all projects for Europe and the Mediterranean Region had been approved under the fourth UNDP country programming cycle. A few projects were

^{5/} IOB.8/10, chap. II, para. 36.

still under consideration by UNDP, mainly for Czechoslovakia and Turkey, with one pipeline project each for Bulgaria and Yugoslavia. In view of reduced IPF resources for the European region in the fifth cycle for both country programmes (average reduction of 20 to 25 per cent) and the regional programme (by 60 per cent from \$10.12 million to \$4.2 million), UNDP considers the approach of national execution particularly suited for the region. Portugal will relinquish its IPF in the fifth programming cycle.

32. In 1991 the net approvals from all sources of funds amounted to \$4.9 million (1990: \$4.9 million) of which \$1.1 million was from IPF (1990: \$1.9 million), \$0.1 million from the regular programme of technical cooperation (1990: \$0.1 million), \$0.1 million from IDF (1990: \$0.1 million), \$2.3 million from trust funds (1990: \$0.9 million) and \$1.3 million from other sources (1990: \$1.9 million).

33. The biennium 1990-1991 was characterized by a growing number of technical assistance requests from the Central and Eastern European countries undergoing a period of transition. 6/ Those requests, which aim at reorienting their centrally-planned economies to market-oriented economies, were mainly related to rehabilitation of industrial enterprises, management, privatization, small- and medium-scale industries, private sector and entrepreneurship development, industrial pollution control, environmentally sound technologies, energy conservation, regional industrial development and quality control.

34. UNIDO continued to promote the activities of the joint committees established for eight European countries: Bulgaria, Czechoslovakia, Hungary, Poland, Romania, Turkey, the former Union of Soviet Socialist Republics and Yugoslavia. These activities led to the development of "outreach" projects, whereby experience gained is shared with the developing countries for their benefit.

Latin America and the Caribbean Region

35. The countries of Latin America and the Caribbean region continued to carry out intensive efforts to adjust their economies and to consolidate economic stabilization and restructuring programmes. Efforts to make industrial policy more compatible within the prevailing macroeconomic context, coupled with a strengthening of the processes of economic integration and trade liberalization, resulted in significant progress in a number of countries. Regional output grew by 2.4 per cent in 1991 (which is greater than the current population growth rate) and private capital was returning to the region for the first time since the debt crisis of the early 1980s.

36. Against this background and at the request of Member States, UNIDO's programme of technical cooperation focused in particular on the industrial development recovery of the region. The main activities included programmes and projects at both the regional and national level and a growing collaboration with international and regional development and financial institutions such as the Inter-American Development Bank, the Economic Commission for Latin America and the Caribbean, the Latin American Economic System, the Caribbean Development Bank, the Andean Development Corporation and the Central American Bank for Economic Integration. Special attention was given to key areas such as: industrial policy and sectoral analysis and advice (Bolivia, Brazil); investment promotion (Argentina, Bolivia, Ecuador, Uruguay, the Andean Group); the introduction of advanced technologies (Regional Cooperation Programme); industrial restructuring and modernization (Honduras, Nicaragua, Peru); small-scale industry development (Colombia, Haiti, Honduras, Mexico, Nicaragua); privatization (Bolivia, Nicaragua); industrial productivity (Jamaica); technology management (Costa Rica); and energy and environmental management (Brazil). Under the aegis of the Joint Brazil/UNIDO Memorandum of Understanding, several programmes and projects were negotiated and approved for financing under special trust fund agreements in the following areas: application of modern technologies to improve the Brazilian textile industry, quality improvement and promotion of competitiveness among Brazilian enterprises; technology networks; environmental auditing; and the establishment of a centre on quality and productivity (E.2.5.01(vii)).

37. In 1991 the net approvals from all sources of funds amounted to \$8.1 million (1990: \$9.5 million) of which \$2.1 million was from IPF (1990: \$4.5 million), \$0.6 million from the regular programme of technical cooperation (1990: \$0.4 million), \$3.5 million from IDF (1990: \$2.0 million), \$1.8 million from trust funds (1990: \$1.1 million) and \$0.1 million from other sources (1990: \$1.5 million).

38. UNIDO convened and serviced the first biennial meeting of the Regional Cooperation Programme for the Industrial Recovery of Latin America and the Caribbean, which took place in Vienna from 23 to 24 October 1991. The meeting, which was attended by representatives of 17 recipient Governments and five donor countries and two observers from United Nations organizations, focused on: (a) the programme's conceptual framework; (b) progress achieved by two operational programmes, i.e. subcontracting exchanges and automation of the capital goods sector; (c) the status of three pipeline programmes, i.e. investment promotion in Central America, biotechnology and agro-industries; and (d) presentation of three new programmes, i.e. micro-electronics and data processing to strengthen the software industry, new materials and development

6/ Ibid., paras. 41-42.

of human resources (E.2.5.01(ix)). Among the activities of the Programme, the regional project on industrial sub-contracting proved very successful and an extension was under negotiation by the end of the year, while the project for industrial automation of the capital goods industry in Latin America became operational and a number of activities were initiated therein (E.2.5.01(viii)).

39. During the biennium 1990-1991, in its efforts to promote economic and technical cooperation among developing countries (ECDC/TCDC) UNIDO concluded negotiations with the Government of Mexico and a number of Caribbean States to develop a programme of cooperation between the countries concerned. A preparatory phase of that programme was launched for the identification of three investment projects to be presented for funding and execution by Mexico with UNIDO technical support; one of the projects already identified relates to exploratory drilling for a geothermal well in Dominica, drawing from the know-how and expertise of Mexico in this field. The findings of the preparatory phase will be presented to the Governments of Mexico and the Caribbean countries in 1992 for their consideration (E.2.5.01(vi)).

Global and Interregional Projects and Programmes

40. Technical cooperation activities carried out in 1991 at the interregional and global levels covered human resource development, training, research and development, feasibility studies, identification and preparation of investment projects as well as industrial cooperation for the promotion of such projects in developing countries. Activities related to environmental aspects in industry increased through important special-purpose contributions and pledges made by several Member States to IDP. These activities included in particular the training of Headquarters staff, UNIDO Country Directors and Junior Professional Officers on the issue, and the development of a programme for senior officers and aid coordinators to discuss the environment programme in the context of other specific UNIDO programmes (trust funds, enterprise-to-enterprise cooperation, investment promotion etc.), project and programme development and the changing environment of the tripartite United Nations development system.

41. While human resource development and group training programmes continued to be offered by many member countries, the programmes offered by East European countries were reduced in 1991 due to their recent economic changes. A project for a workshop on novel techniques in non-destructive testing for industrial safety was approved for implementation in the United Kingdom of Great Britain and Northern Ireland, financed from contributions from that country. Among projects formulated and approved, several are related to the application of new

industrial processes or technologies, e.g. ophthalmic optics, low-grade coal utilization, electroslag technology, newsprint production from bagasse, computer-aided design/computer-aided manufacturing (CAD/CAM) application of personal computers, concrete shipbuilding, natural rubber-based bearings, non-living marine resources, co-products and by-products of Bayer alumina, biotechnological techniques, application of techniques with high risk potential, clean crop production in an artificial climate, and automation of manufacturing with reference to textiles, clothing and footwear (E.2.4.02(ii)).

42. As a result of coordination efforts with the interregional and global programmes of UNDP, eight interregional training projects amounting to \$1.3 million were developed and approved in 1990 under the UNDP trust fund and offered jointly with the former Union of Soviet Socialist Republics and Czechoslovakia. In 1991 the programme was reduced to five projects amounting to \$227,150 as a result of recent developments in the region (E.2.4.02(iv)).

43. In 1991 the net approvals for global and interregional projects amounted to \$38.8 million (1990: \$35.8 million). Of this amount \$15.7 million was from IDP (1990: \$20.2 million), \$22.6 million from trust funds (UNIDO trust funds \$22.3 million, UNDP trust funds \$0.3 million) (1990: \$14.8 million - UNIDO trust funds \$13.5 million, UNDP trust funds \$1.3 million) and \$0.5 million from the regular programme of technical cooperation (1990: \$0.8 million).

Programme Development Support

44. Activities related to the application of an integrated approach to technical cooperation continued with the assessment and programming of agro-industries and related input subsectors in African countries. This work was complemented by methodological work oriented towards the improvement of the tools to be used when applying the programme approach, such as the methodology for assessing and programming integrated production and consumption systems (MEPS) an engineering and accounting model, and by the preparation of manuals for consultants and general users of the programme approach. As a partial update of the initial typology for the fisheries industry which was published in 1987 for 64 developing countries, typological work was completed in the area of fisheries in the 50 African countries. A typology was published on allocating technical assistance resources among African countries for rehabilitation of agro-food industries. A global typology of the patterns of female participation in industrial development was also prepared. These typologies are intended as useful tools for directing specific assistance needs to different groups of countries. (E.1.3.01(i)) Typological work was also completed for presentation to the Regional Consultation on the Fisheries Industry for

Asia and the Pacific Island Countries (see chap. III, para. 5).

45. Due to financial constraints, no new indicative development programmes were initiated in 1991, and as a result, the leather, pulp and paper, and telecommunications subsectors were not covered. Work on ongoing indicative development programmes ^{7/} continued and was completed for Malawi and Zimbabwe in the agro-food industries area. Indicative development programmes in the area of agricultural machinery were updated for the Central African Republic and Egypt at the request of the respective Governments, as were indicative development programmes for fertilizers and agricultural machinery in Ethiopia. The technical cooperation components identified in these programmes, comprising 20 project concepts, amount to \$9.9 million (E.1.3.01(iii)). With regard to the fisheries industrial system in West Africa, ^{8/} the Government of Ghana confirmed that both the technical cooperation and the investment programme, which have a combined value of \$57 million, represent top priorities set to overcome the main bottlenecks in this sector. There have been indications that a large part of the technical cooperation package will be included in the fifth UNDP programming cycle. Work began on the transfer of the MEPS model to Guinea, as well as the training of a local team to manage, update and monitor the integrated programme ^{4/} for the development of the fisheries industrial system. There were also indications that a large part of the integrated programme for Guinea might be included in the fifth UNDP programming cycle (E.1.3.01(iii)). The integrated programme approach was applied at the country level to the meat-processing system in Cape Verde and to the fisheries industrial system in Namibia (E.1.3.01(iii)).

46. It was established that the thrust of the UNIDO integrated programme approach is fully in line with the aims underlying the mechanism of technical support at the programme level (TSS-1) recently introduced by UNDP for the funding of programming and sector analysis. A total of nine proposals for the Latin American region and seven for the African region were prepared, to a total value of \$656,000, in the fields of fertilizers, agro-industries and agricultural machinery (E.1.3.01(ii)).

47. The MEPS model has been streamlined and made more user-friendly. This methodology, illustrated by examples of results already obtained, was discussed on two occasions with the donor community: (a) at the Expert Group Meeting on Theory and Practice of the Appraisal of Technical Cooperation Projects, held in Vienna from 25 to 27 September, where the importance of

the programme approach and the need for sectoral analyses was recognized, and (b) at the Second Fisheries Development Donor Consultation, held in Paris from 7 to 9 October where, likewise, the importance of the UNIDO approach was recognized, in particular by the representative of the World Bank (E.1.3.01(ii)).

48. Work was begun on a manual on integrated programme development that was prepared for the use of UNIDO consultants and staff members who are involved in the application of the integrated programme approach and in the preparation of development projects. The manual will be helpful in clarifying the concepts of the programme approach and improving its application (E.1.3.01(ii)).

II. Implementation overall in 1991

49. The largest portion of technical cooperation activities continued to be financed from UNDP resources (IPF, Special Industrial Services programme (SIS), Special Programme Resources and Special Measures). The total UNDP resources decreased from \$94.3 million in 1990 to \$76.3 million in 1991, and the share within the overall implementation decreased from 59.1 to 51.7 per cent. Overall expenditure on technical cooperation activities decreased from \$159.6 million in 1990 to \$147.5 million in 1991. The reasons for these decreases are given in paragraph 14 above and in the following paragraphs.

50. The total of 1,927 projects implemented or under implementation in 1991 included 212 valued at \$1 million or more, 637 valued between \$150,000 and \$1 million and 1,078 valued at less than \$150,000. Table 8 of the Statistical Annex shows the overall technical cooperation expenditure by geographical area, source of funds and project component.

51. The value of project delivery by UNIDO in Africa amounted to \$52.4 million (including \$15.3 million for African Arab States). There was a decrease of \$3.3 million or 5.8 per cent (an increase of \$0.5 million or 3.5 per cent for African Arab States) over the corresponding figure for 1990 as a result of the decrease of funds made available in 1991 from UNDP. However, the decrease was compensated, in addition to an increase in trust fund projects delivery, by a \$3.6 million project in Nigeria financed by the World Bank that, owing to the financial rules and regulations of UNIDO, could not be included in the overall figure of \$52.4 million for Africa.

52. The value of projects implemented in the Arab States amounted to \$19.3 million (including the African Arab States). This constituted a decrease of \$2.3 million or 10.6 per cent as compared to the figures for 1990. Despite an increased delivery under trust funds, from \$6.0 million in

^{7/} IOB.6/10, chap. II, paras. 52-53 and 55; IOB.8/10, chap. II, para. 55.

^{8/} IOB.8/10, chap. II, para. 56.

Table 2
Significant performance indicators: Area programmes

	Planned 1990-1991	Achieved 1990-1991
Africa (E.2.1.01)		
Programme reviews (i)	90	90
Project development		
(a) Pipeline projects in progress at the start of the biennium for further processing (ii)	490	376
(b) New projects identified, formulated and appraised (iii)	530	420
identified in 1990: 243		
identified in 1991: 177		
Total development (a)+(b)	1,020	796
Projects approved (iv)	260	266
in 1990: 162		
in 1991: 104		
of which:		
(a) IPF	50	49
in 1990: 25		
in 1991: 24		
(b) other sources of finance	210	217
in 1990: 137		
in 1991: 80		
Arab countries (E.2.2.01)		
Programme reviews (i)	42	42
Project development		
(a) Pipeline projects in progress at the start of the biennium for further processing (ii)	120	156
(b) New projects identified, formulated and appraised (iii)	270	172
identified in 1990: 108		
identified in 1991: 64		
Total development (a)+(b)	390	328
Projects approved (iv)	150	115
in 1990: 84		
in 1991: 31		
of which:		
(a) IPF	55	22
in 1990: 16		
in 1991: 6		
(b) other sources of finance	95	93
in 1990: 68		
in 1991: 25		
Asia and the Pacific (E.2.3.01)		
Programme reviews (i)	74	74
Project development		
(a) Pipeline projects in progress at the start of the biennium for further processing (ii)	300	435
(b) New projects identified, formulated and appraised (iii)	260	405
identified in 1990: 235		
identified in 1991: 170		
Total development (a)+(b)	560	840
Projects approved (iv)	250	225
in 1990: 133		
in 1991: 92		
of which:		
(a) IPF	135	54
in 1990: 37		
in 1991: 17		
(b) other sources of finance	115	171
in 1990: 96		
in 1991: 75		

	Planned 1990-1991	Achieved 1990-1991
<u>Europe and the Mediterranean (E.2.4.01)</u>		
Programme reviews (i)	22	22
Project development		
(a) Pipeline projects in progress at the start of the biennium for further processing (ii)	35	63
(b) New projects identified, formulated and appraised (iii)	55	190
identified in 1990: 83		
identified in 1991: 107		
Total development (a)+(b)	90	253
Projects approved (iv)	55	98
in 1990: 53		
in 1991: 45		
of which:		
(a) IPF	15	13
in 1990: 8		
in 1991: 5		
(b) other sources of finance	40	85
in 1990: 45		
in 1991: 40		
<u>Latin America and Caribbean (E.2.5.01)</u>		
Programme reviews (i)	84	84
Project development		
(a) Pipeline projects in progress at the start of the biennium for further processing (ii)	120	170
(b) New projects identified, formulated and appraised (iii)	150	395
identified in 1990: 169		
identified in 1991: 226		
Total development (a)+(b)	270	565
Projects approved (iv)	140	157
in 1990: 94		
in 1991: 63		
of which:		
(a) IPF	30	17
in 1990: 11		
in 1991: 6		
(b) other sources of finance	110	140
in 1990: 83		
in 1991: 57		
<u>Global and interregional (E.2.4.02)</u>		
Projects and programmes developed and formulated (i)	250	315
New projects and programmes with global/interregional interaction involving research activities and subsequent testing and application of new industrial processes or technologies (ii)	5-10	11
identified in 1990: 5		
identified in 1991: 6		

1990 to \$10.4 million in 1991 (73.3 per cent increase) an overall lower level of implementation was mainly the result of a decrease of funds made available from UNDP in 1991.

53. The value of projects executed in Asia and the Pacific amounted to \$44.3 million, a decrease of \$5.1 million or 10.4 per cent as compared to 1990. The lower level of implementation was mainly attributable to a decrease in financial resources made available from UNDP and by the increase of Government-executed projects in the region.

54. The value of technical cooperation delivery to Europe amounted to \$4.9 million, a decrease of \$0.3 million or 6.2 per cent as compared to the implementation in 1990. The lower level of implementation is largely the result of a decrease of available resources in IDF, the United Nations Drug Control Programme (UNDCP) and UNDP, including SIS.

55. The value of projects executed in Latin America and the Caribbean amounted to \$9.8 million, a decrease of \$1.4 million or 12.3 per cent as compared to the figures for 1990. The lower level of expenditures is attributed to a decline of delivery under the UNDP Indicative Planning Figure (IPF) by \$1.2 million (or by 18 per cent) caused largely by the increase in government-executed projects in the region.^{9/} In addition, there was a decline in the approval by UNDP of new projects in the industrial sector in 1991. The decrease in 1991 could not be fully compensated by the increase in delivery under two sources of funds managed by UNIDO, i.e. regular programme and trust funds, which rose to \$0.9 million and to \$0.8 million respectively, representing a growth of 225.5 per cent and 33.2 per cent respectively.

56. The implementation of global and inter-regional projects and programmes increased from \$31.3 million in 1990 to \$32.1 million in 1991. Therefore the overall share of this type of project in the total technical cooperation delivery of UNIDO increased from 19.6 per cent in 1990 to 21.8 per cent in 1991.

57. During the biennium 1990-1991, technical cooperation activities concentrated on the implementation of projects in the five priority problem areas outlined in the medium-term plan, 1990-1995 (GC.3/17): human resource development, development and transfer of technology, industrial rehabilitation, small- and medium-scale industries, and environment and energy; as well as on the three elements common to industrial development, including the thematic programmes: mobilization of financial resources for industrial development, economic and technical cooperation among developing countries (ECDC/TCDC) and

subregional industrial cooperation, and the integration of women in industrial development. Great emphasis continued to be placed on the application of environment-friendly technologies in all technical cooperation projects.

58. Project efficiency was greatly enhanced through improved diagnostics and project planning as well as intense project management which led, for example, to shorter assignments of experts who often undertook split missions. This complied with the desire of many countries, especially those with large programmes, to reduce long and costly assignments of experts. In a large amount of projects the Chief Technical Advisers' (CTA) functions were taken over by the backstopping officers at Headquarters. While this new approach reduced the financial burden on Governments, UNDP and financing institutions, it meant a much bigger workload for the staff. Maximum care was exercised in preparing job descriptions and selecting experts in order to keep experts' assignments as short as possible. In the absence of experts in the field, more frequent travel to the project sites was necessary to complement participation in the tripartite review meeting and so ensure the projects' progress. The definition of project backstopping has shifted to include full-scale project management comprising traditional CTA functions such as preparation of equipment specifications, terms of reference for subcontracts and monitoring of projects' progress at site.

59. Furthermore, the efforts to improve the quality of the implementation of technical cooperation projects continued, taking into account the results of project performance evaluation reports, in-depth and thematic evaluations (see chap. V). Table 3 below shows a qualitative analysis of UNIDO technical cooperation based on project evaluations carried out in 1990. The results of the in-depth evaluations show that 69 per cent of all projects evaluated have met or nearly met the expectations in respect of project outputs produced (efficiency), whereas 60 per cent of all projects evaluated met or nearly met the expectations in respect of project objectives achieved (effectiveness). On the other hand, the results of the evaluations show that some 60 to 63 per cent of all projects evaluated have exceeded, met or nearly met the expectations in respect of project objectives achieved (effectiveness).

60. Technical cooperation 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, only 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 "activity" headings (e.g. engineering industries), their implementation may cut across organizational lines to include the economic and technical expertise of not

^{9/} Ibid., para. 65.

only the entire Department of Industrial Operations, but of UNIDO as a whole. Thus, individual branches 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 cooperation projects implemented or under implementation in 1991 and the regional distribution of technical cooperation delivery, by field of activity, are shown in tables 4 and 5 below. A further breakdown of the number of projects in progress and outputs completed in 1991, by programme element, is shown in table 6, whereas table 7 shows the comparison of projects approved and completed from 1 January 1990 to 31 December 1991 against project approvals and completions programmed for 1990-1991.

III. Implementation of industrial operations by field of activity

AGRO-BASED INDUSTRIES

62. Technical cooperation expenditures in 1991 under the heading of agro-industries (J.I.1.) amounted to \$12.6 million. Some 55 per cent of the total implementation was financed from UNDP resources. A total of 147 projects were implemented or under implementation.

63. During the biennium 1990-1991, projects related to agro-based industries continued to focus on the production of value-added agro-based products. In conformity with the new market standards, quality control and the application of modern production technologies were important activities, especially in the food sector. Priority was given to rehabilitation and modernization of existing plants as well as relocation and sizing of production units on the basis of the actual market demand and the profitability for the private sector. New, cleaner technologies in agro-based industries, and technologies for the industrial processing of effluents, and the utilization of by-products and wastes were further developed for the protection of the environment. The economic and political needs for the development of small-scale rural activities were recognized as important factors in private industry development in developing countries and special efforts were made for the integration of women in the industrial production process.

64. Important programmes were developed outside the indicative planning figure sources under ad hoc contributions by various donor countries. For example, a programme to foster enterprise-to-enterprise cooperation and joint ventures in the field of agro-industries especially in Latin America was operational in Brazil, Chile and Mexico and will be extended to Peru and

Venezuela. Enterprise-to-enterprise co-operation between industrial and developing countries under the guidance of UNIDO proved successful as in the case of the France-Mexico cooperation programme on agro-industry, to which the UNIDO Investment Promotion Service in Paris made a significant contribution. Within the regional African leather sector programme, environment-related activities were given high priority and a programme on pollution control in the leather industry was developed for the subregion of South-Asia. Another programme for the development of the leather sector was designed for India, adopting an integrated programme approach and addressing the development needs at all levels of the industry. In Brazil, a successful revolving fund arrangement was developed with a government training and service institution for the textile and garment industry whereby UNIDO expertise, channelled through the institution, is made available to the private textile and garment industry on a commercial basis.

65. Technological trends in the textile and garment industry sector and their implications to developing countries as described in the 1990 Annual Report continued to apply.^{10/} The capital-intensity of the sector continued to grow, although a level has been reached where further relative growth is likely to slow down. There have been no fundamental technological changes in the sector in recent years, but a steady refinement has been observed of existing systems leading towards higher machine productivity and greater flexibility to meet the constantly changing market demands. These technological improvements do not merely save labour, but also contribute to the consistency of product quality and permit a quick response to rapid fashion changes. These two principal factors make it imperative for the developing countries to modernize their textile and garment industries with the same technology that is being installed in industrialized countries. With the increasing capital-intensiveness of this technology, the previous comparative advantage enjoyed by developing countries of cheap labour is rapidly being eroded in primary textile processing (spinning, weaving, dyeing/finishing) although in the garment sector this advantage is still important and is likely to remain so in the foreseeable future, as evidenced by the trend in recent years for garment manufacturers in industrialized countries to move their garment assembly operations to developing countries. The apparently explosive growth of garment exports from developing countries has been offset, however, by the import of fabrics, accessories, designs and patterns. Despite the small size of the resultant net export value, this development represented a first step towards more active, export-oriented production and UNIDO has supported it

^{10/} Ibid., paras. 71-72.

Table 3
Qualitative analysis of UNIDO technical cooperation
 (based on project evaluations carried out in 1990)

Achievement	In-depth evaluation results a/		Internal evaluation results	
	(1) Outputs produced (efficiency)	(2) Objectives achieved (effectiveness)	(3) b/ Objectives achieved (effectiveness)	(4) c/ Objectives achieved (effectiveness)
	(Percentage of all projects evaluated)			
Expectations exceeded	0	0	3	9
Expectations met	40	36	40	30
Expectations nearly met	29	24) 43	24
Less than expected	20	27)	24
Considerable problems	6	6	2	4
Inconclusive	6	6	12	9

Note: Totals may not add precisely due to rounding.

a/ Based on 36 in-depth evaluations.

b/ Based on 242 internal evaluations.

c/ Based on 36 internal evaluations of the projects having undergone in-depth evaluations; this column has been prepared for the purpose of comparing with column (2).

Table 4

Number of technical cooperation projects under implementation in 1991 by region,
by field of activity and size of project

		Size of project						Subtotal	Total
		Africa	Arab States a/	Asia and the Pacific	Europe	Latin America and Caribbean	Global and interregional		
Agro-based industries	(i)	16	10	10	5	18	4		
			(6)					57	
	(ii)	29	7	23	1	11	4		
			(7)					68	
	(iii)	6	2	14	0	2	0		
			(2)					22	147
Chemical industries	(i)	40	13	37	20	25	28		
			(8)					155	
	(ii)	28	12	63	13	7	6		
			(9)					120	
	(iii)	16	11	42	0	1	3		
			(11)					62	337
Metallurgical industries	(i)	11	6	20	9	13	11		
			(2)					68	
	(ii)	10	1	17	6	3	2		
			(1)					38	
	(iii)	3	2	11	0	3	0		
			(2)					17	123
Engineering industries	(i)	34	11	19	14	14	12		
			(8)					96	
	(ii)	20	6	36	8	5	0		
			(6)					69	
	(iii)	7	2	28	1	1	1		
			(1)					39	204
Industrial planning	(i)	25	3	9	4	14	12		
			(3)					64	
	(ii)	22	6	9	1	5	0		
			(1)					42	
	(iii)	6	0	2	0	3	0		
			(0)					11	117

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

Table 4 (continued)

Size of project
 (i).....<\$150,000
 (ii) \$150,000 - \$1,000,000
 (iii).....>\$1,000,000

		Africa	Arab States a/	Asia and the Pacific	Europe	Latin America and Caribbean	Global and interregional	Subtotal	Total
Institutional infrastructure	(i)	38	17 (10)	14	9	25	8	101	
	(ii)	48	19 (11)	22	6	13	6	103	
	(iii)	12	3 (0)	7	0	4	2	28	232
Industrial management and rehabilitation	(i)	15	7 (6)	12	9	16	0	53	
	(ii)	14	5 (3)	8	2	5	1	32	
	(iii)	4	1 (1)	5	1	1	0	11	96
Feasibility studies	(i)	30	8 (3)	7	6	8	9	65	
	(ii)	18	9 (4)	9	0	0	6	38	
	(iii)	5	2 (0)	0	0	0	2	9	112
Industrial human resource development	(i)	15	3 (0)	13	10	7	76	124	
	(ii)	6	2 (2)	2	3	0	11	22	
	(iii)	0	0 (0)	0	0	0	0	0	146
Other b/	(i)	58	17 (3)	47	16	44	116	295	
	(ii)	25	6 (5)	19	4	8	48	105	
	(iii)	0	0 (0)	0	0	0	13	13	413
Total number of technical cooperation projects under implementation in 1991	(i)	282	95 (49)	188	102	184	276	1,078	
	(ii)	220	73 (49)	208	44	57	84	637	
	(iii)	59	23 (17)	109	2	15	21	212	1,927

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

b/ See statistical annex, table 6, for breakdown.

Table 5

Regional distribution of technical cooperation expenditure, by field of activity

(Percentage)

	Africa	Arab States a/	Asia and the Pacific	Europe	Latin America and Caribbean	Global and interregional	Total
Agro-based industries	50.1	8.9 (7.3)	32.0	1.1	12.1	3.1	100
Chemical industries	39.3	32.6 (31.3)	46.9	1.6	3.6	7.3	100
Metallurgical industries	25.0	6.3 (5.8)	56.2	6.5	5.7	6.1	100
Engineering industries	47.0	4.1 (4.1)	36.4	4.1	2.9	9.6	100
Industrial planning	65.7	7.0 0.1	18.2	0.5	6.9	1.6	100
Institutional infrastructure	45.8	8.4 (3.7)	27.4	3.0	13.8	5.3	100
Industrial management and rehabilitation	44.2	9.6 (4.0)	25.2	11.5	13.4	0.1	100
Feasibility studies	47.7	19.0 (3.9)	7.2	2.1	1.1	26.8	100
Industrial human resource development	27.6	14.4 (12.8)	39.6	5.9	3.3	22.0	100
Other b/	11.6	4.0 (2.9)	8.5	3.6	5.2	70.0	100
Total	37.1	12.8 (10.2)	29.3	3.3	6.5	21.2	100

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

b/ See statistical annex, table 6, for breakdown.

Table 6

Number of technical cooperation projects by branch and programme element

Branch and programme element code	(1) Projects in progress at 31.12.1991				(2) Projects approved in 1991 a/	(3) Projects completed in 1991
	Interregional/		Country	b/		
	Intercountry	global				
Agro-based Industries						
J.1.1.01	0	1	22	(14)	1	9
J.1.1.02	0	3	25	(20)	10	16
J.1.1.03	11	1	27	(21)	7	14
J.1.1.04	1	0	2	(2)	0	2
J.1.1.05	0	0	9	(4)	0	2
Total J.1.1	12	5	85	(42)	18	43
Chemical Industries						
J.1.2.01	1	0	11	(5)	2	12
J.1.2.02	1	11	57	(19)	12	17
J.1.2.03	0	0	8	(6)	2	2
J.1.2.04	5	2	54	(29)	9	10
J.1.2.05	1	2	9	(5)	2	7
J.1.2.06	1	3	22	(16)	4	6
J.1.2.07	0	1	0	0	0	3
J.1.2.08	2	2	14	(12)	3	7
J.1.2.09	0	0	6	(6)	1	3
J.1.2.10	1	3	39	(24)	5	11
J.1.2.11	1	0	1	(1)	1	0
Total J.1.2	13	24	221	(61)	41	78
Metallurgical Industries						
J.1.3.01	0	2	15	(9)	6	6
J.1.3.02	2	0	18	(13)	8	9
J.1.3.03	1	0	11	(8)	4	9
J.1.3.04	0	0	11	(8)	2	2
J.1.3.05	2	0	11	(7)	4	5
J.1.3.06	3	3	4	(4)	3	3
J.1.3.07	0	0	2	(2)	0	2
Total J.1.3	8	5	72	(30)	27	37
Engineering Industries						
J.1.4.01	2	1	35	(19)	12	11
J.1.4.02	2	0	26	(16)	7	11
J.1.4.03	0	0	2	(2)	2	2
J.1.4.04	3	3	17	(10)	8	9
J.1.4.05	0	0	4	(3)	0	2
J.1.4.06	1	4	18	(13)	6	6
J.1.4.07	2	3	10	(8)	5	6
J.1.4.08	1	0	6	(5)	1	2
J.1.4.09	1	0	8	(6)	2	2
Total J.1.4	12	11	126	(46)	44	52

Table 6 (continued)

Branch and programme element code	(1) Projects in progress at 31.12.1991				(2) Projects approved in 1991 a/	(3) Projects completed in 1991
	Intercountry	global	Country	b/		
Industrial Planning						
J.2.1.01	1	5	34	(23)	12	22
J.2.1.02	7	3	29	(21)	24	11
Total J.2.1	8	8	63	(38)	36	33
Institutional Infrastructure						
J.2.2.01	1	2	14	(11)	4	6
J.2.2.02	0	0	35	(29)	7	10
J.2.2.03	1	6	58	(5)	14	13
J.2.2.04	4	1	9	(9)	5	4
J.2.2.05	1	2	16	(13)	7	6
J.2.2.06	3	0	25	(17)	5	8
Total J.2.2	10	11	157	(77)	42	47
Industrial Management and Rehabilitation						
J.2.3.01	2	0	21	(17)	3	1
J.2.3.02	0	0	24	(9)	12	12
J.2.3.03	0	0	4	(3)	0	0
J.2.3.04	3	1	19	(15)	2	12
Total J.2.3	5	1	68	(37)	17	25
Feasibility Studies						
J.3.1.01	4	5	23	(16)	10	16
J.3.1.02	5	1	21	(19)	3	12
J.3.1.03	0	1	0	0	0	9
J.3.1.04	2	5	3	(3)	12	5
Total J.3.1	11	12	47	(33)	25	42
Industrial Human Resource Development						
J.3.2.01	2	1	5	(5)	0	6
J.3.2.02	1	0	12	(11)	8	8
J.3.2.03	10	37	0	0	42	63
J.3.2.04	0	0	0	0	0	1
Total J.3.2	13	38	17	(16)	50	78
Project Personnel Recruitment						
J.3.3.01	0	1	0	0	1	1
Total D I O	92	116	856	(115)	301	436

Note: For multifund projects, each project number (each fund source) is counted as a separate project.

a/ All the projects included in column (2) are not necessarily reflected in column (1), particularly in the case of approvals made late in the year.

b/ Numbers in parentheses indicate the number of countries with country projects in progress.

Table 7

Significant performance indicators: Industrial Operations

Comparison of projects approved and completed, 1990-1991,
against project approvals and completions programmed

	Approvals			Completions		
	Approvals programmed	Projects approved	Percentage achieved	Completions programmed	Projects completed	Percentage achieved
<u>Industrial Operations Technology (IO/T)</u>						
Agro-based Industries						
J.1.1.01	11	11		10	20	
J.1.1.02	36	21		24	28	
J.1.1.03	14	18		13	31	
J.1.1.04	6	2		11	7	
J.1.1.05	<u>12</u>	<u>1</u>		<u>11</u>	<u>3</u>	
Subtotal J.1.1.	79	53	67%	69	89	129%
Chemical Industries						
J.1.2.01	8	6		8	16	
J.1.2.02	32	37		27	38	
J.1.2.03	10	4		8	4	
J.1.2.04	14	29		18	32	
J.1.2.05	16	9		8	10	
J.1.2.06	24	13		11	15	
J.1.2.07	12	1		8	6	
J.1.2.08	10	9		6	10	
J.1.2.09	14	1		12	5	
J.1.2.10	30	20		20	28	
J.1.2.11	<u>8</u>	<u>1</u>		<u>7</u>	<u>0</u>	
Subtotal J.1.2.	178	130	73%	133	164	123%
Metallurgical Industries						
J.1.3.01	12	12		18	11	
J.1.3.02	6	16		11	19	
J.1.3.03	15	14		10	15	
J.1.3.04	7	3		8	2	
J.1.3.05	9	11		7	7	
J.1.3.06	10	7		5	5	
J.1.3.07	<u>10</u>	<u>5</u>		<u>6</u>	<u>3</u>	
Subtotal J.1.3.	69	68	99%	65	62	95%
Engineering Industries						
J.1.4.01	19	25		17	20	
J.1.4.02	15	16		14	24	
J.1.4.03	12	2		8	2	
J.1.4.04	14	17		13	17	
J.1.4.05	9	1		8	3	
J.1.4.06	11	16		12	12	
J.1.4.07	12	11		13	12	
J.1.4.08	12	5		11	4	
J.1.4.09	<u>10</u>	<u>5</u>		<u>7</u>	<u>6</u>	
Subtotal J.1.4.	114	98	86%	103	100	97%
Subtotal IO/T	440	349	79%	370	415	112%

Table 7 (continued)

	Approvals			Completions		
	Approvals programmed	Projects approved	Percentage achieved	Completions programmed	Projects completed	Percentage achieved
Industrial Institutions and Services (IO/IIS)						
Industrial Planning						
J.2.1.01	10	34		10	43	
J.2.1.02	<u>20</u>	<u>35</u>		<u>16</u>	<u>23</u>	
Subtotal J.2.1.	30	69	230%	26	66	254%
Institutional Infrastructure						
J.2.2.01	8	9		9	10	
J.2.2.02	18	22		16	20	
J.2.2.03	15	43		20	33	
J.2.2.04	17	9		18	7	
J.2.2.05	6	8		4	12	
J.2.2.06	<u>10</u>	<u>20</u>		<u>10</u>	<u>17</u>	
Subtotal J.2.2.	74	111	150%	77	99	129%
Industrial Management						
J.2.3.01	20	12		20	5	
J.2.3.02	20	22		13	17	
J.2.3.03	9	0		9	3	
J.2.3.04	<u>25</u>	<u>16</u>		<u>26</u>	<u>20</u>	
Subtotal J.2.3.	74	50	68%	68	45	66%
Subtotal IO/IIS	<u>178</u>	<u>230</u>	129%	<u>171</u>	<u>210</u>	123%
Industrial Operations Support (IO/OS)						
Feasibility Studies						
J.3.1.01	50	35		70	27	
J.3.1.02	16	11		12	25	
J.3.1.03	0	1		0	9	
J.3.1.04	<u>40</u>	<u>31</u>		<u>45</u>	<u>14</u>	
Subtotal J.3.1.	106	78	74%	127	75	59%
Industrial Human Resource Development						
J.3.2.01	10	9		5	9	
J.3.2.02	25	21		25 a/	10 a/	
J.3.2.03	120	103		120 b/	102 a/	
J.3.2.04	<u>0</u>	<u>0</u>		<u>0</u>	<u>3</u>	
Subtotal J.3.2.	155	133	86%	150	124	83%
Project Personnel Recruitment						
J.3.3.01	0	1		4,500 c/ 2,500 d/	5,190 c/ 2,396 d/	
Subtotal J.3.3.	0	1		7,000	7,586	108%
Subtotal IO/OS	<u>261</u>	<u>212</u>	81%	<u>277</u>	<u>199</u>	72%
Total DIO	879	791	90%	818	824	101%

Note: The projects (35 approvals and 38 completions programmed) cited in the programme and budgets, 1990-1991 (GC.3/10/Rev.1) under J.5.2 (Integrated Industrial Projects) were duly transferred to other subprogrammes in the Department (see chap. II, para. 159 of Annual Report of UNIDO, 1990 (IDB.8/10 and Corr.1)).

For multifund projects, each project number (each fund source) is counted as a separate project.

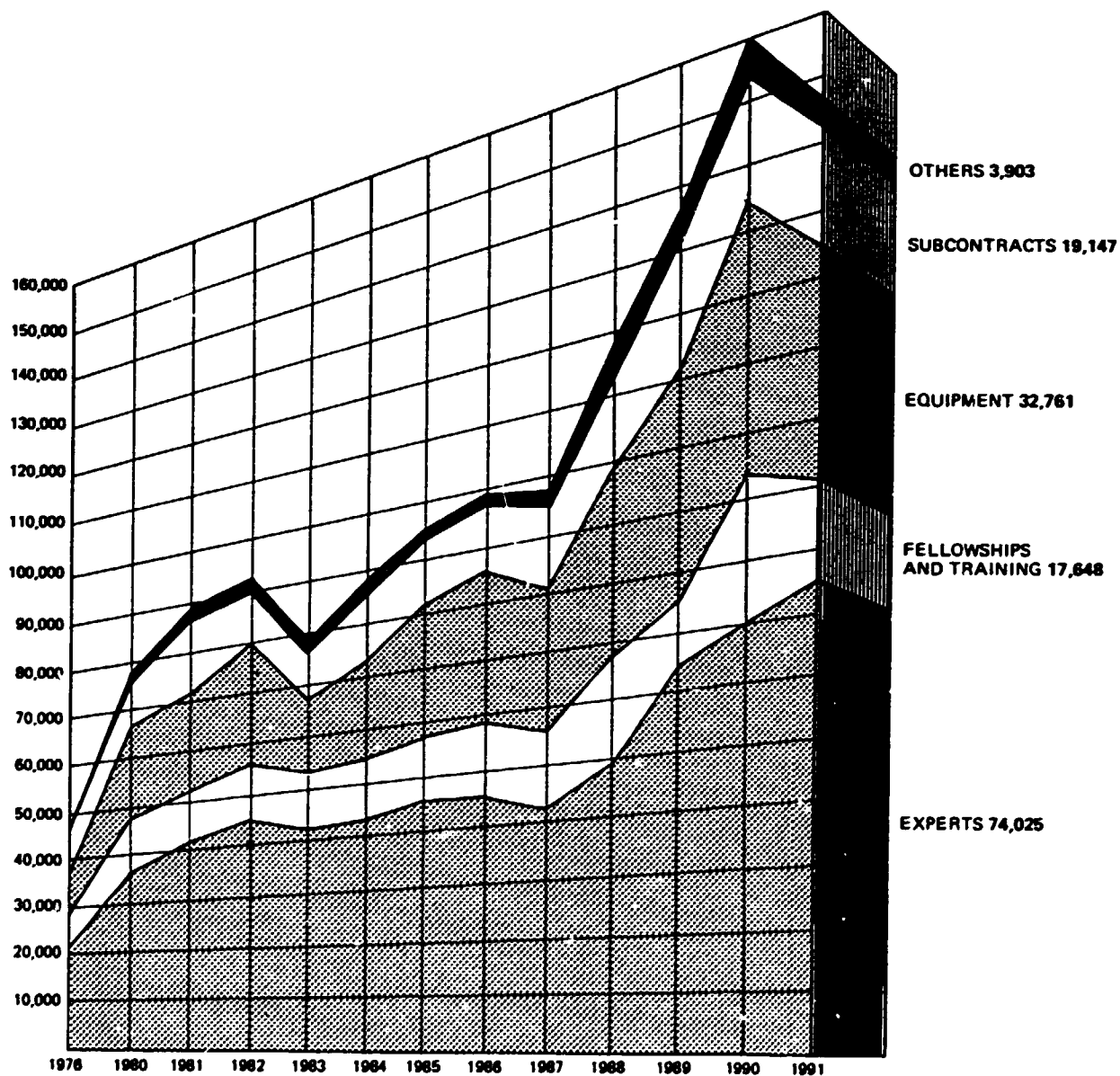
a/ Total number of fellowships/study tours (= number of trainees): 3,500 programmed, 3,627 implemented.

b/ Total number of group training programmes (= number of programmes): 120 programmed, 141 implemented; of 141 group training programmes implemented: 65 by Industrial Human Resource Development Branch, 76 by other Branches.

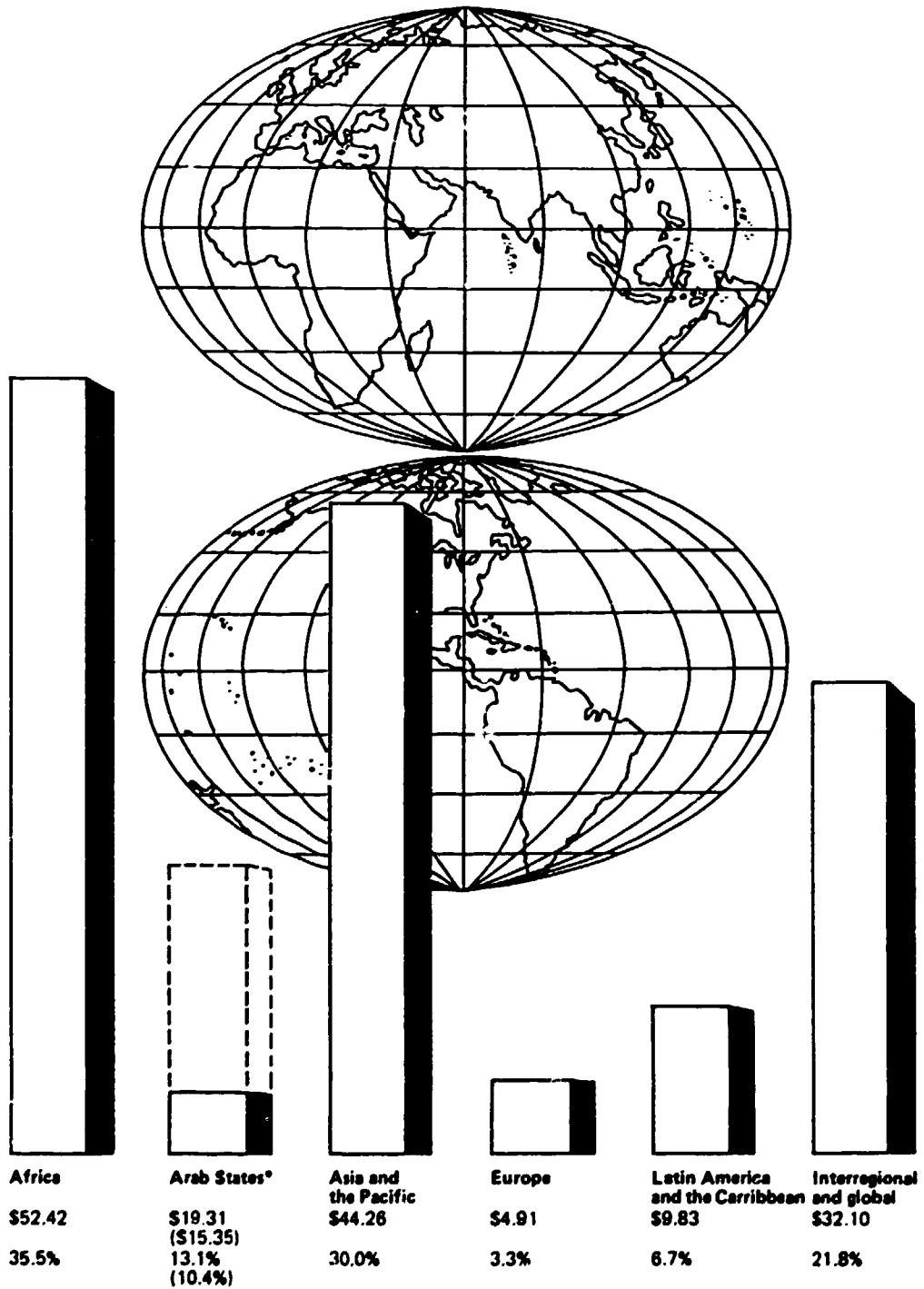
c/ Appointments.

d/ Extensions.

**TECHNICAL COOPERATION PROJECT EXPENDITURES
BY PROJECT COMPONENT, 1976-1991**
(In thousands of US dollars)

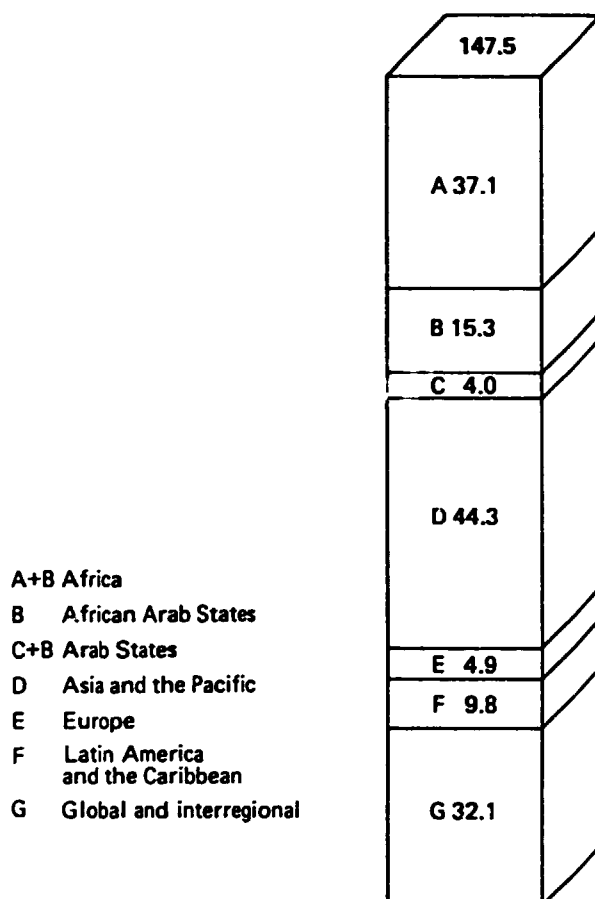


TECHNICAL COOPERATION DELIVERED BY UNIDO IN 1991
 (By geographical area, in millions of US dollars and percentages)

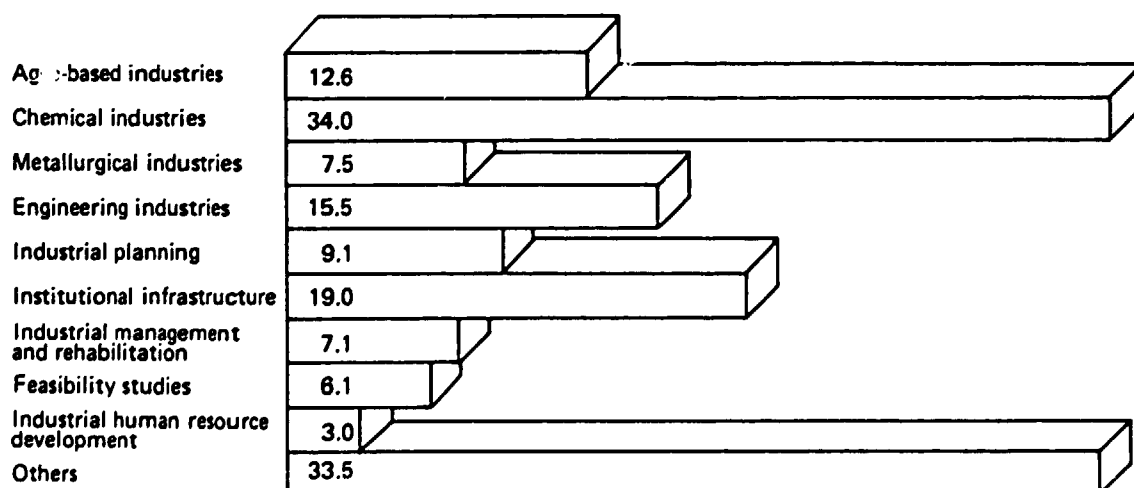


*Broken lines and figures in parentheses give an indication of the African Arab States which are also included under the column "Africa".

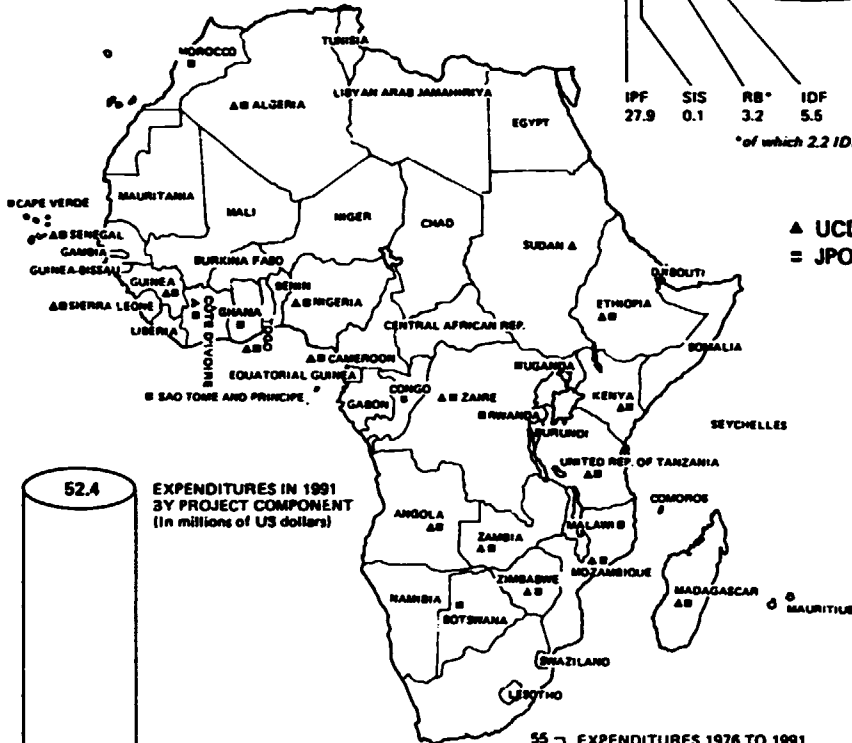
TECHNICAL COOPERATION DELIVERED BY UNIDO IN 1991
(In millions of US dollars)



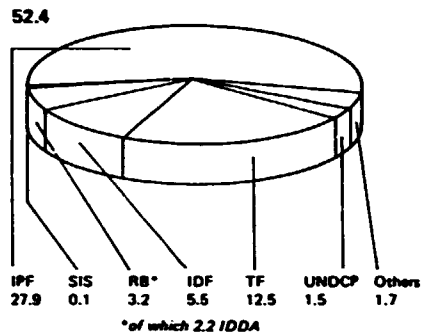
DISTRIBUTION OF TECHNICAL COOPERATION ACTIVITIES IN 1991
(In millions of US dollars)



AFRICA



EXPENDITURES IN 1991 BY SOURCE OF FUNDS
(In millions of US dollars)



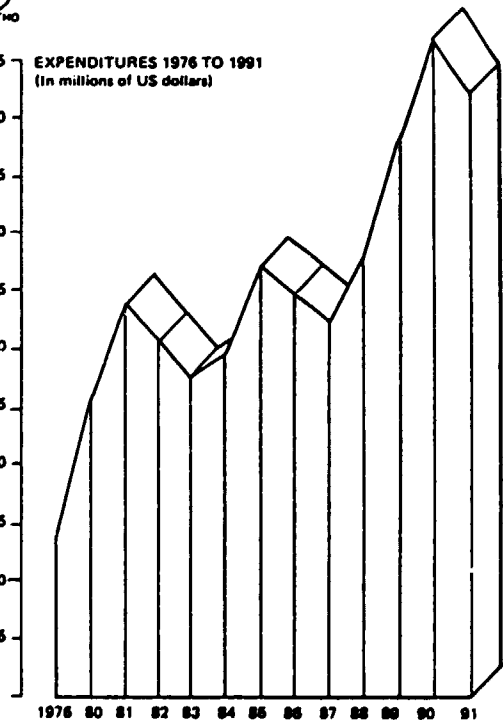
▲ UCD duty station
= JPO duty station

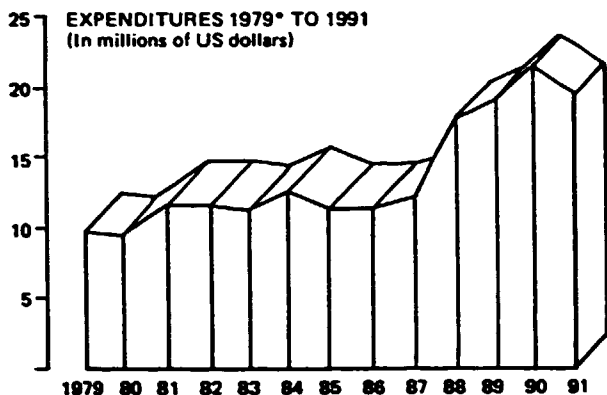


EXPENDITURES IN 1991
BY PROJECT COMPONENT
(In millions of US dollars)

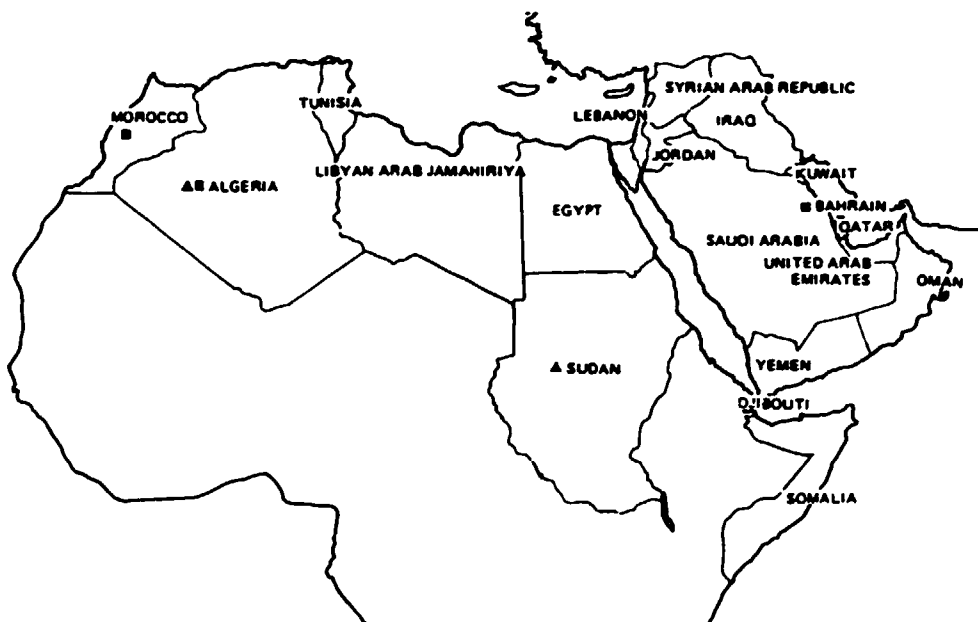
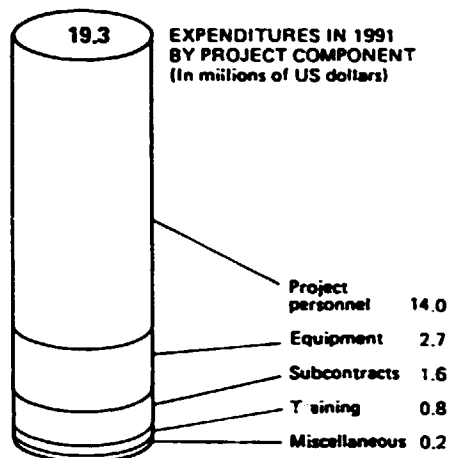
Project personnel	31.4
Equipment	9.7
Subcontracts	6.1
Training	3.8
Miscellaneous	1.6

EXPENDITURES 1976 TO 1991
(In millions of US dollars)





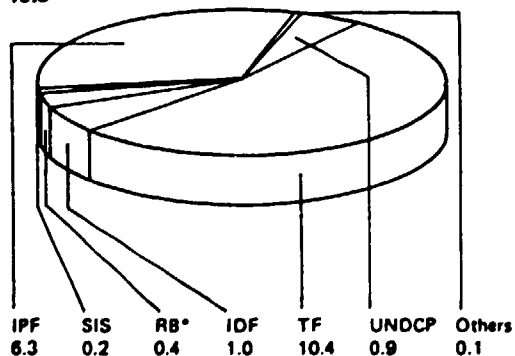
*For previous years, expenditures related to Arab States were reported partly under Africa and partly under Europe and Western Asia.



ARAB STATES

EXPENDITURES IN 1991 BY SOURCE OF FUNDS
(In millions of US dollars)

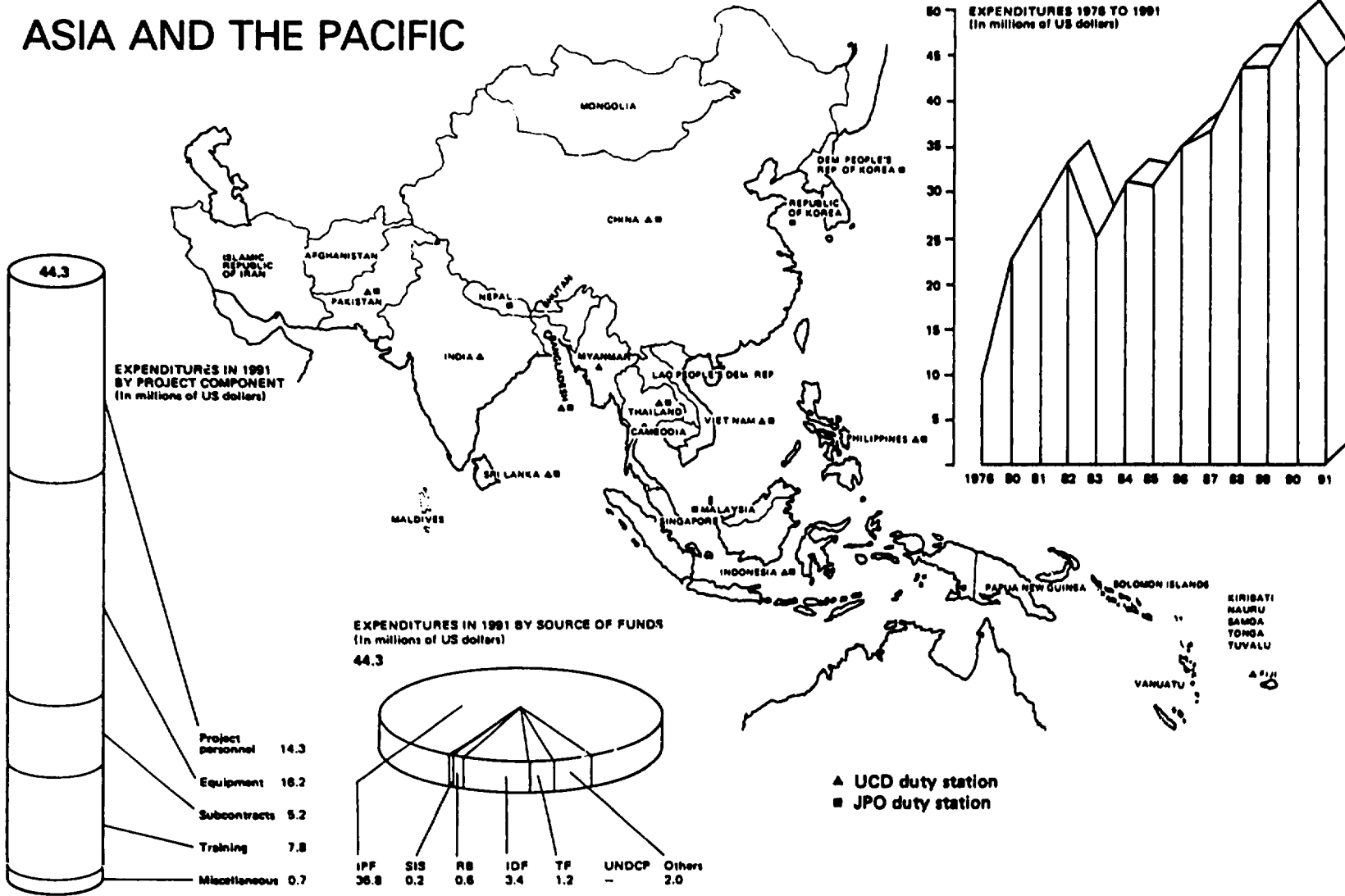
19.3



*of which 0.3 IDDA

▲ UCD duty station
■ JPO duty station

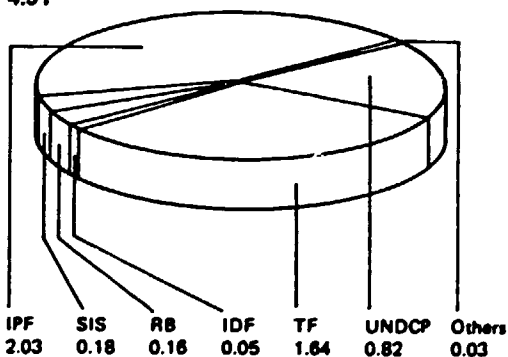
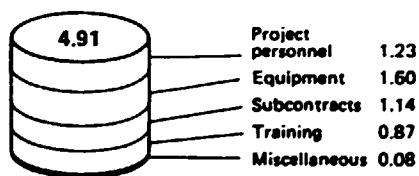
ASIA AND THE PACIFIC



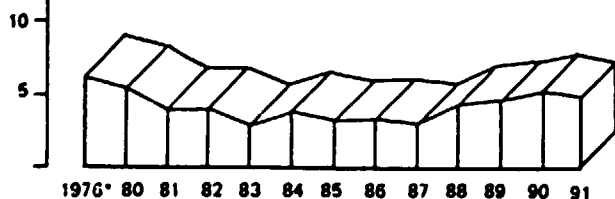


EXPENDITURES IN 1991 BY SOURCE OF FUNDS
(In millions of US dollars)
4.91

EXPENDITURES IN 1991 BY PROJECT COMPONENT
(In millions of US dollars)

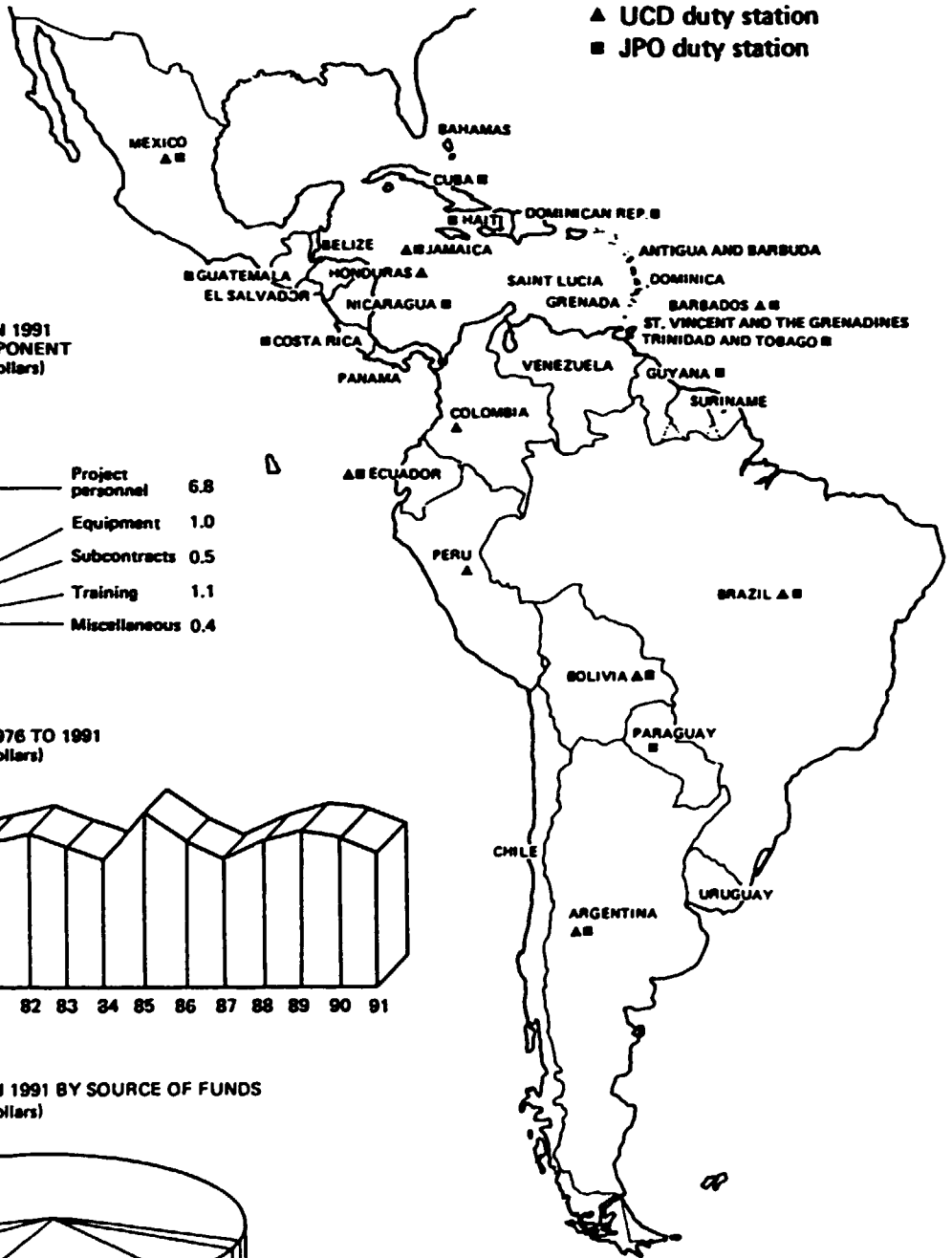


EXPENDITURES 1976 TO 1991
(In millions of US dollars)

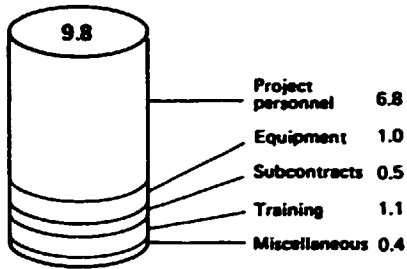


*The figure for 1976 combines Europe and Western Asia and includes 12 countries which, since 1979, are listed under Arab States.

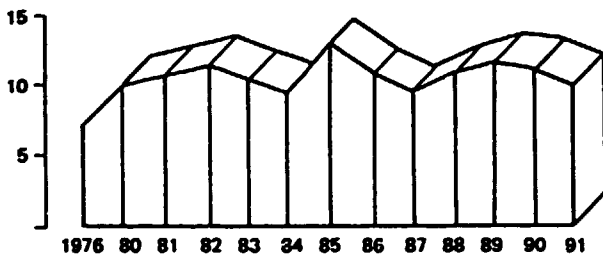
LATIN AMERICA AND THE CARIBBEAN



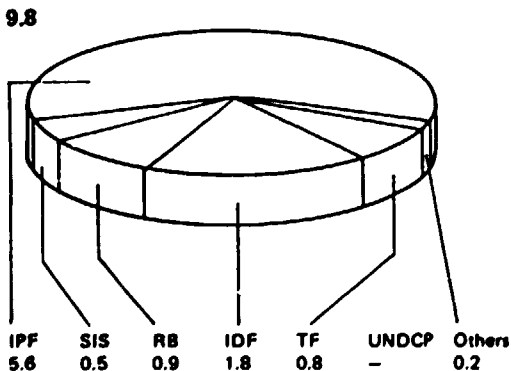
EXPENDITURES IN 1991 BY PROJECT COMPONENT
(In millions of US dollars)



EXPENDITURES 1976 TO 1991
(In millions of US dollars)



EXPENDITURES IN 1991 BY SOURCE OF FUNDS
(In millions of US dollars)



through an increasing number of projects in the garment industry - all based on extensive utilization of computer-aided design and pattern making and grading facilities. 11/ Activities in the textile sector during 1991 focused on skills and competitiveness, especially in the garment industry, thus contributing to the integration of women in industry. (J.I.1.01)

66. In the food-processing industry, positive impacts on the recipient countries' economies and trade balance were felt, for example in the transfer of appropriate technologies for apple and pear juice processing to Argentina, 12/ with the development of new technologies for palmito processing and standardization in Costa Rica, and in the production of pectin from citrus fruit in Venezuela. At the request of 14 African countries and in line with the recommendations of the First Interregional Consultation on the Food-Processing Industry with Emphasis on Sugar-cane Processing (1988), a comprehensive regional programme was set up to update and diversify the existing industrial facilities in those countries; the programme is likely to play an important role in satisfying their nutritional basic needs and assisting in the recovery of their economies.

67. Basic agro-industrial technologies dealing with cereal storage and the processing of high-quality cocoa beans were transferred from Western Europe to Latin America. In Viet Nam, completion of the strengthening of the National Food Industry Research Institute 13/ contributed to the upgrading of local technology and professional skill with special regard to applied food technology. In Angola, a factory producing baker's yeast was rehabilitated as part of a programme 14/ for rehabilitation of a chain of bakeries, resulting in socio-economic benefits to the country. In Senegal, under a Japanese contribution, the first phase of a pilot project for the solar drying of fruits and vegetables was completed and will be followed by the setting up of solar drying centres at the village level. The objective of the project is to contribute to the valorization of fresh agricultural products, to facilitate access to the market and to improve the incomes of the women producers' group concerned. 15/ Activities continued in the improvement of village-level technologies in the field of vegetable oil and fats as well as cassava processing. (J.I.1.02)

68. Technical cooperation in the animal-based food industries continued to play an increasingly important role in strengthening the economy and in meeting basic needs of many countries. As in 1990, 16/ the focus was on the modernization of the fish and dairy industries, and on the establishment or improvement of national food standard and quality control systems in conformity with international requirements. In Saudi Arabia, the national dairy industry was promoted through a sectoral study aimed at self-sufficiency through reduction of imports. Quality control laboratories for the food processing industry were established to assist local industries in Morocco and Viet Nam 17/ in improving their technological processes and products with the aim of raising local standards and competing in international markets. (J.I.1.05)

69. In the leather industry, the programme approach of the ongoing large-scale African hides and skins, leather and leather products improvement scheme 18/ made considerable progress in the countries involved. The rehabilitation scheme 18/ has brought about the physical and technological upgrading of a number of public and private enterprises. To sustain the activities started by the programme, a revolving fund was established in Kenya, Sudan, the United Republic of Tanzania, Zambia and Zimbabwe, into which the private sector will refund the inputs provided by the scheme to channel funds for the improvement of hides and skins initiated jointly by FAO and UNIDO. In a similar approach a project in Mozambique assisted a private entrepreneur in setting up a small tannery and a shoe workshop. UNIDO, jointly with the International Trade Centre UNCTAD/GATT, began a dialogue with representatives of government and industry to develop strategies and policies for the support of the leather industry sector. Specific measures and activities were identified to enable women in the region to benefit from the programme; and cooperation was fostered in workshops between intra-regional institutions in Kenya, Zambia and Zimbabwe.

70. At the Hyderabad Leather Footwear Centre in Pakistan 19/ 40 trainees from the local small-scale industry completed courses in footwear design and pattern making. A substantial increase in productivity was achieved in the only mechanized shoe factory. The facilities at the Centre were also increasingly used by

11/ IOB.6/10, chap. II, para. 69.

12/ Ibid., para. 70.

13/ IOB.5/10, chap. II, para. 66.

14/ IOB.6/10, chap. II, para. 71.

15/ IOB.8/10, chap. II, para. 74.

16/ Ibid., para. 75.

17/ Ibid.

18/ Ibid., para. 77.

19/ Ibid., para. 78.

small-scale manufacturers. Equipment for the latex pilot plant was installed at the Development Centre for Rubber Technology in Myanmar. 19/ Training courses on quality control and mould designing were attended by 36 participants from the Centre and local manufacturing units. Four rubber plants at Yangon, Myanmar, benefited from direct assistance in testing basic and auxiliary materials, final products and designing new moulds. Links were established with similar institutions in Malaysia and Sri Lanka.

71. The aspect of pollution control in the leather sector highlighted cleaner production methods more than treatment of wastes. In Brazil and Pakistan the design was prepared and low-waste technologies were tested for common effluent treatment plants for tannery clusters. The design was also prepared for a pilot plant for waste-water treatment in Costa Rica and for industrial treatment in Kenya, the United Republic of Tanzania and Viet Nam. The establishment of a pollution control laboratory in Nigeria reached an advanced stage, while preparation of a sectoral programme in pollution control in South-East Asia was completed. The activities in the leather industry, particularly the sectoral programme in Africa, brought social, economic and environmental benefits; through the hides and skins improvement scheme, farmers and herdsmen obtained more value from their animal by-products; awareness has increased regarding the status and integration of women in the industrial process; and effluent and waste treatment units, wherever installed, have led to a cleaner environment. (J.1.1.03)

72. In the development of wood processing and wood products industries, technical cooperation was provided through a large number of relatively small projects. Assistance was given to the existing furniture industries in the Democratic People's Republic of Korea and Yemen. 20/ Short training courses continued to play an important role in the transfer of technology. For example, in Bolivia a team of four consultants assisted the furniture industry, and a larger team organized a seminar on wood products in construction for the Latin American and Caribbean region. For reasons beyond UNIDO's control some projects were delayed (J.2.3.04) owing to changing political conditions in certain countries, while the non-availability of funds from the Special Industrial Service programme also affected some ongoing projects. Furthermore, two courses in Africa were postponed due to the delay in government acceptance to host them. (J.2.3.04) 21/

20/ IDB.6/10, chap. II, para. 144.

21/ Transferred in July 1991 from Industrial Management and Rehabilitation (J.2.3) to Agro-based Industries (J.1.1).

CHEMICAL INDUSTRIES

73. Technical cooperation expenditures in 1991 under the heading of chemical industries (J.1.2) amounted to \$34 million. Some 53 per cent of the total implementation was financed from UNDP resources. A total of 337 projects were implemented or under implementation.

74. The most significant factors that accounted for fewer projects approved than anticipated (see table 7) were the increased trend towards national execution, which was particularly marked in 1991, and the end of the programming cycle which slowed down the approval of projects. In order to offset the negative impact of a changing UNDP policy, staff undertook numerous non-UNDP missions and participated in programmes under national execution. As a result of these efforts some 200 project proposals were developed during the biennium with a total value of approximately \$100 million and an average project value of \$500,000. There was closer cooperation with the industrial investment and feasibility study sectors through the identification of existing projects suitable for investment and the preparation of industrial profiles and assessments, which provided the basis for enterprise-to-enterprise cooperation and joint ventures. Despite the trend towards national execution, Member States continued to rely on UNIDO's technical and professional inputs. Countries with a large share of their programme devoted to the development of the chemical industry, such as China, India and Viet Nam, showed their recognition of UNIDO's performance by maintaining a high level of requests for assistance. The chemical industries sector also accounted for the largest share of the UNIDO trust fund programme and numerous projects financed through the contributions of donors such as Belgium, Denmark, Finland, France, Germany, Japan and the United Kingdom of Great Britain and Northern Ireland.

75. Parallel to the increasing importance of the chemical industry in the industrialization process of developing countries, the responsibility in ensuring sustainable industrial development is being fully recognized. The potential hazards of the chemical industry, as well as the concerns of environment and energy, require a much more complex approach to project formulation, comprising improved diagnostics, design and safer operations. In the previous biennium only 5 to 10 per cent of the projects undertaken incorporated one or more of the above elements, while in the 1990-1991 biennium the share of environment/energy-related projects rose to almost 30 per cent. Adaptation and development of modern technologies, improvement of plant operation and plant rehabilitation have all contributed to the development of small-scale industries, as well as the integration of women in industrial development. Successful examples in the category of environment-related projects bearing a

strong TCDC component are the utilization of fly ash in China and the establishment of a pharmaceutical chemicals plant in the Islamic Republic of Iran, described by UNDP as one of the most successful projects of its kind in Asia (J.1.2.07). Projects in the energy sector focused on renewable energy sources such as biomass, agricultural wastes, industrial waste streams and more efficient and environmentally acceptable utilization of coals (J.1.2.06). Technology assessment was also a feature of the chemical industry with regard to economical and ecological acceptability and the operation and adaptation of chemicals leading towards safer products and conformity with international standards for exports. Emphasis was also placed on better utilization of natural and traditional raw materials.

76. Two projects, in Ethiopia and Viet Nam, contributed to the strengthening of women's role in small-scale manufacturing as well as the protection of fragile ecosystems, both under implementation in 1991. Two other projects also provided increased opportunities for women to improve technical and market skills, while promoting environmentally-sound industries: the production of mother-of-pearl buttons and other jewellery in the Seychelles, through the introduction of modern machinery and high quality designs, and the controlled exploitation of local shells that provide the bulk of the raw material by using alternative raw materials such as coconut shells and wood, to avoid depletion of the shell population; and a project in Bolivia, in the Andean village of Huayculi where traditional pottery is centuries old (financed by Germany), which employs mostly women who have improved their technical skills through training. The introduction of innovative designs for the pottery products opened up new and lucrative domestic market opportunities, thus reviving village pottery as a profit-making occupation. A gas pipeline being built to supply new pottery kilns in the village will help to upgrade technology as well as protect the environment.

77. Technical cooperation in the cement industry received further support especially under trust fund arrangements. Such arrangements have continued in Egypt, Libyan Arab Jamahiriya, Nigeria and Yemen, 22/ and a major programme is under preparation for the Islamic Republic of Iran. Although UNDP-sponsored assistance to the cement industry in Africa is on the decline, donors like Denmark and Japan have supported the industry in the Preferential Trade Area for Eastern and Southern African States through the development and rehabilitation of cement factories. (J.1.2.01)

78. The relatively stable prices of crude oil and petroleum products during the year

permitted the maintenance of a high level of technical cooperation in industries dealing with petroleum refining and petrochemicals. The rehabilitation of existing plants in Ecuador helped to minimize energy use and to improve operations. In the Democratic People's Republic of Korea and India, 23/ the production of catalysts has been completed satisfactorily, leading to downstream industry development in the two countries. In Pakistan and Viet Nam the setting up of R and D centres - one of the tools for transfer of technology - has led to the creation of engineering and process design capabilities for the chemical and petrochemical industries in those countries, with the result that the national capabilities and the use of natural resources have been enhanced. 23/ A project dealing with the development of carbon fibres in China 23/ has been successfully completed and links were established with a similar project in the Republic of Korea. 23/ As a result, the Republic of Korea has become the third largest producer of pitch-based carbon fibres after Japan and the United States of America. The first phase of a project to set up a factory for the production of artificial limbs using advanced materials was coming to an end in China. 23/ The centre already enjoys a growing reputation in the country and region, although much remains to be done to advance the centre's capabilities and to bring it in line with international standards. A co-ordinated approach in technical cooperation to the Islamic Republic of Iran contributed in the development of the country's petrochemical and related industries as well as in the use of national expertise for the benefit of other developing countries on a TCDC basis. A global project on the development of truck-tyre retreading compounds using natural rubber was successfully completed, while a new global project on the use of natural rubber compounds as bearings for earthquake protection for low-cost housing was under implementation. A pre-feasibility study was completed which recommended the use of reclaimed butyl rubber, using clean technology offered by the former Union of Soviet Socialist Republics, and the results are of interest to many developing countries. Also of interest to many countries are the results of projects currently under implementation on lubricating oil formulation production and recycling of lube oil additives. As the development of human resources is of immediate relevance to these projects, several workshops, group training programmes and international conferences were held on plastics technology (Austria), on rubber-based products (Islamic Republic of Iran) and on recycling of plastics and plastic wastes (China). 23/ (J.1.2.02)

79. In the area of fertilizers, steps have been taken to establish a programme

22/ IDB.8/10. chap. II, para. 82.

23/ Ibid., para. 83.

approach to better coordinate the activities of UNIDO in that field with organizations in the United Nations system as well as other private and public organizations. A good example of this cooperation is the information exchange within the working group on fertilizers composed of UNIDO, the World Bank and the Food and Agriculture Organization of the United Nations (FAO). The annual meeting of the group was hosted by UNIDO in May. This cooperation also includes UNIDO participation in the steering committee for the UNDP-financed global project dealing with fertilizer strategies for sustainable agriculture and environmental protection. In approaching problems related to fertilizers, priority was given to environmental issues with the aim of achieving ecologically sustainable industrial development (ESID). A panel on the phosphate fertilizer industry, set up at the ESID Conference held at Copenhagen, Denmark, identified barriers towards achieving ESID and proposed appropriate recommendations. 24/ Cooperation with the industry and the International Fertilizer Development Center (United States of America), together with the involvement of FAO, has boosted the implementation of the UNIDO project on the Egyptian Fertilizer Development Centre, a possible future regional centre. (J.1.2.03)

80. A series of comprehensive programmes in pharmaceuticals has been developed to meet the needs of developing countries. The establishment of a new process and product development centre for essential oils was initiated in India. The Royal Drugs Research Laboratory in Nepal and the Thailand Institute for Scientific and Technological Research at Bangkok were strengthened to offer their services to industry. Preparatory and specialized industrial assistance in medicinal and aromatic plants projects were undertaken in Argentina, Ethiopia, Guatemala, Guinea, Niger, Rwanda and Turkey. In the field of aromatic plants, process and quality enhancement of essential oils produced in the Democratic People's Republic of Korea, Madagascar, Turkey, the United Republic of Tanzania and Viet Nam resulted in increased export earnings. Sensory evaluation training courses were conducted in Turkey and Viet Nam, to train perfumers. In those two countries local capabilities were utilized in the fabrication of processing equipment thereby building up self-reliance. The second UNIDO workshop on the essential oils industry was held at Manila, Philippines, with participants from 11 countries. The fourth group training programme on industrial utilization of medicinal and aromatic plants was held at Eskisehir, Turkey with inputs for training from UNIDO staff. A Workshop on the Development of the Pharmaceutical Industry

in Portuguese-speaking Countries of Africa was held at Lisbon, Portugal, from 4 to 8 November. In Cuba the pilot plant phase of a project was concluded for technology transfer on production of steroid compounds from indigenous raw materials. 25/ Special technical services were given to the Société Générale de l'Industrie Pharmaceutique in Guinea to improve the quality of pharmaceutical products manufactured in the plant. Advisory services were given to the Government of the Philippines for the establishment of a sectoral plan for biotechnology. Construction of the pharmaceutical chemicals multi-purpose pilot plant in the Islamic Republic of Iran was expected to be completed by early 1992. 25/ Also in the Islamic Republic of Iran, a detailed study for the establishment of the Shahid Modarres industrial pharmaceutical complex was launched in preparation for a proposed large trust fund project. Study tours took place in Europe related to the project on penicillin. In Zambia, a project on diversification and expansion of pharmaceutical manufacturing covered a wide range of activities that could improve the country's economy. A regional programme for biotechnology in Latin America 25/ reached its final stage of implementation, and the five projects within the programme that were executed by UNIDO achieved their objectives; planning for the second phase of the programme was under preparation.

81. In the area of biologicals, an innovative project dealing with the production of human vaccines in a veterinary facility in Cameroon was completed in cooperation with the World Health Organization (WHO), FAO and related industries in France and Hungary. 26/ The year 1991 also saw UNIDO participation in a WHO-initiated programme to assess world capacity in the supply of vaccines and a joint UNDP/United Nations Children's Fund (UNICEF)/WHO/UNIDO team evaluated the world-wide vaccine production potential. With the limited global supply of vaccines, the creation of national/regional vaccine production facilities becomes more relevant. A UNIDO task force was sent to Central Africa to explore the possibilities of combating cholera by examining contaminated ground-water and drinking water. The aim of the project, which involves close collaboration with UNDP, WHO, UNICEF and FAO, is to introduce long-life, slow-release bacterial agents to kill the *bacterium vibrio-cholerae* in wells and other sources of drinking water. (J.1.2.04)

82. In the field of pulp and paper, two international workshops were held in India and Indonesia - a workshop on small-scale chemical recovery, high yield pulping and effluent treatment and a workshop on pulp refining, bagasse newsprint, lignin

24/ For the report of the panel, see document GC.4/25/Add.1, annex I, section III.

25/ IDB.8/10, chap. II, para. 85.

26/ Ibid., para. 86.

utilization and cellulose derivatives. They were part of a regional programme for the development of human resource and research capabilities in pulp and paper research institutes in China, India, Indonesia, Myanmar, Philippines and Thailand. 27/ In India, a project was initiated to assist the handmade paper industry in producing high quality products in an effort to increase exports. A testing laboratory and a demonstration plant for handmade paper was being set up at Sanganer, near Jaipur. In the Central Pulp and Paper Research Institute at Saharanpur, India, a pilot plant for the application of the ferrite process in chemical recovery was commissioned and is carrying out experiments with local ores and non-wood black liquor. In Myanmar, UNIDO assisted a bamboo-based pulp mill to install an ultra-filtration pilot plant to validate the technical viability of the production of various lignin-based modified products, to confirm the technical viability of the recovery of inorganic chemicals from the permeate, and to evaluate the impact on the environment. Technical cooperation was provided to revitalize a paper mill at Oko-Iboku, Nigeria, based on short- and long-term remedial measures aimed at lowering the dependence on imported long-fibre pulp, improving the safety programme, upgrading the qualifications of staff and introducing pollution control. 27/ (J.1.2.05)

83. Projects in the energy sector concentrated on renewable sources of energy, and the more efficient and environmentally acceptable utilization of coal. Charcoal briquette projects were undertaken in Madagascar and Sudan, and viable commercial opportunities were identified in each case. Plant construction was undertaken in a number of countries to demonstrate the production of biogas using wastes from the distilling, food-processing and slaughterhouse industries. Projects were also developed to disseminate biogas technology expertise and to develop technical and economic assessment support capability. Activities in coal centred on more effective utilization, particularly of low-grade coals, and on minimizing pollution in the use of coal. A Workshop on Low-Grade Coal Utilization in Developing Countries aimed at developing project proposals was financed by the Government of the United Kingdom of Great Britain and Northern Ireland and organized by UNIDO and British Coal in April. In the field of biotechnology, ongoing or newly developed projects dealt with ethanol and chemical production, biogas, animal and plant cell biotechnology, microbial pesticides and waste water treatment. Industrial waste water treatment projects were developed to include both in-factory optimization to reduce the volume of waste produced and appropriate end-of-pipe treatment processes.

Special attention was devoted to the dissemination of the most appropriate and cleanest technologies for the chosen industrial sectors. (J.1.2.06)

84. In agrochemicals, emphasis was placed on safe, environment-friendly pesticides and waste management. Assistance was provided to Hungary in the development of non-toxic anti-insect agents, 28/ to Cuba in the establishment of a demonstration plant for wettable powder formulation, and to Myanmar in the construction of a pilot plant for the production of a liquid formulation of pesticides. With the support of the Government of Finland a project for development of integrated international guidelines for pesticide formulation was initiated. Following the initiative taken in 1990 to collaborate with the International Union of Pure and Applied Chemistry in their workshop on safety in chemical production, steps were taken to establish a global network on safety (GLONESA) in chemical production, subject to availability of funds. 28/ The concept of network under the Regional Network on Pesticide for Asia and the Pacific (RENAP), 28/ was further strengthened by focusing on safety in operation and occupational health and nonconventional pesticides and by organizing two workshops, one on Industrial Hygiene and Occupational Health and Safety and their Environmental Concerns in the Philippines, and the other on Bio/Botanical Pesticide Development, in Thailand. The network also launched a quarterly journal. Regional collaboration in pesticide quality control was promoted through the establishment of a regional pesticide analytical council, RENPAC, with the aim of harmonizing analytical procedures in the region. Following the successful operation of the Pesticide Development Centre in India, the Government decided to make it an autonomous body with the national industries taking up greater roles in the management of the Centre. (J.1.2.07) (J.1.2.08)

85. In industries related to inorganic products and salt production, the major emphasis was placed on provision of technical cooperation to a number of African countries in salt production, by means of solar energy. Since the tasks involved in the production of salt are traditionally performed by women, projects in this area offer women opportunities to become more involved in industrial development. Also in this field, through the utilization of local resources, assistance was provided on a local basis to a number of countries for the development of caustic soda and soda ash. (J.1.2.09)

86. The group of non-metallic minerals covers a wide range of raw materials and provides the basis for ceramic, glass,

27/ Ibid., para. 87.

28/ Ibid., para. 90.

cement and other building materials as well as other applications in industry, agriculture and environmental control. The trend towards more efficient and integrated use of these resources continues as decision makers learn to appreciate the potential for economic development. A good example of numerous activities in non-metallic minerals, is a project in Mongolia dealing with the mineral, perlite, a volcanic glass which becomes porous and light under heat treatment. The country has extensive reserves of this mineral and a feasibility study undertaken and submitted to the Government during the year revealed that the expanded perlite was suitable for use in the building materials sector as insulating in a light-weight aggregate, as well as in agriculture as a soil conditioner and in the chemical and food industry as a filter aid. The Mongolian domestic market is sufficient to justify its industrial manufacture. Although many countries have extensive deposits of natural stone such as marble, granite, sandstone, tuff and slate, most of these resources are not utilized effectively. Two projects implemented in Ethiopia and Viet Nam exemplify the approach UNIDO takes in the development of a national stone industry. In both cases the existing industry employed outdated, inefficient and highly wasteful quarrying and processing technologies. Under the UNIDO projects, model quarries and processing lines for the demonstration of modern production methods are being established and installed. Through greater emphasis on quality and competitive pricing, the opportunity for opening up major export markets is created. For the domestic construction sector such technical cooperation can lead to the development of products designed in response to actual requirements, since the stone products are not regarded as a luxury material but are readily available on the local market at affordable prices. In China, 29/ a group of projects continued to address the common development objectives of the programme for the building materials sector. Based on a programmatic approach, the implementation system of the above projects provides data and information on the raw material supply and availability related to infrastructure and processing technology, markets and marketing channels, alternative products for import substitutions and/or export orientation and manpower requirements of building materials manufacturing industries with specific focus on ceramic sanitary ware, wall and roofing materials, insulation materials, sheet glass and use of industrial waste (fly ash) in building construction.

87. A project in China is assisting the Building Fire Protection Institute of the

China Academy of Building Research. The primary function is to strengthen the national capabilities and know-how in developing fire prevention technologies, codes and standards for the building construction sector. While establishing physical facilities and acquiring experience in fire prevention and control technologies and techniques, the project also focused on the creation of strong linkages with building designers, contractors and users. This is expected to enhance awareness on ways of minimizing life and property losses due to fires in high-rise public and industrial buildings. (J.1.2.10)

METALLURGICAL INDUSTRIES

88. In 1991, technical cooperation expenditures under the heading of metallurgical industries (J.1.3) amounted to \$7.5 million. Some 76 per cent of the total implementation was financed from UNDP resources. A total of 123 projects were implemented or were under implementation.

89. During the biennium 1990-1991, projects relating to the metallurgical industry were directed towards improving efficiency of operation and maintenance and the manufacture of spare part inputs, with emphasis on small- and medium-scale industry. Another focus was the local manufacture of essential raw materials required for the domestic market and exports. The overall trend was to achieve higher quality of delivery and services under all major project components.

90. The transfer of production technologies to local industries was introduced through the implementation of pilot projects, providing indispensable opportunities for on-the-job training. With the growing emphasis on clean technology, UNIDO is promoting and responding to the widespread awareness of the serious problems faced by the metallurgical industry in developing countries. During the reporting period technical cooperation rendered took due account of the priority areas set out in the medium-term plan, 1990-1995 (GC.3/17). Given the prevalent tendency to decentralization, the stagnation of the world economy and the emphasis upon privatization, investment in large-scale industry slowed and the move was towards the more efficient use of existing investment, and to diversification. This was reflected in the increased attention paid to the basic needs of the economies, through rehabilitation; and the promotion of properly organized maintenance programmes, of spare parts manufacture and of the production of, for example, manufactured aluminium and copper inputs to other sectors such as construction. Other areas of attention were the environmental issues associated with the steel industry and small (mercury-based) gold extraction operations, metallurgical waste recycling and

29/ Ibid., para. 92.

low waste technologies. Problems in this sector are viewed as interrelated, thus requiring interrelated solutions, the impact of which will be felt over the coming years. Women were being increasingly involved, especially in laboratory operations, quality control, computer applications and specification design. The following are significant examples of activities in the three major metallurgical fields of iron and steel, foundry and metal transformation, and non-ferrous metals.

91. Activities in the field of non-ferrous metals took into account the environmental protection concerns while contributing to increased value added. Strategic policy advice was prepared for the ecologically sustainable development of the bauxite/alumina/aluminium sectors, the main foreign exchange earners for Jamaica. In the Islamic Republic of Iran, technological testing on the complex utilization of nepheline ores had positive results. In India, a techno-economic feasibility study of industrial scale electrosmelting of aluminium-silicon alloys enabled adaptation of advanced know-how to local conditions and raw materials. Project concepts were developed to deal with the environmental aspects of heavy non-ferrous and precious metals such as lead, zinc, copper and gold. At the Conference on Ecologically Sustainable Industrial Development (see chap. IV para. 40) a panel meeting was organized on environmental problems related to the aluminium industry. 30/ (J.I.3.01)

92. The development and strengthening of iron and steel industries is contributing to the better utilization of installed capacity. Activities were primarily devoted to the rehabilitation of small- and medium-scale steel plants. In Africa, a workshop on steel plant and rolling mill rehabilitation in countries of PTA was held at Nairobi, Kenya, in July. A large-scale technical cooperation project was formulated for the establishment of a metallurgical development centre serving the PTA countries for which financing was being sought. High-level technical advice continued to be given to the Government of Uganda in the establishment of the East African Steel Company at Jinja, Uganda, and to the Government of Nigeria in reactivating the steel mill project at Sala, Nigeria. The review and updating of a master plan for the expansion of the iron and steel industry of Thailand led to the formulation of new policies. On request, advice was given for the restructuring of the Czechoslovak iron and steel industry. 31/ (J.I.3.02)

93. The programme approach is being increasingly used in the area of foundry

and metal transformation, thus supporting activities allied to the development of quality. This was undertaken by introducing the methodology to establish metallurgical specifications for cast, machine-made spare parts, while paying attention to other metallurgical processes required for spare parts manufacture, such as heat treatment and electroplating. Attention was given in the matter of specifications and spare parts manufacture to the Tanzania Engineering and Manufacturing Design Organization and the Akaki Spare Parts Factory, Ethiopia, while assistance was provided to Malawi and Zimbabwe for the private-sector foundry industries, and to Ghana for improvement of welding techniques. Key projects of assistance to private-sector foundry industries were developed in Indonesia and Sri Lanka, both oriented towards training local staff to continue the support activities when the project ends. As a result of the project in Paraguay extensive TCDC activities will continue beyond the operational completion of the project. 30/ (J.I.3.03)

94. Concerning the establishment and strengthening of centres for metallurgical technology, UNDP/UNIDO assistance rendered to the National Metallurgical Development Centre at Jos, Nigeria, 31/ was reoriented towards the utilization of indigenous coal, refractories and other mineral resources, in accordance with Government priorities. The cost-sharing ratio was revised to reflect the present economic realities of the country. In Pakistan, technical cooperation was devoted to the upgrading of management capabilities and privatization of the Metal Industry Research and Development Centre to become self-sustainable. The success of the project at the Research Institute for Electric Light Source Materials, Nanjing, China, 32/ resulted in the design and production of instruments and machines for the target market. During the reporting period, laboratory testing equipment was delivered to the Jawaharlal Nehru Aluminium Research, Development and Design Centre in India; 33/ training of nationals in the production and evaluation of alumina was organized in Canada, Europe and the United States of America; and advice on methodology of R and D was given to a number of countries. (J.I.3.04)

95. A number of projects, while increasing value added and employment, dealt with the industrial processes for ore and mineral beneficiation and waste utilization and the development of new advanced metals and materials. In India, 33/ pilot plant tests were completed for the utilization of blue

30/ Ibid., para. 98.

31/ Ibid., para. 99.

Ibid., para. 96.

Ibid., para. 100.

dust and kimberlite waste material for the production of new materials for electronic industries and export. The results of technological tests of ilmenite concentrates proved viable in Egypt and India. A subregional programme for technical cooperation was drawn up for reducing waste and industrial pollution caused by metallurgical industries operating in the border regions of Czechoslovakia, Hungary and Poland. (J.1.3.05 and J.1.3.07)

96. During 1991, emphasis was placed on the increased use of installed productive capacity, through the introduction of computerized maintenance management systems (CMMS). A new approach was developed for repairs and maintenance of costly production equipment and facilities, and introduced in several metallurgical plants, as in Algeria, Egypt, India and Mexico, while regional projects for the countries of the Association of South-East Asian Nations and European countries also established networks. 34/ Among the benefits obtained in the plants through the introduction of CMMS, the most relevant are: increased plant availability and manpower efficiency; reduction of spare parts imports; and the availability of improved spare parts. In addition, UNIDO has organized several interregional meetings and regional workshops, such as those in Czechoslovakia, Mexico and Singapore, which served as forums for experts from industrialized and developing countries to discuss the promotion of industrial computer applications in developing countries. (J.1.3.06)

ENGINEERING INDUSTRIES

97. Technical cooperation expenditures in 1991 under the heading of engineering industries (J.1.4) amounted to \$15.5 million. About 71 per cent of the total implementation was financed from UNDP resources while special trust fund arrangements became more frequent. A total of 204 projects were implemented or under implementation. These figures do not include the implementation of a \$3.6 million project in Nigeria financed by the World Bank, in which UNIDO evaluated (in terms of the country's needs), selected and procured equipment, components and spare parts for a number of industries.

98. During the biennium 1990-1991 emphasis was placed on the more technologically advanced projects, especially those dealing with electronics and electrical engineering. On the other hand, the interest of the developing countries in activities related to maritime and land transport decreased. Further progress was achieved in improving quality of delivery, particularly through

experts. Main areas of technical cooperation were: the application of appropriate techniques to rural industrialization; integration of electro-mechanical and electronic aspects in subsectoral development; metalworks and machine tools; development of equipment in the energy sector; advancement of manufacturing value added through process technology and packaging techniques; repair and maintenance; and the introduction and application of advanced technologies.

99. In 1991, the funds disbursed for technical cooperation in the engineering industries went to expertise, subcontracts and equipment, 28 per cent each, and 16 per cent for training. All the financial expectations were met and the programme materialized as scheduled. Cooperation was further emphasized with other United Nations agencies, the World Bank, the regional commissions and various national research and development institutions. Efforts concentrated on providing a foundation for promoting future technical cooperation activities within the framework of country priorities and the new UNDP programming approach. As a result of the changing patterns of industrial development - the bigger role played by private industry, the restructuring of public-sector industries, and the economic structural adjustments undertaken by the Governments of developing countries - UNIDO assisted, through its technical cooperation activities, in harmonizing national technical and engineering capabilities with development planning and new industrial strategies. Other positive trends were the expansion of the electronics sector and the greater sophistication of technical cooperation projects undertaken.

100. In the field of metalworking industries, the activities covered both plant level and institutional aspects with the focus on national capacity building and human resource development. Emphasis was again placed on improving utilization of installed industrial capacity through diversification of product mix, improving product quality, and reducing product cost through the progressive introduction of numerically controlled machine tools and improved manufacture, including the introduction of high quality tools, and the preventive maintenance and repair of machinery and equipment. 35/ Progress continued in technical cooperation projects such as the strengthening of the Tool Manufacturing and Metalworking Centre in Trinidad and Tobago, and the establishment of the Engineering Design and Tool Centre in Ethiopia as well as the Machine Tool Design and Development Centre in Indonesia. A cooperative role was undertaken in technical aspects of five nationally-executed projects aimed at the

34/ Ibid., para. 101.

35/ Ibid., para. 105.

modernization of the machine tool industry in China. These included computer numerical control (CNC) development; foundry machinery industry; establishment of flexible manufacturing facilities; development of turrets for numerically-controlled lathes; and the introduction of modular design for a machining centre. Assistance continued in Angola and Madagascar in the field of industrial maintenance and spare parts manufacturing. Implementation began for the setting up of a workshop for the repair and maintenance of transport vehicles including tractors at the Masuguru settlement of the Pan Africanist Congress of Azania and for the upgrading of a similar workshop at the Morogoro settlement of the African National Congress of South Africa, both in the United Republic of Tanzania. (J.1.4.01 and J.1.4.02)

101. With respect to rural equipment, technical cooperation concentrated on government programmes to develop the rural sector through the promotion of activities that generate employment and contribute to agricultural development. Important aspects of these activities are the problems of women in the rural sector and their integration in rural industrialization, as well as the promotion of the local manufacture of agricultural tools, implements and equipment reflecting the interdependence between agriculture and industry. Examples of such activities are a large-scale project in Kenya to establish agricultural engineering support centres; 36/ a project in Nicaragua on the development of technological capabilities in the production of agricultural implements; a joint UNIDO/United Nations Capital Development Fund mission set up to clarify policy and technical aspects of the start-up of a factory for agricultural tools at Soroti, Uganda; 36/ and continued support to the Regional Network for Agricultural Machinery in Asia and the Pacific. (J.1.4.03)

102. Projects in the high technology area addressed issues such as design and development of automation and process control systems, electronic equipment and computer applications to industry in general and utilization of computer-aided design/computer-aided manufacturing (CAD/CAM) techniques in particular. Technical cooperation activities continued in the field of software development for the application of CAD/CAM techniques in China and the Republic of Korea. Projects were completed on manufacturing moulds for plastic products in Tunisia and on precision design and manufacturing of high-quality gears and transmission systems applying CAD techniques in China. 37/ A

demonstration and training system was installed at the African Regional Centre for Engineering Design and Manufacturing to promote CAD/CAM in Africa. In India technical cooperation activities were launched in the field of computer-aided engineering (CAE) applications in CAD/CAM dealing with printed circuit boards, surface-mounted device technologies, CAE of very large-scale integrated circuits and application-specific integrated circuits. 38/ Considering the rapid growth in the use of computer numerically controlled (CNC) machine tools in developing countries, efforts have been directed to developing CNC capabilities in the fields of human resources and physical facilities. The latest example is the assistance provided to India for the establishment of a pilot flexible manufacturing system and an expert system to diagnose faults in a tractor-manufacturing plant. Also in India, a new technical cooperation project began with the aim of establishing a centre for electronic packaging technology and ergonomic design, and a project in high technology flexible manufacturing systems was completed at the Mexican Machine-building Research Institute. A project carried out at the China National Technical Development Centre for Gears led to improved performance and durability of a locally-produced gear device used in machine tools, transport equipment and mining machinery as well as large power plants. (J.1.4.04, J.1.4.05 and J.1.4.06)

103. The importance of the spare parts industries for all the sectors of the economy in a developing country, including transportation of people and material, and thus its contribution to the overall economic development, was especially noted in technical cooperation activities in the engineering sector. In cooperation with the Economic Commission for Africa, a regional African project was initiated in 12 countries to assess the local manufacturing capabilities for spare parts for road and rail equipment. The first prototype diesel locomotive engine was successfully tested in China, opening the way for local manufacturing on a series basis. 39/ A regional project started operations in Asia and the Pacific to deal with standards for vehicle emissions, test procedures for new and used vehicles and fuel quality as well as related policy issues. 39/ Projects successfully completed during the reporting period include a diesel manufacturing plant in Bangladesh and the establishment of a vendor development and training unit in Pakistan. 39/ (J.1.4.07)

104. In the area of energy, emphasis was given to activities related to the harmonization of engineering aspects of

36/ Ibid., para. 106.

37/ Ibid., para. 105.

38/ Ibid., para. 107.

39/ Ibid., para. 108.

energy with environmental policies; the application of engineering process planning; technical modification on equipment; installation and service of machinery; repair and maintenance; control, test and measuring instrument; and training programmes and dissemination of technical information. The development of new and renewable energy sources was further pursued during the year and activities were continued in transferring technology for the local production of wind turbines, for example, in Egypt for generating electricity to operate a seawater desalination plant. The construction of a 10,000-ton meat cold storage plant in Armenia 40/ progressed with the completion of the foundation and installation of machinery. In Madagascar, a techno-economic study was completed for the detailed design of a small hydropower plant including the integrated development of a rural area; 40/ and a production line for the manufacture of solar water heaters was established through technology transfer. In Comoros a project was completed for an improved essential oil distillation plant as part of an overall plan to alleviate deforestation. Preparatory assistance was provided to Afghanistan to assess the potential for the introduction of suitable technologies and equipment for rural electrification, using photovoltaic devices. A regional African project was launched to examine site selection for the construction of a small hydropower station in each of seven countries for demonstration purposes and electrification of the appropriate rural areas. A project under completion in Thailand is expected to lead to the production of high quality and energy-efficient air-conditioning equipment by strengthening the existing calorimeter test room at Chulalongkorn University. A project was established to develop laboratory surveillance for consumer electronic products within the China Electronic Product Reliability and Environmental Testing Research Institute. The laboratory will undertake testing, evaluation, analysis and certification. The year also saw the completion of a project to introduce relevant advanced technology and equipment for waste water treatment at chemical plants in Bulgaria. (J.1.4.08)

105. Assistance to packaging manufacturers and user industries followed international trends in the fields of packaging materials manufacture and conversion as well as of packaging of different types of goods, according to the uses and regulations of the markets concerned. Examples are: assistance to Poland in packaging of pharmaceuticals and medical supplies, under the guidance of the regulations set up by the European Community concerning good manufacturing practices; expertise in applied research and quality management of

food packaging provided to packaging testing laboratories in Thailand; organizing and launching the establishment of packaging information services in China with appropriate documentation centres; preparatory assistance in Mexico on the handling and recycling of municipal and industrial packages waste; transfer of technology for the production of plastic-based flexible laminates and co-extruded packaging materials in Viet Nam; and assistance to a demonstration tinplate lacquering plant and laboratory facilities also in Viet Nam, including appropriate training programmes. 41/ (J.1.4.09)

106. Regarding repair and maintenance, a project in Nigeria financed by a World Bank loan and in which several aspects of engineering are integrated, involved cooperation with the country's Procurement of Training Equipment for Zonal Industrial Development Centres. These multisector centres or workshops will meet the future repair and maintenance requirements of the country and promote the local manufacture of spare parts.

INDUSTRIAL PLANNING

107. In 1991, technical cooperation expenditures under the heading of industrial planning (J.2.1) amounted to \$9.1 million. Some 73 per cent of the total implementation was financed from UNDP resources. A total of 117 projects were implemented or under implementation.

108. During the biennium 1990-1991, work was marked by a trend towards support in the formulation of strategies and policies for the restructuring and modernization of the industrial sector, particularly in Eastern Europe and Latin America. New approaches were therefore developed and applied to respond more adequately to the needs for assistance. Technical cooperation activities consisted in advice and support to the formulation and implementation of industrial strategies and policies in most of the priority areas and themes of the medium-term plan with emphasis on: (a) strategic management of the restructuring and development of the industrial sector; (b) enhancement of the productive performance of the industrial sector and subsectors; and (c) decision support systems for planning and policy formulation.

109. In 1991, the projects relating to the strategic management of the restructuring and development of the industrial sector focused on industries with strong growth potential and on the improvement of institutional and policy framework. Some 30 such projects were ongoing at the end of

40/ Ibid., para. 109.

41/ Ibid., para. 110.

1991 to assist enterprises and institutions in formulating cooperative strategies and action programmes for restructuring and development. For example the Government of Nigeria was assisted in the elaboration of guidelines for the strategic management of nine industrial subsystems to improve the competitiveness of industrial production. Generally, priority was given to cooperation between the private sector and Governments. (J.2.1.01)

110. Projects relating to the formulation of industrial policies and the elaboration of action programmes for industrial development in Namibia and Papua New Guinea were addressed mainly to private sector development in small- and medium-scale enterprises. The objectives of these projects are to promote industrial development and the processing of agricultural, marine and mineral resources as well as to assist enterprises and institutions in achieving competitiveness of industrial production. The projects are also aimed at improving the institutional framework and the capabilities of the respective ministries in industrial management. In Namibia, an integrated programme prepared in 1990 for the development of fisheries-based industries continued to be expanded, including a special report on the integration of women in that field.

111. Efforts were made to ensure a better coordination with other multilateral institutions, especially the World Bank, notably in Cameroon, Guinea and Senegal. In Côte d'Ivoire, 42/ UNIDO cooperated with the World Bank in assisting a government-established committee on competitiveness to study the costs of factors and the framework of incentives and regulations. A comprehensive set of educational and methodological documents on the strategic management approach was being prepared in the framework of the Industrial Development Decade for Africa (IDDA) at the request of the tenth meeting of the Conference of African Ministers of Industry, held in July 1991. The documentation will be used to ensure a better implementation of the strategic management approach and for training programmes for African executives. (J.2.1.01)

112. In support of the restructuring process in East European countries, internal capacities were built up and a network of high-level expertise was established. In cooperation with counterpart institutions from Czechoslovakia, France, Germany, Greece, Hungary, Poland, the United Kingdom of Great Britain and Northern Ireland and the former Union of Soviet Socialist Republics, an expert group meeting was organized to assess the applicability of strategic management methodologies to the

industrial restructuring in East European countries. The meeting, held at Sofia, Bulgaria, from 29 January to 1 February, endorsed UNIDO's approach and outlined the technical cooperation requirements, including a training programme on strategic management of industrial development for high-level executives. As a follow-up of the meeting, two subsectoral programmes were formulated for possible implementation in Bulgaria in 1992. Following the recommendations of the joint UNIDO/USSR committee for cooperation, preparatory work was undertaken for a seminar to be held in 1992 on industrial restructuring, macroeconomic stabilization and property-rights reforms. Furthermore, assistance and expertise were provided to the Government of Albania resulting in the formulation of a large-scale project on industrial restructuring and development. (J.2.1.01)

113. The Regional Programme for Industrial Automation of the Capital Goods Sector Industries in Latin America, 43/ which aims at enhancing the productive performance of the industrial sector of the region, was the subject of major financial contributions by the Governments of France, Italy, Japan, Switzerland and Venezuela. The programme is oriented towards modernization of the capital goods industries through a gradual introduction of new organization techniques, strategic management, total quality control and automation technologies. Project activities should improve the competitiveness of each participating country, for export and domestic markets. The strategy is to give these countries a major component of industrial automation technologies and management techniques to substitute obsolete and inadequate structures. The programme was launched at the regional headquarters at Caracas, Venezuela, in July, where the first meetings with the regional technical secretariat and the external advisory group were also held. National and regional work plans were established. The first major activity of the programme was the First Latin America-France Seminar on Industrial Automation of the Capital Goods Sector, held at Senlis, France (21 November - 4 December), with some 50 entrepreneurs from Latin American countries. Through the programme, Latin American entrepreneurs also participated in the Fourth Consultation on the Capital Goods Industry With Emphasis on Machine Tools (September, Prague) and in the International Conference on Ecologically Sustainable Industrial Development (October, Copenhagen). The 1992 regional Consultation on capital goods will be organized in cooperation with the programme. (J.2.1.02)

114. Industrial information systems providing key data for decision-making were

42/ Ibid., para. 115.

43/ Ibid., para. 119.

further implemented and integrated into the strategic management approach, in particular within the framework of projects in Burkina Faso, Guinea, Niger, Rwanda and Zaire. Likewise the computerized integrated industrial data and information systems established in two land-locked, least developed countries, Bhutan and Nepal, became fully operational. 44/ A comprehensive industrial census was taken for the first time in Bhutan. A UNIDO/Czechoslovakia Workshop on Application of Interactive Decision Support Systems to Industrial and Territorial Planning was held at Bratislava, Czechoslovakia (12-20 June), with the participation of Cuba, Dominican Republic and Egypt. The workshop enabled participants to familiarize themselves with teaching material and software for applying decision support systems in their own area of responsibility as well as to acquire the ability to train others. (J.2.1.02)

INSTITUTIONAL INFRASTRUCTURE

115. Technical cooperation expenditures under the heading of institutional infrastructure (J.2.2.) amounted to \$19 million. Some 85 per cent of the total implementation was financed from UNDP resources. A total of 232 projects were implemented or under implementation.

116. During the biennium 1990-1991, in response to the growing demand from developing countries, technical cooperation was carried out through a multidisciplinary and integrated programme approach and was consolidated in two main areas: industrial institutions and small- and medium-scale industries. Programmes were coordinated and contained complementary inputs from: industrial research and development institutions and industrial information services; standardization, quality control and metrology; institutions and infrastructure for the promotion and development of small- and medium-scale industries; entrepreneurship development and privatization; rural industrial development; as well as institutions promoting industrial development, including industrial subcontracting, industrial associations and chambers of commerce and industry.

117. In the field of research and development (R and D) institutions and industrial information. UNIDO policies for the 1990s were: (a) to focus on the increasing role of R and D activities in the search for a better quality of life; (b) to emphasize closer linkages between R and D institutions and industries, improvement of communication between R and D, production, marketing and after-sale services with possible transformation of R and D departments into commercially oriented institutions; to give

increased attention to international and regional programmes, including the conversion of defence industries into industries for peaceful purposes; and to underline the social impact of new technologies, especially information technologies. A number of projects launched or continued in 1991 illustrate the above policies. For example, the novel concept of the commercially-oriented Industrial Research, Development and Training Centre in Malawi, aims at fully utilizing existing human resources and equipment. 45/ In Bulgaria, a project was successfully completed when a former aluminium casting plant underwent environmental rehabilitation and industrial conversion on the basis of an integrated approach. 45/ A Workshop on Novel Non-Destructive Testing Techniques for South-East Asian countries, organized by UNIDO under a contribution of the United Kingdom of Great Britain and Northern Ireland, introduced participants to new industrial monitoring techniques such as thermography, laser interferometry and acoustic emission. Emphasis was also given to technical cooperation projects aimed at design and development of continuously updated information services based on computerized databases as well as to assistance in establishing computerized information networks. An example is the implementation of a computerized information network linking 10 Egyptian R and D institutes with each other and with the central computer and database at the Ministry of Industry at Cairo. 45/ A Centre for Industrial, Scientific and Technical Information and Documentation was established in Seychelles along with 10 in-house computerized databases and information services. (J.2.2.01)

118. In the 1990s, quality is emerging as a key discipline and strategy for development. This is the case for developing countries that are striving to expand their exports for value-added goods by improving the quality of locally manufactured products to be able to compete in international markets. At the same time, in developing countries the demand is increasing for higher quality, reliability, and safety of both locally produced and imported goods. In the face of such pressing needs, UNIDO continued to provide technical assistance in infrastructure for standardization, metrology, and quality systems through the design and implementation of projects. The sharing of systems, expertise and facilities among countries of a region was promoted with the objective of reducing technical barriers, developing regional commercial exchanges, facilitating participation in international activities, sharing facilities/capabilities and liaising on such matters as information, technical cooperation, policies, and joint ventures. In conjunction with a joint

44/ IDB.6/10, chap. II, para. 121.

45/ IDB.8/10, chap. II, para. 124.

UNIDO/International Organization for Standardization (ISO) project, a workshop was held at Geneva, Switzerland, to elaborate on those concepts. During the year, an evaluation was undertaken of 69 UNDP-financed, UNIDO-executed projects in metrology that have been implemented at a cost of approximately \$30 million. The evaluation provides valuable insights in project design, formulation, implementation and sustainability as well as guidelines for developing future technical cooperation projects in this discipline. (J.2.2.02)

119. The UNIDO-developed software "Analysis of Technological Complexity" (ACT) 46/ was applied in Ecuador in improving the national system of technological disintegration by which the components of imported technical goods are examined with a view to determining the possibility of producing such components locally; and in Brazil in the industrial framework of the evaluation undertaken by two major enterprises as well as in research and teaching activities at an engineering school. The results achieved so far indicate that more extensive use of ACT is required to decrease disparities created by the complex technological advancements in industrialized countries and their absence in developing countries.

120. UNIDO's programmes, activities and instruments to support small- and medium-scale industries and the private sector development were consolidated in the 1990-1991 biennium on the basis of ongoing project reviews, studies and consultations carried out with multi- and bilateral agencies and taking into consideration the changing requirements of the small- and medium-scale industries in the 1990s. The effectiveness of the newly-consolidated programme was reflected in the quantitative increase in technical cooperation related to small- and medium-scale industries as well as in the qualitative improvement in project inputs. That improvement was a result of the involvement of various disciplines coordinated under the integrated approach. Technical cooperation projects, designed and implemented with that approach, were able to respond to the more sophisticated and dynamically changing needs of small- and medium-scale industries in developing countries. In most projects aimed at assisting industrial promotion institutions in the least developed countries, the trend was to help such institutions become progressively autonomous from state control and even to privatize them; this was the case in countries like Burkina Faso, Burundi, Niger and Rwanda, where new projects were started. In a number of developing countries, industrial estates have been used as effective tools to promote and modernize small- and medium-scale industries, stimulating entrepreneurs to establish new businesses

and inducing existing industries to relocate to specially designed areas, thereby contributing to effective urban and regional planning, environment and energy management. Assistance was provided to Kenya Industrial Estates Ltd. and to the Industrial Estate of Villa El Salvador in Peru. The latter is now helping examine 47 locations in Peru where similar programmes will be established, with the objective of transforming micro-entrepreneurs into industrialists by providing them with the required infrastructure and technical support. Industrial parks were established to serve growing linkages between R and D centres/universities and small- and medium-scale industries with the aim of commercializing achievements of indigenous R and D activities. (J.2.2.03)

121. In export processing zones (EPZ), technical cooperation covered advisory services and training in the development as well as management and promotion of zones. Examples were the preparation of a preliminary study to advise the Government of Djibouti on the necessary conditions for a successful EPZ programme in the country, and a feasibility study for the development of an EPZ in the port of Calabar, Nigeria. Support was provided to the EPZ programme in Togo in management and operation, training, and promotional activities with zone developers and foreign investors. (J.2.2.03)

122. With the aim of promoting industrial subcontracting, UNIDO surveyed, designed and developed standard instruments and methods. Related activities included policy measures and industrial legislation; subcontracting nomenclatures and terminologies; computer programmes for database management; operational manuals; legal guidelines for establishing subcontracting agreements and model contracts; and guides on the organization of subcontracting fairs. The programme also developed legal statutes and standard terms of references for the establishment of autonomous subcontracting and partnership exchanges and provided assistance in establishing national subcontracting exchanges in Algeria, Jordan, Kenya, Morocco and Turkey. At the international level, three programmes for the development of regional subcontracting systems and networks continued to be implemented: two in Latin America - one financed by Italy (covering Argentina, Chile, Colombia, Ecuador, Mexico, Peru, Uruguay and Venezuela), and one financed by Switzerland (covering Bolivia, Brazil, Cuba, Guatemala and Paraguay) - and a third ongoing programme for Arab States (covering Algeria, Egypt, Iraq, Jordan, Morocco and Tunisia). 47/ Belgium is financing a programme with Morocco and Thailand which is complementary to credit lines granted by the Belgian Government for small- and medium-scale

46/ IOB.3/10, chap. II, para. 94.

47/ IOB.8/10, chap. II, para. 129.

industries of those two countries, while France is financing a similar programme with Algeria, Egypt, Morocco and Tunisia with the contribution of French subcontracting and partnership exchanges and industrial promotion agencies. In addition, support was provided in establishing regional subcontracting fairs, such as SUBCONTRATA Latinoamericana in Latin America, and "Salon Méditerranéen de la sous-traitance, de l'approvisionnement et du partenariat" in the Maghreb countries. In line with UNIDO's mandate concerning private sector development, assistance was provided to a number of developing countries in establishing chambers, federations and associations of industry, e.g. in Angola, Guinea and Sierra Leone. (J.2.2.04)

123. UNIDO technical cooperation in privatization comprised advisory services to Governments in the preparation of policy frameworks, strategies, legislative instruments and institutional mechanisms. The advisory services for the programme in Angola were completed, leading to the preparation of a pilot programme for the privatization of State-owned enterprises. 48/ Staff missions were sent to Albania and Bulgaria to identify technical cooperation needs and to provide high-level advice on the preparation of a privatization strategy. As a new feature in UNIDO's privatization programme advisers from East European countries where privatization had already begun shared their experience with developing countries where similar restructuring is taking place. In Romania a project was initiated with the National Agency for Privatization for setting up consulting centres and training staff. It will facilitate the establishment of new businesses and encourage the purchase of part or all of existing state-owned enterprises. In Eastern Europe, a workshop on entrepreneurship developments in small and medium enterprises in Eastern, Central and Southern Europe, organized by UNIDO in cooperation with the International Labour Organisation and held in Vienna in June, brought together participants from 10 countries. In Latin America, projects in privatization were either in progress or under discussion in Bolivia, Guyana and Peru. Through a regional UNDP-funded project in entrepreneurship development carried out with ASEAN, UNIDO supported national handicraft development organizations in cooperating with some 40 entrepreneurs, most of whom were women, to enable their participation in an international exhibition in Paris. The exhibition, which elicited a substantial financial success, was also presented in Vienna at the occasion of the fourth session of the General Conference, where the products were given an appropriate framework at the Vienna Museum of Ethnology. (J.2.2.06)

124. A major thrust was given to the programmes of enterprise-to-enterprise cooperation, subcontracting and product adaptation for exports between small- and medium-scale industries in industrialized countries and those in the developing countries to improve productivity and quality, product diversification and cost reduction with the aim of widening the domestic and export markets. The programmes provide the catalytic support required by small- and medium-scale industries for reaching agreements on technology transfers, setting up joint ventures, as well as the execution of turnkey projects, co-production, subcontracting and licences covering supportive elements like training, marketing, including exports, and management. The enterprise-to-enterprise co-operation project between small-scale industries in Italy and those in Argentina, Brazil and India achieved remarkable results in 1991 with 38 projects concluded and 32 projects at a very advanced stage. 49/ The project has enabled entrepreneurs in the three recipient countries to benefit from new technologies, to improve the quality of products, to manufacture previously imported articles and, through buy-back arrangements, to penetrate the Italian market. The impact goes further - encouraging contacts between more than 300 entrepreneurs in Argentina, Brazil and India and entrepreneurs in Italy. 49/ (J.2.2.03)

125. Rural industrial development activities during 1991 included the convening at Nairobi, Kenya, in May of the Second Meeting of the Inter-Agency Working Group on Industrial Contribution to Rural Development established by the Administrative Committee on Coordination (ACC) Task Force on Rural Development. The working group recognized the need to disseminate experiences in the development of rural small-scale industries to overcome rural poverty. Technical cooperation provided to Côte d'Ivoire, Guinea, Guinea-Bissau, Madagascar, Micronesia, Sierra Leone, Uganda and Zambia demonstrated the commitment of those countries as well as the initiatives of the private sector. Experiences in Guinea and Sierra Leone proved that creative means of financing mechanisms could reach rural small-scale industries more effectively than conventional financial institutions. As a result of a pilot project in Guinea, 50/ 39 enterprises were established in a record time of two and one half years, and the rate of repayments hit an all-time record of 90 per cent - unique in the country - as compared to the standard loan recovery rate of a maximum of 30 per cent. In Rwanda, a project assisting about 100 small rural industries was completed, and resulted in the setting up of project

48/ Ibid., para. 131.

49/ Ibid., para. 127.

50/ Ibid., para. 130.

preparation facilities, a technology adaptation programme and an industrial information system. The project found new forms of cooperation with non-governmental organizations and with the country's municipalities to identify prospective entrepreneurs and provide them with local advisers who were trained by the project. (J.2.2.05)

INDUSTRIAL MANAGEMENT AND REHABILITATION

126. Technical cooperation expenditures under the heading of industrial management and rehabilitation (J.2.3) amounted to \$7.1 million. Some 71 per cent of total implementation was financed from UNDP resources. A total of 96 projects were implemented or under implementation.

127. The management and rehabilitation programme in the biennium 1990-1991 was characterized by more emphasis on assistance in the commercialization of industry, direct assistance to the private sector, and the transfer of commercially dedicated management technologies such as design for manufacture, total quality control, manufacturing resource planning (MRPII), group technology and value engineering. The goal in 1991 was to assist in establishing a self-sustainable foundation of management know-how and skills in the industrial environment of developing countries. Rehabilitation assistance focused on developing and implementing commercially viable business plans for restructuring individual enterprises as well as optimizing the use and allocation of capital resources.

128. During the reporting period the management programme stressed the rationalization of manufacturing operations to enable individual enterprises to successfully face the challenges imposed by the gradual shift towards market economies. Individual examples included a project in China, with that country's largest manufacturer of milling machines, in which a highly complex manufacturing resource planning system continued to be implemented.^{51/} Under this project 112 people from eight other enterprises in MRPII techniques have been trained already. Another important example is a comprehensive project in Uganda,^{52/} involving nine enterprises whereby operations improvement strategies were formulated for future implementation while providing immediate assistance. A third example is the development of the second phase of a large-scale project in Indonesia^{53/} with a heavy engineering

group (classified as one of the country's 10 strategic industries) in which its design engineering, production and management information system functions are being upgraded and integrated. (J.2.3.01)

129. The rehabilitation programme initiated a new and innovative approach as a result of the current market-oriented global trends. An example is the programme financed by the Know-how Fund of the United Kingdom of Great Britain and Northern Ireland in which nine large-scale manufacturing enterprises are to be restructured in Poland. A three-tier strategy was adopted: (a) addressing immediate restructuring issues in order to help the enterprises remain operational in the short-term; (b) developing viable business plans and upgrading managerial and technical capabilities in order to assist them in implementing the business/restructuring plans; and (c) attracting joint venture partners. Results achieved so far include the defining of viable business plans and joint venture opportunities as well as modification of existing products and the development of new products to meet newly identified markets. Other activities include: a project in Guyana with three objectives, namely, to enhance the role and performance of private industry, to foster economic and technological development of the private sector, and to increase exports of manufactured goods; two projects in Tunisia and Southern/East Africa addressing 12 and 10 enterprises respectively with the aim of increasing productivity and utilization of installed capacity. (J.2.3.02)

130. Among regional programmes, the most important example is the ongoing industrial energy conservation network in Europe,^{53/} which is in its final stage of implementation. Participating countries are establishing an electronic mail system for the exchange of information on available technologies and expertise. Upon completion of the project, relevant consultancy activities will be assumed by a commercial company established by Czechoslovak, Hungarian and Yugoslav institutions with the support of companies in the United States of America and the United Kingdom. Another example in the energy conservation programme is the establishment of the fuels and appliance testing laboratory in the Philippines, whose objective is to lay the foundation for the establishment of an energy certification programme. The laboratory is the first of its kind in the ASEAN region. The programme on industrial maintenance in Burkina Faso and Burundi^{53/} continued to focus on the sectoral level through national maintenance plans, maintenance institutions and public as well as private enterprises. The plans included improvement of parts supply and production, rationalization of equipment procurement, training of maintenance staff and the development of national maintenance capabilities. (J.2.3.02 and J.2.3.03)

51/ Ibid., para. 135.

52/ Ibid., para. 134.

53/ Ibid., para. 135.

131. As in the past, maximum involvement of local skills and expertise was sought. This was the case in the management of technical cooperation projects (two large-scale UNIDO-assisted projects in Ethiopia and Nicaragua are managed by local nationals), as well as in efforts to assist in the development of local consultancy skills.

132. For the sector on the development of wood-processing and wood products industries (J.2.3.04), see chapter II, "Agro-based Industries".

FEASIBILITY STUDIES

133. Technical cooperation expenditures under the heading of feasibility studies (J.3.1) amounted to \$6.1 million. Some 36 per cent of the total implementation was financed from UNDP resources. A total of 112 projects were implemented or under implementation.

134. During the biennium 1990-1991 work in the field of feasibility studies and related pre-investment activities was marked by a trend towards modernization analyses of existing industries and evaluation of measures to strengthen industrial enterprises scheduled for privatization. UNIDO responded to this trend by promoting a more empirical approach to the assessment of input data and appraisal criteria of financial institutions, thus widening the options and opportunities for investors who wished to participate in rapidly growing international business ventures.

135. In 1991 activities related to feasibility studies were undertaken in closer cooperation with other technical areas of UNIDO, concentrating efforts on the promotion of a comprehensive and integrated technical assistance programme. Emphasis was placed on innovative aspects such as rehabilitation and restructuring of existing industries - mainly in Africa - privatization of industries, diversification of product lines, and environmental assessment of investment feasibility. Such programmes are more promotion oriented and therefore of direct interest to international joint-business partners in both industrialized and developing countries. The overall guideline for work on feasibility studies was to prepare full-fledged investment studies for promoting industries to be financed and established in the shortest possible time with the highest possible profit potential. Work done in connection with the investors' forums in Gabon, Nigeria, Sri Lanka and Viet Nam and an investment meeting held in Venezuela for countries of the ANDEAN group (see chap. III, para. 42) resulted in mobilizing additional technical assistance to developing countries over and above the traditional UNDP funding and the ongoing bilateral development aid.

136. UNIDO continued to maintain its leading position in the development of standardized methodology for the preparation and evaluation of pre-investment studies. The second edition of the Manual for the Preparation of Industrial Feasibility Studies (ID/372) was published at the end of 1991. A similar manual for small business investment projects was being completed. In addition, Guidelines for the Financing of Industrial Investment Projects in developing countries were written, to serve those responsible for meeting the financing needs of industrial investment projects in developing countries. (J.3.1.01) (J.3.1.03)

137. A total of 800 nationals from developing countries were trained in the UNIDO methodology of project preparation and evaluation including the application of the Computer Model for Feasibility Analysis and Reporting (COMFAR). UNIDO staff engaged in feasibility studies were invited by universities, professional associations, banks, private companies and consulting firms to present UNIDO's pre-investment work and to lecture on the Organization's internationally accepted methodological concepts. For the first time, the Entrepreneurship Development Institute of India (Ahmedabad) hosted an Interregional Training Programme on Industrial Project Preparation and Appraisal, designed for bankers/economists and engineers employed in public or private industrial companies. In cooperation with UNIDO, the Hamburg Institute for Economic Research organized the fifth Workshop on Financial and Economic Appraisal of Industrial Investment Projects. This counterpart institution has gained a world-wide reputation in training on UNIDO's methodology for investment studies, as illustrated by the fact that up to 200 applications are received for each workshop. (J.3.1.04)

138. The financing of pre-investment work through special-purpose contributions to the Industrial Development Fund as well as through trust funds agreements considerably increased during the year. Based on the success of investment studies with the Japanese private sector, a second agreement was signed with Japan providing UNIDO with \$1.4 million for industrial cooperation for the promotion of investment projects in developing countries. Denmark contributed more than \$309,000, within a trust fund agreement, to the UNIDO project preparation facility so enabling a quick response to ad hoc requests for investment studies and assisting project promoters in investment decision-making. A contribution of \$1.2 million has been obtained from the Government of Italy for a major restructuring project of the agro-food sector in Tunisia. (J.3.1.01)

139. Investment studies were completed or under implementation for Madagascar on cement, for Malaysia on manufacture of synthetic resins, for Nicaragua on the modernization of a caustic soda production plant, for the Philippines on high alumina

refractories and copper fabrication and for Viet Nam on sheet glass. In Uganda, a pre-feasibility study for local manufacture of ceramic tiles and sanitary ware financed from the UNIDO regular programme was carried out jointly with a local sponsor. The study, which included a detailed market survey for ceramics in Uganda as well as for the regional market, revealed that it would be feasible to establish a ceramics manufacturing plant. UNIDO may be requested to participate in the investment promotion of the project, estimated at approximately \$5 million. A feasibility study confirmed that the establishment of a mineral water plant and the production of plastic bottles in Niger was a bankable investment proposal. A group of local promoters as well as national and foreign financial institutions agreed to provide the financing for the construction of the plant, with a capacity of some 3 million bottles per year. (J.3.1.01)

140. Among the ongoing and new institution-building projects, some were being implemented - mostly of a long-term nature - while others were completed during the year. The principal objective of the projects, namely, to strengthen national capabilities in the preparation and evaluation of investment projects, was largely met. Beneficiary countries included Angola, Central African Republic, China, Congo, Djibouti, Gabon, Ghana, Oman, Saudi Arabia, Sudan, Togo, Zambia and Yemen. (J.3.1.02)

INDUSTRIAL HUMAN RESOURCE DEVELOPMENT

141. Expenditures for fellowship and other training components in all technical cooperation projects implemented by UNIDO in 1991 amounted to \$17.6 million in comparison with \$23.2 million in 1990. Of that total, \$11.9 million was spent on fellowships and study tours and \$5.7 million on group training activities and meetings. Technical cooperation expenditure under the heading of training that received substantive backstopping from the Industrial Human Resource Development Branch (J.3.2.) amounted to \$3.0 million. Some 29.4 per cent of this implementation was financed from UNDP resources. A total of 146 projects were implemented or under implementation.

142. Activities during the 1990-1991 biennium were negatively affected by the limited financial resources, but were marked by a steady emphasis on the multiplier effect through training of trainers and the closer linkage of industrial human resource development to the transfer and development of technology. The rapid development of technology and the widening of the gap between the industrialized and developing countries have presented the latter with a serious dilemma and placed increasing demands on the development of human resources for industrialization. In

recognition of the importance of the role of human resources in industrial development, particularly in the development and transfer of technology, UNIDO, within the limited resources available, continued in its efforts to develop appropriate policies, strategies, approaches and activities in this area (see document GC.4/9). (J.3.2.04(i))

143. In 1991, activities in industrial training infrastructure included the beginning of the implementation of two large-scale UNDP-financed projects. The first relates to technical cooperation among developing countries, involving African Portuguese-speaking countries and Portugal, for the training of local trainers in production and finance management and the strengthening of existing training capacities and capabilities in Angola, Cape Verde, Guinea-Bissau, Mozambique, Sao Tome and Principe. The second, a four-year project, deals with human resource development in the industrial sector with the aim of developing local training and consultancy capacities in industrial management and rehabilitation in Mozambique. Under a large-scale regional project for selected Asian countries to develop modular approaches on managerial and entrepreneurial skills, which was completed during the year, seven modules were implemented in selected institutes in India, Malaysia and Thailand, and a total of 146 trainers and policy and decision-making officials, including 35 women, were trained. Within a programme for the improvement of industrial management in Sao Tome and Principe, five local trainers were trained in Lisbon in three management areas: finance, organization, methods and maintenance. A large-scale project on technical assistance to the industrial sector was implemented in the Libyan Arab Jamahiriya which aims at establishing an integrated education/training capacity and mechanism, at the Higher Industrial Institute at Misurata. Ten local instructors were trained and a training package was prepared. (J.3.2.01) Assessment was completed of the training capacities and capabilities of a spare parts factory in Ethiopia and a large-scale training project was under consideration as a follow-up. (J.3.2.04)

144. Experts were provided to some countries in Africa using funds allocated for strengthening training capabilities and promoting self-reliance within the framework of IDDA. Projects included the assessment of training needs for the development of a network of industrial management institutions; the establishment of a foundry training centre in Zimbabwe for the provision of national and regional training for PTA member countries; the setting up of a pilot plant for training and demonstration for the design, development and production of small-size agricultural machinery and implements in Rwanda; and strengthening the training capacity for the bricks industry in

Burkina Faso. A project was also developed for preparatory assistance to identify and assess the training needs of the electronic sector in Viet Nam and to train three national directors of training institutions. (J.3.2.01)

145. In support of industrial training, the twentieth edition was published of the UNIDO Guide to Training Opportunities for Industrial Development (PI/109), as well as the 1992 issue of the UNIDO Industrial Training Offer Programme (PI/110). A detailed breakdown of fellowships and study tours is given in appendix I, tables 3 and 4, including the number of female participants and participants from the least developed countries. (J.3.2.02)

146. In industrial group training, new approaches continued to be applied where appropriate, for instance, the introduction of computers as an integral part of the design and production processes (CAD/CAM). A training manual for the production of spare parts using computers in manufacturing was prepared as a follow-up to UNIDO training programmes held in Belgium for participants from Latin America. 54/ To ensure the multiplier effect, the component "training of trainers" was introduced in a number of programmes undertaken in 1991. An example within the framework of the IODA programme was the strengthening of two training institutions in the field of agro-based industry - the Institute of Technology in Senegal and the National School for Engineering for Agro-industry Production in Cameroon - as "centres of excellence". (J.3.2.03)

147. As a result of the restructuring process in Eastern Europe and the lack of adequate resources available there, during the 1990-1991 biennium a decrease by 36 per cent (from 56 programmes in 1988-1989 to 36 programmes in 1990-1991) was observed in the number of group training programmes mainly financed from non-convertible currency funds and backstopped by the Industrial Human Resource Development Branch. The group training programmes continue to be in high demand for upgrading the skills of managers and technical personnel through their introduction to technologies and approaches used in the host countries. Only about 25 per cent of the candidates nominated for interregional training programmes and about 65 per cent of the candidates nominated for regional training programmes could be accommodated in 1991. While most of the in-plant group training programmes were financed from voluntary contributions to the Industrial Development Fund by industrialized countries such as Belgium, France, Germany, Italy, Japan, the former Union of Soviet Socialist Republics and the United Kingdom

of Great Britain and Northern Ireland, a considerable number of these programmes are financed by contributions from developing countries. Turkey in particular continued to play a leading role in financing and hosting seven in-plant group training programmes within the framework of TCDC. In view of Turkey's interest to extend these activities and increase their impact, two missions were sent to assess the training needs of several industrial training, research and development institutions. (J.3.2.03)

148. Programmes at a UNIDO/USSR training centre in Moscow, which was officially opened in June, are designed for the training of managers and engineers from developing countries. UNIDO cooperated with relevant United Nations organizations (the International Labour Organisation (ILO), the United Nations Environment Programme (UNEP), WHO and the International Atomic Energy Agency (IAEA)) in the implementation of some in-plant group training programmes such as the one on repair and maintenance of bio-medical equipment for 20 senior participants from nine Latin American countries held in Paris in cooperation with the French Government as well as with IAEA and WHO. (J.3.2.03)

INTEGRATED INDUSTRIAL PROJECTS

149. In the course of 1991, activities under the heading of integrated industrial projects (J.5.2) continued to include the coordination and monitoring of administrative and operational matters within the Department of Industrial Operations. In addition concerted efforts were made towards the preparation of projects falling under the following areas: (a) integrated (multidisciplinary/multisectoral) technical cooperation projects; (b) energy and environment; and (c) computer systems.

150. Examples of activities related to integrated (multidisciplinary) technical cooperation projects are the identification and preparation of a number of projects for the reconstruction of the industrial sector of Lebanon undertaken at a United Nations Inter-Agency Needs Assessment Mission to Lebanon in July; and the identification of cooperation possibilities with regional organizations such as the Arab School of Science and Technology (ASST) and the All Arab Railways Union. (J.5.2.01)

151. Coordination of energy- and environment-related activities continued during the reporting period within the Department of Industrial Operations, as well as with such organizations as the Canadian International Development Agency (CIDA) and the Southern African Development Coordination Conference (SADCC). Within the framework of those activities a number of proposals for technical cooperation projects were prepared. One such proposal was the possible cooperation with SADCC on the establishment of an African regional

54/ IOB.8/10, chap. II, para. 154.

energy conservation network 55/ that was discussed when the First Energy Conservation Meeting of a SADCC subcommittee met at Ezulwini, Swaziland, in April. Activities relevant to environment were implemented through close cooperation with the Environment Coordination Unit. In that connection a number of projects were prepared within the framework of subprogramme I of the UNIDO environment programme on enhancing the Organization's capacities to render industry-related assistance with regard to the environment. (cf. chap. IV, para. 37) (J.5.2.02 and J.5.2.03)

152. In the field of computerized systems, technical cooperation included: a preparatory assistance project formulated for the provision of advisory services to the General Union of Chambers of Commerce, Industry and Agriculture for Arab Countries to carry out a diagnostic study for setting up a trade information centre under the auspices of the Union; a project formulated to appraise the technical and financial possibilities of establishing a centre for software development, training and marketing in the Syrian Arab Republic; project proposals elaborated for setting up regional industrial databanks for the Secretariat for Strategic Industries of the Libyan Arab Jamahiriya as well as for ASST, and technical advice provided to other units within the Department of Industrial Operations on the application of computer systems in technical cooperation projects. (J.5.2.04)

153. Through the services of the Central Reference and Monitoring Unit (J.6), support continued to be provided for the overall management of the Department including preparation, collection, analysis and dissemination of data on the implementation of the Organization's technical cooperation programmes and projects; and the organization at departmental level of meetings with representatives of Governments, NGOs, the private sector and UNDP and UNIDO field offices. As focal point for the introduction and the use of computer systems within the Department, hand-outs were prepared illustrating the mainframe applications for the management of ongoing projects, and training sessions were conducted for staff of the Department.

INDUSTRIAL TECHNOLOGIES SUPPORT

154. The Industrial Technologies Support Unit, established in May 1991 within the Industrial Operations Technology Division, provides support to the Division's operational programme in areas such as computer applications, new materials, industrial pollution control and clean technologies which cut across and are

applicable to the mainstream activities of the Division in the chemical, engineering, metallurgical and agro-based industries. The support provided by the Unit includes monitoring, promotion and follow-up of programmes and project proposals for technical cooperation as well as ensuring efficient utilization of financial resources to achieve a balanced multisectoral approach to technical assistance.

155. Under a project providing high-level consultancies and training, six consultants were fielded to the Syrian Arab Republic to consider treatment of tannery effluents, to improve technological processes in the pharmaceutical and textile sectors. A Workshop on Environmental Considerations and Waste Recycling for the Chemical, Metallurgical and Engineering Industries in the Asia and Pacific Region organized by the Joint UNDP/UNIDO/Asian and Pacific Centre for Transfer of Technology was held at Manila, Philippines, in December. It was attended by some 60 participants from the region. Recommendations were made and a programme of technical cooperation for sustainable development of the three industries was worked out.

156. In an effort to prevent catastrophic industrial accidents such as those of Bhopal and Chernobyl, a workshop was held at Munich, Germany, in March, on the Safe and Economically Efficient Operation of Industries with High Risk Potential. Formulated and implemented by UNIDO in cooperation with the German company, TUV Bayern, and financed by the German Government through the Industrial Development Fund, the workshop was attended by participants from Egypt, Ethiopia, India, Indonesia, Pakistan, Qatar, Saudi Arabia, Syrian Arab Republic, United Republic of Tanzania, Turkey, Yugoslavia and Zambia. Two proposals resulted from the workshop: to provide training in the area of technology with high risk potential, and to establish technical inspection systems in developing countries. Similar workshops are planned for the Latin America and Caribbean region as well as for Eastern European countries.

157. A \$6-million large-scale demonstration project for industrial water pollution control for the Gulf of Guinea's large marine ecosystem was approved for financing through the Global Environmental Facility administered by the World Bank, UNDP and UNEP. The goal of the project is to develop an effective regional approach to the problem of water pollution and the associated degradation of critical habitats shared by several countries and, therefore, requiring concerted action. Benin, Cameroon, Cote d'Ivoire, Ghana and Nigeria are among the countries eligible for participation in the project. Several projects for the Preferential Trade Area for Eastern and Southern African States have been formulated in the areas of recycling and reutilization of industrial wastes, hazardous wastes, safe operation of high risk technologies including the

55/ IOB.8/10, chap. II, para. 162.

development of an industrial environment programme.

158. In November, an Expert Group Meeting on Processing and Application of New Materials organized at UNIDO Headquarters was attended by participants from 11 developing countries, including representatives of Governments, industry and R and D institutions. Its objective was to explore and review potential applications and utilization of new materials technologies in developing countries, to identify ways and means to meet their needs and to assist UNIDO in outlining a future programme of action in this important field. The experts provided specific recommendations on technical assistance required for industrial organizations and enterprises, both in the private and public sector, to upgrade their capabilities in the production of new materials based products.

159. During the year, a project on research on flat displays development for computer screens was initiated and implemented. The project dealt with the transfer of high

technology on flat displays to the Republic of South Korea, and was financed under trust fund arrangements by a recipient enterprise in that country. It is anticipated that as a follow-up, a large-scale project will be developed to undertake the training of Korean technicians and to undertake pilot activities for the commercialization of technology for the production of flat displays for computer screens under similar financial arrangements.

160. A concept for the establishment of an international software development centre was developed by two consultants. The proposed centre would provide (a) advanced training programmes for software developers in developing countries and Eastern Europe; (b) advisory services to industrial enterprises and institutions in developing countries on the management and operation of desktop computer systems; and (c) an advanced system (i.e. high-end vertical applications) for specialized industrial tasks and localization of existing applications and its adoption to the requirements of local markets in developing countries. (J.1.5)

CHAPTER III. INDUSTRIAL PROMOTION

SYSTEM OF CONSULTATIONS

1. During the 1990-1991 biennium, efforts continued towards strengthening inter-sectoral linkages and inter-divisional co-operation within the activities of the System of Consultations. The newly established in-house advisory committees, 1/ at which all Departments are represented, have been active in the preparation for the Consultations and the drafting of the plan of action for technical cooperation activities. During 1991, measures were undertaken to strengthen the follow-up activities in implementing the proposed plan of follow-up action through in-house cooperation. Thus staff members from the System of Consultations participated in programming missions and thereby contributed to the sectoral orientation of programme and project development. Likewise, with the cooperation of the Area Programmes and the Industrial Investment Division, many technical cooperation and investment projects were identified and considered during the four Consultations held in 1991. In strengthening the follow-up activities, contacts were further developed with international organizations and non-governmental organizations concerned. Both for the preparation and follow-up of the Consultations, close working relations have been established with other United Nations organizations such as the Food and Agricultural Organization of the United Nations (FAO), the International Labour Organisation (ILO), the International Trade Center UNCTAD/GATT, the United Nations Centre for Human Settlements (Habitat), the United Nations Conference on Trade and Development (UNCTAD), the World Health Organization (WHO) and the regional commissions. Further to the measures for enhancing the efficiency of the System of Consultations proposed by the Director-General (IDB.8/22) and noted by the Board (decision IDB.8/Dec.33(f)), an expert group meeting was convened in November to review the future orientation of the System of Consultations in the light of the changing world environment. The meeting made recommendations on issues such as the selection of themes for Consultations, participation in meetings, follow-up activities and coordination (G.2.5.01).

Consultations convened in 1991

2. The Second Consultation on the Wood and Wood Products Industry (G.2.1.02) was convened in Vienna, Austria, from 21 to 25 January 2/ and was attended by

1/ IDB.8/10, chap. III, para. 1.

2/ For the report on the Consultation, see document ID/374.

75 participants from 39 countries and 10 international and other organizations. Key recommendations included the establishing of policies to encourage the development of integrated industrialization programmes in the wood sector, ensure proper forest management and promote greater use of commercially less-accepted species, particularly in housing and construction.

3. The Fourth Consultation on the Capital Goods Industry with Emphasis on Machine Tools (G.2.2.03(i)) was held at Prague, Czechoslovakia, from 16 to 20 September 3/ and was attended by 91 participants from 35 countries and four international organizations. The Consultation was preceded by a regional expert group meeting for Latin America and the Caribbean on the capital goods industry with emphasis on machine tools, from 8 to 11 April, at Santiago, Chile, organized in collaboration with the Latin American Economic System (SELA) and the Economic Commission for Latin America and the Caribbean (ECLAC) (G.2.2.03(ii)). The Consultation made several recommendations aimed at promoting effective use of machine-tools in developing countries and defined measures for competitive local production in those countries able to satisfy the necessary conditions of entry. With regard to financing problems affecting the production and use of machine-tools in developing countries, the Consultation recommended specific legislative and fiscal measures for the introduction of non-traditional financing mechanisms, especially leasing, through the establishment of national financing companies in which the private sector would play a major role (G.2.2.03(iv)).

4. The Second Consultation on the Building Materials Industry (G.2.2.04(i)), prepared jointly with Habitat, was held at Athens, Greece, from 4 to 8 November 4/ and was attended by 137 participants from 45 countries. The main recommendations stressed, *inter alia*, the importance of promoting cost-effective production methods through a wider use of local raw materials; undertaking surveys and analyses of the potential of locally available resources; urging international financial institutions to review their lending policies for a sustained development of the sector; creating a conducive investment climate to encourage joint ventures, equity participation; rehabilitating existing production facilities; as well as encouraging energy-saving production techniques; launching promotional programmes to establish confidence

3/ For the report on the Consultation, see document ID/378.

4/ For the report on the Consultation, see document ID/380.

in the manufacture and use of local materials by improving quality, performance and durability; setting up an interdisciplinary mechanism at the national level for coordination purposes in order to bridge the gap between R and D, manufacturing, professionals and end-users; and taking due account of the environmental implications. Regarding the low-cost building materials sector, the Consultation agreed on the basic elements of an operational strategy.

5. The Regional Consultation on the Fisheries Industry in Asia for the Pacific Island Countries (G.2.1.04(i)) was held in Vienna, Austria, from 2 to 6 December, 5/ with 65 participants from 32 countries. In preparation for this Consultation, an expert group meeting was held at Singapore from 14 to 17 May (G.2.1.04(ii)). The Consultation recommended measures aimed at the strengthening of government support to fisheries management, fish processing and marketing, and highlighted the need for allocating more resources to fisheries training including, more specifically, training for assisting enterprises in developing countries in meeting the requirements and norms to facilitate exports to the major international markets. It also called for increased efforts by financial institutions in providing efficient services to the fisheries industry.

Follow-up to earlier Consultations

6. Following the recommendations of the 1990 Regional Consultation on Industrial Rehabilitation/Restructuring with special focus on the food-processing Subsector in Africa (G.2.4.03), preparations were under way for a workshop on improving the competitiveness of the sugar-cane industry in Africa; originally scheduled for December 1991, the workshop was postponed to the first quarter of 1992. A workshop on maintenance management in the industrial sector, organized for French- and English-speaking African countries, was held at Conakry, Guinea, from 15 to 17 October. The participants from Guinea requested a national workshop on this topic for the local industries and an in-depth review of the maintenance policies of industrial plants in the country. Since maintenance has been neglected in many countries and in order to raise the efficiency of their industries, the participants requested the organization of another workshop on the subject. A maintenance management manual based on a study prepared jointly by ILO and UNIDO, 6/ will be issued as a sales publication in English and French (G.2.4.01(iii)).

7. Following the Third Consultation (1987) on the Pharmaceutical Industry, a Workshop

on Technological Cooperation Among Developing Countries for the Development of Pharmaceutical-related Ancillary Industries was held at Amman, Jordan, from 4 to 6 November. The workshop recommended that steps be taken to strengthen existing and establish new institutes for the development of packaging materials; and that a regional pharmaceutical R and D centre for Arab countries should be established with the assistance of UNIDO and the Arab Company for Drug Industries and Medical Appliances (ACDIMA), a pan-Arab organization engaged in the development of the pharmaceutical industry. A document on design options for a polyvalent pilot plant unit for the distillation and extraction of medicinal and aromatic plants was finalized and arrangements were being made for its publication as a sales booklet (G.2.3.03(i), (ii), (iii)).

8. A Global Preparatory Meeting for the Regional Consultation on the Petrochemical Industry in the Arab Countries was convened at Karachi, Pakistan, from 10 to 13 December. 7/ The meeting recommended five issues for consideration at the regional Consultation e.g. cooperation, coordination and integration; trust-in-fund in research and development; marketing and market cooperation in petrochemicals; infrastructures required; and environmental concerns and safety. (G.2.3.02(v))

9. As follow-up to the Regional Consultation (1988) on the Phosphatic Fertilizers and Pesticides Industry in Africa, a Workshop on Appropriate Strategies for Fertilizer Technology and Development was held at Lahore, Pakistan, from 29 April to 3 May and attended by 150 experts. The workshop reconfirmed the viability of the mini-fertilizer plant concept, especially in view of conditions prevailing in many developing countries and acknowledged that creation of local capabilities for the manufacture and fabrication of plant machinery, equipment and parts is an indispensable condition for the smooth development of the chemical sector. As a follow-up to the meeting, efforts were initiated to set up a project on the valorization of phosphates at Lomé, Togo (G.2.3.01(iii), (iv)).

10. In support of the sugar-cane industry in Asia and as follow-up to the First Interregional Consultation (1988) on the Food-processing Industry with emphasis on Sugar-cane Processing, a Workshop on the Asian Sugar-cane Industry with Emphasis on Sugar-cane Diversification was held at Islamabad, Pakistan, from 5 to 9 May. The workshop recommended sugar-cane diversification programmes with emphasis on the optimum use of cane acreages and the integral use of sugar-cane and derivatives as a raw material for the production of other goods (G.2.1.03(i), (ii), (iii), (iv)).

5/ For the report on the Consultation, see document ID/379.

6/ IDB.8/10, chap. III, para. 12.

7/ Ibid., para. 18.

Table 1
Significant programme performance indicators:
System of Consultations

	Planned 1990-1991	Achieved	
		1990	1991
Consultations a/			
Wood - G.2.1.02	1	-	1
Fisheries - G.2.1.04(i)	1	-	1
Capital goods - G.2.2.03(i)	1	-	1
Building materials - G.2.2.04(i)	1	-	1
Petrochemicals - G.2.3.02(v)	1	postponed	
Rehabilitation - G.2.4.03(i)	1	1	-
TOTAL	6	1	4
Regional, interregional, global and other meetings			
Leather - G.2.1.01(ii)	1	-	1
Wood - G.2.1.02	-	1	-
Food - G.2.1.03(iii)	2	1	1
Fisheries - G.2.1.04(ii)	b/	1	1
Iron and steel - G.2.2.01(ii)	1	-	-
Agricultural machinery - G.2.2.02(i)(c)	1	-	-
Capital goods - G.2.2.03(ii), (iii)	4	-	1
Non-ferrous metals - G.2.2.05(ii)	1	1	-
Electronics - G.2.2.06(ii)	1	-	-
Fertilizers and pesticides - G.2.3.01(iii)	1	1	1
Petrochemicals - G.2.3.02	-	1	1
Pharmaceuticals - G.2.3.03(ii)	b/	1	1
Industrial training - G.2.4.01(ii)	1	-	-
Small and medium enterprises - G.2.4.02(i)	1	-	-
Policy - G.2.5.01	1	-	-
TOTAL	15 c/	7	9
Studies			
Food - G.2.1.03(ii)	b/	1	-
Iron and steel - G.2.2.01(i)	b/	-	-
Agricultural machinery - G.2.2.02(i)(a)(b)	2	-	-
Capital goods - G.2.2.03(v)	b/	-	-
Building materials - G.2.2.04(ii)	1	-	-
Non-ferrous metals - G.2.2.05(i)	2	2	-
Electronics - G.2.2.06(i)	b/	-	-
Fertilizers and pesticides - G.2.3.01(i)	1	1	-
Petrochemicals - G.2.3.02(i), (ii), (iii), (iv)	10	5	6
Pharmaceuticals - G.2.3.03(i)	4	-	1
Industrial training - G.2.4.01(iii)	b/	-	1
Small and medium enterprises - G.2.4.02(ii), (iii)	b/	-	-
Rehabilitation - G.2.4.03(ii)	b/	-	-
TOTAL	20 c/	9	8

a/ Including the preparation of studies for their substantive servicing, which are not separately shown in this table.

b/ Number not specified in the programme and budgets, 1990-1991.

c/ Not exact figure, in view of b/.

11. As a follow-up to the ninth session of the Leather and Leather Products Industry Panel (1988), in which the concept for an integrated programme in the treatment of tanning effluent in selected South-East Asian countries had been presented, the tenth session of the Panel was held at Madras, India, from 4 to 8 November. The Panel discussed environmental aspects of the leather industry and provided guidance to UNIDO in the elaboration of strategies for carrying out technical cooperation programmes with emphasis on effluent treatment in South-East Asia (G.2.1.01(ii)).

**Programme of Consultations
for 1992**

12. Preparations were under way for the regional Consultation on the petrochemical industry in the Arab countries, initially scheduled for 1991 and due to the Gulf war, rescheduled to be held at Cairo, Egypt, in March 1992. 8/ The global preparatory meeting for this Consultation took place at Karachi, Pakistan, from 10 to 13 December (see para. 8). (G.2.3.02(v))

13. Preparatory activities related to the Consultation on downstream petrochemical industries planned for the 1992-1993 biennium also progressed, including studies to enable the selection of issues to be considered at the Consultation (G.2.3.02(iv)). Among those studies, the following were completed during 1991: a study on "Current world situations in petrochemicals"; a case study on "Petrochemical downstream processing industry in India"; an updated version of the "Directory on technological capabilities in developing countries related to the petrochemical sector"; a "Study on trends in technological development in the petrochemical industry"; a study on "The development of integrated petrochemical industry in the Arab region" and a "Case study for cooperation between Middle East and South-East Asian countries in the petrochemical industry" (G.2.3.02(i), (ii), (iii)).

**DEVELOPMENT AND TRANSFER
OF TECHNOLOGY**

14. Promotional and development activities were carried out by the Industrial Technology Development Division and the Industrial Technology Promotion Division. During the biennium 1990-1991, the work on this subject followed the framework provided by the medium-term plan, 1990-1995, and was in line with the programme delineation given in document IOB.3/26. In addition to the regular budget activities,

major promotional projects in the area of development and transfer of technology were undertaken. Financial constraints during the biennium prevented a number of regular budget activities and outputs from being carried out as scheduled.

15. Most of the activities planned for 1991 in the field of technology monitoring (G.4.1.) were completed, including the publication of the first four issues of the new Monitor on marine industrial technology, 9/ in addition to the existing quarterly Monitors on genetic engineering and biotechnology, microelectronics, new materials, and the UNIDO Newsletter. However, financial constraints continued to affect production of the publications; despite its wide circulation, the Newsletter was issued bi-monthly from June to November, as a temporary measure, and a new scheme was initiated by which as of January 1992 readers in developed countries will be charged a handling fee for the three major Monitors (G.4.1.01(i)). The following studies were prepared as part of the Technology Trends series: "Biotechnology policies and programmes in developing countries: survey and analysis" and "The revolution in materials science and engineering: strategic implications for developing countries in the 1990s". A global survey on technology trends in software was under preparation (G.4.1.01(iii)). A study was published on recent trends in contractual practices relating to the acquisition of software in the United States of America and the European Community. Case studies compiled in 1990 following a workshop (New Delhi, India) 10/ on the management of technological change in India were published through a commercial publisher; UNIDO also supported a workshop on management of technological change in the electronics industry in the Arab region, held at Cairo, Egypt, in December 1991 (G.4.1.01(ii)).

16. In the field of informatics (G.4.2), implementation continued in developing the Regional Network for Microelectronics for Latin America and the Caribbean project, 11/ with the participation of 15 countries from that region. As part of the project, a course for trainers in designing integrated circuits was held in cooperation with the project on the international centre for science and high technology at the International Centre for Theoretical Physics at Trieste, Italy, in February. Studies were completed for Argentina, Colombia, Cuba and Ecuador, while a catalogue of research and development on projects in informatics was under preparation. A project on microelectronics was prepared for approval under the 1992-1996 United Nations Development

9/ Ibid., para. 20.

10/ Ibid.

11/ Ibid., para. 21.

8/ Ibid.

Programme (UNDP) cycle (G.4.2.01(iii)). 11/ The following technical publications were published in 1991: development of policies and programmes in the field of informatics in selected developing countries (G.4.2.01(i)(a)); country-level reviews on the potential and actual applications of informatics for manufacturing technology in small industry (G.4.2.01(i)(b)); a completed profile of micro-processor application centres/laboratories suitable for developing countries (G.4.2.01(i)(c)); a review of trends in software tools and their implications for software production and exports by developing countries as well as a review of the feasibility of utilizing public domain software (G.4.2.01(i)(d)); and trends in the informatics related service industries (G.4.2.01(i)(e)). The profile of micro-processor application centres/laboratories is intended to provide alternative models for adoption by countries at an earlier stage of informatics development.

17. A meeting of the Consultative Group on Informatics Technology for Development held in November recommended that UNIDO foster those industrial applications generating software products, that in turn would give rise to more industrial software applications (G.4.2.01(ii)). In providing assistance in technological cooperation at the enterprise level between developed and developing countries in microelectronics and software, seven studies on informatics technology were carried out (G.4.2.01(iii)). Activities relating to the telecommunications industry included an experts' meeting for the Asia and Pacific region held in December (Bangalore, India) in cooperation with the International Telecommunication Union, the Asia-Pacific Telecommunity, the Asian and Pacific Centre for Transfer of Technology, the Department of Telecommunications of India, and others. Recommendations included the undertaking of a market survey-cum-inventory of capacities in the Asia and Pacific region; the promotion of testing centres for telecommunications equipment, and of telecommunications-related software activities (G.4.2.01(vi)). Support was provided also for the informatics-related inputs of a large-scale regional project on subcontracting in Latin America.

18. The requisite number of 24 ratifications was achieved for the International Centre for Genetic Engineering and Biotechnology (ICGEB) to become an autonomous entity. The total number of countries that have signed the Statutes of the Centre is 45, and of these, 15 have their national centres or networks affiliated to ICGEB. The Regional Network for Biotechnology in Latin America and the Committee for Biotechnology also became affiliated. Eight short-term training courses and four major colloquiums were held in 1991, involving 250 participants from 28 countries, while some 60 long-term trainees joined the Centre at Trieste, Italy, and at New Delhi, India, as well as at selected Italian institutes. Additional

research groups were set up at Trieste. Twenty proposals for collaborative research programmes from nine affiliated centres received grants amounting to more than a million dollars and a collaborative research project between ICGEB and Greece received approval for funding by the European Community. Consequent to the endorsement of the rolling five-year programme (July 1990 - June 1995), existing projects were revised and a new project with the Government of Italy approved, with \$55 million committed to the programme. A five-year programme for 1992-1996 at a cost of some \$72 million was under preparation (G.4.3.01(iv)). The work of ICGEB was noted by the Preparatory Committee of the United Nations Conference on Environment and Development in relation to biodiversity and biotechnology.

19. Issues relating to biotechnology safety continued to be addressed through the informal UNIDO/WHO/UNEP/FAO working group. With financing from the Industrial Development Fund, the Voluntary Code of Conduct for the Release of Organisms into the Environment was drawn up with the help of some 50 experts and in cooperation with WHO, UNEP, FAO and the Organization for Economic Cooperation and Development (OECD). It has also been brought to the attention of the Preparatory Committee for the United Nations Conference on Environment and Development. A manual was being prepared on biological safety pertaining to applications of transgenic organisms in the open environment and under conditions of containment (G.4.3.01(iii)). A programme on bioremediation and enhanced microbial oil recovery was developed and elicited the interest of Algeria, Indonesia, Mexico and Venezuela. Advisory missions for developing biotechnology policies and programmes were sent to Bolivia, Ecuador, Peru and Sudan (G.4.3.01(i)(a)). The Committee on Science and Technology in Developing Countries was commissioned to provide a study on the teaching and research needs of biotechnology (G.4.3.01(i)(c)). A project was prepared on computer applications in biotechnology, including the modalities of setting up networks of bioinformatics and has been presented for funding (G.4.3.01(i)(b)). A meeting on the commercialization of biotechnology was held in Vienna, Austria, in October with the participation of several major companies (G.4.3.01(ii)), and recommended that UNIDO establish a promotion service for commercialization of biotechnology. An expert group meeting on the application of biotechnology to food processing in Africa was held in December at Ibadan, Nigeria, with the cooperation of the International Institute for Tropical Agriculture and the African Regional Centre for Technology (ARCT) (G.4.3.01(v)). Another expert group meeting on establishment of a network of Centres of excellence was convened in Vienna, Austria, in December, in cooperation with the Third World Academy of Science. The Group recommended that UNIDO formulate a time-bound preparatory assistance project

to work out the modalities, to begin with for five such Centres.

20. In the area of new technologies (G.4.4), three studies were prepared on the experience of developing countries in the field of advanced materials, including one postponed from 1990 ^{12/} on the status of techniques of materials engineering, with special reference to their potential applications in developing countries, and a study on composites using local raw materials in developing countries (G.4.4.01(i)(a) and (b)). An expert group meeting on new materials policy issues, held at Bangalore, India, in December, recommended the establishment of a materials policy advisory panel (G.4.4.01(ii)). International cooperation was strengthened through a UNDP-funded regional workshop on testing and evaluation of new materials for Asia, held at Taejon, Republic of Korea, in March, which resulted in a project costing \$82,000, funded by UNDP and the Government of the Republic of Korea for the preparation of a feasibility study on the establishment of an international centre for materials evaluation technology (G.4.4.01(iii)). While the pilot activities of the international centre for science and high technology continued, the long-term arrangements for the centre under the auspices of UNIDO were considered by the General Conference at its fourth session (GC.4/Res.14). The Government of Italy is expected to make a substantial additional contribution to the Industrial Development Fund for the operation of the Centre through a special legislation to enable the payment of such contributions on a regular annual basis. The pilot activities of the Centre during 1991 included several technical workshops, as well as a course on research and innovation management.

21. Activities on new and renewable energy technologies were strengthened in line with the priority given to energy and the environment in the medium-term plan. They included the development of a project for a workshop to promote the application of low-cost photovoltaic technology for rural energy demand, for which funding is expected under special purpose contributions to IDf; a market survey for photovoltaics in developing countries, (G.4.4.01(viii)) to be used as the basis for a comprehensive market study once extrabudgetary resources have been obtained; and preparation of a feasibility study for a centre on solar energy research and application, a draft of which was discussed at a Meeting of the Consultative Group on Solar Energy Research and Application held at Marrakesh, Morocco, in December (G.4.4.01(ix)). Promotional work was also being undertaken on hydrogen

fuel which has close links to solar energy, the latter a potential energy source for the production of hydrogen.

22. Work continued on the promotion of the two regional centres for marine industrial technology in the Mediterranean and Caribbean. ^{13/} The proposal for a Caribbean centre was endorsed at a meeting at Caracas, Venezuela, in December, with offers to host it expressed by Colombia, Trinidad and Tobago and Venezuela. Discussions have also been held with the Norwegian Institute of Technology to set up a cooperative programme on marine industrial technology. Following an expert mission to eight selected countries, a seminar is being planned to consider deep seabed mining and marine technology, aided by a special-purpose contribution to IDf from India. A report on the current status of the technology was being prepared (G.4.4.01(iv) (v) and (vi)).

23. As in the previous year, publications planned for the programme on advances in manufacturing technology were postponed owing to financial constraints. ^{14/} Discussions were held with the authorities at Seville, Spain, to establish an international centre for the advancement of manufacturing technology. Experts were sent to India to advise on the reorientation of training programmes in advanced manufacturing technology at the National Institute of Industrial Technology, Bombay, India and to Mexico to advise on the establishment of a demonstration centre to manufacture electronics. A study was under way on the role of professional associations in developing countries in upgrading technologies through the federation of industries of the State of Sao Paulo, Sao Paulo, Brazil (G.4.4.01(vii)). The impact of new technologies on basic needs, such as food, energy and shelter, was considered in the context of the spin-off of space-related technologies and a programme was developed for promoting the transfer of such spin-offs that are already available in several countries involved in space research programmes (G.4.4.01(x)).

24. The existing information systems of the Industrial and Technological Information Bank (INTIB), its networks of national and regional focal points, its newly established sectoral networks, as well as the Industrial Inquiry and Advisory Services continued to be developed and operated, with special emphasis on small and medium enterprises (G.3.1.01). A Latin American chemical information network designed to better inform members on new developments and applications in that area, was launched in June in cooperation with the United Nations Educational, Scientific and Cultural Organization (UNESCO). At the fourth meeting of the INTIB Advisory Group,

^{13/} Ibid., para. 27.

^{14/} Ibid., para. 28.

^{12/} Ibid., para. 25.

held in Vienna in December, the latest developments in INTIB networking systems were reviewed and recommendations made for future activities (G.3.1.01(ii)). Following the convening of a "Technology Mart" in December (Beijing, China), designed to bring together sellers and buyers of technology, many concrete agreements were made and over 1,500 copies of the Techmart catalogue were distributed to small and medium-sized enterprises world-wide, at their request (G.3.1.01(iv)). The Industrial Energy Conservation Abstracts (INECA) information system was installed. An in-house network and information processing facility, known as the Referral Database on Energy and Environment was created through a special-purpose contribution of Sweden to the Industrial Development Fund (G.3.1.01(v); G.3.1.02(ii)). In response to General Conference resolution GC.3/Res.7 (para. 5), a survey was carried out on the possibility of creating regional associations of small-scale industrial enterprises and establishing an integrated database of entrepreneurial capabilities. On the basis of the study and requests from Belgium, Germany, India, Malaysia, Philippines, Republic of Korea, Sweden, Turkey and United Kingdom of Great Britain and Northern Ireland, a pilot interregional information exchange network for small and medium industrial enterprises was initiated, aimed at improving their efficiency (G.3.1.01(v); G.3.1.02(ii)).

25. Several INTIB information systems were modernized and improved: the industrial development abstracts system was converted to a menu-driven system on the new UNIDO mainframe computer for easier access to staff; the technology supply database was redesigned to facilitate accurate data collection from technology suppliers and as a tool for future techmarts; and the information system "Cleantec Data" was established as a system of databases, which calls upon information gathered from mainly external information sources and networks dealing with industrial and environment information (G.3.1.02(i)). Special programmes for training staff from focal points and other network participants in the accessing and processing of information stored in INTIB databases were developed and implemented at Headquarters (G.3.1.02(iii)). The Thesaurus of Industrial Development Terms was also enlarged and refined and will be used as a tool for all UNIDO mainframe databases (G.3.1.02(iv)). INTIB on-line linkages have been established to selected locations and are currently being extended to cover all regions, using a variety of electronic mailing systems. A Workshop on modern information technology applications and networks was organized in September in the former Union of Soviet Socialist Republics to facilitate 10 developing-country institutions to establish on- and off-line linkages with UNIDO, and develop commercial databases and networks (G.3.1.02(vi)).

26. Regarding the dissemination of industrial information and promotion of INTIB networking systems, emphasis was placed on making the information contained in INTIB databases available in a wide variety of forms (see table 2 (G.3.1.03) for details); INTIB was represented at the "TECH-EX '91" business forum on technology exchange in Bulgaria (G.3.1.03(v)); and a second issue of the INECA Journal was issued (G.3.1.01(v)). Projects were approved to improve the functioning of INTIB national focal points in Indonesia, Sri Lanka and Turkey and to strengthen the mechanisms of providing technology and market information to public and private sectors in those countries. Efforts were continued to provide Member States with free access to normally prohibitively expensive yet important on-line databases. Agreement has been reached with the International Food Information Service to distribute their large on-line database "Food science and technology abstracts" free of charge in personal computer format to selected INTIB national focal points (G.3.1.03(vii)).

27. Assistance continued to be provided to developing countries in the acquisition and negotiation of technology, and related policy responses (G.3.2). In answer to the heavy demand for UNIDO training courses on technology transfer, negotiation and contracting, five workshops were held during the year in Moscow, Russian Federation, (March), at Lagos, Nigeria, (April) in preparation for the investment promotion forum, at Dakar, Senegal (September), at Lagos, Nigeria, (October), and in cooperation with the Programme for Development Cooperation (PRODEC) and the African Development Bank at Abidjan, Côte d'Ivoire (November) (G.3.2.01(i)). In addition, workshop modules and advisory services on technology contracting were provided to the UNIDO "Technology Mart" held at Beijing, China in December. Part of these educational activities is the manual on technology transfer negotiations currently in preparation for negotiators and potential trainers of negotiators in developing countries. With nine of its 16 chapters completed, the manual was already being used in seminars and workshops on technology negotiation (G.3.2.01(ii), (iii)). The Technological Information Exchange System (TIES) continued to be an active network of cooperation among developing countries. A UNIDO-TIES (Licensing Executive Society) meeting took place in June (G.3.2.01(vi)) and the preparation is envisaged, jointly with LES, of a video film on technology licensing for educational purposes as well as the finalization of a training manual (G.3.2.01(ii)), and the upgrading of the monograph series on regulatory rules and practices on the transfer of technology (G.3.2.01(iii)). The African-TIES programme, implemented in cooperation with the African Regional Centre on Technology, 15/ (G.3.2.01(xii))

15/ Ibid., para. 32.

was acknowledged, at the Fourth African TIES Meeting held at Lagos in October, as having provided a focused approach to the needs of the African region for assistance in policy formulation and in setting up appropriate legal and institutional mechanisms for technology transfer. In addition to training courses, the African TIES project also produced a comprehensive and practical guide to negotiators of technology transfer in the African region with special focus on the agro- and agro-related sectors (G.3.2.01(iii), (xii)). The interest in the computerized registry information systems has continued and this software programme was installed and made operational in Zimbabwe.

28. Previous policy-oriented work (G.3.2.03) has resulted in the implementation of a large-scale project to set up a national system for technology acquisition, indigenization and monitoring in the United Republic of Tanzania. Continued institutional assistance was extended to Nigeria. The technological advisory services component of Investment Promotion Forums organized by UNIDO is gaining acceptance as an avenue for delivering technology advisory services, as in the case of the Forums held in Nigeria in May and in Sri Lanka in November (G.3.2.02). In keeping with developments in the international scene such as in the field of new forms of business arrangements, UNIDO in cooperation with the Asian and Pacific Centre for Transfer of Technology organized a seminar on technology transfer through BOT (Build-Operate-Transfer) at Bangkok, Thailand, in December. In the same vein, a study on technology transfer trends and new forms of enterprise cooperation was prepared for guidance of policy makers and industrialists (G.3.2.01(v)).

29. Work related to basic technologies (G.3.3), resulted in the successful promotion of four agreements on technological cooperation in the metalworking industries, with Poland as the source country and Nigeria as the recipient country (G.3.3.01(i)). Technical reports were prepared on assessments of the viability of establishing technology parks and industrial incubators in Argentina and Chile. Studies and analyses of development and utilization of appropriate technologies in selected sectors were produced, notably on agricultural tools and equipment for food processing in rural areas (G.3.3.01(iii)); studies on fisheries, food processing industries and agricultural equipment were prepared for the African region (G.3.3.01(iii)). From those studies, five appropriate technology monographs were under preparation (G.3.3.01(iv)). Follow-up activities to the Forum on Appropriate Technology for Africa (1989) with reference to local technologies, inventions and innovations in rural areas, e.g. in Burkina Faso, Côte d'Ivoire, Lesotho and Niger, included studies on promotion, development and application of local rural and appropriate technologies (G.3.3.01(v)). A demonstration programme on the use of

indigenous biomass resources for meeting energy needs for the Preferential Trade Area for Eastern and Southern African States was carried out as well as an assessment of the feasibility of a subregional programme on the use of biomass resources for meeting energy needs in rural West Africa (G.3.3.01(vi)). Twelve "Technology Profiles" were published on alternative technologies and technology options for micro- and small-sized industries; also based on a manual prepared in cooperation with the Latin American Energy Organization (OLADE), a summarized report on the typical design and manufacture of equipment and machinery for small hydropower stations was widely distributed in English, French and Spanish (G.3.3.01(ix)). The promotion of basic technology in 1991 is indicated in table 2 (G.3.3.01 (and 02)). An evaluation of six technology centres in Central America aimed at their strengthening was carried out by ICAITI (Instituto Centroamericano de Investigación y Tecnología Industrial) (G.3.3.02(iii)).

30. In the area of basic technology infrastructure, a case study on the national experience on technology management in Colombia and an assessment of the national technology programme in Guatemala were completed, as well as a general study on industrial technology management capability in developing countries. Furthermore, an assessment of national technology programmes was initiated in Bangladesh, Nepal and Peru (G.3.3.03(i)). A technical publication was produced, entitled "Technology transfer and technological development in Tanzania - an evolutionary and dynamic perspective" as well as a preparatory programme for financing of transfer of technology to least developed countries (G.3.3.03(ii)). As part of the programme on R and D capacities two studies were carried out, one on a survey of capacities for technological innovations and inventions in Côte d'Ivoire and the other on an assessment of capacities and recommendations for their strengthening at ITINTEC (Instituto de Investigación Tecnológica Industrial y de Normas Técnicas), Peru. Work began on a case study on the results of technology transfer from developed to developing countries, from the recipients' point of view, to be complemented with a similar study from the developed countries' point of view; a preparatory mission for the establishment of a technology extension service for countries members of the Organization of East Caribbean States (G.3.3.03(iii)); the servicing of an expert group meeting on technology management at Caracas, Venezuela, in September (G.3.3.03(iv)); the sponsoring and servicing of the second of the regional seminars ^{16/} on promotion of industrialization through standardization and quality control, in Malaysia (G.3.3.03(v)); a study on strengthening engineering design and consultancy services

16/ Ibid., para. 33.

in developing countries and a technical review of proposals for UNIDO actions concerning engineering design and consultancy services (G.3.3.03(vi)). Among technical publications produced were "Regional Programme on Technology Management for Latin America, COLCYT (Comisión Latinoamericana de Ciencia y Tecnología); "Technology development at the enterprise level" and "Management of technological innovation", prepared for the fourth Latin American Seminar on Technology Management, Caracas, Venezuela, September; "Technology and financing" a basic document for an expert group meeting on the subject to be held in 1992; and "Guide to sources of financing for technology in Latin America", in cooperation with the Latin American Association of Development Financing Institutions (ALIDE) (G.3.3.03(vii)).

31. Under the special technologies programme, information was compiled on 25 institutions and other bodies actively engaged in special technology activities from 30 countries. These activities promoted developing countries' capabilities to identify and digest industrial technology in various sectors under a Special Technologies Database Club. Some 25 know-how transfer promotions were carried out during the year among selected Member States, relating to projects on liquid crystal, polycarbonate, precipitated calcium carbonate, ascorbic acid, polyvinyl alcohol, silicon products, and ethanol from potato, among others (G.3.4.02(i)). A total of 15 opportunities in the advanced developing countries were identified for transfer of technologies together with major equipment to other developing countries (G.3.4.02(ii)).

32. Under the special programme for the promotion of cleaner, safer and energy-saving technologies assistance was provided to both developing and industrialized countries in the area of technology assessment, technology upgrading, waste management and waste reduction. A wide range of cooperative activities in this area has been undertaken with governmental and non-governmental organizations, research institutions, industries and other international and national forums. Methodologies for technology assessment and upgrading, as well as issues in developing an integrated approach to waste and technological problems have been elaborated. Two major programmes have been developed in connection with these two methodologies: the promotion of waste management and recycling centres, and the development of technology assessment/upgrading programmes. While the centres were under promotion at the end of the biennium in China, Czechoslovakia, Ghana, Poland, Portugal and the Russian Federation, the latter programmes were under implementation in Argentina and Thailand (G.3.5.02(i)). Within the framework of the technology assessment programme, model steel works in Argentina and Thailand were identified and given assistance in optimizing their production processes. These plants are expected to

act as training and demonstration centres. Practical advice is provided on how to deal with waste problems such as fine dust from electric arc furnaces, steelmaking slag and sinter plants, storage, slaking and reuse of lime, waste water from hot rolling mills and heat recovery from the direct sponge iron plant and reheating furnaces. The project, funded by the Government of Japan, has also provided instruments and methods for environmental monitoring. A technical workshop on model steel works was organized in Vienna, Austria, for experts from Asia, Europe, Latin America, and the United States of America. Training was provided during the year to Asian and Latin American technical personnel in dealing with waste problems, in upgrading process technologies, and in good house-keeping methods. Seven operational technical manuals on pollution control and pollution reduction in the steel industry are being printed. (G.3.5.02(ii) (iii)) Concerning industrial risk management, an area in which UNIDO, International Atomic Energy Agency, WHO and UNEP have joined efforts since 1986, UNIDO participated in the International Workshop on Procedural Guide for Integrated Risk Management for Large Industrial Areas, (Tel Aviv, Israel, 18-22 November). Within the framework of this inter-agency programme several projects are being promoted by the four United Nations agencies in Africa, Asia, Eastern Europe and Latin America. In addition, several industrialized countries have initiated projects dealing with industrial risk management within the framework of the inter-agency programme (G.3.5.02(i), (ii), (iii)).

33. Apart from participating in activities related to the Administrative Committee on Coordination Task Force on Science and Technology, interagency cooperation was maintained, for example with UNESCO and the International Telecommunication Union in the field of informatics and telecommunications; with UNEP, WHO and FAO on biotechnology; with the United Nations Centre for Science and Technology for Development on the issues of materials and solar energy; and with UNEP and the United Nations Convention on the Law of the Sea in regard to marine technologies. Contact was maintained through meetings and exchange of information with the secretariat of the United Nations Conference on Environment and Development in Geneva, particularly in regard to biotechnology. At the request of the Administrative Committee on Co-ordination Task Force on Science and Technology, UNIDO is the lead agency in the preparation of an analytical report on the contribution of the United Nations system to biotechnology for sustainable development (G.4.4.02(i)).

INDUSTRIAL INVESTMENT PROGRAMME

34. A reorganization of the work carried out within the industrial investment pro-

Table 2

Significant performance indicators:
Promotion and development of industrial technology
 (Subprogrammes G.3 and G.4)

	Planned 1990-1991	Achieved	
		1990	1991
A. Studies/Publications			
<u>Technology monitoring G.4.1.01</u>			
Monitors, quarterly (i)	32	12	16
UNIDO Newsletter (i)	24	12	9
Management of technological change (ii)	1	1	1
Technology Trends series (iii)	7 (4+3)	2	3
Survey on impact of new technology (iii)	1	-	- a/
Country-level investigations (iii)	2	-	- a/
<u>Informatics G.4.2.01</u>			
Reviews, profiles on informatics (i)	7 (3+4)	1	5
Microelectronics and software (iii)	5 (2+3)	1	7
Development of telecommunications industry (Asia and Pacific, and Eastern Europe) (iv)	2	-	2
<u>Biotechnology and Genetic Engineering G.4.3.01</u>			
Biotechnology, polices and programmes (i)	6 (3+3)	1	3
Safety in biotechnology (iii)	2 (1+1)	1	1
<u>New technologies G.4.4.01</u>			
Directory, guidelines on new technologies (i)	5 (3+2)	2	3
Research application of marine ind. tech. (iv)	1	1	1
Advances in manufacturing technology and implications (vii)	4 (2+2)	-	1
Solar photovoltaics (viii)	1	1	1
Socio-economic impact (x)	2 (1+1)	-	1
<u>INTIB G.3.1.02</u>			
Thesaurus of industrial development terms (iv)	1	-	c/
Guidelines, manuals: UNIDO information systems and databases (v)	b/	2	3
<u>G.3.1.03</u>			
Industrial Development Abstracts (i)	8 (4+4)	3	4
Sectoral dossiers (iii)	5	2	3
Directories of information (iv)	b/	1	-
Offers and Requests of Technical Series (vi)	4 (2+2)	4	2
INTIB Newsletter: quarterly (viii)	8	2	4
Directory of INTIB focal points (ix)	1	1	c/
<u>Technology policy, acquisition and negotiation G.3.2.01</u>			
Guidelines and monographs for negotiators including model forms (iii)	4 (2+2)	2	2
Business-oriented materials (v)	-	2	3
Contractual and industrial property issues (ix)	2 (1+1)	1	1
TIES Newsletter: case studies (x)(a)	8 (4+4)	8	3
TIES Watch Inf. Note (x)(b)	-	17	15
<u>Formulation of technology policies G.3.2.03</u>			
Studies (ii)	-	-	- a/

	Planned 1990-1991	Achieved	
		1990	1991
A. Studies/Publications (cont'd)			
<u>Technologies for small-scale industries G.3.3.01</u>			
Technological parks and industrial incubators (-)	-	1	1
Plant-level technological transfer to SMI (ii)	-	-	1
Appropriate technologies (iii)	5	3	2
"How to start manufacturing industries" (revised) (viii)	1	-	- d/
Technical options for micro and small industries (ix)	10	-	12
Conventional materials technology for small industries (x)	1	1	-
<u>Basic technology promotion G.3.3.02</u>			
Technologies developed or adapted through UNIDO projects (i)	5	-	12
Technology market for one region (Latin America and Caribbean) (ii)	1	-	1
<u>Basic technology infrastructure G.3.3.03</u>			
Case studies: national experiences on tech. management (i)	5	2	2
Basic technological infrastructure in LDCs (ii)	1	-	1
Case studies: technology manag., R & D capacities (iii)	5	3	3
Engineering design (vi)	2	-	2
Management of technological change (vii)	1	-	7
<u>Special technologies G.3.4.01</u>			
Directory: institutions, organizations engaged in special technologies (i)(a)	1	-	- d/
Directory: research subjects (i)(b)	1	-	- d/
Case studies: formulation of sectoral industry and technology plans (ii)	2 (1+1)	-	- a.
B. Expert group and other meetings			
<u>Informatics G.4.2.01</u>			
Consultative group on informatics technology (ii)	1	-	1
Donors'/investors' conference on telecom. ind. (Asia) (vi)	1	-	1
<u>Biotechnology and Genetic Engineering G.4.3.01</u>			
Expert group on research applications in biotechnology (ii)	1	-	1
Expert group on biotechnology food processing in Africa (v)	1	-	1
<u>New technologies G.4.4.01</u>			
Expert group on new materials (ii)	1	-	1
Expert group on marine industrial technology (v)	1	-	1
Expert group on solar energy (ix)	1	-	1
<u>INTIB G.3.1.01</u>			
INTIB Advisory Group (ii)	1	-	1
Regional INTIB workshops (iii)	4 (2+2)	2	2
Technology Mart (iv)	1	-	1

	Planned 1990-1991	Achieved	
		1990	1991
B. <u>Expert group and other meetings (cont'd)</u>			
<u>Technology policy, acquisition and negotiation G.3.2.01</u>			
Workshops (i) and (xi)	5	2	5
UNIDO/LES meeting and TIES meeting (vi)	2	-	1
<u>Formulation of technology policies G.3.2.03</u>			
National workshops on technology policies (i)	2 (1+1)	-	- a/
Expert group on technology policy issues (iii)	1	-	- a/
National workshops in Africa (iv)	4 (2+2)	-	- a/
<u>Technologies for small-scale industries G.3.3.01</u>			
Expert group on technologies to meet needs of poor (vii)	1	-	- c/
<u>Basic technology infrastructure G.3.3.03</u>			
Expert group on technology management (iv)	1	-	1
Regional expert group on standardization quality control (v)	2	1	1
<u>Appropriate technologies G.3.5.01</u>			
Expert groups for applic. in specific subsectors (i)	2 (1+1)	-	- c/
C. <u>Establishment/strengthening of technology centres and pilot plants</u>			
<u>Biotechnology and genetic engineering G.4.3.01</u>			
Interim programme of ICGEB (iv)	1	1	1
<u>New technologies G.4.4.01</u>			
International materials centre and network assistance (iii)	1	1	1
Assistance related to Mediterranean centre on marine industrial technology (vi)	1	2	2
<u>Technologies for small-scale industries G.3.3.01</u>			
Pilot plant for non-conventional energy to meet needs of poor (x)	1	-	1
<u>Basic technology promotion G.3.3.02</u>			
Technology centres: 2 in Central America, 1 in Africa (iii)	3	5	2
<u>Formulation of special technologies G.3.4.02</u>			
Identification and formulation of know-how transfer promotion projects (i)	100 (50+50)	25	25
Identification of opportunities for transfer of advanced technology among developing countries (ii)	50 (25+25)	10	15

a/ Lack of resources.

b/ Not specified in programme 8.b. 1990-1991.

c/ Updated.

d/ Postponed.

gramme 17/ resulted in a steady expansion of the programme during the biennium 1990-1991 and a marked increase in new requests for assistance from Governments of developing countries. The industrial investment assistance strategy adopted continued to emphasize the regional focus, the design and implementation of integrated technical cooperation programmes for the mobilization of investment resources, the development of bankable projects particularly concerning marketing, and related training. The biennium saw an increase in special-purpose contributions for industrial investment activities, which in the year 1991 amounted to \$5.7 million (6 per cent over 1990) (G.I.5.01(i)).

35. Activities in 1991 continued to be directed towards the priorities set in the medium-term plan, 1990-1995. 18/ Thus, with regard to human resource development, 40 delegates participated in the orientation programme implemented mainly at the UNIDO Investment Promotion Service (IPS) offices, and 13 training programmes were implemented in developing countries in investment project identification, formulation, screening, negotiation or promotion. The implementation of investment projects involves technology transfer through such means as the acquisition of new equipment, licensing and training of plant operators; with regard to the priority areas of industrial rehabilitation and small- and medium-scale industries development, assistance continued to be provided in the identification and promotion of investment projects for the setting up of new plants as well as the expansion or rehabilitation of existing ones. The average investment per project whose promotion was concluded in 1991 was \$5.4 million. In the area of environment and energy, 13 industrial plant profiles using environmentally acceptable technologies were prepared. Mobilization of financial and other resources for industrial investment was achieved through concluding the promotion by IPS offices and Headquarters, of 166 investment projects with a total investment of \$890 million. The promotion of an investment project is considered concluded when the foreign partner or the national investor have informed UNIDO that they have concluded a written agreement to cooperate in completing the project's preparation or in its implementation. Economic cooperation among developing countries is well illustrated by the participation of industrialists from developing countries as potential foreign investors/partners in UNIDO-organized investment forums, and their concluding business agreements with entrepreneurs from other developing countries. Finally, an assessment of women's needs in industrial investment in Guinea is a good example of efforts undertaken for the integration of women in

industrial development within the activities of the programme (G.I.5.01(i)).

36. The integrated technical cooperation activities carried out in developing countries within the industrial investment programme aimed mainly at (a) creating an environment conducive to attracting foreign investment resources; (b) mobilizing investment resources for specific private-sector small and medium industrial investment projects for the setting up of new plants and the expansion or rehabilitation of existing ones; and (c) encouraging national private investors to actively participate in their countries' development, especially by strengthening national institutions charged with undertaking these tasks. The foreign investment resources which the programme seeks to mobilize may include: equity, loan or other forms of traditional and non-traditional financing, technical or management expertise, the supply of equipment or technology (licensing), training, market access, etc. as well as financial resources and/or expertise for completing the preparation of the required pre-investment studies. These resources are mobilized through business-oriented cooperation agreements. Although the technical cooperation activities are undertaken at the request of the Governments of developing countries, throughout the design and implementation of these activities UNIDO's counterparts are private sector industrialists and their associations.

37. During 1991, the nine IPS offices continued to play a major role in supporting the implementation of the investment programme and other UNIDO technical cooperation programmes, especially in the promotion of investment projects, the hosting of delegates and the organization of country promotion presentations. An agreement was signed with the Government of Portugal to establish an IPS office in that country, while negotiations continued with the Governments of Czechoslovakia, Greece, the Islamic Republic of Iran and Turkey to establish IPS offices in those countries. 19/ Negotiations were also begun for the same purpose in Romania, Saudi Arabia, and the United Kingdom of Great Britain and Northern Ireland. The implementation of the delegates' programme within the IPS operation continued (see table 3) with funds drawn from a variety of sources including bilateral financing from developed and developing countries as well as from UNDP (G.I.5.02).

38. Implementation of technical cooperation programmes in the African region (G.I.1) for the mobilization of investment resources amounted to \$0.74 million (an increase of some 20 per cent over 1990). The status of the programmes at the end of 1991 was as follows: three national programmes completed in Nigeria, Senegal

17/ IDB.6/10, chap. III, para. 38; IDB.8/10, chap. III, para. 37.

18/ GC.3/17, chap. I, para. 23.

19/ IDB.8/10, chap. III, para. 38.

and Zambia, as well as two subregional programmes for the Economic Community for West African States and the Central African Customs and Economic Union respectively; the continued implementation of four programmes in Kenya, Madagascar, Uganda and Zambia; implementation begun of two new programmes in Madagascar and the United Republic of Tanzania; and 12 programmes formulated in response to official government requests and awaiting funding approval in Benin, Burkina Faso, Burundi, Djibouti, Ghana, Guinea, Guinea-Bissau, Madagascar, Nigeria (follow-up of the forum mentioned below), Rwanda and Senegal and the Organization of African Unity (G.1.1(i)). The programmes resulted in: the holding of two investment promotion forums, one national (Nigeria) and one subregional for the Central African Customs and Economic Union (Gabon); the implementation of 17 country promotion presentations (see table 4); seven delegates from Kenya, Madagascar, Mauritius and Zaire participating in UNIDO on-the-job orientation (delegates) programmes at IPS offices in Paris, Seoul, Tokyo and Zurich; and the identification of several hundred investment projects, of which 283 projects (with a total value of \$1,459 million) were selected and formulated into project profiles for promotion (G.1.1(i), (iii), (v)). The total number of investment projects whose promotion was concluded during 1991 was 47 with a total investment of \$64.3 million (G.1.1(iv)). The investment forum for Nigeria, which was organized in collaboration with several United Nations and other international, regional and national development organizations, was attended by 122 foreign participants from 28 countries and over 400 national investors who discussed 283 investment projects. The investment forum held in Gabon, organized in cooperation with the Central African Customs and Economic Union, the Economic Community of Central African States and the European Community Centre for the Development of Industry, was attended by 388 participants from 23 countries, who discussed 105 projects.

39. For the Asia and Pacific region (G.1.2) implementation of technical cooperation programmes for the mobilization of investment resources amounted to \$1.1 million. The status of the programmes at the end of 1991 was as follows: four programmes completed in Fiji, the Democratic People's Republic of Korea, the Philippines and Viet Nam; eight programmes under implementation in Bangladesh, Indonesia, the Democratic People's Republic of Korea, Nepal, the Philippines, and Sri Lanka and two for the region, the latter financed by Germany; three new programmes approved which became operational in China, Fiji and Viet Nam; and five new programmes formulated in response to official government requests in China, Fiji, Indonesia, Mongolia and Viet Nam, which were awaiting funding approval (G.1.2(i)). The programmes resulted in: the holding of three investment forums (Fiji, Sri Lanka and Viet Nam); the implementation of 41 country promotion presen-

tations (see table 4); 22 delegates from 10 Asian and Pacific countries participating in UNIDO on-the-job orientation programmes at IPS offices; and the identification of several hundred investment opportunities, of which 365 (with a total value of some \$1.1 billion) were selected and formulated into project profiles for promotion (G.1.2(iii)). The total number of investment projects whose promotion was concluded during 1991 was 45 with a total investment of \$210.5 million (G.1.2(iv)).

40. The Viet Nam Forum, held in March, was attended by 613 foreign participants who discussed 187 industrial investment projects: as of 1 October 1991 10 investment licences with a total value of \$176 million had been issued by the Vietnamese Government. The Sri Lanka Forum was attended by 138 foreign participants mostly from countries of the region, such as Australia, Japan, the Republic of Korea and Singapore, who discussed 69 investment project proposals. The Fiji Forum was attended by over 90 foreign participants, mainly from Australia, Japan and New Zealand; a total of 31 investment projects of a total of \$50 million were discussed, resulting in business agreements for six investment projects and the establishment of numerous business contacts for the export of Fijian products to the Asia and Pacific region as well as to Europe. Within the on-going programme in Nepal, agreements for the implementation of two investment projects were concluded between Indian and Nepalese partners, representing a total investment of \$66.4 million.

41. In the Arab countries, Europe and Mediterranean region, (G.1.4) implementation of technical cooperation programmes for the mobilization of investment resources amounted to \$183,000. The status of these programmes in the Arab countries at the end of 1991 was as follows: two new programmes were formulated for the Government of Sudan and the Arab Maghreb Union and a proposal for establishing an IPS office in Saudi Arabia was submitted for the Government's approval (G.1.4(i)). Five techno-economic investment profiles on industrial processes adapted to the needs of the Arab Gulf countries were prepared for the Gulf Organization for Industrial Consulting (GOIC) (G.1.4(ii)). In the Europe and Mediterranean region (G.1.4), one programme was under implementation for Turkey and one for Poland, and two programmes were under implementation for Eastern Europe, one for Czechoslovakia, Hungary, Romania and Poland financed by France and one for Czechoslovakia financed partly by UNDP and partly by special trust funds (G.1.4(i)). An investment forum was held in Czechoslovakia and two sectoral forums in Poland (G.1.4(iii)) - one for the food-processing industry and one for the construction industry. A meeting between Polish and United States potential partners was also held in Poland, while a workshop was held in Vienna for enterprise-to-enterprise cooperation in the agro-food sector between firms in Spain and in

Czechoslovakia, Hungary and Romania. An investors' guide was prepared for Czechoslovakia (G.1.4(ii)). During 1991, several hundred investment opportunities were identified in the Arab countries, Europe and the Mediterranean region, of which 362 (with a total value of \$2,287 million) were selected and formulated into project profiles for promotion. The total number of investment projects whose promotion was concluded during 1991 was 33, with a total investment of \$264.2 million (G.1.4(iv)).

42. In the Latin America and Caribbean region (G.1.3) implementation of technical cooperation programmes for the mobilization of investment resources amounted to \$1.0 million in 1991. The status of the programmes at the end of 1991 was as follows: five programmes were completed, two in Bolivia, two in Ecuador and one in Uruguay; two national programmes and one subregional programme under implementation in Bolivia, Ecuador and the Andean group of countries; four new programmes approved with implementation being initiated in Argentina (two), Ecuador and the Latin American Association of Development Financing Institutions; and, in response to official government requests, 17 national programmes formulated in Barbados, Bolivia, Brazil, Costa Rica, Cuba, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Nicaragua, Paraguay, Peru, Trinidad and Tobago, Uruguay and Venezuela amounting to \$5,697,700 and one subregional programme formulated for Central American countries amounting to \$1,935,000 (G.1.3(i)). The programmes resulted in: the holding of five investment meetings between selected partners - Venezuelan and North American partners; Ecuadorian and French; Bolivian and North American; Bolivian and Spanish; and partners from the Andean Group and from Europe, North America and Asia - and the implementation of 27 country promotion presentations (see table 4) (G.1.3(iii)). Seven Latin American nationals - from Argentina, Bolivia, Chile, Costa Rica, Ecuador and Mexico - participated in the on-the-job orientation delegates' programme of the IPS offices. During 1991, several

hundred investment opportunities were identified, of which 157 (with a total value of some \$680 million) were selected and formulated into project profiles for promotion. The total number of investment projects whose promotion was concluded during 1991 was 41, with a total investment of \$350.8 (G.1.3(iv)). Furthermore, 10 export agreements for different products were concluded.

43. Within the interregional activities, a pilot technical cooperation project was started in 1990, under which staff members of development finance institutions were invited as ad hoc consultants (travel cost and per diem paid, but no fee) to participate in the identification of investment opportunities for financing by one or more such development finance institutions. The sectoral approach to investment resource mobilization ^{20/} continued to be maintained in 1991 through the implementation of two interregional technical cooperation programmes: (a) the agro-based industries programme, financed by France since 1989 for food industries, which was extended in 1991 to include the wood industry and biotechnology (under that programme, investment project identification missions were undertaken to China, Hungary, India, Indonesia, Poland and Viet Nam and five investment projects were concluded in Bolivia and Ecuador); and (b) the building materials programme, financed by Belgium and France, to identify and promote investment projects in Africa (G.1.5.01(i)).

44. As part of the tools developed to improve the formulation of investment projects suitable for promotion, ^{21/} guidelines for the preparation of industrial investment project profiles were prepared in 1991 for use by member countries and by in-house staff as well as consultants.

^{20/} IDB.6/10, chap. III, para. 44; IDB.8/10, chap. III, para. 44.

^{21/} IDB.8/10, chap. III, para. 45.

Table 3

Significant performance indicators:
Industrial investment programme
 (G.1.1, G.1.2, G.1.3, G.1.4)

	Planned 1990-1991	Achieved c/	
		1990	1991
Technical cooperation programmes (i)	48	35	28
Africa	16	12	12
Asia and the Pacific	12	5	6
Latin America and the Caribbean	12	8	6
Arab, Europe and Mediterranean	8	10	4
Global and Interregional	-	10	5
Investors' guides for specific countries (ii)	a/	19	6
Africa		16	3
Asia and the Pacific		1	2
Latin America and the Caribbean		-	-
Arab, Europe and Mediterranean		2	1
Investment opportunities identified and formulated for promotion (iii)	790	1,294	1,261
Africa	260	179	283
Asia and the Pacific	200	401	459
Latin America and the Caribbean	200	215	157
Arab, Europe and Mediterranean	130	379	362
Investment projects whose promotion was concluded (iv)	180	170 (\$699)	166 (\$890)
Africa	60	52 (\$138)	47 (\$64)
Asia and the Pacific	45	32 (\$115)	45 (\$211)
Latin America and the Caribbean	45	65 (\$278)	41 (\$351) d/
Arab, Europe and Mediterranean	30	21 (\$168)	33 (\$264)
Investment forums	a/	7	15
Africa		2	2
Asia and the Pacific		1	3
Latin America and the Caribbean		1	5
Arab, Europe and Mediterranean		3	5
Country promotion presentations b/ for:	a/	63	99
Africa		8	17
Asia and the Pacific		32	41
Latin America and the Caribbean		12	27
Arab, Europe and Mediterranean		11	14
Participants in IPS delegates' programme from:	a/	32	40
Africa		3	7
Asia and th. Pacific		23	22 e/
Latin America and the Caribbean		5	7
Arab, Europe and Mediterranean		1	4

a/ Not quantified in the 1990-1991 programme and budgets.

b/ See also table 4.

c/ Dollar figures are in millions.

d/ The estimated total investment of one of these 41 projects is \$182.9 million.

e/ Some of these delegates spent shorter periods (2-6 months) at IPS offices than the usual one year or more.

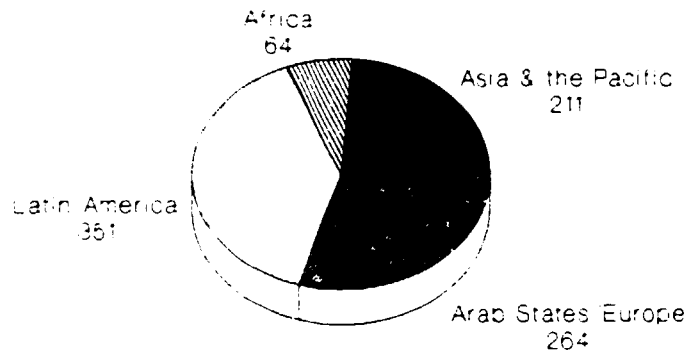
Table 4

Country promotion presentations organized by UNIDO in 1991

Country promoted	Venue	Number of presentations
Algeria	France	1
Argentina	Italy	1
Bangladesh	Japan (3), Republic of Korea, Hong Kong, Singapore	6
Bolivia	France (2), Germany (2), Italy, Japan, Mexico, Republic of Korea	8
Brazil	Italy	1
Chile	Italy	1
China	France, Germany (4), Italy	6
Colombia	France, Japan, Republic of Korea	3
Congo	France	1
Czechoslovakia	Austria, France, Germany (4), Italy (2), Republic of Korea	9
Ecuador	France (2), Japan, Republic of Korea	4
Hungary	Italy, Switzerland	2
India	France (5), Italy	6
Kenya	Japan (2)	2
Malaysia	Italy (2)	2
Madagascar	Belgium, France (4), Germany (2), Italy	7
Mauritius	France (2), Japan	3
Mexico	France	1
Nepal	Germany (3), India, Hong Kong, Singapore, Thailand	7
Nigeria	Austria, Japan (2)	3
Peru	France, Japan, Republic of Korea	3
Philippines	France (3)	3
Poland	Italy	1
Romania	France	1
Sri Lanka	Republic of Korea, Hong Kong, Singapore	3
Thailand	Switzerland	1
Venezuela	France, Italy, Japan, Republic of Korea, Venezuela	5
Viet Nam	France (2), Germany (3), Italy, Japan	7
		98

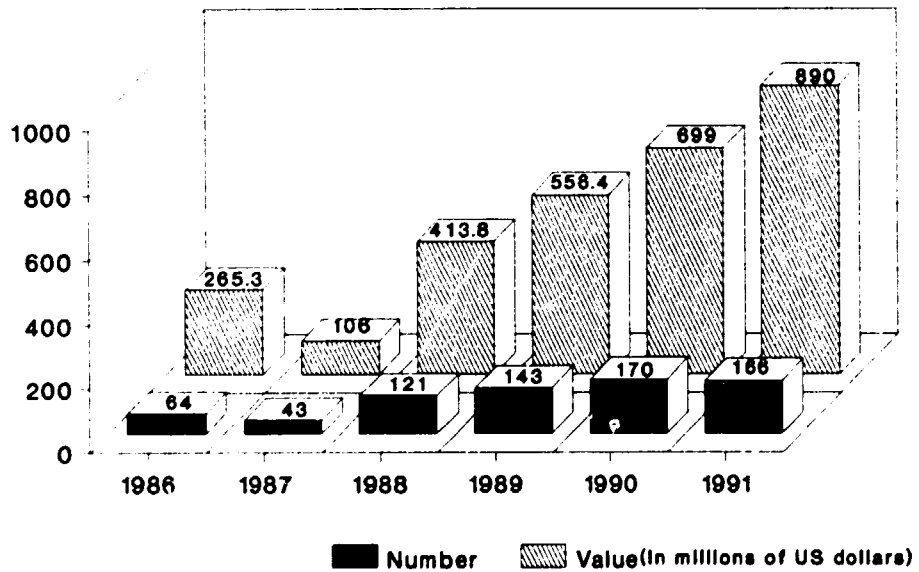
Total: 28 countries promoted at 98 presentations held in 14 countries.

Investment projects concluded in 1991, by region



(In millions of US dollars)

Investment projects concluded, 1986-1991



CHAPTER IV. SPECIAL THEMES

INDUSTRIAL DEVELOPMENT DECADE FOR AFRICA

1. During the biennium 1990-1991, the major feature of the work of the Secretariat under programme element E.2.8.02 was the preparation of the programme for the Second Industrial Development Decade for Africa (IDDA) proclaimed by the General Assembly in resolution 44/237 of 22 December 1989. That work culminated in the adoption of the programme by the Conference of African Ministers of Industry at its tenth meeting held in Dakar, Senegal, in July 1991. The programme, which consists of 50 national programmes and four subregional programmes, was also subsequently adopted by the General Conference of UNIDO at its fourth session (resolution GC.4/Res.8). The United Nations Economic and Social Council at its sixty-first session and the General Assembly at its forty-sixth session, also adopted resolution 1991/81 and decision 46/458 respectively on the Second IDDA.

2. Continued assistance was provided to African countries and intergovernmental organizations using the total amount of \$8.6 million allocated for the IDDA in the 1990-1991 budget. Of these, \$3.85 million were allocated to the technical cooperation component of the Decade and \$4.75 million to the supplementary activities component. Under the latter component, the main achievement in 1991 was the support provided to 37 African countries in the elaboration of their national programmes through the services of international consultants, experts of ongoing UNIDO projects or staff members who worked in close cooperation with the national experts recruited by the Economic Commission for Africa (ECA) for the same purpose. Subregional organizations were also assisted for the preparation of their respective programmes for the Second IDDA on the basis of the results of meetings organized and financed by UNIDO and held in cooperation with ECA. One such meeting was held for the Eastern and Southern African subregion at Kampala, Uganda, from 13 to 16 March 1991, while preparations started for two meetings to be held in 1992, one for the Western African subregion and another for the Central African subregion (E.2.8.02(iii), (xii)).

3. The national and subregional programmes provided the basis for the elaboration of the consolidated programme for the Second IDDA mentioned in paragraph 1 above. A first draft of the programme was prepared jointly by the secretariats of the Organization of African Unity (OAU), ECA and UNIDO based on a document elaborated by UNIDO and circulated

at the end of March 1991. The draft was reviewed by the Working Group of Governmental Experts established for that purpose by the Conference of African Ministers of Industry (CAMI) in its resolution 2(IX). The Group finalized it for submission to the Intergovernmental Committee of Experts of the Whole on Industrialization in Africa and the Conference of African Ministers of Industry (E.2.8.02(i), (x), (xi)), the three main outputs of which were the programme for the Second IDDA, the African Common Position for the fourth session of the General Conference of UNIDO and the Dakar Declaration on Industrialization and Economic Integration in Africa for the 1990s.

4. Under the technical cooperation component of IDDA, a total of 37 projects valued at \$4.69 million were approved during the biennium, mainly in the priority areas of agro-industries and agro-related industries. Of these, projects had been implemented at the end of the biennium at a value of \$4,226,787.

5. Particular emphasis was placed on the mobilization of financial and technical support for the activities of the Second IDDA. The activities of the Industrial Partners Programme for Africa 1/ were significantly intensified, with the continuing objective of promoting investment partnerships between companies in the United States of America and entrepreneurs in Cameroon, Ghana, Kenya, Nigeria and Senegal, as well as facilitating the creation of institutional linkages and the transfer of technology between the United States and Africa. A major achievement of that programme was the establishment of a private non-profit organization, the African Business Development Centre, at Atlanta, Georgia, whose aim is to facilitate the development of investment relationships between partners in Africa and the south-eastern United States. (E.2.8.02(iv))

6. UNIDO initiated consultations with the World Bank and the United Nations Development Programme (UNDP) in order to secure the coordination of the programme for the Second IDDA with the structural adjustment programmes and the national long-term perspective studies, as well as the intercountry programmes for both the fifth and sixth UNDP programming cycles. In that context, the objectives of the Second IDDA have been accorded high priority in the fifth intercountry programming cycle (1992-1996) of UNDP. Consultations were also intensified with other development assistance institutions,

1/ IDB.8/10, chap. IV, para. 1.

including the African Development Bank and the European Development Fund, and United Nations organizations such as the Food and Agriculture Organization of the United Nations (FAO) and the United Nations Conference on Trade and Development (UNCTAD). Based on the positive and encouraging responses received, preparations started at the end of 1991 for a consultative meeting with a number of institutions in order to secure their full involvement and participation in the preparation and implementation of the programme for the Second IDDA.

7. Details of many activities carried out in 1991 under programme element E.2.8.02 can be found in other parts of the present document, e.g. programming exercises conducted for African countries (vii) as reported in chapter II.B, paragraph 20, a number of industry-wide studies finalized or under implementation at the national, subregional and regional levels (xiii) as reported in chapter II.A, paragraphs 2 to 8; the holding of the Constitutive Assembly of the African Iron and Steel Association (vi), as reported in paragraph 22 below; and the preparation of integrated programmes on agro-industries and related subsectors (viii), as reported in chapter II.B.I, paragraph 20. Some of the activities under programme element E.2.8.02 could not be implemented owing to financial constraints, e.g. the expanded version of the industrial map of Africa (ii); meetings on the promotion of small- and medium-scale industrial enterprises (v); and national/subregional workshops on industry-wide studies (ix).

ASSISTANCE TO THE LEAST DEVELOPED COUNTRIES

8. The beginning of the decade marked an intensified effort to respond to the Paris Declaration and the Programme of Action for the Least Developed Countries for the 1990s. As a follow-up, a set of studies on industrialization problems in the least developed countries (LDCs) were prepared. At a workshop held in Vienna in August with the financial support of one donor Member State, experts from the 42 LDCs, representatives from United Nations bodies and specialized agencies and non-governmental organizations were invited to review and discuss the studies in order to make recommendations for the development of a strategy for the industrialization of the least developed countries in the 1990s. The proposals of the workshop for an industrial action plan for the LDCs are contained in document GC.4/40.

9. In conjunction with the fourth session of the General Conference, a ministerial-level Symposium on the Industrialization of the Least Developed Countries was held from 14 to 22 November. The symposium, attended by 45 LDC representatives, finalized an industrial action programme for LDCs which, based on the complementarity of partnership

between UNIDO and the LDCs, defines the role of UNIDO in its assistance strategy and the commitment of LDCs in their industrialization efforts. The symposium drew up a resolution which was unanimously adopted by the General Conference (GC.4/Res.10).

10. A focus of the current operational activities of UNIDO in LDCs is the promotion and enhancement of the private sector with special emphasis on support actions leading to the development of a dynamic small- and medium-scale industrial sector. For the African LDCs the main issues of technical cooperation activities relate to maintenance and rehabilitation of industrial production equipment, development of new and appropriate technologies, human resource development and upgrading of national capabilities, valorization of natural resources, export promotion through products quality improvement and standardization, creation of export processing zones and strategic management of the industrial sector.

11. As one of the components of the Special Programme for the Industrial Development of Asia and the Pacific, a regional project proposal to promote agro-related metalworking industries was prepared in cooperation with the Economic and Social Commission for Asia and the Pacific (ESCAP). Preparatory activities for a similar process in the agro- and food-processing industries will be continued in 1992.

12. Under the framework of the seed programme for African LDCs, preparations were under way to hold an expert group meeting at Segou, Mali, on the promotion of the traditional textile industry to prepare an improved infrastructure for this sector capable of responding to the international demand.

13. New approvals generated for LDCs in 1991 amounted to \$11.02 million (1990: \$16.68 million) representing 56 projects, while net approvals amounted to \$19.03 million (1990: \$26.35 million). Delivery reached a level of \$22.29 million (1990: \$22.05 million). In the context of the preparation of the UNDP fifth cycle (1992-1996), country programme reviews and/or programming missions were sent to Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Nepal, Niger, Sao Tome and Principe, Togo and Uganda. Mid-term reviews for the fourth cycle took place in Botswana, Lesotho, Malawi and Uganda.

14. A number of activities related to economic cooperation among developing countries (see para. 17 below) continued to focus on the problems of LDCs such as a solidarity meeting for cooperation in the industrial development of Botswana held at Gaborone in October, and a meeting on the promotion of joint ventures among Islamic countries held at Karachi, Pakistan, in November, at which seven LDCs (Comoros, Djibouti, Maldives, Sierra Leone, Sudan,

Uganda and Yemen) submitted projects for cooperation with more developed Islamic countries and financial institutions. As a follow-up to the previous promotional activities, some concrete projects and activities were either initiated or implemented such as cooperation between: China and Guinea for preservation of vegetables; Burundi and Morocco in the handicrafts sector; Ethiopia and Romania in the chemical industry; Cape Verde and Thailand in aquaculture; Argentina, Brazil and Cape Verde in the field of tannery.

15. Of the three workshops forecast in programme element (E.2.8.03(i)) on identification, design, appraisal, monitoring and evaluation of technical cooperation projects which were postponed in 1990, 2/ were held in 1991: one for African English-speaking LDCs held in Malawi in May, and one for Asian LDCs held in Nepal in September/October.

INDUSTRIAL COOPERATION AMONG DEVELOPING COUNTRIES

16. Reflecting concern by Member States for the future direction of the UNIDO programme in support of economic and technical cooperation among developing countries (ECDC/TCDC), 1991 was a year of stocktaking and preparing a coherent approach to the future. It saw acceptance by the General Conference (resolution GC.4/Res.11) of a framework for a UNIDO-wide programme in the 1990s, whose 12 objectives anchor TCDC programming and project development in the priorities of the medium-term plan.

17. The second of the two Solidarity Meetings 3/ planned for the 1990-1991 biennium for the benefit of LDCs was held in Botswana in October (E.2.7.01(i)). The meeting, attended by representatives from Brazil, China, India, Pakistan, Romania, Thailand, Turkey and Yugoslavia, examined more than 30 projects submitted by the local private and public sectors. Potential ECDC and TCDC projects covered cement, chemical, engineering and leather industries and featured training, delivery of equipment or transfer of technology and know-how.

18. Activities under the regional/subregional programme to promote industrial joint ventures among enterprises (E.2.7.01(iii)) were completed with follow-up activities to the October 1990 meeting for countries of the Arab Maghreb Union (AMU) held in Tunisia. 4/

In particular, an umbrella project covering cooperation among AMU members in engineering, pharmaceuticals, textiles and leather, informatics and electronics, and agro-based industries was submitted for funding by UNDP. The outcome of the project assessment meeting 4/ (Turkey, March 1990) led to a feasibility study for the setting up of a textile mill in Bangladesh in cooperation with Turkey. A second joint venture meeting among Islamic countries was held at Karachi in November 1991. Organized jointly by UNIDO, the Islamic Chamber of Commerce and the Federation of Pakistan Chambers of Commerce and Industry, the meeting examined some 80 project profiles submitted by Comoros, Djibouti, Maldives, Nigeria, Sierra Leone, Sudan, Uganda and Yemen. The meeting brought together industrial promoters from less developed Islamic countries as well as representatives of chambers of commerce and industry, industrial associations, banks and others.

19. The planned programme on cooperative arrangements in selected engineering industries in Latin America 4/ (E.2.7.01(iv)) was the subject of a seminar on cooperation arrangements, which was also the first activity under the Regional Programme on Industrial Automation of the Capital Goods Sector of Latin America (see chap. II, para. 38). Noting that intraregional cooperation of all kinds was weak in the capital goods sector, the meeting called for action to make cooperation a strategic component of development with joint efforts in training, financing, R and D, access to specialized information, direct assistance to companies and management development.

20. Of the six technical workshops planned for the biennium (E.2.7.01(v)) four were completed in 1991 with enterprise-to-enterprise cooperation meetings on machine tools (Fes, Morocco), process technology of petrochemical industries (Cairo, Egypt), 5/ agricultural machinery (Beijing, China) and agro-based industries (Izmir, Turkey). Preparations were also initiated for a workshop on industrial utilization of medicinal plants in Guatemala to be held in April 1992. As a follow-up to an interregional workshop on industrial utilization of medicinal plants (China, October 1990), 6/ China accepted four experts of the Democratic People's Republic of Korea to conduct a study tour and provide training under a UNIDO project.

21. Further operational projects 7/ were implemented as follow-up to promotional meetings or on request of Governments (E.2.7.01(vi)). As a follow-up to the

2/ Ibid., para. 11.

3/ Ibid., para. 13.

4/ Ibid., para. 15.

5/ Ibid., para. 16.

6/ Ibid.

7/ Ibid., para. 17.

Guinea Solidarity Ministerial Meeting (December 1989). China made a grant to the Guinea Women Entrepreneurship Association covering acquisition and installation of vegetable drying equipment. China is also to supply equipment and technical expertise on time and frequency standards to the national standards institution in Fiji. In both cases, UNIDO is to provide catalytic support. As a follow-up to an inter-regional workshop on industrial utilization of medicinal plants (China, October 1990), two Chinese experts visited Turkey in September to give lectures on technologies and equipment and to develop joint research projects. Likewise, 35 Indonesian experts attended the International Congress on Agricultural Medicine and Rural Health in November, and later took part in a study tour of China's herbal medicine factories. Three Ethiopian industrial promoters visited Egypt to negotiate further on projects discussed at the Ethiopia Solidarity Ministerial Meeting (November 1990). Preparations were made to send four Burundi promoters from the handicraft industry to Morocco for training. As a follow-up to the Cape Verde Solidarity Ministerial Meeting (June 1988), Brazil and Argentina agreed to host a study tour for Cape Verde tannery developers and Thailand shared its experience in pilot plant aquaculture. Brazil, Colombia and the Dominican Republic offered training and expertise to assist the start-up of an industrial free zone in Peru. Brazil and Cuba shared their experience in sugar-cane processing with Philippine experts responsible for a sugar-cane R and D centre at Manila. Members of the Zimbabwe Women's Finance Trust visited Ghana, Senegal and Uganda to study women's credit and business organizations promoting small manufacturing enterprises, and examine related training programmes.

22. Within the programme to develop mechanisms and services for industrial cooperation among developing countries, the UNIDO-promoted Constitutive Assembly for the Establishment of the African Iron and Steel Association was held in December at Algiers, Algeria (E.2.7.01(vii)). Another mechanism - formal country-UNIDO agreements on ICDC - was discussed with Brazil, and a consultant was sent to Botswana, Lesotho and Zambia to identify cooperation with Brazilian institutions in human resource development. Similar arrangements on ICDC were also discussed with China and the Republic of Korea (E.2.7.02(i)). A project was approved to establish a unit in India to survey and document India's ICDC capacities in order to promote similar action in other countries (E.2.7.02(iii)). Under the programme to develop an ECDC information service, 8/ equipment was installed for the UNDP-developed information referral system (INRES-South) database of developing countries' institutional capabilities in training and expertise. At

UNIDO's request, work was completed on adapting the software to allow compilation and printing of special compendiums. Agreement was reached with UNDP to add a technology dimension to the system, so adapting it to UNIDO's needs (E.2.7.02(ii)). Inventories of national capacities and capabilities for industrial cooperation with developing countries were completed in Egypt and Turkey (E.2.7.02(iii)). The subject of co-operation in the field of capital goods production, procurement and export marketing (E.2.7.02(iv)) was covered in the Regional Programme on Industrial Automation of the Capital Goods Sector of Latin America (see para. 19 above). Concerning the report on multinational production enterprises (E.2.7.02(vii)) and the compilation and exchange of information for the processing of raw materials (E.2.7.02(vi)), action was initiated but not completed owing to financial and staff constraints.

23. In the area of coordination, monitoring and promotion of ECDC activities (E.2.7.03), work was initiated on following up the regulatory framework (see para. 16 above). UNIDO continued to maintain contact with the regional economic commissions, in one case resulting in financial support from ESCAP for participants from the region to attend the UNIDO Meeting on Industrial Cooperation among Developing Countries in the field of Agricultural Machinery held in China (see para. 20 above). The production of the ICDC newsletter and brochures (E.2.7.03(ii)) were postponed owing to lack of staff resources.

24. Priority continued to be given to the recruitment of experts from developing countries for technical cooperation projects in line with General Conference resolution GC.3/Res.9, paragraph 6, and Board decision IDB.6/Dec.11, paragraph (c). (See chap. VII, table 6)

25. The policy of increasing the use of the services of organizations, institutions and experts from developing countries was also continued. Similar efforts were made on the equipment purchasing side. Nevertheless, as explained in the 1990 Report, much of what developing countries required was still not available in such countries. 9/ Despite this, an improvement was again observed during 1991 (see chap. VII, para. 27) in the orders for equipment placed with vendors and manufacturers in developing countries.

INTEGRATION OF WOMEN IN INDUSTRIAL DEVELOPMENT

26. In 1991, implementation of the UNIDO programme for the integration of women in

8/ Ibid., para. 19.

9/ Ibid., para. 23.

industrial development 1990-1995 (PPD.134/Add.1(SPEC.1)) continued to focus on a number of measures aimed at ensuring that women are increasingly considered as contributors and beneficiaries of UNIDO activities in line with programme element E.4.5.01(i). This work was supported by continued research and the further expansion of a database (E.4.5.01(v)). 10/

27. The reference file on the consideration of women in project design, management and evaluation was completed and issued as a third volume of the UNIDO project design reference file. It will assist UNIDO headquarters and field staff to systematically address the role of women in all stages of the project cycle, particularly in the priority sectors stipulated in the medium-term plan 1992-1997 (PBC.7/17). In addition, a guide on the consideration of women in indicative integrated development programmes was prepared (E.4.5.01(iv)). A number of workshops were held to familiarize headquarters staff with the tools developed, and a one-day training workshop on women in development was organized in Vienna for a group of UNIDO Country Directors in conjunction with their participation in a workshop on environmental issues. The role of women in project design was addressed in regional workshops on design, appraisal, monitoring and evaluation of technical cooperation projects for LDCs organized in Malawi and Nepal. (E.4.5.01(ii))

28. To ensure that the role of women in industry is addressed as an integral part of UNIDO research, an expert on women in industry has been attached to the Human Resource Study Unit of the Regional and Country Studies Branch. In cooperation with other UNIDO staff, a typology analysis of the participation of women in the manufacturing sector of developing countries was undertaken and a study on women's role in fisheries industries was carried out. Likewise, to ensure the consideration of women in industrial sector inputs for the fifth country programming cycle of UNDP (1992-1996), experts on women in development were attached to country programming missions (i.e., Burundi, Ghana, Niger, Nigeria and Sierra Leone) and to industrial sector review missions (Republic of Korea and Togo). A specialist on women in development participated in a mission on an integrated development programme for Namibia's fisheries industrial system. Again, to ensure consideration of women during project implementation, experts on the subject were attached to a regional scheme on the improvement of hides and skins, leather and leather products in Africa, and to a project in Madagascar identifying areas requiring assistance for women in small- and medium-scale industries. (E.4.5.01(i))

29. In response to Government requests, exploratory missions to Morocco and Zaire were carried out to review the situation of women in the industrial sector. An exploratory mission was also undertaken to China and as a result UNIDO will develop a management/entrepreneurship training programme for women entrepreneurs in China. To disseminate the UNIDO training programme for women entrepreneurs in the food-processing industry, 11/ an exploratory mission was carried out to Guatemala and to Honduras, and as a result a regional project proposal has been drawn up in cooperation with the Instituto de Nutrición de Centro América y Panamá. Similar activities have been initiated on behalf of Gambia and the United Republic of Tanzania. (E.4.5.01(ii))

30. Cooperation with organizations of the United Nations system was intensified: with the United Nations Development Fund for Women (UNIFEM) on the elaboration of a UNIFEM policy on women in industry in the course of an expert group meeting held at New Delhi, India; with the International Research and Training Institute for the Advancement of Women (INSTRAW) through participation in a consultative meeting of experts on macro-economic analysis for women's participation in the informal sector; and with FAO in connection with inter-agency consultations on statistics and database on gender in agriculture and rural development. UNIDO also cooperated with the Division for the Advancement of Women of the United Nations Centre for Social Development and Humanitarian Affairs, and with UNDP in the organization of a regional seminar on the impact of economic and political reform on the status of women in Eastern Europe and the former Union of Soviet Socialist Republics and the role of national machinery in that respect. Cooperation with the International Fund for Agricultural Development related to the preparations for a summit meeting on the economic advancement of rural women due to be held in February 1992. For that purpose UNIDO attended consultations on the subject at San José, Costa Rica, for Latin America and the Caribbean; at Dakar, Senegal, for French-speaking Africa; at Kuala Lumpur, Malaysia, for Asia and the Pacific; and at Rome, Italy, at the international level. (E.4.4.01(iii))

31. Cooperation continued with national and international non-governmental organizations and research institutes dealing with women in development, such as the Korean Women's Development Institute in the Republic of Korea, the Kitakyushu Forum on Asian Women in Japan, and the Asian and Pacific Development Centre in Malaysia. In cooperation with the International Federation of Business and Professional Women, UNIDO organized a workshop on women's participation in industrial

10/ Ibid., para. 25.

11/ Ibid., para. 27.

policy- and decision-making in Latin America at Buenos Aires, Argentina, and participated in the twentieth Congress of the Federation in Nairobi. UNIDO was invited to participate in two meetings of the Club of Rome to strengthen a gender focus in the Club's economic and social research. A brief guide to women's access to credit in UNIDO projects was prepared in collaboration with the Women's World Banking Organization.

COOPERATION WITH INDUSTRIAL ENTERPRISES AND NON-GOVERNMENTAL ORGANIZATIONS

32. The enterprise-to-enterprise programme as well as the programme for cooperation with non-governmental organizations (NGOs) were further consolidated during the 1990-1991 biennium. In 1991 UNIDO further developed cooperation with industrial enterprises from developed and developing countries both in the public and private sectors of industry, in accordance with its mandate. Western companies showed their increased willingness to cooperate with their counterparts in developing countries and Eastern and Central Europe. In that connection, individual companies and groups of enterprises visited UNIDO to discuss possibilities for cooperation, particularly in the light of developments taking place in Central and Eastern Europe while companies from the former Union of Soviet Socialist Republics, for example, explored possibilities for private sector development through UNIDO. As a result of the intermediary role played by UNIDO, the enterprise-to-enterprise cooperation programme gained further recognition as an appropriate conduit for global cooperation (E.4.2.01).

33. The success of the enterprise-to-enterprise cooperation programme ^{12/} was further illustrated by the high level of activity carried out by the UNIDO Centres for International Industrial Cooperation located at Beijing, China, and Moscow, the Russian Federation, which consolidated their operations during 1991 (E.4.2.01(i)). The main function of the Centres is the promotion of industrial cooperation at all levels, between foreign partners from developed and developing countries on the one hand and industry in China and the Russian Federation respectively on the other. Foreign experts assigned to the Centres under trust fund agreements at the end of 1991 included four from France, Japan, the Republic of Korea and the United States of America assigned to Moscow, and three experts from Denmark, the Republic of Korea and Spain assigned to the Beijing Centre. At the two Centres a wide range of industrial projects ranging from transfer of

technology and foreign investment to the training of personnel were identified and promoted (E.4.2.01(ii)). The two UNIDO Centres, however, do not restrict their activities to inward investment; they are instrumental in identifying and promoting those technologies available in China and the Russian Federation that are suitable for transfer to developing countries. During 1991 both Centres were active in the promotion of joint ventures between industry in their countries and partners from the developing world. (E.4.2.01(ii); E.4.2.02(ii))

34. A voluntary contribution from the Government of Austria enabled UNIDO to organize a Workshop on Maintenance and Manufacturing of Permanent Way (Railway Material) at Innsbruck and Vienna, Austria, in close cooperation with the Austrian Society for Traffic and Transport Science (OEVG). Seventeen participants from developing countries took part in the workshop, which was held within the framework of the 11th OEVG International Permanent Way Convention, attended by more than 500 participants from 43 countries. Similarly, a trust fund concluded with the Engineering Consulting Firms Association of Japan was earmarked for conducting a pre-investment study on a free economic zone in the Primorsky (Vladivostok) region of the Russian Federation (E.4.2.01(iii); E.4.2.02(ii); E.4.2.03(i)).

35. The Industrial Partnership and Cooperation for Development Scheme, ^{13/} a three-year pilot project financed by Germany from its contribution to the Industrial Development Fund, neared completion in 1991. The scheme was designed to provide assistance to urgent requests received from small-scale industries, rural development projects and cooperatives in developing countries. Some 25 projects were implemented with the funds available for 1991, including short-term expertise provided to enterprises in a wide variety of industrial fields, training fellowships and study tours. Basic equipment for a quality control centre for a group of metalworking cooperatives in Turkey was also provided under the scheme. For many of the beneficiary enterprises, the UNIDO assistance represented their only opportunity to improve their operations. The results of this pilot project strengthened UNIDO's mandate to cooperate with the private and public sectors of industry (E.4.2.01(i), (ii); E.4.2.02(ii)). The roster of business and industrial institutions and enterprises willing to cooperate with UNIDO that was set up in 1988 ^{14/} continued to be maintained and provided a useful tool for developing contacts with those organizations (E.4.2.02(i)).

^{12/} IDB.6/10, chap. IV, para. 34; IDB.8/10, chap. IV, para. 32.

^{13/} IDB.8/10, chap. IV, para. 34.

^{14/} IDB.5/10, chap. IV, para. 30.

36. Cooperation with national and international NGOs continued during 1991. At its eighth session, the Industrial Development Board granted consultative status to eight international NGOs (decision IDB.8/Dec.40), bringing to 93 the number of NGOs having consultative status with UNIDO. A directory of these organizations was published in 1991 with the aim of facilitating contacts not only between NGOs and UNIDO but also among NGOs working in similar fields. (E.4.2.03(ii), (iii))

ENVIRONMENT

37. During the biennium 1990-1991, UNIDO made significant efforts to incorporate environmental concerns into its activities in line with the UNIDO environment programme and its four subprogrammes (IDB.6/3, paras. 3 to 28) approved by the Board in 1990 (IDB.6/Dec.7). In accordance with subprogramme I (enhancing the capacity of UNIDO staff to render industry-related assistance with regard to the environment) training continued apace in 1991, with basic and in-depth courses being offered at Headquarters several times throughout the year. A special course was designed for a group of UNIDO Country Directors; another group will be trained in 1992. The monthly Environment Awareness Bulletin continued to be published, and the series of environmental awareness seminars were also continued during 1991. 15/

38. Under subprogramme II (assistance to developing countries in formulating industry-related environmental policies and legislation) activities which pre-dated the environment programme were strengthened and consolidated during the biennium, while new activities were developed. An exemplary project was implemented in Montenegro, Yugoslavia, which included an assessment and evaluation of the environmental impact of existing industrial activities in the country, as well as proposals to correct existing problems and prevent further environmental degradation. Environmental appraisal guidelines were completed in June and issued as volume II of the Project Design Reference File (see chap. V, para. 7). They provide guidance for the introduction of environmental considerations in all UNIDO technical cooperation projects.

39. Technical cooperation projects falling within subprogrammes III (promotion of clean technologies) and IV (pollution abatement) increased sharply. "Cleaner production", the new term used by UNIDO to describe such projects, is the conceptual

and procedural approach to production that demands that all phases of the life-cycle of products must be addressed with the objective of preventing or minimizing short- and long-term risks to humans and the environment.

40. The UNIDO Conference on Ecologically Sustainable Industrial Development (ESID) 16/ (14-18 October, Copenhagen) was attended by 94 countries, as well as international organizations, representatives of industry and non-governmental organizations. It was funded mainly by the Government of Denmark with contributions also from Norway and the European Community. The Conference was divided into two parts: (a) the ministerial conference itself, which adopted conclusions and recommendations to guide the work of UNIDO and to provide an input on the subject of industry to the United Nations Conference on Environment and Development to be held in Brazil in June 1992; and (b) a series of five technical symposiums that outlined specific proposals for enhancing environmental sustainability in the alumina, leather, plastics and plastics waste recycling, tanning and phosphate fertilizers subsectors. The conclusions and recommendations of the ESID Conference (GC.4/25/Add.1 and Corr.1), which also call for government, industry and international cooperative actions to support sustainable development, will provide a basis for the update of the UNIDO environment programme which, in accordance with General Conference resolution GC.4/Res.18, is to be submitted to the Board at its tenth session. Those conclusions and recommendations will also be integrated into the various priority areas of the forthcoming medium-term plan.

41. There was an increase in the participation of UNIDO in various inter-agency coordination activities on environmental issues. Examples are the United Nations Inter-agency Task Force on Chernobyl, and the United Nations Inter-agency Plan of Action for the ROPME (Regional Organization for the Protection of the Marine Environment) Region 17/ under which UNIDO implemented a project on hazardous waste management in Kuwait and has drawn up proposals for three follow-up projects. Work with specific agencies included a project undertaken with the World Bank to update its environmental guidelines, under which entries on 50 to 60 industrial subsectors will be rewritten to incorporate waste minimization and pollution prevention principles. In July, the Informal UNIDO/United Nations Environment Programme/World Health Organization/FAO Working Group on Biosafety completed its biosafety guidelines, as well as a Voluntary Code of

16/ IDB.8/10, chap. IV, para. 39.

17/ GC.4/25, para. 14. The ROPME Region consists of: Bahrain, Iran (Islamic Republic of), Iraq, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates.

15/ For more details on the implementation of subprogramme I, see GC.4/25, paras. 3-5.

Conduct for the Release of Organisms into the Environment. As part of the World Health Organization/International Atomic Energy Agency/UNIDO/United Nations Environment Programme Working Group on Integrated Risk Management, UNIDO participated actively in an expert group meeting held in November to finalize a procedural guide on the subject for dissemination to interested countries.

42. The following are some examples of collaboration with UNEP in 1991: contribution, through the Television Trust for the Environment, to a documentary on sustainable industrial development; three courses of the UNIDO International Centre for Genetic Engineering and Biotechnology co-sponsored by UNEP; hosting by the Industry and Environment Office (IEO) of UNEP in Paris of an expert group meeting on the preparation of a UNEP/UNIDO audit and reduction manual for industrial emissions and waste which was published in November; joint publication with IEO of a volume on the tanning sector as part of a series of technical sectoral guidelines on the environmental effects of industrial activities; and continued UNIDO participation in the UNEP Cleaner Production Network.

43. In addition to the ESID Conference, the UNIDO contribution to the preparation for the United Nations Conference on Environment and Development included participation in the Preparatory Committee meetings and a number of the substantive working parties as well as the implementation of a project financed by the Netherlands to assist Argentina, Egypt and Thailand in the elaboration of the industrial aspects of their national reports for submission to the Brazil Conference. A book of the ESID Conference proceedings, a pamphlet of its conclusions, and a UNIDO information paper were in the final stages of completion at the end of the year and will be made available at the concluding preparatory meetings of the United Nations Conference and to the Conference itself. UNIDO also participated in two meetings on women and environmental degradation held at Geneva, Switzerland, and Miami, United States of America, as preparation to the United Nations Conference.

44. By the end of 1991 there were over 150 pipeline projects concerned with the environment in all regions, and close to 100 projects were under implementation. Most of these projects are referred to in chapter II. Overall, most of the environment-related activities fell into the following areas: environmental conservation and management, waste minimization, application of clean technologies, effluent treatment, monitoring of air and water pollution, pollution assessment, recycling and reutilization of industrial wastes and training. Specific projects included an industrial biogas technology demonstration plant and experimental station in China; development of technologies for utilization of blue dust and kimberlite waste material in India;

assistance to, among others, Ethiopia, Nepal and Pakistan in dealing with tannery effluents; a workshop for participants from 20 developing countries on the safe and economically efficient operation of industries with high risk potential; and an interregional project consisting of studies and workshops on the reuse of waste lubricating oil.

45. Environmental issues were addressed in all programmes of activities. Work continued on the promotion of the integrated quality concept programme that aims at providing simultaneous evaluation of environmental aspects - using comparable terms - of activities at individual plants. The standardization, metrology and quality control programme also contributed to environmental improvement and control in particular through the promotion of the integrated quality concept in industry, which includes the environmental aspects. In the area of industrial planning, Nepal received assistance in formulating industry-related environmental policies and a plan of action to implement them in connection with the country's industrial development programme. A working paper on environmental management in fishery-based industries (IO.53) was also completed in 1991. In the area of feasibility studies, activities continued to emphasize environmental issues in the analysis of the economic, technical and financial viability of investment projects. Such aspects were highlighted in the new edition of the Manual for the Preparation of Industrial Feasibility Studies (IO/206). Work also continued on integrating environmental factors in the next generation of software for the UNIDO Computer Model for Feasibility Analysis and Reporting (COHFAR). The many types of projects promoted through UNIDO trust fund schemes also increasingly contain environmental elements. 18/ Energy issues, closely related to environmental issues, are also being addressed within the context of UNIDO activities, 19/ and the energy programme of UNIDO will be considered by the Board at its ninth session.

46. Information activities on environmental topics have also increased significantly. With a financial contribution from Sweden an in-house environmental network was established: 13 database administrators were trained and the software installed for the Referral Database on Energy and the Environment (REED). The Industrial and Technological Information Bank (INTIB) continued to handle growing numbers of queries related to the environment; it includes over 1,000 data bank references with numerous references

18/ Ibid., para. 12.

19/ Ibid., para. 9.

on energy conservation. One issue of the Industrial Energy Conservation Abstracts (INECA) Journal was published in 1991 on the theme of recycling. The publication Industry and Environment: A Guide to Sources of Information was launched at the ESIO Conference. Negotiations aimed at increasing the information programme are under way with a number of organizations and agencies, such as the Asian and Pacific Centre for Technology Transfer, the Commonwealth Science Council, the German Agency for Technical Cooperation (GTZ), the International Chamber of Commerce's International Environment Bureau, the Slovak National Commission for the Environment and the United States Environmental Protection Agency.

47. Promotional activities included the holding of a special panel devoted to industry and environment in connection with the UNIDO Investment Forum for Czechoslovakia (November 1991), and the continued promotion of marine industrial technology to help establish centres in the Mediterranean and Caribbean regions.

PRIVATE SECTOR DEVELOPMENT

48. UNIDO activities in the area of private sector development are carried out at the policy, institutional and enterprise levels, applying various operational instruments such as advisory services, technical cooperation, investment and other promotional activities. In view of the long experience UNIDO has had in dealing with the private sector, UNDP approached the Organization in their efforts to launch a private sector development initiative. A joint meeting was held in March at UNDP headquarters to brief UNDP staff and exchange views with them. The meeting reaffirmed the key role which UNIDO and its Country Directors could play in private sector development.

49. With the recent shift away from centrally planned economies and from public enterprise operations towards privatization, the year 1991 saw a greater emphasis on private sector development in industry and thus an increase in demand for UNIDO activities directly or indirectly geared towards private sector development at all levels. Implementation, however, was limited by the scarcity of budgetary and extrabudgetary resources made available to the Organization.

50. Technical cooperation activities, as reported in chapter II, were intensified particularly as the global movement towards economic liberalization led to more investment and business opportunities for the most enterprising under competitive free market conditions. Advisory missions, consultancy services, study tours and workshops contributed to the preparation, design and execution of government policies and strategies to allow greater initiatives in private business. For those missions,

UNIDO staff and experts were deployed for short- or long-term periods in countries of central and eastern Europe (Albania and Romania), in Africa (Angola and Sudan) and in Latin America (Guyana and Honduras).

51. Recognizing the need to focus on entrepreneurship as the steam and engine of growth within the private sector, UNIDO continued its technical cooperation activities to foster entrepreneurship by applying a comprehensive and integrated approach that views the policy, institutional and enterprise levels of intervention, mentioned in paragraph 48 above, with appropriate feedforward and feedback between the levels. Projects in Bhutan, Costa Rica, Malawi, Zimbabwe and among regional groups (Association of South-East Asian Nations, Central America, Europe) attest to this approach, which is especially geared to promote and develop entrepreneurial activities in the small- and medium-scale industries sector in both urban and rural areas.

52. In accordance with this integrated approach, UNIDO, in its assistance to the development of the small- and medium-scale industries sector, supports the efforts of private sector entrepreneurs themselves through conducive government policies and more accessible institutional services. Recognizing that this goal is complex and multidimensional, and to facilitate strategies in privatization, entrepreneurship and the development of small- and medium-scale industries, UNIDO programmes have continued in collaboration with national and international agencies and organizations such as the International Labour Organisation (ILO), FAO, UNCTAD and the United Nations Department of Technical Cooperation for Development.

53. In many African countries undergoing structural adjustment programmes, UNIDO developed industrial strategic management projects focusing on private sector participation in the elaboration process of governmental industrial policies and strategies. During 1991, such projects were under implementation in coordination with the World Bank in Burkina Faso, Burundi, Cameroon, Cape Verde, Côte d'Ivoire, Mozambique, Nigeria, Rwanda, Senegal and Zaire, while formulation missions for new projects on strategic management were undertaken in Madagascar and Togo. At the policy level, a joint UNDP/UNIDO advisory mission to Ethiopia was undertaken to assess the privatization policy of the Government and to advise the authorities on the elaboration of an overall privatization programme.

54. Also through its industrial investment programme (see chap. III, para. 35), UNIDO directly and indirectly continued to assist small- and medium-scale industries in the private sector. Direct assistance was provided, *inter alia*, by assisting individual entrepreneurs in identifying investment opportunities and formulating them into investment projects; screening

and pre-appraising those projects; identifying through investment promotion forums and the UNIDO network of Investment Promotion Services (IPS) potential foreign partners to supply the investment resources required; negotiating and structuring joint ventures and other business agreements; and, through the IPS offices, mobilizing financing for cost-sharing pre-investment studies.

55. Indirect assistance was provided, inter alia, by maintaining the network of IPS offices; providing advisory services to Governments on ways and means of improving their national investment climate; strengthening local institutional capabilities to assist local investors during the investment project development cycle; implementing developing countries' restructuring and privatization programmes by identifying more than one potentially interested foreign party (industrialists, financiers, importers, etc.); and arranging for country presentations to be made by senior

government officials and representatives of the private sector in order to attract potential foreign investors.

56. In 1991, the integrated industrial investment programmes of UNIDO that were implemented, for example, in Bolivia, Czechoslovakia, Ecuador, Fiji, Kenya, Nigeria, Sri Lanka, Venezuela, Viet Nam and Zambia, were intended mainly to create an environment that will attract foreign investment resources (financing for pre-investment studies as well as for projects, technical or managerial expertise, the supply of equipment and/or technology/licensing, training, market access, etc.), mobilize investment resources for small and medium industrial investment projects in the private sector, and encourage national private investors to actively participate in their countries' development. Throughout the design and implementation of these programmes, UNIDO counterparts are private sector industrialists and their associations.

CHAPTER V. APPRAISAL, EVALUATION AND INTERNAL AUDIT

Appraisal

1. The main achievement of the 1990-1991 biennium was the improvement of the appraisal methods and tools to assess the overall quality of UNIDO technical co-operation proposals. The quest for quality dominated 1991 in response to (a) the problems encountered in the appraisal of the projects that did not always permit the assurance of their overall quality; 1/ and (b) the concern of several Member States with the quality of UNIDO projects and the effectiveness of its project development process, as reiterated by an informal consultative group of major donor countries held on 24 September 1991 in Vienna.

2. Thus an Expert Group Meeting on the Theory and Practice of the Appraisal of Technical Cooperation Projects was convened in Vienna, from 25 to 27 September. 2/ Sixteen appraisal experts from 10 bilateral and two multilateral cooperation agencies considered two papers: "The reference paper" (ID/WG.517/1) which contains a structured and annotated list of questions on appraisal methods and tools and on quality criteria and their measurement; and "Situation analyses for the design of integrated programmes or of large complex projects" (ID/WG.517/2) postulating the introduction of a planning-by-objectives method for project identification and formulation to support the logical framework analysis currently used.

3. While recognizing the difficulties in defining quality in precise terms, the experts reached a common understanding, amongst others, that it is at the project identification and formulation stage that quality must be ensured at least in terms of: (a) relevance to the country's development and immediate objectives and particularly to the needs of the target beneficiaries; (b) cost-effectiveness; and (c) sustainability. The experts concluded that the objectives-oriented project planning system, originally developed by the German Agency for Technical Cooperation (GTZ) and used by other bilateral co-operation agencies, was the best available method for ensuring such project quality in addition to the logical framework approach. They also considered that the appraisal service should provide advice on design matters early in the project development process and thereafter verify whether quality criteria have been met.

1/ IDB.8/10, chap. V, paras. 2, 7.

2/ For the report on the meeting see ID/WG.517/3(SPEC.).

4. As an immediate result of the meeting, the objectives-oriented project planning method was used in an appraisal workshop held in Nepal (30 September - 4 October) to design two large project proposals for that country and introduce Asian least developed countries to the method. The workshop proved to be very fruitful in that it served to demonstrate the advantages of the method in reaching a common understanding among all parties concerned with the project of the central problems to be addressed, of its objectives, and of the strategy to be adopted.

5. An important result was reached at the fourth session of the General Conference of UNIDO. The Conference took note of UNIDO's efforts to improve project quality (GC.4/Dec.21(c)) and recommended that the objectives-oriented project planning approach be used to the extent possible for all projects (GC.4/Dec.11(c)). The Conference also requested that greater consideration be given to the quality criteria defined in annex I of document GC.4/28 in future programming and appraisal activities (GC.4/Dec.11(d)) including projects financed from third-party and self-financed trust funds (GC.4/Res.28, paras. 1 and 2). In that connection, the Conference requested that to the extent possible appraisal advice be sought from the project concept stage onwards (GC.4/Dec.11(e)).

6. As a consequence of the above events, a format was prepared for the elaboration of project concept documents that would help (a) UNIDO to decide whether to develop a full project document, and (b) donor countries to ascertain interest in financing the project. In addition, a new programme was developed for workshops on project design to include the objectives-oriented project planning method and to apply it to projects actually being formulated by project planners (see para. 3 above). These new workshops have proved to be more meaningful to participants than the 17 traditional design and evaluation workshops (see para. 10 below) and individual briefings held until mid-1991.

7. In June, the Project Design Reference File was issued. It comprises three volumes: I - Basic guidelines and appraisal checklists; II - Guidelines for environmental appraisal; and III - Consideration of women in project design, management and evaluation. The file is being updated to reflect the use of the objectives-oriented project planning method in project identification and formulation.

8. In 1991, 289 projects were submitted for appraisal. Appraisal Memoranda were issued for 256 projects on their relevance, feasibility and potential effectiveness for different sources of finance: Industrial

Development Fund (243), United Nations Development Programme (UNDP) (8), third-party trust funds (4), and self-financed Trust Funds (8) (E.1.1.01(i), (ii), (iii)). Of these, 19 per cent conformed with design guidelines as submitted, 68 per cent required various degrees of reformulation after appraisal, and 13 per cent were the subject of divergent views between appraisal and project planners. Appraisal Memoranda were not issued for 33 projects, generally due to insufficient information on the central problem to be addressed (its causes and effects), the target beneficiaries and counterpart support capacity.

9. Advice was provided on the formulation of 152 proposals to facilitate a selection

by the UNIDO executive management before submitting them to UNDP for consideration under technical support service 1 (TSS-1) financing. In addition, at the request of project planners, appraisal advice was provided in the design of 15 integrated sectoral and other programmes of technical cooperation to ensure quality in design early in the programme formulation stage. (E.1.1.01(vii))

Evaluation

10. Evaluation has emerged as a powerful instrument that provides managers, donor and recipient countries analytical and objective information on the strengths and weaknesses of almost all UNIDO activities.

Table 1
Significant performance indicators: Project Appraisal

Outputs	Planned 1990-1991	Achieved		Total biennium
		1990	1991	
Advice on project proposals for consideration by UNDP E.1.1.01(i)	-	27	167	294
Number of projects appraised E.1.1.01(ii)	800 a/	521	289	810
Substantive assessment of selected categories of technical cooperation projects E.1.1.01(iii)	-	5	3	8
Workshops on sectoral programme approach to project identification and formulation E.1.1.01(iv)	4)))			
Training workshops on project design for headquarters and field staff E.1.1.01(v)	8)))	15	17	32
Workshops on the application of UNDP/UNIDO guidelines on project design in developing countries E.1.1.01(vi)	3	2	2	4
Participation in sectoral programme reviews, project formulation and evaluation missions E.1.1.01(vii)	-	-	1	1
Meeting on theory and practice of appraisal c/	1	-	1	1

a/ Erroneously, the programme and budget refers to 800 per year instead of per biennium.

b/ The subject of sectoral programme approach was integrated in the various workshops and individual briefings which were held in conjunction with the Programme Development Support Unit, thus the number of workshops and briefings have been combined.

c/ The meeting on project design was not included in the programme and budget 1990-1991 under the description of programme element E.1.1.01 (GC.3/10/Rev.1, page 48). It was, however, included under "resource requirement" (Ibid., page 67).

In an effort to further improve the quality of its evaluation work, on the basis of the experience gained, UNIDO continued to refine its evaluation policies and methodologies. In 1991 the policies and guidelines for internal evaluation of technical cooperation projects were issued in a Director-General's bulletin (UNIDO/DG/B.147). This bulletin provides a major change in the evaluation of small-scale projects (those with a budget of less than \$150,000), which constitute, in terms of project numbers, the majority of UNIDO technical cooperation projects. Internal evaluation of such projects will be done in a more systematic and transparent way, while steps to increase compliance have been built into the revised system.

11. Training in project design and evaluation was not as intense as in previous years, owing to a heavy workload and inadequate staff resources. Nevertheless, in a joint effort of the Evaluation Staff and the Project Appraisal Section, five training workshops were undertaken, three at Headquarters and two in the field (India and Malawi, whereby nine African least developed countries were represented in the latter) (E.1.1.0:(v)). A total of 75 headquarters and field staff and government officials participated. Furthermore, during 1991, standard materials for the workshops were updated to include project documentation and more information on headquarters programme evaluations.

12. Evaluation work in UNIDO covers two major areas, technical cooperation projects and programmes and headquarters programmes, the latter currently occupying over 50 per cent of the Evaluation Staff's time. A total of 33 in-depth evaluations of major technical cooperation projects with a value of almost \$50 million were undertaken during 1991 (D.O.5.01(ii)). In addition to preparing or revising terms of reference for such in-depth evaluations, briefing and debriefing of participants and analysis of the evaluation reports, the UNIDO Evaluation Staff was represented in nine evaluations in Africa, Asia and the Pacific and Latin America and the Caribbean. To quote a few examples, through these evaluations it was possible to assess how and to what extent UNIDO had been able to assist: Costa Rica in helping enterprises to better manage their technology needs and to pool available knowledge for that purpose; several East African countries in improving hides and skin collection and leather processing; a number of South-East Asian countries in supporting a subregional enterprise in Thailand in applying technology for castor meal detoxification; Sri Lanka in supporting local enterprises to improve their quality control and thus to become more competitive in a more open economic environment; and Trinidad and Tobago in developing a machine tool centre to provide training and services to industry. In such evaluations recommendations are provided on how to improve project performance and impact.

13. As part of the UNIDO internal evaluation system, 239 project performance evaluation reports (PPERs) were processed during 1991 (242 in 1990). These documents reviewed the performance of the respective projects in relation to their stated objectives and outputs, recommended improvements such as an increase in budgets or modification of design. With respect to group training programmes, 27 project evaluation reports were processed in 1991 (40 in 1990).

14. In May, an in-depth evaluation of group training programmes and workshops, organized by UNIDO and financed by the Government of Austria, was completed. 3/ It covered the man-made fibres and plastics technology training programmes, which have been held annually for 17 and 21 years respectively, and the workshop on petroleum refinery maintenance, which has been conducted seven times since 1981. The evaluation was, in general, supportive of these group training programmes and workshops, and measures were recommended to increase their impact, effectiveness and efficiency. (D.O.5.01(ii))

15. An evaluation of the Special Industrial Services (SIS) programme for the fourth United Nations Development Programme (UNDP) cycle (1986-1991, totalling \$15 million) was initiated, to be concluded early in 1992. It is expected to provide guidance and recommendations for both UNIDO and UNDP on how to better utilize this programme, which has remained at the same financial level since its inception and, therefore, has lost roughly 75 per cent of its purchasing power. This evaluation was undertaken with the cooperation and partial financial support of UNDP (see also chap. VIII, para. 6).

16. Upon request of UNDP, a joint evaluation was undertaken of UNIDO's approach to strategic management of industrial development in Africa. This evaluation covers six projects, totalling \$6.1 million of assistance and is expected to be concluded in January 1992. In that connection, during early 1991 a mini-thematic evaluation was completed with UNDP that covered industrial metrology (see chap. II, para. 118). Other evaluations of special and novel programmes or projects undertaken during 1991 include the leather programme in East and Southern Africa, the preparatory phase for the establishment of an international centre for science and high technology at Trieste, and two ex-post evaluations of projects undertaken under a special-purpose contribution by Germany to the Industrial Development Fund. (D.O.5.01(iii))

17. Every year, around the third quarter, an analysis of the different types of evaluation of technical cooperation (self- and in-depth) carried out during the previous year is undertaken to provide a qualitative view of the technical assistance

delivered. The analysis of the evaluations carried out during 1990 (36 in-depth and 242 PPERs) shows that in those aspects where a direct comparison is possible project performance and effectiveness have slightly improved, as compared to the previous year. Thus, the trend observed over the past five years has been maintained. Efforts to improve the quality of projects seem to have paid off although this might not be enough to face the challenge of meeting the needs of the developing countries. The results of the analysis are given in chapter II, table 3. In that analysis, special emphasis was placed on drawing a comprehensive set of lessons for use in future projects. In general terms, lessons drawn from the evaluation exercises related to the following subjects: economic environment of the project; end users; project design; work plans, activities/inputs; backstopping; sub-contracts; institution-building; research/pilot plant; studies; feasibility studies; regional/subregional projects; and technical cooperation among developing countries. In preparation for the in-depth evaluation of the industrial human resource development activities of UNIDO, which commenced in 1991 (see para. 19 below), a special effort was made to draw lessons applicable to this programme. The lessons cover the following specific subjects: identification of training needs, trainability, study tours, the training function, changing training requirements, training systems, and fellowships.

18. Concerning headquarters programmes (D.O.5.01(iv)), i.e. those located at or managed from Headquarters and financed mainly from the regular budget, early in 1991 an in-depth evaluation of UNIDO investment promotion activities was completed. 4/ Due to the importance of the exercise, which has organization-wide implications, presentations of the conclusions and recommendations drawn up by the evaluation were made to the Vienna- and Geneva-based permanent missions accredited to UNIDO. The evaluation stressed the unique and long experience of UNIDO in this field of work and the need for UNIDO to sharpen its focus to maintain the competitive advantage it possesses. Also of note is an evaluation made of the work of a UNIDO investment promotion service office that resulted in recommendations for the improvement of and the extension of its services.

19. As requested by the Board (IDB.5/Dec.12(c)), an in-depth evaluation of the economic and technical cooperation among developing countries (ECDC/TCDC) activities of UNIDO started in March 1991 and is scheduled to be completed early in 1992, the second of three planned in-depth evaluations of selected Headquarters activities in the biennium. (D.O.5.01(iv)) The evaluation comprised an analysis of

various ECDC/TCDC activities undertaken by UNIDO and involved participation in selected TCDC events and interviewing end users in developing countries. The third Headquarters evaluation forecast for the biennium was started at the end of 1991, when financial resources for this exercise were made available by Germany through a contribution to the Industrial Development Fund (IDF). 3/ The evaluation, which will cover industrial human resource development, will be of a large dimension. A novel evaluation, that of a UNIDO Country Director office in Latin America, demonstrated the need for its retention.

20. In addition to a report submitted to the Board at its sixth session (IDB.6/2), in compliance with decision IDB.6/Dec.14, a document (GC.4/30) on methodologies and practices in the evaluation activities of UNIDO was submitted to the General Conference at its fourth session (D.O.5.01(i)). Preceding the Conference, a presentation of the document was made to the Vienna-based permanent missions. Recognizing that the Secretariat has reached the limits of its capacity to expand its programme of evaluations, the General Conference requested the Director-General to secure adequate financing to carry out the programmed in-depth evaluations, called upon donor countries to contribute to the financing of UNIDO in-depth evaluation activities, and requested that the Evaluation Staff be strengthened.

Internal audit

21. Internal auditing is an assessment function that carries out reviews and inspections of the Organization's operations and activities (D.O.3.01). The overall objective is to assist the Director-General, directors and other managers in the effective discharge of their responsibilities by providing them with an objective analysis of their operations. This function is accomplished through independent audits to assess whether the prescribed financial and operating systems and procedures are adequate and complied with and whether the Organization's resources are economically and efficiently used.

22. In order to achieve its objective, the Internal Audit Unit prepares an annual work programme, derived from an overall assessment of risks associated with the Organization's activities. Towards the end of 1991, a review was initiated to assess potential risks associated with specific parts of the Organization's operations. In parallel with this review, a reassessment was undertaken of the methodologies used by the Internal Audit Unit with a view to allocating scarce resources to audit the activities most exposed to risks. During the year, a significant proportion of the resources allocated to the Unit was devoted to obligatory audits of shared services within the Vienna International Centre

4/ Ibid., para. 8.

Table 2
Significant performance indicators: Evaluation

Outputs	Planned 1990-1991	Achieved		
		1990	1991	Total biennium
In-depth evaluations of technical cooperation projects D.0.5.01(ii)	60	36	33	69
Reports on self-evaluation of headquarters programmes D.0.5.01(iii)	2 a/	-	-	-
In-depth evaluations of headquarters programmes D.0.5.01(iv)	3	1	1	2
Training workshops on project design and evaluation	8 b/	5	5	10
Project performance evaluation reports processed c/		242	239	481

a/ Self-evaluation of headquarters programmes not yet introduced.

b/ Not explicitly mentioned in the programme and budgets document for 1990-1991, under "Evaluation" but carried out jointly with "Appraisal". See also table 1 on Project Appraisal (E.1.1.01(v)), where these workshops have been included.

c/ Not explicitly mentioned in the programme and budgets document for 1990-1991.

(VIC), such as the common fund for major repair and replacements and the VIC catering service. The large amount of time needed to carry out these obligatory audits coupled with a scarceness of staff resources, have resulted in inadequate attention being paid to the audit of high-risk activities. It is envisaged that the scope of such obligatory auditing will be reduced because internal control systems of these activities have been improved and that, consequently, audit coverage of high-risk activities will be increased.

23. Despite the limitation of staff resources, several activities were initiated to enhance the quality of internal audits such as a review to identify major issues to be dealt with and measures to be taken to enhance communications with client departments. In cooperation with the other internal audit services of the Vienna-based organizations, a training seminar was again held and this practice is expected to continue in the future. With a view to enhancing internal control environment, the Unit is now represented on various committees as observer.

CHAPTER VI. COORDINATION, FIELD AND LIAISON ACTIVITIES AND PUBLIC INFORMATION

RELATIONS WITH GOVERNMENTS AND INTERGOVERNMENTAL ORGANIZATIONS

1. The external liaison activities of UNIDO cover relations with Governments, governmental and intergovernmental organizations and organs, organizations and specialized agencies within the United Nations system as well as protocol matters.

2. During 1991, three States - Chad, Djibouti and Lithuania - became Members of UNIDO, thus bringing the membership of UNIDO as of 31 December 1991 to a total of 154 Member States. At the end of the year, 119 Member States were maintaining Permanent Missions to UNIDO of which 75 were located in Vienna, 21 in Geneva, 15 at Bonn, four at Brussels, two in Rome and one each at Bern and Paris. During the reporting period, 65 high-level governmental delegations including Heads of State, Prime Ministers and Ministers, of which 58 attended the fourth session of the General Conference, visited UNIDO Headquarters. A total of 24 Permanent Representatives presented their credentials. The Director-General undertook six official visits to Member States.

3. Activities continued under the joint programmes or similar cooperation arrangements established with the following countries: Bulgaria, Czechoslovakia, Hungary, Poland, Romania, Turkey, the former Union of Soviet Socialist Republics and Yugoslavia as well as with the Council for Mutual Economic Assistance (CMEA) and the International Centre for Public Enterprises in Developing Countries. In September 1991 CMEA ceased to exist and consequently the Joint Committee that dealt with that organization was discontinued.

4. Cooperation and coordination with the existing 63 National Committees for UNIDO could not be strengthened as requested in Board decision IDB.5/Dec.8 owing to lack of budgetary resources.

5. In implementing the 1987 relationship agreement concluded in accordance with Article 19.1 (a) of the Constitution with the International Labour Organisation (ILO), a working arrangement was signed in October 1991 that stipulates and defines the areas of cooperation between ILO and UNIDO.

6. Relationship agreements were also concluded with four intergovernmental organizations in 1991 namely, the financial Fund for the Development of the Plate River Basin, the Fund for Solidarity and Economic Development of the West African Economic Community, the African Intellectual Property

Organization and the Preferential Trade Area for Eastern and Southern African States, thus bringing the total number of agreements concluded to 26 since UNIDO became a specialized agency. Negotiations for concluding further relationship agreements continued and it is expected that a number of such agreements will be signed during 1992. While relationship agreements constitute the legal basis for cooperation, their implementation was followed up through exchanges of visits of high-level officials from intergovernmental organizations and UNIDO staff.

7. At the multilateral policy-making level coordination was pursued through participation in the United Nations General Assembly, the Economic and Social Council, the Administrative Committee on Co-ordination (ACC), the Committee for Programme and Co-ordination (CPC) as well as in the governing bodies of the specialized agencies. As in the past, inter-agency coordination activities were aimed at ensuring maximum complementarity, thus avoiding duplication and the consequent waste of resources. These included exchange of comments on medium-term plans and programme budgets, supply of information on study programmes and technical cooperation projects, joint programming and project formulation missions, visits by Headquarters staff and project personnel, as well as substantive inputs to various meetings organized by the United Nations system.

8. A document outlining the concept of national committees for UNIDO, the establishment of such committees and possibilities for their future role in strengthening the coordinating role of UNIDO in industrial development was presented to the General Conference at its fourth session.

9. In 1991, 18 new United Nations volunteers were assigned to UNIDO-executed projects. The total number of volunteers assigned to 37 UNIDO-executed projects during the year was 65, a substantial increase over 1990.

UNIDO FIELD REPRESENTATION

10. In 1991, the financial aspects of the UNIDO Country Director (UCD) programme were considered by the governing bodies of UNIDO and the United Nations Development Programme (UNDP) in connection with the sectoral support programme and the introduction of the successor arrangements.

11. On the basis of the recommendations of the Administrator of UNDP in his report to the UNDP Governing Council on the review of the sectoral support programme

(DP/1991/27), 1/ in its decision 91/34 the Governing Council decided that \$3.8 million per annum should be allocated to the UCD programme, and invited the Industrial Development Board to address the question of the financing of the UCD programme in the light of the successor arrangements to support costs. It further decided that the sectoral support programme would be reviewed as part of the evaluation of the new support cost arrangements and consultations with the smaller technical agencies in 1993. Prior to the adoption of this decision, in a report on the UCD programme (IDB.8/27) submitted to the Board at its eighth session, the Director-General had concluded that the assumed annual rate of \$3.8 million would not suffice to maintain the current level of services over the fifth cycle, and that alternative sources had to be found if the number of UCD posts were to be increased or even maintained at that level. The only solution to increase resources for the UCD programme would be through further voluntary contributions from donor countries and higher contributions from host countries to cover the local office costs or through an eventual transfer of the programme to the regular budget.

12. The Board subsequently adopted decision IDB.8/Dec.14 in which it reaffirmed that the system of sharing the financing with UNDP be

1/ IDB.8/10, chap. VI, para. 13.

maintained. requested the Director-General to pursue his consultations with the Administrator of UNDP to ensure that the target of 50 posts may be reached in the near future, urged Member States to provide new or further voluntary contributions to the programme, and further requested the Director-General to consider creating additional UCD posts.

13. The UCD programme in 1991 comprised 40 posts, financed through UNDP sectoral support funds (29 posts), the UNIDO operational budget (nine posts), voluntary contributions from Germany (one post), and UNIDO temporary funding (one post). About \$300,000 from the UNDP sectoral support funds may be brought forward to the fifth cycle, starting in 1992.

14. During the year, 33 UNDP Resident Representatives and 39 UCDs visited UNIDG Headquarters for consultations. (E.1.2.01(v)) Also, 34 UCDs represented the Organization at some 70 meetings in the different regions. Furthermore, to enhance the expertise of UCDs and their capacity to assist the developing countries, increased efforts were made to include them in meetings and workshops on specific sectors. Thus, four UCDs - one from each region - attended a meeting to strengthen UNDP/UNIDO collaboration in promoting private sector initiatives organized by UNDP in New York in March; six UCDs attended three workshops on management of field coordination for senior United Nations system representatives

Table 1

Distribution of UCD established posts
(by region and source of funds)

	Source of funds					
	<u>Africa</u>	<u>Arab States</u>	<u>Asia/Pacific</u>	<u>Europe</u>	<u>Latin America/Caribbean</u>	<u>Total</u>
UNDP						
1987	5	1	6	-	7	19
1988	7	2	8	-	7	24
1989	8	2	8	-	7	25
1990	11	2	8	-	8	29
1991	11	2	9 a/	-	8	30
Operational budget						
1987	7	-	2	-	2	11
1988	5	-	2	-	2	9
1989	5	-	2	-	2	9
1990	5	-	2	-	2	9
1991	5	-	2	-	2	9
Voluntary contributions						
1987	1	-	1	1	-	3
1988	1	-	1	1	-	3
1989	1	-	1	1	-	3
1990	-	-	-	1	-	1
1991	-	-	-	1	-	1

a/ One post is funded under special arrangements for part-time UCD services.

organized by the International Labour Organisation International Turin Centre at Turin, Italy, in March, May and July, while a similar workshop for Asian countries held at Phuket, Thailand, in October/November was attended by two UCDs from the region. A special workshop on environmental issues and a training workshop on women in development were also organized for a group of UCDs in Vienna in June. (E.1.2.01(iv))

15. UNIDO's responsibility for the administrative, personnel, budgetary and equipment aspects of the UCD programme was reaffirmed in October during discussions with UNDP on the Memorandum of Understanding between the two organizations. As regards the proposed revision of that Memorandum of Understanding on the role and the working arrangements between the UNDP Resident Representatives and the UNIDO Country Directors, it was agreed that, in view of the impending application of new UNDP policies concerning support costs and programming functions, such a revision would be postponed to 1992. The procedures under which staff members at the P-4, P-5 and D-1 levels may apply for and be assigned to fill vacancies for UCD posts was facilitated by the issuance of administrative circular UNIDO/DA/PS/AC.84. (E.1.2.01(i)(iii))

16. The UNIDO Junior Professional Officer (JPO) programme which was established in 1972 with two JPOs has since that time seen a total of 369 JPOs under contract for periods varying from one to four years, sponsored by 12 donor Governments (see table 2 below). (E.1.2.01(ii)) In 1991, 10 Governments cooperated in the programme with the Government of the Netherlands financing six JPOs from developing countries in addition to its own nationals. A total of 71 JPOs were on board during 1991; 41 were based in countries with a UCD, 28 were in countries covered by a non-resident UCD, and two were in countries which were covered by Headquarters. As a result of unrest, two JPOs were evacuated

from their duty stations (Haiti and Zaire) and were brought to Headquarters pending reassignment to new duty stations.

17. Two training meetings were held at Vienna in 1991 for 25 new JPOs and two mid-assignment review meetings were organized to brief 31 JPOs on special programmes of UNIDO. During the course of the year, a further 35 JPOs visited Headquarters for consultations or debriefing at the end of their contracts. (E.1.2.01(iv))

PUBLIC RELATIONS AND INFORMATION

18. In 1991 the UNIDO public relations and information activities focused on four major events: the tenth meeting of the Conference of African Ministers of Industry, the Conference on Ecologically Sustainable Industrial Development, the fourth session of the General Conference of UNIDO and the Africa Industrialization Day.

19. While the United Nations Economic Commission for Africa (ECA) played the major role in the organization of the Conference of African Ministers, UNIDO was requested by ECA and by the Organization of the African Unity (OAU) to take the responsibility for the promotion of the Conference. Two briefings for journalists, four radio and television debates as well as one lecture were organized during the Conference, with the participation of African ministers and senior OAU, ECA and UNIDO officials, including the Director-General.

20. The Conference on Ecologically Sustainable Industrial Development, which took place at Copenhagen, Denmark, from 14 to 18 October 1991, provided an opportunity to publicize the Organization's work relating to environmental issues. Preceded by a nine-month publicity campaign, the Conference attracted some 60 correspondents and radio and television reporters. Key conference issues were the subject of seven press releases, five feature stories, and two pre-conference briefings.

21. In connection with the General Conference of UNIDO, six television spots on UNIDO activities were produced and exhibitions were set up at the venue of the Conference. Four press releases in English, French and Spanish were issued for the Conference, and press facilities were provided for journalists at the Austria Center. The Conference was also publicized through the print and audio-visual media to international news agencies, press correspondents, and radio and television services. Some 15 press briefings and interviews for journalists were held during the Conference with the President of the Conference, government Ministers, and the Director-General of UNIDO.

22. Four features and a poster were produced and widely distributed for the 1991 Africa Industrialization Day on the theme of economic cooperation and inte-

Table 2

JPOs financed 1972-1991 and in 1991

Donor Government	1972-1991	1991
Austria	1	0
Belgium	62	5
Denmark	32	9
Finland	16	7
France	2	0
Germany	76	18
Italy	19	1
Japan	15	2
Netherlands	91	17
Norway	14	6
Sweden	31	5
Switzerland	10	1
TOTAL	369	71

gration and the textile industry in Africa. A film entitled "The 1000 threads of Africa" was produced in response to a request from the African Ministers of Industry and distributed in English and French to 44 national television stations in Africa to mark the event. It was also shown in 10 screenings in English and French to participants at the fourth session of the UNIDO General Conference.

23. Despite the many constraints faced during 1991 (including the reduction in the number of Professional staff of the Public Relations and Information Section from four to two), the following activities were undertaken: a redesigned quarterly newsletter, UNIDO Update, was produced in English, French and Spanish, with news and features focusing on successful technical cooperation projects and concrete results of supporting activities. A more active involvement of field offices resulted in a better balanced regional coverage. Other publications prepared in 1991 included one issue of Industry Africa in English and French, the magazine for the Industrial Development Decade for Africa, 95 press releases, and other information and publication notes covering major UNIDO meetings. Assistance was also provided for the preparation and production of other UNIDO promotional material.

24. A total of 250 film projections and radio broadcasts were produced during 1991, an increase of 228 over the previous year. They covered work by UNIDO as well as by other Vienna-based United Nations organizations. As a result of efforts to diversify contacts with the international media, a regional television network, Arabsat, requested authorization to duplicate in Arabic and broadcast the films produced by UNIDO to all the Arab countries. Also during the year, nearly 3,000 photographs were distributed covering over 200 events, while 10 exhibits were organized at the Vienna International Centre and elsewhere (excluding those displayed at the General Conference) for occasions such as Women's Day, No-Tobacco Day and World Tech UNITERRA.

25. Support was provided on 15 occasions to journalists visiting UNIDO Headquarters and 35 briefings were given to special-interest groups visiting the Vienna International Centre; the briefings were undertaken in cooperation with other units in UNIDO and the UNMOV Visitors Service.

26. Through the Investment Promotion Services and the UNIDO Country Directors, a special effort was made to strengthen the flow of information on activities in developing countries and increase the awareness of UNIDO staff at Headquarters of the role of the Organization in the field. As a result, some of the Country Directors regularly send articles relating to UNIDO activities published in the media of the countries of their coverage. The articles are circulated internally and a permanent display panel has been set up for the news clippings.

Table 3

Significant performance indicators:
Public Relations and Information

Activities	1990	1991
Press releases issued	80	95
Flyers/booklets published	3	9
Press conferences and interviews organized	1	37
Photo exhibitions mounted	13	11
Periodicals published	6	5
Video features produced	4	8
Radio programmes and film projections produced	22	250

UNIDO OFFICE AT NEW YORK

27. The UNIDO Office at New York continued to serve as the main link with United Nations Headquarters and as the focal point for industrial development inquiries concerning UNIDO from North America. The overall approach of the Office activities has been to expand further the recognition of UNIDO as an active participant in industrial development, technology transfer as well as a unique source of information and data on these areas. The groundwork, which was laid in late 1990 and early 1991, has produced an overwhelming response requiring a corresponding effort on the part of the Office. This is being accomplished within the existing constraints of human and financial resources and in addition to the regular responsibilities of coordination, support and representation at United Nations Headquarters.

28. An important component of this outreach programme was the follow-up provided by the Office. Regular contacts with the Government and private sector (e.g. United States government agencies, United States Congress staff, trade associations, financing institutions) as well as universities and non-governmental organizations (NGOs) in North America resulted in more recognition of UNIDO's work as well as its inclusion in decision-making circles on industrial development issues. The target of the outreach programme with the States of California, Georgia and Wisconsin resulted in a number of activities, including: participation in UNIDO-sponsored meetings by experts from the University of California, an investment mission in Africa by businessmen from the State of Georgia, a special investment mission to Poland from Wisconsin, and participation of some 100 executives in a meeting on UNIDO and the private sector held in Wisconsin.

29. A meeting with the business community in New York to explore the possibilities of cooperation within the context of the Second Industrial Development Decade for Africa was specially organized for staff members

from Headquarters on mission in New York. Regular briefings were also organized for government officials and representatives of the private sector with senior Vienna-based staff, in particular, on the subjects of: women in development, feasibility studies, Central Europe and trust funds. The Office also organized and participated actively in a high-level promotional mission to five provinces of Canada which generated a better understanding of UNIDO programmes and activities and resulted in concrete expressions of interest to work closely with UNIDO. As a follow-up, and to enhance Canada's cooperation with UNIDO and its Member States, the Office, in close collaboration with the Permanent Mission of Canada, organizes for the representatives of the authorities of the Canadian provinces in New York monthly round tables on the activities of UNIDO in technical cooperation and investment promotion.

30. Briefings on the activities of UNIDO for Permanent Missions of Member States with no representation in Vienna or Geneva continued to be provided, in particular to ensure the participation of the least developed countries in the Conference on Ecologically Sustainable Industrial Development, the Symposium on the Industrialization of the Least Developed Countries and the fourth session of the General Conference. Those missions were subsequently briefed on the outcome of those events. The Office has also actively dealt with representatives of the new United Nations Member States - Estonia, Latvia and Lithuania - to brief them on the activities of UNIDO and assist them in establishing cooperative relations with UNIDO. Contacts were also initiated with the Belarusian, Hungarian and Ukrainian communities in the United States and concerned Permanent Missions to the United Nations to explore the possibilities of establishing tripartite cooperative projects similar to the one carried out with the Armenian General Benevolent Union in 1990. 2/

31. Within the framework of the forty-fifth resumed and forty-sixth sessions of the General Assembly, the Office provided representation and services on subjects of interest to UNIDO. As in previous years, the Office also provided representation at, and reported on, some 200 intergovernmental and interagency meetings.

32. Continuity of cooperation with the World Bank Group was ensured through a programme of regular contacts, including high-level meetings. The Office followed up on matters of interest to UNIDO - e.g. on the development of projects in which UNIDO is to be a provider of technical assistance - kept Bank staff apprised of current UNIDO

activities and facilitated meetings for them in Vienna. Furthermore, a working relationship with the Inter-American Development Bank was developed through high-level missions that led to an exchange of information, invitations to participate in meetings at the Bank and in Latin America, and the inclusion of UNIDO technical staff in Bank missions. In addition, in the areas of investment promotion, the Inter-American Investment Corporation (an affiliate of the Inter-American Development Bank) has begun to cooperate more closely with UNIDO. Also, meetings between the President of the Bank and the Director-General have resulted in a better understanding of how the two institutions can cooperate in the region.

33. Concerning cooperation with UNDP, the Office continued to carry out the numerous activities described in previous Annual Reports. 3/ The Office participated actively in the United Nations Inter-Agency Working Group on the reconstruction of Lebanon, which led to the fielding of an inter-agency mission to that country. It also assisted Headquarters in the organization of an inter-agency mission to the Islamic Republic of Iran to look into the reconstruction and development aspects of Security Council resolution 598. The Office also represented UNIDO in the United Nations Information Fair, organized by the United Nations Department of Public Information, which focused on environmental issues and was attended by several thousands of visitors. Also, in cooperation with that Department, training programmes were again organized for 13 graduate students from universities in the United States and other countries. The programme, which is intended to increase the awareness of the role of UNIDO among the international academic community, dealt with the subjects of environment and industrialization, the restructuring of the United Nations system, investment promotion, the Second Industrial Development Decade for Africa, integration of women in industrial development and transfer of technology.

34. As in the past, an extensive collection of documentation and information was maintained and widely used 4/ - over 4,000 inquiries were processed, with a continued increase in queries from the private sector on the possibilities of cooperation with UNIDO and joint ventures with developing countries.

35. The Office worked closely with the UNIDO Office at Geneva on matters pertaining to the General Assembly, Economic and Social Council, ACC, the UNDP Governing Council and their subsidiary bodies, the meetings of which have alternate venues of New York or Geneva.

2/ IDB.8/10, chap. VI, para. 33; chap. VIII, para. 27.

3/ IDB.8/10, chap. VI, para. 31.

4/ IDB.8/10, chap. VI, para. 35.

UNIDO OFFICE AT GENEVA

36. The Geneva Office continued to keep abreast of the policies and programmes of the Geneva-based specialized agencies and departments in order to provide an all-service programme support to UNIDO Headquarters (cf. IDB.8/10, chap. VI, para. 37). It identified activities calling for a multidisciplinary approach and promoted initiatives relevant to inter-agency cooperation. A series of initiatives was launched to step up UNIDO's cooperation with the United Nations Conference on Trade and Development (UNCTAD). Efforts were also continued to increase the involvement of the Geneva-based United Nations agencies in the UNIDO System of Consultations. As a result of this effort, some of the Consultations and related meetings in 1991 were attended by Geneva-based United Nations agencies and organizations.

37. The Office represented UNIDO at some 90 meetings of diverse nature, ranging from sessions of governing bodies and policy-making organs of other organizations of the United Nations system, such as the International Labour Organisation (ILO), the World Health Organization (WHO), the World Intellectual Property Organization (WIPO), UNCTAD, the International Trade Centre UNCTAD/GATT (ITC) and the Economic Commission for Europe (ECE), to expert group meetings, working groups and other informal meetings organized by the United Nations. This activity called for extensive preparatory work, e.g. undertaking research, preparing position papers and statements, arranging for a feedforward and a feedback system, compiling information on the themes of interest to UNIDO, ascertaining possibilities for follow-up action etc. The preparation of the Conference on Ecologically Sustainable Industrial Development held at

Copenhagen in October entailed permanent liaison of the Geneva Office with officials of United Nations organizations and agencies such as WHO, ILO, the United Nations Environment Programme, and the United Nations Conference on Environment and Development.

38. Meetings were held regularly with representatives of Governments accredited to UNIDO from Geneva. One such meeting with all the Geneva-based Permanent Missions to UNIDO was organized on the UNIDO Investment Promotion Programme with the participation of the Director of the Industrial Investment Division and the Chief of the Evaluation Staff. A particularly intensive effort was made to inform the representatives of the Geneva-based Permanent Missions on the preparation of the fourth session of the General Conference. In that respect, a briefing was held with the participation of the Director of External Relations Division. Likewise, substantive and logistical support was provided to Headquarters staff visiting Geneva.

39. The Office also continued to provide advisory services and support in programme and project development activities. Requests were frequently received from the Permanent Missions for information on specific UNIDO inquiries particularly in relation to privatization, investment promotion, small-scale enterprises, human resource development and training. In fact, as in the past, there was a continuous flow of inquiries on UNIDO activities including requests for documentation and reference material from the Permanent Missions, United Nations agencies and departments, intergovernmental and non-governmental organizations, delegations to meetings sponsored by other United Nations agencies, public and private institutions as well as academic and educational institutions, individuals and students.

CHAPTER VII. GENERAL ADMINISTRATION

STAFFING

1. On 31 December 1991 the staff being administered at Headquarters, Vienna, numbered 1,386 (1990: 1,392). These included 10 staff employed for limited periods under the short-term advisory services (STAS) programme and nine staff members temporarily serving as UNIDO Country Directors (UCDs).

2. The Personnel Services Division continued to recruit and administer the UCDs, who totalled 35 at 31 December 1991 (1990: 29), and also continued to recruit and administer regional advisers, field officers and outposted recruitment officers, totalling 5 at 31 December 1991 (1990: 6).

3. The Vienna-based Organizations cooperated with the International Civil Service Commission (ICSC) in carrying out a survey of the best prevailing conditions at Vienna, 1/ which was examined by ICSC in August 1991. In order to reflect the changing conditions of employment in Austria it was no longer felt appropriate to maintain separate categories for Manual Worker and General Service staff. Accordingly, following a recommendation by ICSC, the former Manual Worker grades M-3 to M-7 and the General Service grades G-3 to G-8 were amalgamated into a single structure G-1 to G-7. This grading structure, which conforms with other United Nations duty stations, took effect on 1 April 1991. A uniform salary scale was also approved and applied in December 1991.

4. Pursuant to Article IV (service and career development) of the Staff Regulations of UNIDO, a system of performance appraisal was developed and introduced into the Secretariat in January 1989, taking into account certain principles recommended by ICSC. These included the setting of clear and realistic objectives at the beginning of the reporting period, to be based on the needs of the unit concerned, the job description of the individual and the work programme of the Organization. The system was also intended to ensure a continuous dialogue between the supervisor and the staff member. As requested by the General Conference at its fourth session (GC.4/Res.29, para. (c)), the experience gained during the past two years is under review by the Personnel Services Division in conjunction with the Evaluation Staff in the Office of the Director-General and managerial staff drawn from all the Departments. The system has proved to be a good one, generally, but minor adjustments may be needed to meet the changing needs of

the Organization. During the year a new performance appraisal report was developed for the purpose of evaluating the performance of UCDs and support staff.

5. In accordance with staff rule 113.02(c), the Staff Rules of the Organization may be amplified by administrative instruction, which are circulated throughout the Secretariat. Since the conversion of UNIDO into a specialized agency all the administrative and information circulars included in the United Nations Personnel Manual have been systematically reviewed and adapted to meet the Organization's requirements in conformity with its regulations and rules. This work was completed towards the end of 1991, when the UNIDO Personnel Manual was issued in three volumes. Copies are available within each Department of the Secretariat and may also be consulted by Member States.

6. As will be seen from Table 4 below, there has been an overall decrease in recruitment in 1991 as compared to the previous year. However, the number of short-term contracts issued for conference service staff and consultants or individual contractors increased as compared to 1990 and there was also a marked rise in the number of STAS appointments. Table 4 also provides details of the number of applications received for posts at Headquarters and vacancy announcements issued, together with the number of staff recruited in all categories for service at Headquarters and as UCDs.

7. The UNIDO roster continued to be updated and improved, special attention being given to candidates from unrepresented, underrepresented and developing countries. In addition to the circulation of the vacancy announcements through the usual addressees contained in the Secretariat's mailing list, three specific posts were also advertised in the media. Such advertising was one of the initiatives taken to expand the circulation of vacancy announcements which have helped the Secretariat to identify more candidates both for specific posts and for the roster. The number of candidates rostered for Professional positions is shown in table 4 below.

8. Despite the slow-down in recruitment caused by the Organization's cash-flow problems earlier in the year, considerable progress was made towards meeting the targets set by the Industrial Development Board for the representation of women in posts subject to geographical distribution (25 per cent by 1993; 30 per cent by 1995). By 31 December 1991 79 women (21.5 per cent) were occupying such posts as against 75 (21 per cent) at the end of 1990. The

1/ IOB.8/10, chap. VII, para. 6.

total number of women in the Professional category and above was 96 (1990: 95), an increase of 1.1 per cent. Women accounted for 36.8 per cent of the offers of regular appointments made during the year, although they had submitted only 966 or 16.7 per cent (1990: 1,078 or 17.8 per cent) of the total number of applications for Secretariat positions. Ten women received regular appointments and six were separated, giving a net increase of four.

9. Three departments have already met the standards set in 1989 in compliance with the Plan of Action to improve the status of women in the Secretariat and a fourth department is expected to reach its target soon. Several women at the senior and policy-making levels have already reached retirement age or will do so in the near future. In order to counter the decrease in this group and in line with the recommendation contained in decision IDB.8/Dec.18, paragraph (h), a subcommittee was recently re-established within the Joint Advisory Committee to support the efforts of the High-level Co-ordinator for the Improvement of the Status of Women in the Secretariat. It is expected, *inter alia*, to promote the advancement of women already employed and to identify special measures aimed at increasing the representation of women at levels P-5 and above.

10. Language training was provided in the six official languages of the United Nations and in German to staff of the Vienna-based organizations and the missions accredited to them. A total of 133 classes were organized in 1991, attended by 864 persons in the spring semester and 918 in the autumn semester. In addition, five post-proficiency classes were held in English and French, one workshop on French grammar,

two on office communication skills in French and two language maintenance workshops each in Russian and Spanish. The Vienna-based organizations shared the cost, with the UNIDO share at approximately 40 per cent. Language proficiency examinations were administered for 289 candidates. During the year 48 university graduates were accepted for the UNIDO Ad Hoc Internship Programme, which gave them the opportunity of obtaining practical experience or doing research on items of direct relevance to the work of the Organization.

11. Advice, information and administrative services continued to be provided to the staff on all matters related to pensions, health and life insurance, compensation claims and staff welfare. Following the international bidding process and subsequent to the contractual arrangements with the insurer, the new policy for the Group Medical Insurance became effective on 1 January 1991 for a three-year period. The expiration on 31 March 1992 of the transitional measures for the calculation of the initial local currency pension required additional efforts to provide estimate calculations and detailed briefings on options available to the staff members concerned. The Austrian authorities were contacted in connection with certain amendments to the Social Security Agreement which are being proposed for negotiation within the framework of the UNIDO Headquarters Agreement.

12. Table 1 below gives the composition of the staff of the UNIDO Secretariat as at 31 December 1991, according to category and sex, and with comparable figures for 1990. In addition, tables 2 and 3 provide details of the distribution by gender since 1989.

Table 1
Composition of the UNIDO Secretariat

Category	As at 31 December 1990 a/		As at 31 October 1991 b/	
	Male	Female	Male	Female
P-5 and above	138)	10)	152)	7)
P-1 to P-4	225)	85)	216)	89)
General Service	192	623))
Manual Workers c/	108	4)	620
Language teachers	2	5	2	5
Subtotal	665	727	665	721
TOTAL	1,392		1,386	

a/ Figures include 8 interregional and special technical advisers attached to UNIDO Headquarters but not short-term staff or UNIDO Country Directors (with the exception of 10 staff members serving temporarily in the latter capacity).

b/ Figures include 11 interregional and special technical advisers attached to UNIDO Headquarters but not short-term staff or UNIDO Country Directors (with the exception of 9 staff members serving temporarily in the latter capacity).

c/ General Service and Manual Worker categories were amalgamated as of 1 April 1991 into a single General Service structure.

Table 2 (a)

Professional staff in the UNIDO Secretariat, December 1989-1991

Grade	MALE			FEMALE			TOTAL		
	1989	1990	1991	1989	1990	1991	1989	1990	1991
DDG	5	5	5	0	0	0	5	5	5
D-2	3	5	5	0	1	1	3	6	6
D-1	29	28	33	2	1	1	31	29	34
P-5	94	100	109	8	8	5	102	108	114
P-4	127	129	124	24	34	35	151	163	159
P-3	80	68	66	34	31	30	114	99	96
P-2/1	23	28	26	13	20	24	33	48	50
TOTAL	361 81.7%	363 79.3%	368 79.3%	81 18.3%	95 20.7%	96 20.7%	442 100%	458 100%	464 100%

Table 2 (b)

Percentage of Professional staff in the UNIDO Secretariat, December 1989-1991
(within each grade)

Grade	MALE			FEMALE		
	1989 %	1990 %	1991 %	1989 %	1990 %	1991 %
DDG	100	100	100	0	0	0
D-2	100	83	83	0	17	17
D-1	94	97	97	6	3	3
P-5	92	93	96	8	7	4
P-4	84	79	78	16	21	22
P-3	70	69	69	30	31	31
P-2/1	64	58	52	36	42	48

Table 3 (a)

Professional staff subject to geographical distribution
in the UNIDO Secretariat, December 1989-1991

Grade	MALE			FEMALE			TOTAL		
	1989	1990	1991	1989	1990	1991	1989	1990	1991
DDG	5	5	5	0	0	0	5	5	5
D-2	3	5	5	0	1	1	3	6	6
D-1	26	25	27	2	1	1	28	26	28
P-5	77	83	85	6	7	5	83	90	90
P-4	100	105	106	19	28	31	119	133	137
P-3	52	48	45	24	23	22	76	71	67
P-2/1	10	12	15	8	15	19	18	27	34
TOTAL	273 83.2%	283 79.0%	288 78.5%	59 17.8%	75 21.0%	79 21.5%	332 100%	358 100%	367 100%

Table 3 (b)

Percentage of Professional staff subject to geographical distribution
in the UNIDO Secretariat, December 1989-1991
(within each grade)

Grade	MALE			FEMALE		
	1989 %	1990 %	1991 %	1989 %	1990 %	1991 %
DOG	100	100	100	0	0	0
D-2	100	83	83	0	17	17
D-1	93	96	96	7	4	4
P-5	93	92	94	7	8	6
P-4	84	79	77	16	21	23
P-3	68	68	67	32	32	33
P-2/1	56	44	44	44	56	56

Table 4

Significant performance indicators: Personnel Services

Activities	1990	Female	Male	1991	Female	Male
Applications received and responded to						
Professional	6,044	1,078	4,966	5,773	966	4,807
General Service	1,781			1,843		
Total number of candidates rostered						
Professional	2,518	518	2,000	2,793	589	2,204
From developing countries	1,343			1,539		
Vacancy announcements						
Professional	55			25		
General Service	31			31		
Staff recruited						
Professional	93	27	66	47	12	35
Short term advisory services	9	0	9	37	4	33
UNIDO Country Directors	12	1	11	4	1	3
General Service	77			34 a/		
Manual workers	4			-		
Short-term contracts issued						
Conference service staff	621			624		
Secretariat staff	223			158		
Consultant contracts issued	178			345		
Individual contractors	88			114		
Staff administered						
Headquarters	1,392			1,386		
UCDs, regional advisers, field and recruitment officers	35			40		
Support staff in the field	92			72		
Language training enrolment of which UNIDO	1,806 611			1,782 594		
Participants in UNIDO internship programme	45			48		

a/ Includes 2 transfers from the United Nations Office at Vienna.

HUMAN RESOURCE PLANNING

13. The systematic approach for staff development, begun in 1988, continued to be applied, especially for training in the areas of upgrading technical skills, management development and managerial assistance. Budget and training staff limitations remained a constraint, as they did in 1990. 2/ Nevertheless the staff development programme continued to be improved. Thus, as mandated in the programme and budgets, 1990-1991, the biennium was devoted to consolidating and developing further a system of human resource planning as an important tool for the overall management of the Organization.

14. As in previous years, emphasis was placed in 1991 on computer skills training: 84 basic and advanced courses were organized for a total of 653 Professional and General Service staff. A new approach in this area was the development of the Assisted Self-Learning Programme, a cost-effective concept designed to assist staff members to upgrade further their basic skills in computer applications. Importance continued to be attached to improving management practices in the Organization; a total of 143 middle and senior managers were trained in 12 workshops for developing interpersonal/intercultural, negotiation and presentation

skills. The link between leadership styles and effective management is the focus of a new programme for managers developed during the year. A managerial assistance programme for General Service staff covered the module on interpersonal/intercultural skills development. A total of 61 General Service staff members were trained in four courses. All these efforts resulted in the major achievement of a total of 108 courses with 857 people trained.

15. The emphasis in external training continued to be on updating and upgrading technical skills. During the year a total of 36 staff members - a higher figure than in 1990 (22) - participated in individual programmes outside UNIDO with a total of 414 days of external training.

16. During the year, UNIDO assumed the chairmanship, for a two-year period, of the Consultative Committee on Administrative Questions (CCAQ) Sub-Committee on Staff Training, which provides recommendations to the United Nations agencies and coordinates policies for human resources development in the United Nations system. UNIDO was also involved in the work of the advisory panel on the training of senior United Nations system representatives.

17. In the area of job classification, a total of 142 job analyses were carried out for the determination of post levels in the Professional and General Service categories.

2/ Ibid., para. 18.

(Sub-programme N.5)

**STAFF TRAINING 1991
(Number of staff trained)**

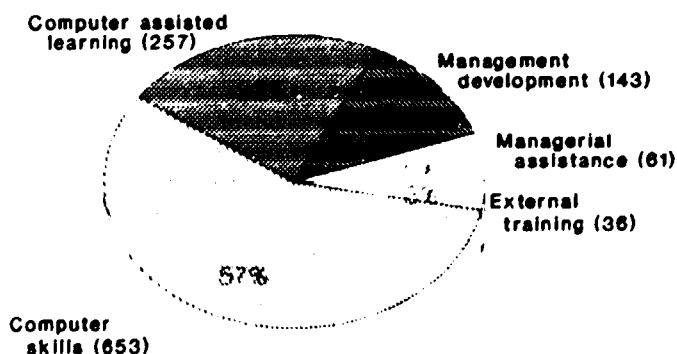


Table 5
Significant performance indicators: Human Resource Planning

Activities/ Training courses	1990			1991		
	Courses held	People trained	Trainee hours	Courses held	People trained	Trainee hours
Management development programme	10	134 ^{a/}	2,010	12	143	1,749
Performance appraisal briefing	-	-	-	-	-	-
General knowledge upgrading	2	51	102	-	-	-
Director-General forum	-	-	-	-	-	-
Technical skills upgrading (computer training)	82	638	7,905	84	644	5,808
EDP video training	8	92	632	1	8	120
Assisted Self-Learning	-	-	-	56	757	390
Managerial assistance programme	4	55	741	4	61	732
External learning programme	-	22	-	-	36	-
Total	106	992	11,390	157	1,149	8,799

<u>Classifications completed</u>	<u>1990</u>	<u>1991</u>
Professionals	113	28
General Service and Manual Worker	175	114
Total	288	142

^{a/} Includes 15 participants from other VIC-based organizations.

PROJECT PERSONNEL RECRUITMENT AND ADMINISTRATION

18. The task of Project Personnel Recruitment and Administration Service ^{3/} is to ensure the timely identification, appointment and administration of all international and national personnel for UNIDO projects. The work is done in close cooperation with the substantive branches

backstopping the projects and the other administrative services of UNIDO in an effort to obtain a coordinated approach in hiring experts with the required quality at reasonable costs. The targets set for the biennium were achieved despite some external and internal constraints, such as a relative shortage of highly qualified experts available on short notice, and tight staffing and electronic data-processing resources. Continued efforts were made to rationalize and simplify recruitment and administration procedures and raise the quality and quantity of expert services.

^{3/} IOB.6/10, chap. VII, para. 20.

19. The increase in project personnel services which was observed in 1990 continued in 1991. The number of experts appointed reached 2,700 or 8.4 per cent more than the 1990 figure of 2,490. This comprised the following categories of project personnel: (a) a total of 580 or 21.5 per cent as international experts appointed under the 200 Series of the Staff Rules (1990: 263), including 24 associate experts financed by 12 European Member States and 424 experts appointed under reimbursable loan agreements with letters of appointment for the staffing of self-financed trust fund projects in Egypt, Libyan Arab Jamahiriya, Nigeria and Yemen (1990: 73); (b) a total of 1,761 or 65.2 per cent international experts on mission (i.e. consultants) employed under special service agreements for periods normally not exceeding six months (1990: 1,811 or 72.7 per cent) including 70 experts recruited under SSA for trust fund projects; and (c) a total of 359 or 13.3 per cent national professional project personnel engaged under service agreements for work in their own countries (1990: 416 or 16.7 per cent). The recruitment of 120 local General Service support staff members (e.g. secretaries and drivers) was also processed for UNIDO field projects (1990: 103). In line with efforts for increased participation of women in industrial development projects 184 or 6.8 per cent of all recruited experts were women (1990: 159 or 6.4 per cent).

20. The delivery of experts' services resulting from appointments and extensions of appointments amounted to 13,327 work-months (1990: 10,997.6 work-months) with a monetary value of \$74.025 million or 48.99 per cent of the total technical co-operation implementation value (1990: \$68.83 million or 43.14 per cent). This represents an increase of 21.2 per cent in terms of work-months, and of 7.54 per cent in financial terms. Factors contributing to the higher costs of experts were: continued trend towards higher market rates payable to highly qualified consultants, particularly for very short missions, where expensive loan agreements with specialized institutions and firms are increasingly a precondition of access to top expertise. The continued prevalence of short-term missions (with an average of 3.1 months in 1991 compared to 2.7 months in 1990) caused high costs, particularly with regard to travel, recruitment and administration expenses.

21. The performance indicators for the biennium 1990-1991 (J.3.3.01 concerning recruitment) are reflected in table 7 below. The slightly lower number of extensions has been compensated for by an excess of 690 appointments over the target. The combined number of both indicators, i.e. 7,000 actions, has been surpassed by the figure of 586.

22. Attention was given to offering recipient developing countries qualified candidates from many different countries, including developing countries, so as to provide the greatest possible choice of expertise. As shown in table 1 of appendix D, project personnel from 110 countries were recruited. Table 6 below shows that 777 nationals of developing countries, including 359 national experts, have been employed. They represent 29 per cent of all experts appointed.

23. The UNIDO roster of candidates continues to be one of the most important sources of recruitment. It contains more than 12,700 individuals from 129 countries. Within existing budgetary limits and without neglecting the services required for current recruitment, work continued for improving the professional composition and availability of candidates on the roster. A total of 1,641 inactive candidates were deleted and 1,365 new ones suited to the changing needs of projects, were added to the roster.

24. UNIDO continued to share the costs of the United Nations Technical Assistance Recruitment and Fellowships Office in Geneva by financing two interviewing officers and General Service support staff. The officers undertake interview missions to European and some North African countries when candidates are identified and interviewed for the United Nations and UNIDO without incurring extra travel costs for UNIDO. A UNIDO regional recruitment officer, who continued to be assigned to the United Nations Development Programme Office at Cairo, Egypt, performed a wide range of tasks related to identification of candidates and their selection.

25. UNIDO administrative services to project personnel on board in 1991 covered a total of 2,905 international experts (1990: 2,733); 518 national experts (1990: 555) and 375 locally recruited project support staff (1990: 328). Such services included the establishment of entitlements and benefits under the UNIDO Staff Regulations and Rules, administration of consultants and national experts in accordance with their contractual conditions, as well as briefing and counselling.

26. During 1991 UNIDO fully implemented and applied the measures adopted by United Nations General Assembly resolution 44/198 aimed at improving the conditions of service of professional project personnel holding regular contracts. Special efforts were made to resolve, within the framework of United Nations common system rules and regulations, a number of problems arising in certain duty stations such as housing shortages and increased security risks.

Table 6

Distribution of experts by regional groups of countries
(1 January to 31 December 1991)

	Number of experts					
	UNIDO roster a/	Percentage of roster a/	Submitted to Government	Selected by Government b/	Appointed c/	Percentage of appointments
Developing countries d/	4,290	34	311	889	777	29
List B countries e/	6,633	52	773	1,461	1,245	46
List D countries f/	1,815	14	475	581	678 g/	25
	<u>12,738</u>	<u>100</u>	<u>1,559</u>	<u>2,931</u>	<u>2,700</u>	<u>100</u>

a/ As of 31 December 1991, excluding roster candidates for Secretariat posts only (2,793).

b/ Including government nominees and national professional personnel.

c/ Including appointment of 359 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.

g/ Including 494 appointments of experts from Poland, Hungary and Czechoslovakia for large-scale trust fund projects.

Table 7
Significant performance indicators:
Project personnel recruitment and administration

	<u>Number of individuals</u>			<u>Work-months c/</u>			<u>Implementation value</u> <u>(million \$)</u>		
	1990	1991	Total	1990	1991	Total	1990	1991	Total
Appointments (J.3.3.01)									
(a) International experts and consultants	2,074	2,341	4,415	8,587.8	10,577.8	19,165.6	65.98	70.66	136.64
<u>(b) National experts</u>	<u>416</u>	<u>359</u>	<u>775</u>	<u>2,409.8</u>	<u>2,749.2</u>	<u>5,159</u>	<u>2.85</u>	<u>3.36</u>	<u>6.21</u>
Total	2,490	2,700	5,190 a/	10,997.6	13,327.0	24,324.6 d/	68.83	74.02	142.85 e/
Extensions (J.3.3.01)									
	897	1,499	2,396 b/	included in above			included in above		
Administration of servicing experts, consultants and support staff									
(a) International experts and consultants	2,733	2,905	5,638						
(b) National experts	555	518	1,073	see above			see above		
<u>(c) Local support staff</u>	<u>328</u>	<u>375</u>	<u>703</u>						
Total	3,616	3,798	7,414						

a/ Total number of appointments under (a) and (b) planned for 1990-1991: 4,000-4,500. (Achievement: 5,190 or 115.3 per cent)

b/ Total number of extensions under (a) and (b) planned for 1990-1991: 2,000-2,500. (Achievement: 2,396 or 95.8 per cent)

c/ Work-month figures combine appointments and extensions.

d/ Total number of work-months planned for the biennium combining both appointments and extensions: 19,000-20,000 representing an implementation value of \$95-105 million. (Achievement: 24,324.6 or 121.6 per cent for work months and \$142.85 million or 136 per cent in financial terms)

GENERAL SERVICES

27. The total value of equipment and supplies delivered for technical cooperation projects was \$36.0 million. That amount represented 2,651 individual orders of which 674 or 25.4 per cent were placed with manufacturers and vendors from developing countries to a value of \$7.1 million (19.7 per cent), and 224 (8.4 per cent) were placed with manufacturers and vendors from the so-called major underutilized donor countries to a value of \$1.3 million (3.6 per cent). In addition, the Purchase Section continued to acquire equipment, supplies and materials, for the maintenance and repair of the Vienna International Centre (VIC) complex (including spare and replacement parts for buildings management activities) to a total value of \$6.2 million in 1,398 individual orders. Of this total 1,057 orders for \$4.1 million were for UNIDO and cost-shared procurement, with the balance of 341 orders for \$2.04 million for the other United Nations offices at the VIC. Comparative figures for these and other activities are given in table 8.

28. The number of new contracts issued for technical cooperation projects increased by nearly 12 per cent, from 204 in 1990 to 228 in 1991. However the total value of such contracts of \$18.3 million was somewhat lower than in the previous year (\$19.2 million). During the year 87 contracts (38.1 per cent) (total value \$3.0 million or 16.4 per cent) were awarded to companies from developing countries and 5 contracts (2.0 per cent) (total value \$1.5 million or 8.2 per cent) to major underutilized donor countries. A total of 261 contracts were awarded in 1991 for UNIDO Headquarters and the United Nations Office at Vienna (UNOV) at a total value of \$13.0 million (in 1990: 195 contracts totalling \$9.7 million). The Contract Management Information System, developed in 1990, 4/ is aimed at improving the quality of the processing work and follow-up of the 667 contracts currently under administration. After installation, in November 1991, the system was being tested at the end of the year. Special efforts were also made to update information on companies listed in the roster. During 1991, information on some 489 companies was updated and amended.

29. In 1991, buildings management activities included: the provision of engineering support services required by UNOV and the International Atomic Energy Agency for the planning, preparation of the bidding documents and evaluation of the bids received for the laying of computer cable networks; the provision of support to UNOV in connection with the upgrading of the Vienna-New York digital network and terminal equipment; the completion of the replacement

programme for the electronic installations in the UNIDO/UNOV conference rooms; and improvements carried out in the restaurant and cafeteria. The wall-to-wall carpet replacement programme continued as in previous years: the total surface relaid was 14,276 m² and the grand total of the programme through 1991 reached 72,000 m². A number of activities were contracted out, in particular those falling under the Major Repair Fund agreement.

30. The control and management of computerized inventory records was extended to include all items in use in the VIC catering services, (close on 22,500 items at a value of more than \$21 million at the end of 1991). In addition, the Unit concerned managed the computerized property records of UNOV (more than 6,700 items to an approximate value of \$8 million). Other work undertaken included: supervising the services rendered by contractors within the framework of 36 agreements for UNIDO and 20 agreements for UNOV, maintaining the property records for 739 technical cooperation projects and processing 102 transfer of title documents to a total value of \$12.4 million. The Property Survey Board was presented with 119 cases of which 101 were considered and approved.

31. Full registry and archive services continued to be maintained for UNIDO and the Centre for Social Development and Humanitarian Affairs, and archive services for Personnel Services, UNOV. In 1991, UNIDO accessions amounted to 389.5 linear metres (1990: 382.5 linear metres), whilst 194.5 linear metres (1990: 132.5 linear metres) were disposed of. The United Nations accessions represented 23.5 linear metres (1990: 14 linear metres) whilst holdings disposed of totalled 28 linear metres (1990: 26 linear metres). Despite an increase in the volume of outgoing and incoming communications, the centralized computer system enabled the Unit to process the additional work and provide specialized information promptly to users.

32. Over 13,500 travel authorizations were processed, representing an air ticket value of approximately \$14.3 million. In that connection, 2,801 visas were obtained and 1,153 letters of assistance were issued for travel of staff members. A total of 2,797 shipments of equipment, household goods, personal effects and documents were arranged for UNIDO and UNOV, and 81 insurance claims were filed with the insurance broker, of which 70 were settled.

33. The foregoing and the "significant performance indicators" contained in table 8 bear witness to the fact that, in 1991, the General Services Division achieved practically all of its objectives except for the full computerization of the Purchase Section roster of equipment manufacturers and vendors (cf. GC.3/10/Rev.1, Subprogramme N.3, para. 237).

(Subprogramme N.3)

4/ IDB.8/10, chap. VII, para. 32.

Table 8
Significant performance indicators: General Services

Activities				
(a) Buildings Management a/				
	1990		1991	
Laying carpets	19,247 sq.m		14,276 sq.m	
Laying cables	47 km		98 km	
Placing cable trays	35 units		25 units	
Moving walls	285		236	
Relocating staff	1,031		410	
Electricity costs	AS 24,034,739		AS 24,637,296	
Heating costs	AS 13,546,000		AS 15,818,590	
Cooling costs	AS 14,822,731		AS 14,945,634	
Water costs	AS 3,236,000		AS 3,222,017	
(b) Contracts				
	1990		1991	
Contracts awarded	Number	Value	Number	Value
		\$		\$
Technical cooperation (all funds) whereof	204	19,250,095	228	18,301,687
(a) Developing countries	75	4,166,253	87	3,017,731
(b) Major underutilized donor countries	9	5,117,388	5	1,494,114
Headquarters and others	195	9,731,100	261	13,013,893
(c) Purchase				
	1990		1991	
Purchase orders placed	Number	Value	Number	Value
		\$		\$
Technical cooperation (all funds) whereof	2,966	43,037,641	2,651	36,031,325
(a) Developing countries	852	8,898,017	674	7,090,464
(b) Major underutilized donor countries	251	3,269,183	224	1,340,907
Headquarters and others	1,292	4,758,366	1,398	6,157,182
(d) Travel, Transportation, Shipment and Insurance				
Items processed	1990		1991	
Travel authorizations processed	14,018		13,530	
Cables/telexes processed	1,909		2,176	
Austrian visas secured	839		935	
International visas secured	2,267		1,866	
Total visas secured	3,106		2,801	
Shipments arranged/insured	1,945		2,797	
Total value of tickets in \$			14,300,000	

CONFERENCE SERVICES

34. Conference services continued to be rendered on a joint basis under the same administrative and financial arrangements in force since 1986 (IDB.3/10, chap. VII, paras. 30-31). As in the past, the UNIDO Languages and Documentation Division provided a full range of translation and publishing services to both UNIDO and the United Nations entities in Vienna, while the Meetings Planning and Interpretation Service operated by the United Nations continued to service all United Nations meetings in Vienna as well as all UNIDO meetings held in Vienna and elsewhere.

35. Table 9 below provides information on translation and interpretation services and on the number of meetings serviced for UNIDO and the United Nations Office at Vienna (UNOV).

36. The Editorial Control and Publications Section continued to provide editorial, typesetting, reproduction, distribution and other related services to UNIDO and UNOV. Table 9 shows the distribution of the workload between the two organizations during the year.

37. During the biennium 1990-1991, management measures were taken by the Languages and Documentation Division which resulted in more efficient use of staff resources including a decreased level of recruitment of temporary assistance on costly daily terms. In order to keep in step with office automation application at United Nations Headquarters in New York as well as in Geneva, the Division also began laying the groundwork for the conversion from the use of the current software to the system to be in use at the other locations. The successful realization of the project will depend on the availability of funds.

38. The Documents Control Unit controls all submissions and processes all jobs requiring translation, editing, artwork, presentation, typesetting and printing from UNIDO and the United Nations (in 1991, 17,904 jobs were processed of which 49.7 per cent were for UNIDO). The computer-aided documents control system, one of the largest data bases in UNIDO, has expanded to include new users in the Division and, eventually, all substantive units of UNIDO and UNOV, using internal programming resources. The purpose of the system is to generate workload statistics and to track jobs in progress (500 to 600 jobs a day); it is also the basis for cost sharing between UNIDO and UNOV.

39. As regards staffing of the joint conference services, problems were encountered in finding suitable candidates for the Spanish and French sections. By the end of 1991, there were 16 vacancies in the Translation Service and 2 vacancies in the Editorial Control and Publications Section. Out of 20 posts in the Meetings Planning and Interpretation Service, 17 were filled by the end of the year.

FINANCIAL SERVICES

40. Increased attention was paid to financial management within UNIDO and the proper accounting, cash planning, control and reporting in respect of the many sources of funds with which the Organization deals. In 1991, the total annual outflow of funds from UNIDO amounted to \$267 million (1990: \$272 million). The value of financial assets and liabilities under the control of UNIDO exceeded \$1 billion in 1991. Owing to the steady increase in that sum, more emphasis was put on the preparation of timely information for senior management with improvements being introduced on the reporting procedures dealing with the operational budget, vacancy rates, cash-flow and technical cooperation delivery.

41. Systems development work on the computerization of financial procedures continued with the further introduction of on-line systems for obligations, payments and information retrieval and automatic generation of accounting entries and information. The financial rules are currently under review and a draft finance manual was prepared. Financial Services has participated in joint working groups with the International Atomic Energy Agency and the United Nations on cost-sharing arrangements for common and joint services within the Vienna International Centre.

42. In addition to the proposed programme and budgets for 1992-1993 which were prepared by the Budget Section in co-operation with the Strategy, Policy and Planning Office, other documents and notes were prepared and briefings held with Member States on the financial situation of UNIDO, expenditure redeployment proposals, computerization programme of UNIDO, follow-up of the External Auditor's reports, examination of the 15 per cent reserve of appropriations, zero growth budgets and the split-currency system of assessment. New activities undertaken during 1991 included the installation of a budget preparation system for the 1992-1993 budget proposals, conceptual work on the introduction of a fixed dollar allotment control system, the monitoring of electronic data processing (EDP) expenditures as well as the writing of EDP management reports and preparation of allotment control reports. Ongoing financial services included the issuance of project allotment documents (PADs) for the regular and operational budgets and United Nations accounts, control of allotments, financial administration of the UNIDO Country Directors (UCD) programme, apportionment of conference service costs between the United Nations Office at Vienna (UNOV) and UNIDO, certification and administration of UNIDO staffing tables, preparation of financial reports for the Task Force of the Industrial Development Decade for Africa, certification functions and the drafting of responses to the observations of the External Auditors.

Table 9
Significant performance indicators:
Conference Services

		Total	Share	
			UNIDO	United Nations (per cent)
Translation services (1,000 words)	1990	19,514 a/	35.6	64.4
	1991	20,685 b/	41.6	58.4
Interpretation services (in work days)	1990	4,126	16.1	83.9
	1991	4,965 c/	28.3	71.7
Conferences/meetings (No. of half-day meetings)	1990	1,913	56.2	43.8
	1991	2,349 d/	57.6	42.4
Editing services (1,000 words)	1990	3,639	58.0	42.0
	1991	3,767	58.0	42.0
Editorial assistance at meetings (days)	1990	58	-	100.0
	1991	51	6.0	94.0
Preparation of camera- ready pages	1990	6,607	39.0	61.0
	1991	8,470	46.0	54.0
Documents/publications circulated (number of documents)	1990	4.7 million	51.0	49.0
	1991	4.7 million	54.0	46.0

a/ Includes 3,779,800 words for the policy-making organs of UNIDO.

b/ Includes 5,742,000 words for the policy-making organs of UNIDO.

c/ Includes 826 interpreter-days for the policy-making organs of UNIDO and 189 interpreter-days of loans to other organizations.

d/ Includes: Second Consultation on the Wood and Wood Products Industry, 21-25 January (17 meetings with, 7 meetings without interpretation), Programme and Budget Committee, resumed seventh session, 27 June (2 meetings with interpretation), Industrial Development Board, eighth session, 1-5 July (19 meetings with, 27 meetings without interpretation), Industrial Development Board, resumed eighth session and Programme and Budget Committee, resumed seventh session, 23 August (3 meetings with interpretation), Fourth Consultation on the Capital Goods Industry, 16-20 September, Prague (8 meetings with interpretation), UNIDO Conference on Ecologically Sustainable Industrial Development, 14-18 October, Copenhagen (18 meetings with interpretation), Second Consultation on Building Materials Industry, 4-8 November, Athens (10 meetings with interpretation), General Conference, fourth session, 18-22 November, Vienna (30 meetings with, 39 meetings without interpretation), Industrial Development Board, fourth special session, 23 November (1 meeting with interpretation); and includes: United Nations Conference on Liability of Operators of Transport Terminals in International Trade, 2-19 April, Vienna (30 meetings with, 9 meetings without interpretation), Committee on the Peaceful Uses of Outer Space, thirty-fourth session, 27 May - 7 June, Graz (16 meetings with interpretation), United Nations European Regional NGO Symposium on the Question of Palestine, 16-27 August and eighth United Nations International NGO Meeting on the Question of Palestine, 28-30 August, Vienna (7 meetings with, 13 meetings without interpretation), Second International Conference of the International Federation of Organic Agriculture Movements (IFOAM), "Trade in Organic Food", 11-13 November (5 meetings with interpretation), International Council of Scientific Unions (ICSU) Conference on Agenda of Science for Environment and Development into the 21st Century (ASCEND 21), 25-29 November (7 meetings with, 14 meetings without interpretation).

43. Overall management and control of the receipt, custody, disbursement and investment of all funds of the Organization continued during 1991. To the extent possible, it was ensured that the assessed contributions of UNIDO were received and that the resources of the Organization were properly managed, secured and invested. Consequently, the Investment Committee met four times during 1991 to decide on the proper investment of funds entrusted to UNIDO. Up to 31 December, 334 short-term investments were placed with some 19 authorized banks in seven countries. In general, time deposits in any one bank did not exceed \$15.0 million. As of 31 December, UNIDO had some \$111.5 million invested in time deposits. About 28 per cent of this amount was invested in Austrian banks. About 56 per cent of the portfolio was invested in United States dollars. Some 70 bank accounts were managed and operated world wide during the year.

44. In addition to its own accounts, UNIDO continued to maintain the accounts of UNOV, to effect all payments made in Vienna to staff and suppliers of the two organizations as well as pre-auditing charges received from field offices and other organizations. In 1991 responsibility was taken over from the United Nations Joint Staff Pension Fund for processing pension fund validations for UNIDO staff at Headquarters and in the field.

45. The total number of transactions processed continues to increase by 10 per cent per year while staff resources remain severely limited. Furthermore, in addition to the statutory reports required by the

Financial Regulations and Rules the number, frequency and variety of reports to the United Nations Development Programme and other donors and to management were increased. Measures introduced during the biennium to improve the control and management of financial resources and increase the speed of processing transactions include a database for managing the split-currency system of regular budget assessed contributions, an on-line system for processing travel advances, travel claims and special service agreements, a computerized link with a bank for electronic transfer and a cash reporter system which monitors the activities of the bank accounts.

46. Concerning the financial management of technical cooperation, activities of an ongoing nature prevailed, consisting of the financial implementation and control of the technical cooperation programme, reporting and analysis of technical cooperation delivery, including related systems and procedures as reflected in table 11. At the end of 1991, 2,542 projects were under financial implementation of which some 1,700 were substantively operational. The trend towards more trust fund and Industrial Development Fund implementation resulted in an increase in the staff and computer resource requirements relative to the overall level of implementation of such projects. To further streamline the financial management of technical cooperation, reporting requirements were continuously reviewed and improvements introduced. Systems and procedures were improved accordingly.

(Subprogramme N.1)

Table 10

Significant performance indicators: Accounts and payments

Activities	1989	1990	1991	1990-1991 increase (decrease) (per cent)
Total number of accounts transactions	288,317	299,293	350,182	17.00
Number of incoming invoices:				
Suppliers	24,244	24,133	22,633	(6.28)
Training	7,398	11,993	10,465	(12.75)
Number of travel claims paid	11,949	10,599	11,282	3.81
Number of travel advances paid	3,057	2,461	2,949	19.83
Number of IOV transactions	38,234	42,767	42,067	(1.64)
Number of outgoing invoices	926	871	905	3.90
Number of donor reports prepared	5,472	5,517	5,819	5.47
Number of imprest accounts	12	16	17	6.25
Monthly average number of staff on payroll	2,383	2,324	2,313	(0.48)
Number of payroll documents	13,150	14,881	14,731	(1.01)
Number of Special Services Agreement payments	3,364	4,159	4,117	(1.01)
Number of manual actions	12,469	10,686	10,534	(1.43)

IOV: Inter-office voucher

Table 11

Significant performance indicators: Financial management of technical cooperation

Activities	1989	1990	1991
Projects in data base (year end)	2,515	2,518	2,542
Percentage of which non-UNDP (IPF) projects	43%	48%	53%
Group training programmes/workshops implemented	128	111	129
Travel authorizations implemented	2,509	2,652	2,748
Recruitment actions implemented	4,084	4,505	4,423
Purchase orders implemented	3,450	3,240	3,129
Fellowships/study tour actions implemented	2,500	2,335	2,002
Number of mandatory revisions prepared for UNDP projects	877	952	930
Number of 'Letters of Authorizations' raised for field offices	221	424	420

MANAGEMENT INFORMATION SERVICES

47. In line with efforts to enhance the effectiveness of the computerization programme of UNIDO, a Management Information Services Division was established in February 1991 (UNIDO/DG/B.142). The Division, which has the overall responsibility for the planning, development and implementation of the computerization programme includes an Applications Development Section, an Operations Unit and an End-user Support Unit. Within the new set-up, the ongoing tasks associated with maintaining, upgrading and running over 70 management information systems and subsystems, which, together with the support of the mainframe computer and of the office automation equipment and users, draw upon the majority of existing staff resources.

48. The organization-wide installation of desktop equipment and software was completed in early 1991. The equipment inventory is 725 workstations and 593 printers. Another major activity during the first half of 1991 was the input required by the Working Group of Independent Experts on the Computerization of UNIDO and by the consultants that were subsequently engaged as a follow-up of the recommendations of the independent experts. The reports of the consultants (PBC.7/CRP.13, Add.1 and Add.2 and GC.4/CRP.1) were submitted to the policy-making organs.

49. In 1991 the development of a new system to monitor the status of expert recruitment, the consolidation of three previously individual databases (project appraisal monitoring, Project Review Committee funds administration and pipeline projects) to form the project information database, the implementation of a system of obligation control for the financial management of technical cooperation projects as well as the expansion of the expert staffing table system to automate the issuance of contracts and obligations for experts on reimbursable loans were the main areas of applications development for technical cooperation. Furthermore, a budget preparation system was developed and major improvements were introduced for the on-line processing of journal vouchers and the automation of a number of processes in accounts and payments.

50. A number of activities were initiated in the last quarter of 1991 as a follow-up to the recommendations of the consultants referred to in paragraph 48 above, in particular those related to skills upgrading of the technical staff in the Division (GC.4/CRP.1, section 2.7), expansion of the current computing infrastructure (section 2.9), and development of a strategic plan to model the information and automation needs of UNIDO (section 4).

(Subprogramme N.4)

Table 12

Significant performance indicators: Management Information Services

Activities	1988	1989	1990	1991
Number of programmes maintained	880	1,110	1,523	2,058
Number of programmes written	240	265	413	445
Number of databases	27	36	52	56
Data entry (million strokes)	17.6	19.5	15.3	12.4
Printed lines (million)	147	155	193	261
Number of workstations installed	76	226	139	52
Number of printers installed	32	187	131	25

CHAPTER VIII. SOURCES OF FUNDS

A. FINANCING OF TECHNICAL COOPERATION ACTIVITIES

1. Technical cooperation for the benefit of the developing countries continued to be the main activity of UNIDO with the value of net approvals of projects amounting to \$130.4 million in 1991 (1990: \$162.7 million). As in the past, UNIDO technical cooperation activities were again 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 cooperation (RP) and the Industrial Development Decade for Africa (IDDA) both within the regular budget of UNIDO, trust funds and self-financing arrangements with developing countries as well as a number of United Nations funds.

UNDP INDICATIVE PLANNING FIGURE AND COST SHARING*

2. During the biennium 1990-1991, UNIDO was executing agency in 128 countries for 393 projects with a total budget of \$594.6 million under the fourth UNDP programming cycle (1987-1991).

3. With the net approvals of \$48 million in 1991 (1990: \$81.4 million), total net approvals of the fourth programming cycle (1987-1991) reached \$400.7 million. The delivery in 1991 reached \$75.3 million (1990: \$88.7 million), leading to a total expenditure figure of \$381.3 million in the fourth cycle (see statistical annex, table 2.C).

(Subprogramme E.2)

SPECIAL INDUSTRIAL SERVICES PROGRAMME

4. The Governing Council of UNDP allocated \$15 million to UNIDO for the fourth programming cycle (1987-1991) of the Special Industrial Services (SIS) programme, to be distributed in equal annual instalments of \$3 million. Throughout the cycle, the SIS programme met with growing interest on the part of developing countries, including the least developed countries, and an increasing number of requests were received. During the biennium 1990-1991, UNIDO applied a selective policy when approving projects, in line with the criteria set out in the

SIS programme guidelines. 1/ Owing to the exceptionally high rate of approvals achieved in 1990, 2/ which ensured full programming by the end of the cycle, the approval of new projects in 1991 had to be limited to \$0.2 million. At the conclusion of the fourth cycle on 31 December, the allocation of \$15 million had been fully implemented.

5. The level of SIS resources for a given five-year programme cycle is determined by the Governing Council of UNDP. Since the start of the programme, the following amounts have been allocated: \$17.4 million in 1966-1971, \$14.3 million in 1972-1976, \$17.2 million in 1977-1981, \$13.95 million in 1982-1986 and \$15 million in 1987-1991. In its decision 9C/34, the Governing Council again approved a total allocation of \$15 million for the fifth programming cycle, 1992-1996. While this allocation will enable UNIDO to continue to provide Special Industrial Services to developing countries, the fact that the allocation has remained at the same nominal level as for the fourth cycle and is lower than in earlier cycles means that a substantial reduction in real terms has taken place, resulting in a considerable reduction of the potential scope of the programme.

6. An evaluation of the SIS programme was begun at the end of 1991 (see chap. V, para. 15). Two aspects affecting the programme were given particular consideration: (a) the question of whether the revised SIS guidelines, which came into force in 1988, 1/ were adequate in the light of the changing needs and conditions of developing countries; and (b) the possible impact on the SIS programme of the changing pattern of multilateral cooperation and the UNDP successor arrangements for agency support costs. It is expected that the conclusions and recommendations of the evaluation will provide valuable inputs for a possible reconsideration of the SIS programme guidelines.

(Programme element (E.4.1.01))

TECHNICAL COOPERATION - REGULAR BUDGET ALLOCATIONS

Regular programme of technical cooperation

7. For the regular programme of technical cooperation - excluding the Industrial Development Decade for Africa (IDDA) - the

* Including government counterpart cash contributions and special measures.

1/ UNDP/PROG of 7 June 1988.

2/ IDB.E/10, chap. VI¹, para. 6.

General Conference approved initially a sum of \$5,558,000 for the biennium 1990-1991, at an exchange rate of US\$ 1 = AS 12.90. In 1991 this sum was adjusted in accordance with Annex II.B of the Constitution to \$6,114,900 at an exchange rate of US\$ 1 = AS 11.54. The distribution of the regular programme allocation and the corresponding delivery during the biennium are shown in appendix C. During the year under review, the regular programme continued to provide an additional source of funding for industrial human resource development through individual fellowships, group training and the establishment and strengthening of training facilities in developing countries, as well as for projects to respond to the special needs of the least developed countries, to promote cooperation among developing countries and for consultations with Governments. In programming the available resources under the regular programme, every effort was made to achieve an equitable geographical distribution, especially taking into consideration the needs of the African and least developed countries.

(Programme element (E.4.1.01))

Allocations for the Industrial Development Decade for Africa

8. Under the regular programme of technical cooperation for 1990-1991, a separate allocation of \$3,846,100 approved by the General Conference for IDDA enabled continued development and implementation of programmes and projects in the priority areas of agro-industries and agro-related industries, rehabilitation and restructuring. In 1991 this sum was adjusted in accordance with Annex II.B of the Constitution to \$4,231,400 at an exchange rate of US\$ 1 = AS 11.54. The funds available had been fully programmed in 1990 and, at the end of 1991, a total of 37 projects had been implemented for a value of \$4,195,083, representing an implementation rate of 99.1 per cent. (For the distribution of the allocations and delivery, see appendix C.)

9. Concerning the amount of \$4,766,600 originally allocated under the 1990-1991 regular budget to cover supplementary activities in support of the Decade, 3/ this sum was adjusted to \$5,250,700 at an exchange rate of US\$ 1 = AS 11.54. These funds were fully programmed and the implementation at the end of 1991 reached \$4,520,800 or 86.1 per cent.

(Subprogramme E.2)

OPERATIONAL BUDGET

10. As stipulated in financial regulation 3.4(b), the operational budget shall show

3/ Ibid., para. 9.

the expected income and expenditures in respect of voluntary contributions to the Industrial Development Fund, such trust funds, reserve and special accounts as established by the Director-General and in respect of support costs of technical assistance activities. In compliance with Board decision IDB.4/Dec.26(f), information on the activities financed from these sources of funds is provided under the respective headings of the present chapter.

11. The General Conference at its third session, in decision GC.3/Dec.23, approved estimates of expenditure totalling \$35,723,000 (calculated at the exchange rate of US\$ 1 = AS 12.90) for the purpose of the operational budget for the biennium 1990-1991, to be financed from voluntary contributions and such other income as might be provided for in the financial regulations.

12. There were 303 staff (77 Professionals and 226 General Service) on board financed from the operational budget in December 1991 as compared with 318 staff (82 Professionals and 236 General Service) on board in December 1990. Expenditure incurred in 1991 amounted to \$21.9 million (at an average United Nations rate of exchange for 1991 of US\$ 1 = AS 11.65) whereas income from technical cooperation delivery and other income amounted to \$19.2 million in 1991. A statement of income and expenditures for the operational budget for 1990-1991 will be provided in the financial performance report for the biennium 1990-1991.

13. In its resolution GC.4/Res.23, the General Conference considered proposed amendments to financial regulation 4.1 related to the budgetary approval of operational budget income and expenditures and decided to adopt an additional paragraph (4.1(c)) to the regulation which provides for the monitoring of income and expenditures by the Director-General. In the same resolution the General Conference requested the External Auditor to submit a report to the Programme and Budget Committee at its eighth session on his views and comments on the proposed paragraphs (d) and (e) of financial regulation 4.1 concerning the authority to incur obligations and to make payments in excess of budgetary limitations. It further requested the Committee to reconsider the two paragraphs 4.1(d) and 4.1(e) and to report to the General Conference at its fifth session through the Industrial Development Board at its tenth session.

INDUSTRIAL DEVELOPMENT FUND

14. In 1991 the announced pledges to IDF were \$28.9 million (1990: \$29.8 million). The breakdown by segments of the Fund was as follows: \$0.8 million for the general-purpose convertible segment, \$24.9 million for the special-purpose convertible segment and \$3.2 million for the combined general-purpose and special-purpose non-convertible segments.

15. Appendix G provides information on firm pledges and receipts, the status of resources and cumulative project approvals and revisions as at 31 December 1991. The net value of projects approved in 1991 amounted to \$27.4 million (1990: \$30.8 million), distributed as follows: general-purpose convertible \$0.3 million (1.0 per cent); special-purpose convertible \$25.9 million (94.4 per cent); special-purpose and general-purpose non-convertible \$1.3 million (4.6 per cent). A breakdown of new projects approved during the year for each segment, by region and programme component, is given in appendix G, table 4.

16. A major concern with regard to IDF continued to be the question of programmability, based on an assured flow of funds that would provide predictability for recipient Governments and thus permit longer-term planning of projects within the framework of national industrial development strategies. Greater programmability would also enable UNIDO to respond more fully to the priority areas as expressed in the medium-term plan and to serve the needs of as many developing countries as possible. Discussions on the matter have been undertaken with the major special-purpose donors to the Fund, in order to modify the present pattern of programming to enable greater flexibility and more delegation of administrative responsibility to the Secretariat. Some donors responded positively in that direction, as described in paragraph 20 below. On the whole, however, the programmability of the Fund continued to be severely restricted by the limited size of total contributions to the general-purpose convertible pool (\$0.8 million in 1991), as well as by cash-flow difficulties resulting from late payment of some general-purpose contributions.

17. Within the limits imposed, UNIDO has endeavoured to ensure an equitable geographical distribution of projects funded by IDF. The breakdown provided in table 4 of appendix G shows that the greatest emphasis was given to global and inter-regional projects (\$15.6 million, or 57.0 per cent), which have an impact on a large number of countries. Thus, the Fund continues to be UNIDO's main financing source for the promotion of projects and programmes of a global or interregional nature, which have been awarded a high priority in the medium-term plan. The geographical distribution of the remaining IDF projects was as follows: Africa (excluding Arab States) 10.9 per cent, Arab States (including African Arab States) 6.5 per cent, Asia and the Pacific 12.7 per cent, Latin America and the Caribbean 12.7 per cent, and Europe 0.2 per cent. As shown in the breakdown by programme component, the major emphasis of IDF projects continues to be on the following areas: promotional activities, including investment promotion, development and transfer of industrial technology as well as information and training (including strengthening of industrial training institutions in developing countries). The emphasis is in line with

the priority areas for the medium-term plan 1990-1995 (GC.3/17). Several donors, including France, Germany and Japan, place special emphasis on projects to promote and support investment in developing countries. An example of the utility of the investment promotion activities can be seen in the nine UNIDO Investment Promotion Services (cf. chap. III, para. 37) financed through IDF at a total annual cost of approximately \$5.3 million, which have generated investments in 1991 with a total value of approximately \$890 million.

18. As in previous years, the limited general-purpose segment of the Fund continued to be utilized to a great extent for preparatory assistance projects aimed at attracting larger-scale contributions from special-purpose donors or other sources of financing, in accordance with the medium-term plan priority of mobilizing financial resources for industrial development. The general convertible pool was also used as seed money for programming non-convertible contributions. Virtually the whole non-convertible segment of the Fund was used for training programmes and workshops that took place in the respective donor countries with wide-ranging participation from the developing countries.

19. The biennium 1990-1991 witnessed positive developments in the financing of innovative programmes through IDF. In accordance with the Fund's objective of emphasizing technically innovative, non-traditional industrial projects, the Government of Germany in 1991 approved the latest in a series of projects on new uses for natural rubber aimed at developing natural rubber-based bearings for earthquake protection of small buildings. Member States have recognized the vital importance of enhancing UNIDO activities related to the environmental impact of industrial development and of supporting those activities through extrabudgetary resources. In addition to the umbrella contributions of the Governments of Germany, Norway and Sweden to the Fund ^{4/} to finance activities of the UNIDO environment programme, a contribution by the Government of Denmark made possible the convening of the Conference on Ecologically Sustainable Industrial Development at Copenhagen, Denmark, from 14 to 18 October. A contribution was also received from the Government of the Netherlands for the preparation of the industrial components of the national reports of three developing countries for the 1992 United Nations Conference on Environment and Development. Women in industrialization, a priority area in the medium-term plan, has attracted financing for IDF projects from donors including the Governments of the Netherlands and Switzerland. Other new developments in 1991 were the launching of the Regional Programme for the Industrial Automation of

4/ Ibid., para. 20.

the Capital Goods Sector in Latin America, funded from contributions to IDF by five donor countries, and the expansion of the Regional Programme for the Development of Subcontracting in Latin America to include five additional countries, financed from a contribution by Switzerland.

20. The biennium also witnessed positive developments in the pattern of pledges to IDF. 4/ Recognizing the importance of the programmability of IDF (para. 16 above), several donors provided contributions that will enable UNIDO to programme funds with increased speed and flexibility. In 1991, the Government of India was the largest single contributor to the general convertible pool with \$250,000; the Governments of Austria and Italy again pledged \$164,000 and \$200,000 respectively to the general convertible pool. 4/ Furthermore, Italy pledged an umbrella contribution of

\$500,000 towards the implementation of an industrial action plan for the least developed countries. Such umbrella contributions make possible a more flexible and efficient programming of funds, since final approval authority of the individual projects is delegated to UNIDO within a financial and substantive framework mutually agreed upon with the individual donors. In order to further enhance the ability of IDF to support technical cooperation activities, UNIDO has strengthened the dialogue with donor countries on such issues as project quality, the programmability of funds and the development of new procedures for project negotiation and approval, so as to improve the efficiency of the process and the effectiveness in responding to the needs of developing countries.

(Programme element E.4.1.01)

Table 1

Significant performance indicators:
Project Review Committee Secretariat and Funds Administration (E.4.1.01)
(relates to IDF, SIS and RP)

Output	Planned 1990-1991	Achieved		
		1990	1991	Total biennium
Preparation of programmes/plans for IDF and RP (iii)	2	1	1	2
Project proposals reviewed and assessed (iv)	1,200 a/	708	301	1,009
Project Review Committee and related meetings (v)	160	62	52	114
Requests for project budget revisions reviewed and processed (vi)	700 a/	426	349	775
Cooperation agreements reviewed (vii)	20	4	6	10
Meetings of joint committees with donors (viii)	8	6	2	8

a/ Erroneously, the programme and budgets 1990-1991 refers to this figure per year instead of per biennium.

Note: In comparing planned and achieved figures the following should be taken into account:

(a) The achieved figures refer only to full-fledged project documents that were formally submitted to the Project Review Committee or its Chairman. In addition to these, a large number of project concepts and ideas were reviewed and discussed informally with potential donors.

(b) As explained in paragraph 4 above, 1991 being the end of the five-year programming cycle, very few projects could be considered under SIS. The number of SIS projects has also been lower from 1989 onward because of the relatively larger average size of each project within the budget limitations.

(c) A new approach of exercising greater selectivity in producing project documents was introduced in order to optimize the use of staff and financial resources and to avoid raising undue expectations in recipient countries. This approach led to a decrease in the number of project documents prepared and processed.

(d) The majority of projects for regular programme financing were examined in the first year of the biennium to ensure the financing of their implementation under the regular budget before the end of the biennium.

TRUST FUNDS AND SELF-FINANCING ARRANGEMENTS

21. During the biennium 1990-1991, UNIDO special trust fund activities were in full swing, having gained recognition by the Industrial Development Board (decision 108.8/Dec.32), the General Conference (resolution C.4/Res.28) and the United Nations General Assembly (resolution 45/196) as good supplementary mechanisms to traditional assistance programmes for providing useful services directly to industry in developing countries. The total value of projects approved and under implementation in 1991 under these schemes was \$40.6 million (31.1 per cent of UNIDO total approvals), while expenditure on technical cooperation activities rose to \$31.2 million (21.1 per cent of UNIDO total expenditure). The corresponding figures for 1990 were \$27.2 million (16.7 per cent) project approvals under implementation, and \$25.7 million (16.1 per cent) project expenditures. The activities in 1991 fall into eight major project types which are described below with examples.

22. Plant performance improvement (E.4.3.01 and E.4.3.03): Better utilization of installed industrial capacity and plant performance improvement are priority concerns for companies in developing countries. UNIDO has a proven record for providing effective action in this area through assignment of individual experts or teams of experts at considerable savings of money, time and trouble to the company in the developing country, and with the aid of the Organization's extensive network of sources of expertise and long experience in recruitment and supervision of international experts. Projects of this type, approved and ongoing in 1991 under the self-financed trust fund scheme, include nine cement plants (five in the Libyan Arab Jamahiriya, one in Egypt, two in Nigeria and one in Yemen), an ammonia plant, a polyvinyl-chloride (PVC) plant, and an iron and steel complex in the Libyan Arab Jamahiriya. Further, with trust funds received from the Government of Japan, more effective environmental control and risk management activities were introduced in iron and steel plants in Argentina and Thailand; improved solar evaporation techniques were applied to upgrade salt production in Guinea, with women as the target group for training; assistance was given for the modernization of a steel plant and for the reduction of pollution from the iron and steel industry in Hungary; and advisory services were being provided in Poland for restructuring the production profile of the fertilizer industry and for improving the design and manufacture of agricultural machinery. In addition, with trust fund financing from the Government of the United Kingdom of Great Britain and Northern Ireland, advanced computer-aided design methods were introduced to a contracting engineering company, assistance was provided for technological upgrading of a foundry, and computerized information and

related support services were organized for small and medium companies in Hungary; while in Poland, restructuring studies were started on nine state-owned enterprises, with the aim of identifying structural changes necessary for their privatization and estimating investment costs.

23. Project planning - pre-investment studies and services (E.4.3.01 and E.4.3.03): Industrialists and entrepreneurs in developing countries require prompt service to place their project plans on a sound technical and commercial basis, and UNIDO is able to provide a number of these services. They include pre-investment studies for industrial projects, coupled with the reliability of the UNIDO computer-assisted methodology (COMFAR) for feasibility analysis and reporting; rapid and cost-effective raw materials survey and testing; advice in technology sourcing, selection and acquisition; license negotiation; and identification of foreign technical and financial collaborators. In 1991, raw material survey and tests were arranged for a Nigerian company for the establishment of a new cement plant, while in the Islamic Republic of Iran a study was carried out on sources of technologies and investment costs for a pharmaceutical complex. With trust funds received from the Government of Japan, a techno-economic study was carried out on the establishment of an industrial estate for small- and medium-scale industries in Yap Islands, Micronesia; several projects were identified for development of marine-resource based industries in the Pacific island countries; and a feasibility study was carried out for a castor oil plant in Uganda. With trust fund contributions from the Japan International Development Organization Limited (JAIDO), activities were initiated in Brazil for industrial processing of paffia (ginseng) products and capivara leather products for export and capivara meat for local consumption. These pioneering agro-industrial activities were expected to lead to foreign investment. A study on the investment environment prior to the establishment of an industrial free zone in Costa Rica was launched with funds provided by the Republic of Korea, putting into practice the concept of cooperation among developing countries.

24. Project financing advice and assistance (E.4.3.02 and E.4.3.03): Project planners in developing countries increasingly turn to UNIDO for help in this area. They expect UNIDO to widen their options and suggest financial packages most favourable to them, and rely on UNIDO involvement in project preparation and implementation to facilitate lending from development banks and raise the confidence of potential foreign investors. For example, under a trust fund project financed by the Government of Japan, UNIDO carried out a diagnostic study for rehabilitation and expansion of a salt refining factory in Cameroon, as a result of which, the Government of Cameroon allowed the company to receive a loan from a national development bank; UNIDO is expected

to assist in the selection and purchase of the necessary equipment. Another example is the financing under a trust fund from the Danish Industrial Development Agency (DANIDA) of a feasibility study on banana ketchup production by a company in Côte d'Ivoire which led to the formulation of a joint venture with a Danish and a British company. Financing for the joint project is being sought from the International Finance Corporation, the Industrial Fund for Developing Countries of Denmark, the African Development Bank and ECOBANK, a commercial bank in Togo, West Africa.

25. Special training services (E.4.3.01): Many companies in developing countries require tailor-made training programmes for which they are willing to pay the costs to UNIDO, provided that their precise requirements are met promptly. The two-way industrial cooperation promoted under the trust fund schemes enables UNIDO to gain the good will and cooperation of many companies in industrialized and developing countries, thereby persuading them to organize special training programmes. Examples are the cement technology seminars organized in China, Egypt, India and Turkey that were attended by some 130 self-paying participants from 14 developing countries; and training programmes supported by trust funds from Canada, France and Norway in standardization and quality control for Czechoslovakia, Hungary and Poland, and in entrepreneurship for women in the food-processing industry for Mozambique and the African region, respectively. With trust funds provided by the Government of Japan, a programme was carried out in Hungary to upgrade managerial skills of companies producing automotive spare parts and components; training and workshop facilities were provided in the United Republic of Tanzania in the manufacture of Japanese-style bicycle trailers for the benefit of disabled technicians; and training and pilot plant facilities for the production of fruit juice were set up for a women's group engaged in cottage industry in Zambia.

26. Fact-finding missions and diagnostic studies (E.4.3.01 and E.4.3.02): Some third-party donors (governmental and non-governmental) have made trust fund contributions that enable UNIDO to carry out a large number of fact-finding missions in connection with new projects or for existing industrial plants that require rehabilitation, restructuring or expansion. In this way UNIDO can carry out project preparation and preliminary studies to identify the broad technical and financial parameters of a project as well as potential technical and financial partners. For example, under a DANIDA trust fund project, UNIDO completed a rehabilitation study on grain milling plants in Mozambique, studies and tests for magnesite ore beneficiation in Nepal, studies to upgrade and rehabilitate a fish-processing plant in Yemen, and a mango processing plant in Zambia. Financing has been secured for rehabilitation of the mango-processing plant.

27. Procurement of equipment and spare parts (E.4.3.01): For wider procurement options and better bargaining power, many companies in developing countries utilize UNIDO's extensive network of contacts and negotiation and contracting experience with suppliers all over the world. Suppliers, on their part, prefer to operate through the UNIDO trust fund schemes, confident that, since the necessary funds are held by UNIDO, prompt payment is assured. Buyers choose to arrange purchasing through UNIDO, aware that the advantages are: impartial advice, equipment specifications that match their requirements, and purchase contracts with relevant guarantees that are concluded in accordance with international practice. Thus, the risks are reduced on both sides. A notable example of this activity in 1991 was the appointment, by the Government of Nigeria, of UNIDO as a procurement agent for purchase of equipment for four zonal industrial development centres; the equipment worth over \$3 million was financed from a World Bank loan. Another example was the purchase of laboratory equipment for a textile research centre in Argentina under a self-financed trust fund project.

28. Service to development finance institutions (E.4.3.02): The greatest demands for UNIDO services are in pre-investment and diagnostic studies, as well as management services for projects financed by development finance institutions. UNIDO involvement reduces the risks of both lender and borrower and leads to better planning and implementation. Examples of this service are: a revolving trust fund project established by the Islamic Development Bank for UNIDO assistance in pre-investment and rehabilitation studies, with plans for diagnostic studies on five industrial plants in which the Bank had invested (cement and pharmaceuticals plants in the United Arab Emirates, textile and fertilizer plants in Senegal, and a foundry in Tunisia); in addition to the standing arrangement to assist the Nigerian Industrial Development Bank in pre-investment studies and project appraisal, an investment opportunity study commissioned by the Bank with financing from the World Bank; and a training programme on the preparation of feasibility studies conducted for the benefit of participants from companies supported by the New Nigeria Development Company Ltd. (NNDC) under a trust fund project established by NNDC for technical support particularly to the small and medium industries sectors.

29. Institution building (E.4.3.03): Through trust fund projects UNIDO plays a key role in building up international, regional or national institutions for science and technology where extensive international cooperation at various levels is essential. The projects related to the International Centre for Genetic Engineering and Biotechnology (ICGEB) (see chap. III, para. 18) provide good examples. The multi-donor trust fund approach adopted for ICGEB facilitated the participation of relatively

small donors in large programmes and projects with global objectives. A second example is a trust fund agreement concluded with the Nigerian National Petroleum Co. for assistance in establishing a plastics technology centre near Port Harcourt, so as to ensure proper commercialization of products from the Port Harcourt petrochemical complex and to provide technical support for the steady and functional growth of the Nigerian petrochemical industry. The centre will be built on the basis of experience gained by UNIDO in setting up similar centres in Argentina, China, India and Pakistan. Other examples are the provision of technical advisory services to the Petroleum Research Institute of Malaysia; an agreement concluded for a trust fund contribution from the Government of Japan to participate in the multi-donor financed programme on industrial automation of the capital goods industry in Latin America; a computerization plan drawn up for FAGACE (Fonds Africain de Garantie et de Coopération), a venture capital and guarantee organization comprising eight African Member States; and an industrial, scientific and technological documentation centre together with a computerized data bank established in Seychelles with trust funds from the Government of Japan.

PROGRAMME SUPPORT COSTS

30. As explained in the 1990 Annual Report ^{5/} the operational budget is mainly funded from income earned in the delivery of technical cooperation projects. Until the end of the biennium 1990-1991, some 60 per cent of this income (generally calculated as a fixed percentage of 13 per cent of the value in United States dollars of the technical cooperation projects delivered) was funded from support cost income generated by UNDP-financed technical cooperation activities. As indicated in the report of the Director-General to the Programme and Budget Committee on the review of the cost identification system and the cost of regular budget support to technical cooperation and related activities (PBC.6/12) and as estimated for the next biennium in the programme and budgets, 1992-1993 (GC.4/42), support costs are equivalent to 22 to 28 per cent of project delivery. (See para. 36 and table 2 below, as well as GC.4/42, pages 36-37, paras. 113-114.)

31. After extensive studies, and following consultations between UNDP and the agencies, as well as intensive discussions at various sessions of the UNDP Governing Council, ^{6/} the Council in June 1991 adopted

decision 91/32 on a revised system of support cost reimbursement for UNDP-financed projects. This decision, together with the earlier decision 90/26 on the same subject and parallel decisions on national execution (decisions 90/21 and 91/27), redefined the role of specialized agencies in UNDP-financed technical cooperation projects and established a completely new reimbursement system.

32. Under the previous system, partial reimbursement was made of the cost of a whole package of services that obviously varied considerably from project to project. Under that system, the flat reimbursement rate was paid to the executing agent. While most projects in the industrial sector were assigned for execution to UNIDO, it also meant that whenever a project in the industrial sector was assigned for national execution or for execution by the UNDP Office for Projects Services, UNIDO was effectively cut off from the project. As a result, the project received no support from UNIDO which, in turn, did not receive any reimbursement. That notwithstanding, forecasting the volume of projects to be executed by UNIDO and the related income from one year to the next was relatively simple under the earlier system. The only measure of uncertainty had been the increasing level of national execution, which was expected to increase still further.

33. Under the new system, technical agencies will be reimbursed for work related to individual activities within each project rather than to the whole package. Furthermore, almost all services will be provided in response to actual demand from governments, national organizations involved in projects or UNDP field offices. There is no longer a direct link between projects in the industrial sector on the one hand and services provided by UNIDO and related support cost income on the other. It will thus be much more difficult, at least initially, to predict the amount of work to be performed and related income. On the other hand, under the new arrangements, technical agencies such as UNIDO are no longer cut off from projects executed nationally. On the contrary, the new arrangement envisages various types of services being provided to those projects in support of the national authorities, if required. UNIDO is confident that many services of this kind will be requested. The main features of the new system were described and a preliminary estimate of the impact on the operational budget given to the General Conference of UNIDO at its fourth session in conference room papers GC.4/CRP.2 and GC.4/CRP.5. During the first two years of the new system (1992-1993), most work will relate to projects that were approved before the end of 1991 and which will continue to operate under the old arrangements. However, over time, the type of services that UNIDO will be requested to provide in support of UNDP-funded technical cooperation will change. This means that

^{5/} Ibid., para. 30.

^{6/} Ibid., para. 31.

the composition of programme support costs will also change, as will the use of operational budget resources. UNIDO will have to monitor these changes closely and respond promptly.

34. The UNDP Governing Council maintained one essential feature of the old arrangements. As before, the new arrangements require that through their regular budgets, agencies contribute to the cost of supporting UNDP-financed technical cooperation activities. However, this support will be provided in various ways and to varying degrees for the different types of activities. For technical support services at the programme level, which are financed from the new TSS-1 facility, reimbursement will cover the full marginal cost of the activities. The agencies are nevertheless expected to continue to undertake programme-level activities financed from their respective regular budgets to the same extent as before as a kind of "matching programme". For technical support services at the project level, financed from either the new TSS-2 facility or project budgets, reimbursements will relate to the cost of professional work-months of services delivered, or roughly half the total cost, including all overheads, General Service staff costs and other inputs. Agency regular budgets will cover the other half of the total costs. For administrative and operational services, reimbursement will be limited on average to approximately 10 per cent of implementation value, with the remainder being financed from the regular budget. For all services, reimbursements are calculated in relation to the average costs of the five agencies based on an extensive cost measurement study. The actual percentage of reimbursement to total costs varies from agency to agency, depending on actual costs. The results of the cost measurement study, which are broadly in line with the findings of an internal cost measurement study, placed before the Programme and Budget Committee at its sixth session (document PBC.6/12), will be presented to the Committee at its eighth session.

35. The changes outlined above relate solely to UNDP-financed activities. For activities financed from other sources of funds, existing arrangements continue to apply, thus providing a measure of stability while the Organization adjusts to the new UNDP arrangements.

36. As reported in chapter I, technical cooperation delivery in 1991 amounted to \$147.5 million, representing a decrease of 7.6 per cent as compared to 1990 (\$159.6 million). Delivery in the 1990-1991 biennium, however, increased by some 21 per cent as compared with the previous biennium. Total support costs under the regular and operational budgets in 1991, adjusted to a constant exchange rate of US\$ 1 = AS 15.30, amounted to \$46.5 million as compared to \$42.4 million in 1990. Support costs as a percentage of technical

assistance delivery increased over the 1990 level by 4.9 per cent. Taking the biennium 1990-1991 as a whole, total support costs, adjusted for exchange rate fluctuations, have increased to 28.9 per cent from 28.5 per cent for the 1988-1989 biennium. (See table 2 below.)

37. Following the provisions of paragraph 9 of UNDP Governing Council decision 91/44, in which approval was given to compensate for losses sustained in respect of support cost reimbursements as a result of currency fluctuations, ^{7/} an additional 1 per cent reimbursement of support costs incurred for 1990 (\$942,500) was credited to UNIDO during 1991.

B. REGULAR BUDGET

38. Activities other than technical cooperation projects were financed from the regular budget. For the biennium 1990-1991, the General Conference approved gross appropriations of \$180,481,500 at an exchange rate of US\$ 1 = AS 12.90, to be financed from payments of assessed contributions by Member States amounting to \$156,718,100 (consisting of \$23,506,800 plus the equivalent in US dollars of AS 1,718,425,770) and from estimated other income and income from revenue-producing activities amounting to \$23,763,400 (consisting of \$1,219,400 plus the equivalent in US dollars of AS 290,817,600). During 1991, the actual United Nations operational rates of exchange varied from US\$ 1 = AS 10.40 to US\$ 1 = AS 12.60. The average exchange rate was US\$ 1 = AS 11.65 for the year and US\$ 1 = AS 11.54 for the 1990-1991 biennium. As a result of delayed receipt from and withholding of contributions by Member States, UNIDO continued to experience serious cash-flow problems in 1991. As of 31 December, total unpaid contributions for 1991 represented 34.6 per cent of the 1991 assessments, a slight improvement compared with 1990 (36.2 per cent of the 1990 assessments).

39. In accordance with Board decision IDB.5/Dec.22(b)(i) concerning the repayment of the United Nations loan, an amount of \$1 million was paid to the United Nations in July.

40. In its decision GC.4/Dec.15 on the financial situation of UNIDO, the General Conference at its fourth session recalled its previous decision on the temporary suspension of financial regulations 4.2 (b) and 4.2 (c) which provide for the crediting of budgetary surpluses to Member States for the biennium 1986-1987 and decided to cover a deficit for 1990-1991 by approving: (a) a supplementary estimate of \$0.8 million for the fiscal period 1990-1991 resulting

^{7/} Ibid., para. 15.

from unforeseen increased staff costs; (b) the financing of that supplementary estimate as well as of the shortfall in other income of \$3.5 million by the use of the unutilized balance of appropriations from the 1986-1987 biennium; and (c) the suspension of financial regulations 4.2 (b) and 4.2 (c) with respect to the unutilized balance of appropriations for the biennium 1986-1987 up to the amount of \$4.3 million. In order to facilitate the work of the

Organization, the General Conference also decided on the temporary suspension of financial regulations 4.2 (b) and 4.2 (c) with respect to the 1988-1989 biennium to allow UNIDO to retain the unutilized balance of appropriations of \$6,496,192. In the same decision, GC.4/Dec.15 (c) (iv), the Conference approved the transfer of expenditures for the 1990-1991 biennium, as reported in document GC.4/47, annex IV, on the financial situation of UNIDO.

Table 2

Programme support costs, 1986-1991
(in thousands of US dollars)

A. At actual dollar expenditure per year

	1986	1987	1988	1989	1990	1991
Technical assistance delivery	99,600	97,700	119,800	133,800	159,600	147,500
Support costs ^{a/}						
Indirect	6,191	9,234	6,392	13,626	16,533	17,116
Direct	<u>25,128</u>	<u>31,365</u>	<u>33,045</u>	<u>30,105</u>	<u>36,194</u>	<u>40,010</u>
TOTAL	31,319	40,599	39,437	43,731	52,727	57,126
Exchange rate in AS	15.30	12.70	12.20	13.20	11.40	11.60

B. At a constant exchange rate of US\$ 1 = AS 15.30

	1986	1987	1988	1989	1990	1991
Total support costs						
Dollar-based	7,203	9,338	9,071	10,058	12,127	13,139
Schilling-based	<u>24,116</u>	<u>25,949</u>	<u>24,214</u>	<u>29,051</u>	<u>30,251</u>	<u>33,350</u>
TOTAL	31,319	35,287	33,284	39,109	42,378	46,489

	1986-1987	1988-1989	1990-1991
Total support costs	66,606	72,394	88,867
Technical assistance delivery	197,300	253,600	307,100
Support costs as a percentage of technical assistance	33.8	28.5	28.9

Note: The 1986-1987 biennium, the first biennium of UNIDO as a specialized agency, has been taken as a base.

^{a/} For 1989 and 1990-1991, the Administrative Committee on Co-ordination definitions have been used, whereby for "indirect costs" read "non-technical support" and for "direct costs" read "technical support". The constituent items are not identical, therefore there is a different ratio between the two for 1989 and 1990-1991.

STATISTICAL ANNEX

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Table 1. Expenditures, 1972 to 1991

(In millions of US dollars)

	1972-1976	1977-1981	1982-1986	1987	1988	1989	1990	1991
Technical cooperation programmes	141.8	334.4	451.2	97.7	119.8	133.8	159.6	147.5
United Nations regular programme/ UNIDO regular budget	8.7	15.2	23.6	2.1	2.5	6.3	4.5	5.8 a/
UNDP/IPF and cash counterpart	98.7	229.9	291.3	66.5	74.0	76.8	88.7	75.3
UNDP/SIS	14.3	17.2	14.4	2.8	3.0	3.0	5.2	1.0
UNDP/special programme resources and special measures	3.1	5.3	3.1	0.3	0.0	0.2	0.4	b/
UNDP-administered trust funds	0.0	3.4	12.9	1.1	1.0	2.3	1.7	(0.2)
Other trust funds	6.2	17.9	34.7	6.1	14.2	16.5	25.7	31.2
UNIDF/IDF	10.8	41.9	63.4	16.6	19.8	23.0	27.9	27.7
United Nations International Drug Control Programme (UNDCP)	0.0	0.0	2.2	0.6	2.8	1.2	2.2	2.6
Non-UNIDO funds	0.0	3.6	5.6	1.6	2.5	4.5	3.3	4.1
Headquarters	100.5	202.4	258.2	76.1	71.7	97.7	95.9	106.8
Regular budget	85.2	160.7	199.8	60.7	56.9	82.1	76.3	85.1
Overheads	15.3	41.7	58.4	15.4	14.8	15.6	19.6	21.7
Total expenditure	242.3	536.8	709.4	173.8	191.5	231.5	255.5	254.3
Technical cooperation programmes as percentage of total expenditure	58.5%	62.3%	63.6%	56.2%	62.6%	57.8%	62.5%	58.0%

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

b/ Special measures expenditure included in UNDP/IPF and cash counterpart.

Table 2. Technical cooperation programmes: project budget approvals and expenditures, 1972 to 1991

(In millions of US dollars)

	1972-1976	1977-1981	1982-1986	1987 a/	1988	1989	1990	1991
A. All sources of funds								
1. Residual value of projects brought forward	37.4	72.8	136.4	155.9	175.4	217.0	252.5	255.6
2. Value of project budgets approved in the year (net)	177.2	398.0	470.6	117.2	161.4	169.3	162.7	130.4
3. Total of approved projects under implementation	214.6	470.8	607.0	273.1	336.8	386.3	415.2	386.0
4. Expenditures in the year	141.8	334.4	451.1	97.7	119.8	133.8	159.6	147.5
5. Residual value of projects carried forward	72.8	136.4	155.9	175.4	217.0	252.5	255.6	238.5
B. United Nations regular programme b/ UNIDO regular budget								
1. Residual value of projects brought forward	0.0	0.0	0.0	1.2	0.0	4.6	0.0	3.8
2. Value of project budgets approved in the year (net)	8.7	15.2	24.8	0.9	7.1	1.7	8.3	2.9
3. Total of approved projects under implementation	8.7	15.2	24.8	2.1	7.1	6.3	8.3	6.7
4. Expenditures in the year	8.7	15.2	23.6	2.1	2.5	6.3	4.5	5.8
5. Residual value of projects carried forward	0.0	0.0	1.2	0.0	4.6	0.0	3.8	1.0
C. UNDP/IPF, cash counterpart and special measures								
1. Residual value of projects brought forward	29.7	59.8	105.8	99.3	116.0	151.5	153.3	146.0
2. Value of project budgets approved in the year (net)	128.8	275.9	284.8	83.2	109.5	78.6	81.4	48.0
3. Total of approved projects under implementation	158.5	335.7	390.6	182.5	225.5	230.1	234.7	194.0
4. Expenditures in the year	98.7	229.9	291.3	66.5	74.0	76.8	88.7	75.3
5. Residual value of projects carried forward	59.8	105.8	99.3	116.0	151.5	153.3	146.0	118.7
D. UNDP/SIS c/								
1. Residual value of projects brought forward	5.3	5.8	2.8	3.1	2.1	2.5	4.7	4.8
2. Value of project budgets approved in the year (net)	14.8	14.2	14.7	1.8	3.4	5.2	5.3	(1.1)
3. Total of approved projects under implementation	20.1	20.0	17.5	4.9	5.5	7.7	10.0	3.7
4. Expenditures in the year	14.3	17.2	14.4	2.8	3.0	3.0	5.2	1.0
5. Residual value of projects carried forward	5.8	2.8	3.1	2.1	2.5	4.7	4.8	2.7
E. UNDP/special programme resources and special measures								
1. Residual value of projects brought forward	0.0	1.7	0.9	0.3	0.0	0.0	0.5	d/
2. Value of project budgets approved in the year (net)	4.8	4.5	2.5	0.0	0.0	0.7	0.3	
3. Total of approved projects under implementation	4.8	6.2	3.4	0.3	0.0	0.7	0.8	
4. Expenditures in the year	3.1	5.3	3.1	0.3	0.0	0.2	0.5	
5. Residual value of projects carried forward	1.7	0.9	0.3	0.0	0.0	0.5	0.3	
F. UNDP-administered trust funds e/								
1. Residual value of projects brought forward	0.0	0.0	4.7	1.5	0.1	0.1	0.6	0.2
2. Value of project budgets approved in the year (net)	0.0	8.1	9.7	(0.1)	1.0	2.8	1.3	0.6
3. Total of approved projects under implementation	0.0	8.1	14.2	1.4	1.1	2.9	1.9	0.8
4. Expenditures in the year	0.0	3.4	12.9	1.3	1.0	2.3	1.7	(0.2)
5. Residual value of projects carried forward	0.0	4.7	1.5	0.1	0.1	0.6	0.2	1.0

Table 2 (continued)

	1972-1976	1977-1981	1982-1986	1987 a/	1988	1989	1990	1991
G. Other trust funds f/								
1. Residual value of projects brought forward	0.4	1.3	5.7	28.7	26.4	24.0	48.8	50.3
2. Value of project budgets approved in the year (net)	7.1	22.3	57.7	3.7	11.8	41.3	27.2	40.6
3. Total of approved projects under implementation	7.5	23.6	63.4	32.3	38.2	65.3	76.0	90.9
4. Expenditures in the year	6.2	17.9	34.7	6.0	14.2	16.5	25.7	31.2
5. Residual value of projects carried forward	1.3	5.7	28.7	26.4	24.0	48.8	50.3	59.1
H. UNIDF/IDF g/								
1. Residual value of projects brought forward	2.0	4.2	14.6	17.6	22.3	28.9	37.6	40.5
2. Value of project budgets approved in the year (net)	13.0	52.3	66.4	21.3	26.4	31.7	30.8	27.4
3. Total of approved projects under implementation	15.0	56.5	81.0	38.9	48.7	60.6	68.4	67.9
4. Expenditures in the year	10.8	41.9	63.4	16.6	19.8	23.0	27.9	27.7
5. Residual value of projects carried forward	4.2	14.6	17.6	22.3	28.9	37.6	40.5	40.3
I. UNDCP								
1. Residual value of projects brought forward	0.0	0.0	0.0	0.3	0.1	0.9	1.4	1.4
2. Value of project budgets approved in the year (net)	0.0	0.0	2.5	0.4	3.6	1.7	2.2	3.4
3. Total of approved projects under implementation	0.0	0.0	2.5	0.7	3.7	2.6	3.6	4.8
4. Expenditures in the year	0.0	0.0	2.2	0.6	2.8	1.2	2.2	2.6
5. Residual value of projects carried forward	0.0	0.0	0.3	0.1	0.9	1.4	1.4	2.2
J. Non-UNIDO funds h/								
1. Residual value of projects brought forward	0.0	0.0	1.9	4.0	8.4	4.5	5.6	8.2
2. Value of project budgets approved in the year (net)	0.0	5.5	7.6	6.0	(1.4)	5.6	5.8	8.5
3. Total of approved projects under implementation	0.0	5.5	2.5	10.0	7.0	10.1	11.4	16.7
4. Expenditures in the year	0.0	3.6	5.5	1.6	2.5	4.5	3.2	4.1
5. Residual value of projects carried forward	0.0	1.9	4.0	8.4	4.5	5.6	8.2	13.5

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 1978) or within the biennium (after 1977) as appropriate.

c/ Includes SIS trust funds prior to 1973.

d/ Included in UNDP/IPF, cash counterpart and special measures.

e/ Includes United Nations Trust Fund for Sudano-Sahelian 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, and third-party trust funds.

f/ Includes special-purpose trust funds financed by recipient or third parties, government cash counterpart contributions paid to UNIDO, United Nations Population Fund and projects financed from World Bank loans.

g/ Includes UNIDO General Trust Fund.

h/ Includes projects executed by other agencies for which UNIDO is the associated or cooperating agency.

Table 3A. Technical cooperation activities: projects approved in 1990 and 1991, 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)	
1990							
UNIDO regular budget	162	8,320	51	0	0	0	8,320
UNDP/IPF and cash counterpart	102	50,270	493	670	31,126	46	81,396
UNDP/SIS	91	5,444	60	162	(114)	(1)	5,330
UNDP/special programme resources and special measures	0	0	0	3	179	60	179
UNDP-administered trust funds	16	1,292	81	23	7	0	1,299
Other trust funds	111	15,991	144	129	11,236	87	27,227
IDF	207	31,569	153	360	(723)	(2)	30,846
UNDCP	20	2,893	145	4	(677)	(169)	2,216
Non-UNIDO funds	23	5,701	248	28	180	6	5,881
TOTAL	732	121,480	166	1,379	41,214	30	162,694
1991							
UNIDO regular budget	95	2,992	31	87	(83)	(1)	2,909
UNDP/IPF and cash counterpart	61	24,074	395	665	23,949	36	48,023
UNDP/SIS	8	214	27	145	(1,285)	(9)	(1,071)
UNDP-administered trust funds	14	631	45	7	(15)	(2)	616
Other trust funds	103	27,850	270	176	12,744	72	40,594
IDF	151	23,147	153	328	4,277	13	27,424
UNDCP	25	4,195	168	20	(818)	(41)	3,377
Non-UNIDO funds	25	8,762	350	30	(212)	(7)	8,550
TOTAL	482	91,865	191	1,458	38,550	26	130,415

**Table 3B. Technical cooperation activities: comparison of the value of projects
as at 31 December 1990 and 31 December 1991, by source of funds**

Source of funds	Number of projects		Total value of projects (\$000)		Average value of projects (\$000)	
	1990	1991	1990	1991	1990	1991
UNIDO regular budget	162	257	8,320	11,229	51	44
UNDP/IPF and cash counterpart	861	822	569,725	563,123	662	685
UNDP/SIS	298	211	15,903	11,229	53	53
UNDP/special programme resources and special measures	3	a/	869	a/	290	a/
UNDP-administered trust funds	58	54	6,214	5,191	107	96
Other trust funds	310	378	123,054	151,674	397	401
IDF	687	640	124,138	135,540	181	212
UNDCP	40	61	7,887	10,015	197	164
Non-UNIDO funds	<u>86</u>	<u>98</u>	<u>21,466</u>	<u>28,053</u>	<u>250</u>	<u>286</u>
TOTAL	2,505	2,521	877,576	916,054	338	350

The following is a breakdown by status of projects:

	Number of projects		Total value of projects (\$000)	
	1990	1991	1990	1991
New and ongoing	1,717	1,611	698,630	740,909
Operationally completed	181	341	42,166	60,579
Financially completed	<u>607</u>	<u>569</u>	<u>136,780</u>	<u>114,565</u>
TOTAL	2,505	2,521	877,576	916,054

a/ Special measures expenditure included in UNDP/IPF and cash counterpart.

Table 4. Expenditure on technical cooperation activities in 1990 and 1991, by source of funds and project component

Source of funds	Project personnel		Subcontracts \$000	Fellowships & training \$000	Equipment \$000	Miscellaneous expenses \$000	Total \$000
	Number of experts work-months a/	\$000					
1990							
UNIDO regular budget	254.0	1,723	968	698	849	251	4,489
UNDP/IPF and cash counterpart	4,411.4	33,845	10,956	12,316	29,313	2,237	88,667
UNDP/SIS	236.6	2,595	1,589	490	444	100	5,218
UNDP/special programme resources and special measures	33.6	363	7	15	55	5	445
UNDP-administered trust funds	29.9	283	(30)	1,032	233	198	1,716
Other trust funds	4,541.9	16,881	3,653	807	3,868	517	25,726
IDF	1,382.2	11,793	3,051	6,850	4,992	1,223	27,909
UNDCP	2.0	52	0	85	2,009	0	2,146
Non-UNIDO funds	<u>106.0</u>	<u>1,295</u>	<u>381</u>	<u>922</u>	<u>604</u>	<u>40</u>	<u>3,242</u>
TOTAL	10,997.6	68,830	20,575	23,215	42,367	4,571	159,558
1991							
UNIDO regular budget	334.4	2,871	1,035	1,105	540	232	5,784
UNDP/IPF and cash counterpart and special measures	4,286.6	32,612	8,344	9,856	22,390	2,109	75,310
UNDP/SIS	75.4	688	157	61	90	(3)	993
UNDP-administered trust funds	2.0	50	(6)	(204)	(36)	(47)	(243)
Self-financed trust funds	5,183.5	10,596	95	147	326	63	11,227
Third party-financed trust funds	1,004.4	6,920	2,447	409	478	(11)	10,243
Other trust funds	763.1	5,094	815	1,083	2,444	319	9,755
IDF	1,503.4	13,124	5,733	4,701	2,942	1,200	27,700
UNDCP	0.0	4	0	85	2,498	18	2,605
Non-UNIDO funds	<u>174.2</u>	<u>2,065</u>	<u>527</u>	<u>406</u>	<u>1,090</u>	<u>22</u>	<u>4,111</u>
TOTAL	13,327.0	74,024	19,147	17,649	32,762	3,903	147,485
a/ Categories are as follows:		<u>Work-months</u>					
	International experts and consultants	10,557.9					
	Operational assistance experts	19.9					
	National experts	2,749.2					
	TOTAL	13,327.0					

Table 5. Expenditure on technical cooperation activities in 1991, by source of funds and Department/programme component

(In thousands of US dollars)

Department/programme component	Regular budget	UNDP/IPF and cash counter-part	SIS	Trust funds				IDF	UNDCP	Non-UNIDO funds	Total
				UNDP-administered	Self-financed	Third-party financed	Other				
Executive Direction and Management	32	0	0	0	0	106	0	57	0	0	194
Programme and Project Development	623	606	52	0	311	2,939	207	1,522	0	10	6,270
Industrial Promotion, Consultations and Technology											
Industrial Investment	154	2,192	7	0	0	875	0	5,910	0	0	9,137
System of Consultations	52	0	0	0	0	0	0	227	0	0	279
Industrial Technology Promotion	302	0	0	0	0	0	0	26	0	0	328
Industrial Technology Development	115	812	68	0	0	497	8,636	3,986	0	77	14,192
Subtotal	624	3,004	75	0	0	1,372	8,636	10,148	0	77	23,935
Industrial Operations											
Agro-based Industries	460	6,630	278	(1)	178	497	0	4,455	(1)	138	12,634
Chemical Industries	676	17,749	157	11	10,510	242	0	4,021	0	602	33,966
Metallurgical Industries	563	5,599	69	(25)	103	371	0	822	0	(0)	7,502
Engineering Industries	444	10,975	103	(10)	0	2,130	0	674	0	1,197	15,513
Industrial Planning	1,065	6,688	(0)	41	0	480	(2)	489	0	352	9,113
Institutional Infrastructure	176	16,080	96	28	0	804	0	1,665	0	155	19,005
Industrial Management and Rehabilitation	35	4,929	132	0	0	642	914	141	0	297	7,090
Feasibility Studies	526	2,168	37	0	127	363	0	1,942	0	975	6,138
Industrial Human Resource Development	491	880	(6)	(287)	(2)	158	0	1,742	0	(6)	2,970
Subtotal	4,433	71,700	867	(243)	10,916	5,686	912	15,951	(1)	3,710	113,931
External Relations, Public Information, Language and Documentation Services	4	0	0	0	0	0	0	17	0	0	21
Other	68	0	0	0	0	141	0	5	2,605	313	3,133
TOTAL	5,784	75,310	993	(243)	11,227	10,243	9,755	27,700	2,605	4,111	147,485

Table 6. Expenditure on technical cooperation activities in 1991, by Department/programme component and geographical area

(In thousands of US dollars)

Department/programme component	Africa a/	Arab States b/	Asia and the Pacific	Europe	Latin America and Caribbean	Global and interregional	Total
Executive Direction and Management	0	0	0	0	0	194	194
Programme and Project Development	856	308	(242)	745	176	442	3,985
Industrial Promotion, Consultations and Technology							
Industrial Investment	751	40	(16)	1,048	144	977	6,194
System of Consultations	(2)	39	0	171	0	(7)	78
Industrial Technology Promotion	614	97	(71)	276	42	46	617
Industrial Technology Development	<u>162</u>	<u>0</u>	<u>0</u>	<u>240</u>	<u>39</u>	<u>275</u>	<u>12,182</u>
Subtotal	1,524	176	(87)	1,736	224	1,290	23,935
Industrial Operations							
Agro-based Industries	6,324	1,128	(929)	4,044	138	1,534	395
Chemical Industries	13,362	11,062	(10,620)	15,923	560	1,212	2,466
Metallurgical Industries	1,873	474	(436)	4,219	483	429	461
Engineering Industries	5,389	779	(779)	6,947	781	559	1,837
Industrial Planning	5,988	641	7	1,658	42	629	147
Institutional Infrastructure	8,698	1,598	(708)	5,214	569	2,618	1,015
Industrial Management and Rehabilitation	3,137	681	(286)	1,788	813	953	5
Feasibility Studies	2,930	1,163	(243)	443	131	69	1,645
Industrial Human Resource Development	<u>819</u>	<u>428</u>	<u>(379)</u>	<u>1,177</u>	<u>174</u>	<u>97</u>	<u>654</u>
Subtotal	48,519	17,953	(14,372)	41,414	3,691	8,099	8,627
External Relations, Public Information, Language and Documentation Services	7	0	0	3	1	0	10
Other	<u>1,516</u>	<u>869</u>	<u>(646)</u>	<u>359</u>	<u>820</u>	<u>0</u>	<u>215</u>
TOTAL	52,423	19,306	(15,347)	44,257	4,912	9,831	32,103

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

b/ Figures in parentheses in this column 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 cooperation activities, by geographical area, 1983 to 1991

(In thousands of US dollars)

Area	1983	1984	1985	1986	1987	1988	1989	1990	1991
Africa									
Country projects a/	25,683	25,300	31,431	31,674	29,102	34,042	40,802	47,849	46,252
Regional projects	<u>1,773</u>	<u>4,713</u>	<u>5,791</u>	<u>4,069</u>	<u>3,468</u>	<u>4,389</u>	<u>8,323</u>	<u>7,832</u>	<u>6,171</u>
Subtotal	27,456	30,013	37,222	35,743	32,570	38,431	49,125	55,681	52,423
Arab States									
Country projects	11,274	11,807	11,448	11,153	11,934	17,714	19,107	21,071	18,869
Regional projects	593	1,104	532	731	616	299	172	527	437
Country projects (African Arab States) b/	<u>(7,030)</u>	<u>(8,806)</u>	<u>(9,123)</u>	<u>(8,505)</u>	<u>(9,560)</u>	<u>(12,753)</u>	<u>(13,725)</u>	<u>(14,824)</u>	<u>(15,347)</u>
Subtotal	4,837	4,105	2,857	3,379	2,990	5,260	5,554	6,774	3,959
Asia and the Pacific									
Country projects	23,599	29,795	29,313	35,419	36,620	41,974	41,506	46,621	40,540
Regional projects	<u>1,062</u>	<u>1,437</u>	<u>1,088</u>	<u>1,654</u>	<u>1,311</u>	<u>1,953</u>	<u>2,099</u>	<u>2,763</u>	<u>3,717</u>
Subtotal	24,661	31,232	30,401	37,073	37,931	43,927	43,605	49,384	44,257
Europe									
Country projects	2,513	3,609	3,047	3,022	2,307	3,845	3,776	4,837	4,321
Regional projects	<u>248</u>	<u>49</u>	<u>39</u>	<u>208</u>	<u>318</u>	<u>432</u>	<u>515</u>	<u>399</u>	<u>592</u>
Subtotal	2,761	3,658	3,086	3,230	2,625	4,277	4,291	5,236	4,912
Latin America and the Caribbean									
Country projects	9,168	7,987	11,082	9,402	8,463	9,653	11,029	9,356	7,212
Regional projects	<u>877</u>	<u>1,013</u>	<u>936</u>	<u>1,148</u>	<u>839</u>	<u>1,137</u>	<u>1,046</u>	<u>1,847</u>	<u>2,619</u>
Subtotal	10,045	9,000	12,018	10,550	9,302	10,790	12,075	11,203	9,831
Global and interregional projects	<u>8,259</u>	<u>9,183</u>	<u>8,884</u>	<u>9,625</u>	<u>12,308</u>	<u>17,095</u>	<u>19,132</u>	<u>31,280</u>	<u>32,103</u>
TOTAL	78,019	87,191	94,468	99,600	97,726	119,780	133,782	159,558	147,485

a/ Includes African Arab States.

b/ Figures deducted since already included under "Africa".

Table 8. Technical cooperation activities: project expenditure in 1991, by geographical area

(In thousands of US dollars)

	Africa ^{a/}		Arab States		Asia and the Pacific		Europe		Latin America and Caribbean		Global and interregional		Total		
A. By source of funds															
		%		%	b/	%		%		%		%			
UNIDO regular budget															
RP	1,025	2.0	99	0.5	(28)	0.2	632	1.4	163	3.3	944	9.6	721	2.2	3,555
IDDA	2,172	4.1	312	1.6	(286)	1.9	0	0.0	0	0.0	0	0.0	32	0.1	2,229
UNDP/IPF, cash counterpart and special measures	27,861	53.1	6,280	32.5	(3,331)	21.7	36,825	83.2	2,030	41.3	5,645	57.4	0	0.0	75,310
UNDP/SIS	120	0.2	187	1.0	(168)	1.1	168	0.4	181	3.7	505	5.1	0	0.0	993
UNDP-administered trust funds	37	0.1	0	0.0	0	0.0	(14)	(0.0)	28	0.6	41	0.4	(335)	(1.0)	(243)
Self-financed trust funds	10,753	20.5	10,364	53.7	(10,193)	66.4	133	0.3	0	0.0	178	1.8	(7)	(0.0)	11,227
Third party-financed trust funds	837	1.6	31	0.2	0	0.0	1,057	2.4	1,641	33.4	657	6.7	6,020	18.8	10,243
Other trust funds	912	1.7		0.0		0.0	0	0.0	0	0.0	0	0.0	8,844	27.5	9,755
IDF	5,500	10.5	1,018	5.3	(688)	4.5	3,419	7.7	50	1.0	1,773	18.0	16,629	51.8	27,700
UNDCP	1,516	2.9	870	4.5	(646)	4.2	46	0.1	820	16.7	(1)	(0.0)	0	0.0	2,605
Non-UNIDO funds	<u>1,690</u>	3.2	<u>146</u>	0.8	<u>(6)</u>	0.0	<u>1,992</u>	4.5	<u>(0)</u>	(0.0)	<u>90</u>	0.9	<u>199</u>	0.6	<u>4,111</u>
TOTAL	52,423		19,307		(15,347)		44,257		4,912		9,831		32,103		147,485
B. By project component															
		%		%		%		%		%		%			
Project personnel	31,354	59.8	14,049	72.8	(11,311)	73.7	14,343	32.4	1,227	25.0	6,815	69.3	17,547	54.7	74,025
Subcontracts	6,141	11.7	1,565	8.1	(1,274)	8.3	5,206	11.8	1,136	23.1	519	5.3	5,853	18.2	19,147
Fellowships and training	3,606	6.9	779	4.0	(475)	3.1	7,783	17.6	874	17.8	1,132	11.5	3,949	12.3	17,648
Equipment	9,742	18.6	2,666	13.8	(2,118)	13.8	16,222	36.7	1,597	32.5	995	10.1	3,658	11.4	32,761
Miscellaneous	<u>1,579</u>	3.0	<u>246</u>	1.3	<u>(170)</u>	1.1	<u>702</u>	1.6	<u>78</u>	1.6	<u>370</u>	3.8	<u>1,097</u>	3.4	<u>3,903</u>
TOTAL	52,423		19,306		(15,347)		44,257		4,912		9,831		32,103		147,485

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

b/ Figures in parentheses in this column 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 1991,
by Department/programme component and object of expenditure a/**

(In thousands of US dollars)

Department/programme component	Staff costs	Consul- tants	Expert group meetings	Other	Total
Policy-making Organs	252	0	0	1,126	1,379
Executive Direction and Management	2,920	0	53	190	3,163
Programme and Project Development					
Area Programmes	6,688	754	253	738	8,433
Industrial Policy and Perspectives	4,969	337	38	298	5,641
Industrial Cooperation/Funds Mobilization	1,192	5	0	88	1,285
ICFM/Industrial Cooperation	1,679	72	0	57	1,808
Special Measures and Activities	3,152	63	81	553	3,850
Office of the Deputy Director-General	<u>1,136</u>	<u>0</u>	<u>0</u>	<u>24</u>	<u>1,160</u>
	18,817	1,232	372	1,758	22,178
Industrial Promotion, Consultations and Technology					
Industrial Investment	1,887	142	0	121	2,150
System of Consultations	2,182	263	75	228	2,748
Industrial Technology Promotion	2,365	338	78	105	2,886
Industrial Technology Development	1,777	348	171	273	2,569
Office of the Deputy Director-General	<u>763</u>	<u>0</u>	<u>0</u>	<u>10</u>	<u>773</u>
	8,974	1,091	324	737	11,125
Industrial Operations					
Industrial Institutions and Services	5,197	137	23	172	5,528
Industrial Operations Technology	8,160	125	134	283	8,701
Industrial Operations Support	7,227	93	15	262	7,598
Interregional Advisers	788	0	0	98	886
Office of the Deputy Director-General	<u>1,712</u>	<u>1</u>	<u>1</u>	<u>81</u>	<u>1,794</u>
	23,084	356	173	896	24,508
External Relations, Public Information, Language and Documentation Services					
External Relations	2,060	0	0	345	2,406
Public Relations and Information	626	3	0	198	828
Languages and Documentation	8,058	0	0	501	8,559
Office of the Deputy Director-General	<u>478</u>	<u>0</u>	<u>0</u>	<u>14</u>	<u>493</u>
	11,223	3	0	1,059	12,285
Administration					
Financial Services	4,780	26	0	20	4,826
Personnel Services	3,347	2	0	619	3,967
General Services	10,418	0	0	10,988	21,407
Management Information Services	2,361	195	0	4,459	7,015
Office of the Deputy Director-General	<u>953</u>	<u>245</u>	<u>0</u>	<u>3,454</u>	<u>4,651</u>
	21,859	467	0	19,540	41,866
Total expenditure	87,129	3,149	921	25,305	116,504
less income					<u>9,676</u>
GRAND TOTAL					106,828

a/ Expenditure for technical cooperation (IDDA and the regular programme) excluded.

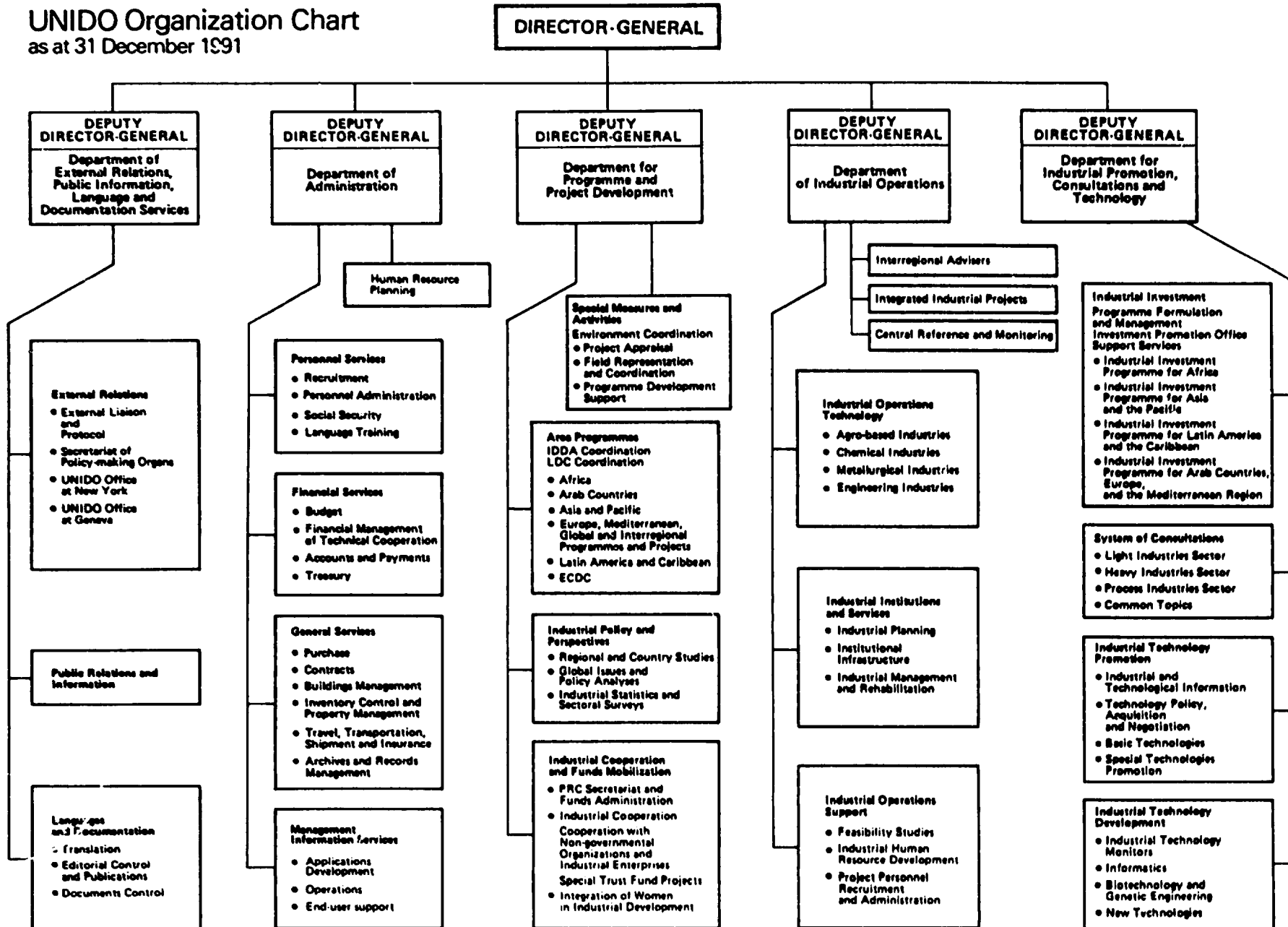
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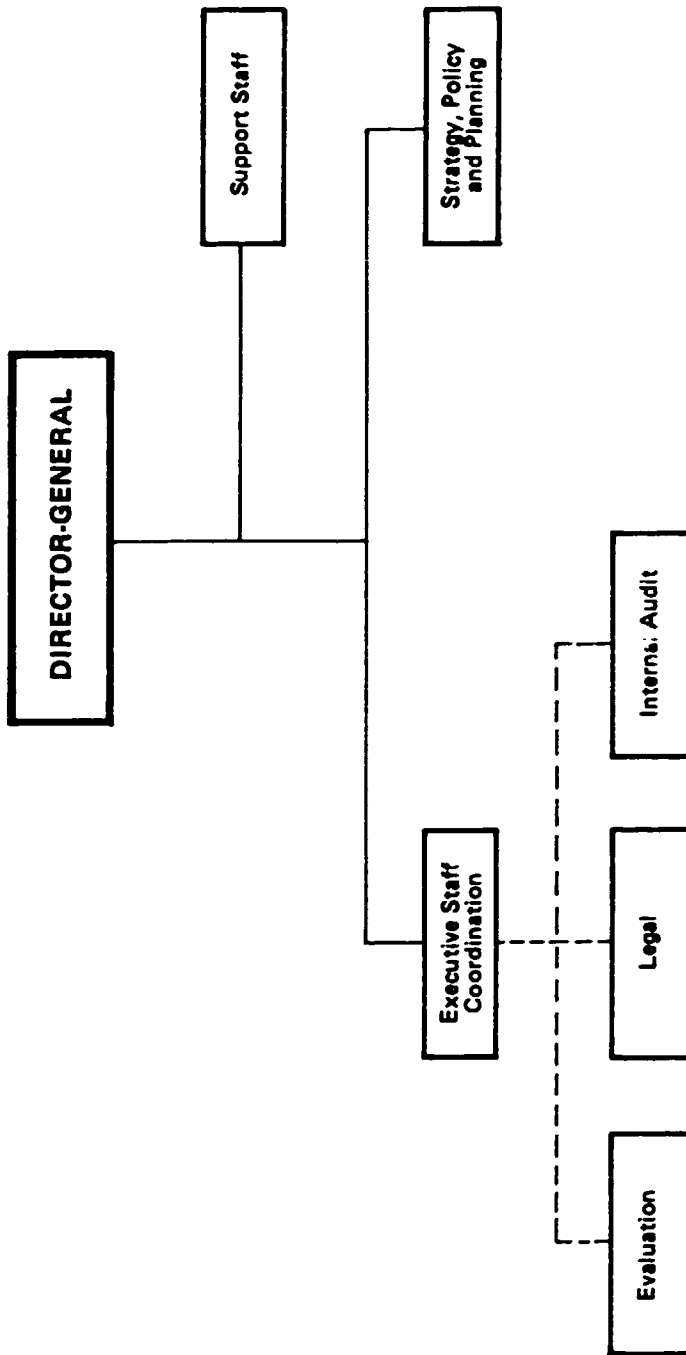
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UNIDO Organization Chart

as at 31 December 1991





APPENDIX B

EXPERT GROUP MEETINGS, SYMPOSIA, SEMINARS, WORKSHOPS, COURSES AND
OTHER MEETINGS OF A NON-TRAINING CHARACTER HELD DURING 1993

Date		Place
OFFICE OF THE DIRECTOR-GENERAL		
6-8 May	Special Advisory Group to the Director-General, fifth session	Vienna Austria
DEPARTMENT OF EXTERNAL RELATIONS, PUBLIC INFORMATION, LANGUAGE AND DOCUMENTATION SERVICES		
22-26 April	Programme and Budget Committee, seventh session	Vienna Austria
27 June	Programme and Budget Committee, resumed seventh session	Vienna Austria
1-5 July	Industrial Development Board, eighth session	Vienna Austria
23 August	Programme and Budget Committee, resumed seventh session (continued)	Vienna Austria
23 August	Industrial Development Board, resumed eighth session	Vienna Austria
18-22 November	General Conference, fourth session	Vienna Austria
23 November	Industrial Development Board, fourth special session	Vienna Austria
DEPARTMENT FOR PROGRAMME AND PROJECT DEVELOPMENT		
<u>Special Measures and Activities Division</u>		
23-25 July	Meeting of senior governmental experts for the preparation of the Conference on Ecologically Sustainable Industrial Development	Vienna Austria
25-27 September	Expert group meeting on the theory and practice of the appraisal of technical cooperation projects	Vienna Austria
14-18 October	Conference on Ecologically Sustainable Industrial Development (ESID)	Copenhagen Denmark
<u>Area Programmes Division</u>		
13-16 March	Second follow-up subregional meeting on the promotion of intra-African industrial cooperation within the framework of the Industrial Development Decade for Africa (IDDA): Proposals for the subregional programme for the second IDDA	Kampala Uganda
27-30 May	Regional workshop on the identification, design, appraisal, monitoring and evaluation of technical assistance projects for the least developed countries	Mangochi Malawi
11-14 June	Workshop on cooperation among selected developing countries in the field of agro-based industries	Izmir Turkey
22-25 July	Entrepreneurial seminar on industrial automation - alternatives for cooperation in Latin America	Cali Colombia

Date		Place
22-26 July	Meeting of the Intergovernmental Committee of Experts of the Whole on Industrialization in Africa	Dakar Senegal
29-31 July	Tenth meeting of the Conference of African Ministers of Industry	Dakar Senegal
23-26 September	Meeting on cooperation on production and application of machine tools among Arab countries	Fès Morocco
30 September - 4 October	Regional workshop on the identification, design, appraisal, monitoring and evaluation of technical assistance projects for the least developed countries	Kathmandu Nepal
7-11 October	Meeting on cooperation in the field of process technologies of petrochemical industries between selected developing countries	Cairo Egypt
21-25 October	Solidarity meeting for cooperation in the industrial development of Botswana	Gaborone Botswana
22-26 October	Meeting on industrial cooperation among developing countries in the field of agricultural machinery	Beijing China
23-24 October	First biennial meeting on the Regional Cooperation Programme for the Industrial Recovery of Latin America and the Caribbean	Vienna Austria
14-22 November	Symposium on the industrialization of the least developed countries	Vienna Austria
25-28 November	Meeting for the promotion of joint ventures among Islamic countries	Karachi Pakistan
12-13 December	First high-level consultative meeting on the programme for the Second Industrial Development Decade for Africa	Vienna Austria
16-18 December	Meeting of the Constitutive Assembly of the African Iron and Steel Association	Algiers Algeria
<u>Industrial Policy and Perspectives Division</u>		
2-3 April	Regional forecasting workshop	Vienna Austria
10-12 June	International workshop on regional development corporations in Central and Eastern Europe	Rajziejowice Poland
19-23 August	Workshop on industrial development in the least developed countries: towards an industrial action plan	Vienna Austria
7 October	Seminar on upgrading of skills and technology in Thailand's textile and garment industry - the role of women	Bangkok Thailand
17 October	Workshop on the role of women in Bangladesh textile and clothing industries and the impact of new technologies	Dhaka Bangladesh
<u>Industrial Cooperation and Funds Mobilization Division</u>		
13-18 May	Workshop on women's participation in industrial policy and decision-making in Latin America	Buenos Aires Argentina
9-20 September	Workshop on maintenance and manufacturing of permanent way (railway) material	Innsbruck, Vienna Austria
7-11 January	Workshop on instrumentation services centre with special emphasis on repair and maintenance	Ho Chi Minh City Viet Nam

Date		Place
DEPARTMENT OF INDUSTRIAL OPERATIONS		
<u>Industrial Operations Technology Division</u>		
4-8 February	Second UNIDO workshop on the essential oils industry	Manila Philippines
4-7 March	Forum on agricultural machinery and implements manufacture for rural development	Paris France
8-13 April	Workshop on low-grade coal utilization in developing countries	London United Kingdom
15-18 April	International conference on plastics waste recycling technology	Shanghai China
15-19 April	Workshop on industrial hygiene, occupational health safety and their environmental concerns	Manila Philippines
15-18 July	Workshop on steel plant and rolling mill rehabilitation in the PTA countries	Nairobi Kenya
16-20 September	Workshop on small-scale chemical recovery, high yield pulping and effluent treatment	New Delhi India
22-24 October	Specialized workshop on concrete shipbuilding and other floating structures	Bourgas Bulgaria
3-8 November	International rubber conference "IRCT 91"	Tehran Iran (Islamic Republic of)
4-6 November	Expert group meeting on processing and application of new materials	Vienna Austria
4-8 November	Workshop on the development of the pharmaceutical industry in Portuguese-speaking countries of Africa	Lisbon Portugal
18-21 November	Meeting on computer aided maintenance management in the iron and steel industry	Monclova Mexico
1-4 December	Third expert group meeting on computerized maintenance management systems	Singapore
2-6 December	Expert group meeting on the application of wind energy for electricity generation	Yogyakarta Indonesia
9-13 December	Workshop on environmental considerations and waste recycling for the chemical, metallurgical and engineering industries in the Asia and Pacific region	Manila Philippines
10-14 December	Workshop on wood pulp refining, bagasse newsprint, lignin utilization and cellulose derivatives	Bandung Indonesia
11-18 December	Workshop on bio/botanical pesticide development	Bangkok Thailand
<u>Industrial Institutions and Services Division</u>		
29 January - 1 February	High-level expert group meeting to assess the applicability of strategic management methodologies to industrial restructuring in East European countries	Sofia Bulgaria
22-24 May	Expert group meeting on industrial subcontracting exchanges and policies	Vienna Austria
25-29 June	Meeting of experts on industrial information and strategic analysis systems in the framework of the process of strategic management of industrial development	Vienna Austria

Date		Place
21-24 October	Meeting of experts on the strategic management of the industrial development process	Vienna Austria
9-10 December	Workshop on privatization of small and medium enterprises in Eastern, Central and Southern Europe	Prague Czechoslovakia

DEPARTMENT FOR INDUSTRIAL PROMOTION, CONSULTATIONS AND TECHNOLOGY

Industrial Investment Division

11-15 March	Viet Nam investment forum	Ho Chi Minh City Viet Nam
6-10 May	Industrial investment promotion forum for Nigeria	Abuja Nigeria
24-27 June	Polish-American business conference	Warsaw Poland
15-17 September	Spanish-Bolivian business conference	Santa Cruz de la Sierra Bolivia
23-27 September	Agribusiness opportunities in Venezuela	Caracas Venezuela
3-4 October	Workshop on enterprise-to-enterprise cooperation in the agro-food sector between firms in Spain and in Czechoslovakia, Hungary and Romania	Vienna Austria
5-7 October	Investors forum "POLAGRA '91"	Poznan Poland
3-7 November	Investment forum for Sri Lanka	Colombo Sri Lanka
4-6 November	Investment forum for Czechoslovakia	Prague Czechoslovakia
13-16 November	Fiji investment and trade forum	Nadi Fiji
20-22 November	Meeting on investment opportunities in the Andean Group countries	Caracas Venezuela
25-28 November	Industrial investment promotion forum for the countries of Central Africa	Libreville Gabon
2-4 December	Investors forum for the promotion of foreign investment in Poland - construction and building materials industries	Warsaw Poland
10-13 December	Mining investment promotion seminar	La Paz Bolivia

System of Consultations Division

21-25 January	Second Consultation on the Wood and Wood Products Industry	Vienna Austria
8-11 April	Regional expert group meeting for Latin America and the Caribbean on the capital goods industry with emphasis on machine tools	Santiago Chile
29 April - 3 May	Workshop on appropriate strategies for fertilizer technology and development	Lahore Pakistan
5-9 May	Workshop on the Indian sugar-cane industry with emphasis on sugar and diversification	Islamabad Pakistan

Date		Place
14-17 May	Expert group meeting on the fisheries industry for Asia and the Pacific island countries	Singapore
16-20 September	Fourth Consultation on the Capital Goods Industry with Emphasis on Machine Tools	Prague Czechoslovakia
15-17 October	Workshop on maintenance management in the industrial sector	Conakry Guinea
4-6 November	Workshop on technological cooperation among developing countries for the development of pharmaceutical-related ancillary industries	Amman Jordan
4-8 November	Tenth session of the Leather and Leather Products Industry Panel	Madras India
4-8 November	Second Consultation on the Building Materials Industry	Athens Greece
27-28 November	Expert group meeting on new orientation of the System of Consultations	Vienna Austria
2-6 December	Regional Consultation on the Fisheries Industry for Asia and the Pacific Island Countries	Vienna Austria
10-13 December	Global preparatory meeting for the regional consultation on the petrochemical industry in the Arab countries	Karachi Pakistan
<u>Industrial Technology Promotion Division</u>		
13-14 March	Workshop on technology transfer and contracting	Moscow USSR
17-19 April	Workshop on negotiating joint ventures and technology transfer	Lagos Nigeria
24-28 June	Seminar for the promotion of the Latin American Chemical Information Network (RELAQ-LACHIN) among various Latin American and Caribbean countries	Sao Paulo Brazil
5-9 August	Technical workshop on model steel works	Vienna Austria
4-15 September	Workshop on modern information technology applications and networks	Moscow, Issyk-Kul USSR
24-27 September	National workshop on technology transfer negotiations	Dakar Senegal
28-29 October	Fourth African TIES meeting	Lagos Nigeria
29-31 October	Seminar on achieving competitive quality through standardization and quality control	Kuala Lumpur Malaysia
30 October - 1 November	Workshop on technology transfer negotiation and contracting	Lagos Nigeria
19-22 November	Workshop on technology transfer negotiations	Abidjan Côte d'Ivoire
26-28 November	Fourth meeting of the Advisory Group of the Industrial and Technological Information Bank (INTIB)	Vienna Austria
2-6 December	Seminar on build-operate-transfer (BOT) for project implementation/financing	Bangkok Thailand
2-6 December	UNIDO TECHMART '91	Beijing China

Date		Place
<u>Industrial Technology Development Division</u>		
6-9 March	Expert group meeting on biosafety	Vienna Austria
20-22 March	Expert group meeting on monitoring of technology for Latin America and the Caribbean	Caracas Venezuela
25-28 March	Regional workshop on testing and evaluation of new materials for Asia	Taejon Republic of Korea
8-10 July	Expert group meeting for formulation of a voluntary international code of conduct for the release of organisms into the environment	Trieste Italy
3-12 September	Workshop for African and Arab country representatives from the telecommunications industry	New Delhi India
28 October - 1 November	Expert group meeting on commercialization of biotechnology	Vienna Austria
11-14 November	Expert group meeting on the establishment of a Caribbean centre for marine industrial technology	Caracas Venezuela
26-28 November	Meeting of the Consultative Group on Informatics Technology for Development	Vienna Austria
9-13 December	Meeting on technological cooperation for the development of the telecommunications industry in the Asia and Pacific region	Bangalore India
9-13 December	Meeting of the Consultative Group on Solar Energy Research and Application (COSERA)	Marrakech Morocco
11-13 December	Expert group meeting on materials policy issues	Bangalore India
16-20 December	Expert group meeting on the application of biotechnology to food processing in Africa	Ibadan Nigeria
17-18 December	Expert group meeting on a network of centres of excellence in science and technology	Vienna Austria

APPENDIX C

TECHNICAL COOPERATION - REGULAR BUDGET ALLOCATIONS
AND DELIVERIES FOR THE BIENNIUM 1990-1991

(In thousands of US dollars)

Component	Allocation for	Deliveries		
	the biennium 1990-1991 a/	1990	1991	1990-1991
A. REGULAR PROGRAMME OF TECHNICAL COOPERATION (RP)				
Training of developing countries' personnel in various industrial fields:				
Individual fellowships	665.2	137.5	304.3	441.8
Group training	1,697.0	653.8	508.6	1,162.4
Establishment and strengthening of training facilities in developing countries	554.3	465.5	225.6	691.1
Special needs of the least developed countries	2,100.6	912.8	1,137.2	2,050.0
Cooperation among developing countries	887.0	333.0	1,340.3	1,673.3
Consultations with Governments	210.8	21.0	39.0	60.0
TOTAL - RP	6,114.9	2,523.6	3,555.0	6,078.6
B. INDUSTRIAL DEVELOPMENT DECADE FOR AFRICA (IDDA)				
Projects identified through the integrated programme approach	4,231.4	1,965.9	2,229.1	4,195.0
TOTAL - IDDA	4,231.4	1,965.9	2,229.1	4,195.0

a/ Adjusted in accordance with Annex II.B of the Constitution, at an average exchange rate of US\$1=AS11.54.

APPENDIX D

GEOGRAPHICAL DISTRIBUTION OF EXPERTS

(Listed in descending order)

Table 1

Appointments of experts, 1 January - 31 December 1991

Country/area/territory	Number of appointments	Country/area/territory	Number of appointments
Poland	283	Guinea	8
Hungary	253	Viet Nam	8
United Kingdom of Great Britain and Northern Ireland	235	Israel	7
France	226	Malawi	7
United States of America	147	Rwanda	7
Italy	116	Nicaragua	6
Germany	103	Pakistan	6
India	90	Republic of Korea	6
Czechoslovakia	87	Bangladesh	5
Belgium	52	Ethiopia	5
Austria	51	Madagascar	5
Japan	50	Romania	5
Netherlands	48	Sierra Leone	5
Egypt	46	Thailand	5
Denmark	45	United Republic of Tanzania	5
Canada	44	Iran (Islamic Republic of)	4
Union of Soviet Socialist Republics	40	Sudan	4
Argentina	37	Tunisia	4
Yugoslavia	32	Afghanistan	-
Brazil	30	Angola	3
Peru	29	Morocco	3
Philippines	28	New Zealand	3
Spain	25	Syrian Arab Republic	3
Nigeria	22	Uruguay	3
Australia	21	Barbados	2
Guyana	21	Burkina Faso	2
Colombia	18	Burundi	2
Finland	18	Côte d'Ivoire	2
Ireland	18	Cuba	2
Kenya	17	Cyprus	2
Ecuador	16	Djibouti	2
Nepal	16	Fiji	2
Senegal	16	Guatemala	2
Turkey	16	Lebanon	2
Venezuela	16	Mali	2
Chile	15	Mauritius	2
Costa Rica	15	Namibia	2
Algeria	14	Zaire	2
Bulgaria	14	Comoros	1
Sweden	14	Greece	1
Jordan	13	Haiti	1
Bolivia	12	Honduras	1
Norway	12	Iceland	1
Uganda	12	Indonesia	1
China	11	Iraq	1
Malaysia	11	Jamaica	1
Portugal	11	Mozambique	1
Sri Lanka	11	Myanmar	1
Cameroon	10	Saudi Arabia	1
Ghana	10	Singapore	1
Togo	10	Stateless	1
Mexico	9	Swaziland	1
Switzerland	9	Tonga	1
Zambia	9	Trinidad and Tobago	1
		Zimbabwe	1
		Yemen	1
		TOTAL (110 countries)	2,700

Table 2

Cumulative list of appointments of experts, 1986-1991

Country/area/territory	Number of appointments	Country/area/territory	Number of appointments
Poland	1,355	Somalia	25
United Kingdom of Great Britain and Northern Ireland	1,253	Zaire	25
France	1,064	Guyana	24
United States of America	910	Iran (Islamic Republic of)	24
Germany	672	Guatemala	22
Hungary	581	Uruguay	22
India	557	Zimbabwe	20
Italy	490	Ghana	19
Austria	332	Ethiopia	18
Czechoslovakia	275	Iraq	18
Belgium	267	Madagascar	18
Canada	223	Rwanda	18
Netherlands	221	Jamaica	17
Peru	211	Malawi	16
Brazil	202	United Republic of Tanzania	15
Yugoslavia	194	Syrian Arab Republic	14
Japan	185	Lebanon	13
Union of Soviet Socialist Republics	185	Cuba	12
Denmark	174	El Salvador	12
Philippines	165	Honduras	11
Egypt	163	Botswana	10
Mexico	157	Mauritius	10
Argentina	154	Viet Nam	10
Spain	154	Burkina Faso	9
Sweden	149	Niger	9
Australia	120	Paraguay	9
Colombia	118	Trinidad and Tobago	8
Chile	108	Fiji	7
Ireland	105	Haiti	7
Finland	100	Sao Tome and Principe	7
Venezuela	98	Greece	6
Cameroon	88	Mali	6
Norway	83	Stateless	6
Portugal	82	Angola	5
Nigeria	74	Benin	5
Sri Lanka	70	Mozambique	5
Ecuador	69	Saudi Arabia	5
Bulgaria	66	Afghanistan	4
Algeria	61	Burundi	4
Switzerland	61	Democratic People's Republic of Korea	4
Republic of Korea	57	Djibouti	4
Turkey	49	Palestine	4
Bolivia	46	Panama	4
Costa Rica	46	Singapore	4
Côte d'Ivoire	45	Barbados	3
Zambia	44	Congo	3
Kenya	42	Cyprus	3
Nepal	42	Dominican Republic	3
China	41	Libyan Arab Jamahiriya	3
Senegal	39	Chad	2
Togo	38	Liberia	2
New Zealand	34	Namibia	2
Sudan	34	Papua New Guinea	2
Malaysia	33	Solomon Islands	2
Morocco	33	Swaziland	2
Uganda	33	Yemen	2
Guinea	32	Antigua and Barbuda	1
Indonesia	32	Cape Verde	1
Thailand	32	Comoros	1
Pakistan	31	Cambodia	1
Israel	29	Gabon	1
Romania	29	Iceland	1
Tunisia	29	Lesotho	1
Nicaragua	28	Luxembourg	1
Bangladesh	27	Mauritania	1
Jordan	25	Montserrat	1
Sierra Leone	25	Myanmar	1
		Tonga	1
		TOTAL (135 countries)	13,127

APPENDIX E

MAJOR STUDIES, REPORTS AND SERIES PUBLICATIONS
ISSUED BY UNIDO IN 1991 ^{a/}

SYMBOL	TITLE	LANGUAGE
ID/SER.M/29*	Industry and development No. 29	E
ID/SER.N/5	Small hydropower series No. 5. Brief report on the OLADE technical manual on the typical design and fabrication of equipment and machinery for small hydropower stations (SHP)	E F S
ID/321/Rev.1(SPEC.)	Directory of international non-governmental organizations in consultative status with UNIDO	E
ID/372*	Manual for the preparation of industrial feasibility studies	E
ID/373 (ID/WG.499/4)	Regional Consultation on Industrial Rehabilitation/Restructuring with Special Focus on the Food-processing Subsector in Africa. Vienna, Austria, 12-16 November 1990. Report	A C E F R S
ID/374 (ID/WG.506/6)	Second Consultation on the Wood and Wood Products Industry. Vienna, Austria, 21-25 January 1991. Report	A C E F R S
ID/375*	CIM. Computer-integrated manufacturing. Perspectives for international economic development and competitiveness	E
ID/376*	Industry and development. Global report 1991/92	E F
ID/377*	African industry in figures 1990	E

^{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 1991

Table 1
Delivery, by country and source of funds a/
(In US dollars)

Region/country	Regular budget	UNDP/IPF	SIS	UNDP/special measures	IDF b/	Other sources c/	Total
Africa							
Benin	1,797	18,866	0	0	0	6,509	27,172
Botswana	146,322	24,059	715	0	321,185	0	492,281
Burkina Faso	(4,751)	183,602	0	0	0	0	178,851
Burundi	29,882	654,739	0	0	0	8,226	692,847
Cape Verde	3,207	151,919	(7,267)	0	74,317	0	222,176
Central African Republic	0	0	0	0	0	0	0
Chad	10,838	341,864	0	0	0	145,133	497,835
Comoros	79,723	0	0	0	0	40	79,763
Equatorial Guinea	0	0	0	22,000	0	0	22,000
Ethiopia	108,538	1,630,476	(10,070)	0	276,316	0	2,005,260
Gambia	0	8,270	0	0	0	0	8,270
Guinea	247,936	726,571	(107,980)	0	0	0	866,527
Guinea-Bissau	0	182,415	0	0	0	59,205	241,620
Lesotho	8,595	314,628	47,428	0	0	35,592	406,243
Liberia	0	(9,702)	0	0	0	0	(9,702)
Malawi	0	899,279	5,257	0	75,518	49,836	1,029,890
Mali	78,865	501,055	0	0	(46,402)	40,033	573,551
Mauritania	0	199,894	0	0	40,026	0	239,920
Mozambique	0	1,190,058	61,437	0	179,949	95,420	1,526,864
Niger	114,940	495,692	(36,195)	0	(714)	56,266	629,989
Rwanda	0	780,185	0	0	43,012	1,612	824,809
Sao Tome and Principe	27,743	19,269	0	0	0	0	47,012
Sierra Leone	16,324	604,203	(72)	0	0	3,398	623,853
Togo	63,708	1,164,357	25,431	0	0	11,664	1,265,160
Uganda	97,930	840,342	(46,916)	0	0	911,802	1,803,158
United Republic of Tanzania	<u>165,239</u>	<u>637,927</u>	<u>(93,385)</u>	<u>0</u>	<u>136,570</u>	<u>(376)</u>	<u>845,975</u>
Subtotal	1,196,836	11,559,968	(161,617)	22,000	1,099,777	1,424,360	15,141,324
Americas							
Haiti	(1,564)	214,056	0	0	23,539	0	236,031

Table 1 (continued)

Region/country	Regular budget	UNDP/IPF	SIS	UNDP/special measures	IDF b/	Other sources c/	Total
Arab States							
Djibouti	27,601	155,070	0	0	0	0	182,671
Somalia	0	182,641	0	0	(52,984)	0	129,657
Sudan	69,671	24,394	0	0	231,698	(2,427)	323,336
Yemen	(170)	612,118	(1,023)	183,066	(1,971)	157,057	949,077
Subtotal	97,102	974,223	(1,023)	183,066	176,743	154,630	1,584,741
Asia and the Pacific							
Afghanistan	74,007	750,530	0	0	(12,427)	0	812,110
Bangladesh	0	937,788	0	(929)	0	(14,283)	922,576
Bhutan	32,892	251,219	21,228	206,395	(5,437)	0	506,297
Kiribati	0	72,768	(5,750)	0	0	0	67,018
Lao People's Democratic Republic	0	0	0	0	0	0	0
Maldives	(3,420)	0	0	0	0	0	(3,420)
Myanmar	0	1,221,320	0	0	0	123,436	1,344,756
Nepal	67,871	851,025	(2,623)	0	2,524	431	919,228
Samoa	(90)	0	0	0	0	0	(90)
Tuvalu	0	38,795	0	0	0	0	38,795
Vanuatu	0	220,437	0	0	0	0	220,437
Subtotal	171,260	4,343,882	12,855	205,466	(15,340)	109,584	4,827,707
Regional, interregional and global projects especially designed for LDCs	187,363	0	0	0	317,089	0	504,452
TOTAL	1,650,997	17,092,129	(149,785)	410,532	1,601,808	1,688,574	22,294,255

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 13 per cent overhead costs.

c/ Other sources include self-financed and other trust funds, United Nations Capital Development Fund, United Nations Development Fund for Women, United Nations Financing System for Science and Technology for Development, International Drug Control Programme and World Bank/International Development Association.

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

Region/country	Regular budget	UNDP/IPF	SIS	UNDP/special measures	IDF b/	Other sources c/	Total
Africa							
Benin	0	0	0	0	0	7,000	7,000
Botswana	115,763	25,300	0	0	0	25,000	166,063
Burkina Faso	0	721,600	0	0	0	0	721,600
Burundi	0	0	0	0	0	0	0
Cape Verde	0	606,000	0	0	4,000	0	610,000
Central African Republic	0	0	0	0	0	0	0
Chad	0	0	0	0	0	74,500	74,500
Comoros	0	0	0	0	0	0	0
Equatorial Guinea	0	0	0	78,700	0	0	78,700
Ethiopia	37,500	0	0	0	0	0	37,500
Gambia	0	0	0	0	0	0	0
Guinea	146,000	0	0	0	0	0	146,000
Guinea-Bissau	0	0	0	0	0	111,798	111,798
Lesotho	0	0	0	0	0	0	0
Liberia	0	0	0	0	0	0	0
Malawi	0	340,000	0	0	0	128,037	468,037
Mali	1	0	0	0	0	67,300	67,301
Mauritania	0	903,250	0	0	0	83,500	986,750
Mozambique	0	2,129,675	0	0	0	98,794	2,228,469
Niger	125,200	179,965	0	0	0	95,000	400,165
Rwanda	0	0	0	0	0	0	0
Sao Tome and Principe	0	145,200	0	0	0	0	145,200
Sierra Leone	0	0	0	0	0	0	0
Togo	4,667	606,000	0	0	0	0	610,667
Uganda	107,966	608,900	0	0	0	0	716,866
United Republic of Tanzania	<u>91,582</u>	<u>1,749,840</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>6,500</u>	<u>1,847,922</u>
Subtotal	628,679	8,015,730	0	78,700	4,000	697,429	9,424,538
Americas							
Haiti	0	0	0	0	0	0	0

Table 2 (continued)

Region/country	Regular budget	UNDP/IPF	SIS	UNDP/special measures	IDF b/	Other sources c/	Total
Arab States							
Djibouti	0	9,000	0	0	0	0	9,000
Somalia	0	0	0	0	0	0	0
Sudan	0	0	0	0	0	0	0
Yemen	0	0	0	0	0	0	0
Subtotal	0	9,000	0	0	0	0	9,000
Asia and the Pacific							
Afghanistan	71,000	0	0	0	0	0	71,000
Bangladesh	0	0	0	0	78,500	0	78,500
Bhutan	15,500	0	0	0	0	0	15,500
Kiribati	0	0	0	0	0	0	0
Lao People's Democratic Republic	0	0	0	0	0	0	0
Maldives	0	0	0	0	0	0	0
Myanmar	0	383,200	0	0	0	73,850	457,050
Nepal	68,310	590,000	0	0	0	0	658,310
Samoa	0	0	0	0	0	0	0
Tuvalu	0	0	0	0	0	0	0
Vanuatu	0	0	0	0	0	0	0
Subtotal	154,810	973,200	0	0	78,500	73,850	1,280,360
Regional, interregional and global projects especially designed for LDCs	172,864	0	0	0	132,058	0	304,922
TOTAL	956,353	8,997,930	0	78,700	214,558	771,279	11,018,820

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 13 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 country and source of funds a/

(In US dollars)

Region/country	Regular budget	UNDP/IPF	SIS	UNDP/special measures	IDF b/	Other sources c/	Total
Africa							
Benin	(258)	9,194	0	0	0	7,000	15,936
Botswana	124,134	4,370	0	0	0	25,000	153,504
Burkina Faso	(3,160)	804,550	0	0	0	0	801,390
Burundi	0	76,698	0	0	0	0	76,698
Cape Verde	0	606,000	(11,955)	0	(1,390)	0	592,655
Central African Republic	0	0	0	0	0	0	0
Chad	0	208,810	0	0	0	157,033	365,843
Comoros	0	0	0	0	0	0	0
Equatorial Guinea	0	0	0	78,700	0	0	78,700
Ethiopia	36,500	1,464,000	(43,676)	0	(2,027)	0	1,454,797
Gambia	0	30,938	0	0	0	0	30,938
Guinea	151,043	399,796	(146,000)	0	0	(14,693)	390,146
Guinea-Bissau	0	(57,289)	0	0	0	71,798	14,509
Lesotho	0	(1,695)	5,687	0	0	(1,831)	2,161
Liberia	0	0	0	0	0	-50,282	(50,282)
Malawi	(26,500)	438,769	0	0	0	65,953	478,222
Mali	(9,015)	730,911	0	0	28,225	67,300	817,421
Mauritania	0	1,004,112	0	0	0	83,500	1,087,612
Mozambique	0	2,129,724	0	0	(3,729)	98,794	2,224,789
Niger	125,389	929,929	(143,433)	0	(3,997)	95,000	1,002,888
Rwanda	0	172,775	0	0	(10,544)	0	162,231
Sao Tome and Principe	3,000	144,109	0	0	0	0	147,109
Sierra Leone	3,740	143,694	(77)	0	0	0	147,357
Togo	6,198	1,144,529	(4,676)	0	0	0	1,146,051
Uganda	107,966	635,275	(106,462)	0	0	2,043,589	2,680,368
United Republic of Tanzania	90,136	1,910,164	(104,685)	0	0	(36,806)	1,858,809
Subtotal	609,173	12,929,363	(555,277)	78,700	6,538	2,611,355	15,679,852
Americas							
Haiti	0	38,785	0	0	0	0	38,785

Table 3 (continued)

Region/country	Regular budget	UNDP/IPF	SIS	UNDP/special measures	IDF b/	Other sources c/	Total
Arab States							
Djibouti	0	325,539	1,780	0	0	0	327,319
Somalia	(5,412)	94,505	0	0	(178,036)	0	(88,943)
Sudan	(22,017)	(17,593)	0	0	0	(104,309)	(143,919)
Yemen	0	<u>168,644</u>	<u>9,343</u>	<u>36,519</u>	0	<u>45,638</u>	<u>260,144</u>
Subtotal	(27,429)	571,095	11,123	36,519	(178,036)	(58,671)	354,601
Asia and the Pacific							
Afghanistan	71,000	249,051	(71,000)	0	(1,367)	0	247,684
Bangladesh	0	(20,186)	0	(2,945)	78,500	1,517	56,886
Bhutan	15,500	0	(19,298)	223,570	0	0	219,772
Kiribati	0	0	(1,820)	0	0	0	(1,820)
Lao People's Democratic Republic	0	(652)	0	0	0	0	(652)
Maldives	0	0	0	0	0	0	0
Myanmar	0	1,097,064	0	0	0	26,297	1,123,361
Nepal	69,167	855,271	(29,014)	0	(61,000)	12,072	846,496
Samoa	0	0	2,322	0	0	0	2,322
Tuvalu	0	205	0	0	0	0	205
Vanuatu	0	<u>145,132</u>	0	0	0	0	<u>145,132</u>
Subtotal	155,667	2,325,885	(118,810)	220,625	16,133	39,886	2,639,386
Regional, interregional and global projects especially designed for LDCs	172,864	0	0	0	146,685	0	319,549
TOTAL	910,275	15,865,128	(662,964)	335,844	(8,680)	2,592,570	19,032,173

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 13 per cent overhead costs.

c/ Other sources include trust funds, World Bank/International Development Association and International Drug Control Programme.

INDUSTRIAL DEVELOPMENT FUND

Table 1

UNIDF/IDF statement of pledges and receipts, as at 31 December 1991

(In US dollars)

Country/ organization	Unpaid balances/ advances by donors brought forward from UNIDF 1.1.86	Adjust- ments to prior pledges	IDF firm pledges for				Collections in		Exchange adjust- ments	Unpaid balance	Advances by donors
			1986- 1989	1990	1991	1992 and future years	1986- 1990	1991			
<u>General-purpose convertible</u>											
Afghanistan	1,500	0	3,000	0	0	0	4,500	0	0	0	0
Algeria	0	0	25,000	0	0	0	25,000	0	0	0	0
Angola	10,000	0	20,000	0	0	0	30,000	0	0	0	0
Argentina	0	150,000	0	0	0	0	149,990	0	10	0	0
Austria	0	0	285,869	155,039	168,067	169,492	483,007	166,667	(49,779)	178,572	0
Bahrain	5,000	0	0	0	0	0	5,000	0	0	0	0
Bangladesh	0	0	10,468	2,420	2,420	2,420	10,468	4,780	60	2,420	0
Barbados	0	0	20,000	0	0	0	20,000	0	0	0	0
Bhutan	1,320	0	1,450	0	0	0	2,770	0	0	0	0
Bolivia	2,000	0	17,313	0	0	0	14,313	0	0	5,000	0
Brazil	15,000	0	15,000	0	0	0	30,000	0	0	0	0
Burkina Faso	0	0	13,594	0	0	0	13,594	0	0	0	0
Cameroon	0	0	2,985	0	0	0	0	0	(678)	3,663	0
Chile	0	0	30,000	0	10,000	0	30,000	0	0	10,000	0
Colombia	1,425	40	22,937	5,772	0	0	30,174	0	0	0	0
Congo	11,426	0	0	0	0	0	3,400	0	76	7,950	0
Costa Rica	8,080	0	20,000	0	0	0	26,832	0	0	1,248	0
Cyprus	0	0	4,187	0	0	0	4,496	0	(309)	0	0
Czechoslovakia	0	0	0	40,501	0	0	40,501	0	0	0	0
Democratic People's Republic of Korea	0	0	0	0	0	32,558	0	32,558	0	0	0
Dominica	0	0	1,852	2,000	0	0	3,840	0	12	0	0
Ecuador	5,440	0	56,235	0	0	0	49,835	0	0	11,840	0
Egypt	0	0	2,000	0	0	0	2,000	0	0	0	0
Ethiopia	0	0	1,111	0	0	0	1,111	0	0	0	0
Fiji	0	0	1,009	0	0	0	0	0	256	753	0
Germany	0	0	18,736	0	0	0	18,736	0	0	0	0
Ghana	0	0	5,000	0	0	0	0	0	0	5,000	0
Greece	36,000	0	0	0	0	0	36,000	0	0	0	0
Grenada	0	0	0	0	2,500	2,500	0	0	0	5,000	0
Guatemala	0	0	32,422	0	0	0	5,000	0	6,308	21,114	0
Guinea	0	(108,600)	0	0	0	0	(108,600)	0	0	0	0
Guyana	723	509	3,290	126	42	0	4,000	0	655	35	0
Haiti	0	0	5,000	0	0	0	5,000	0	0	0	0
Honduras	0	0	15,000	370	0	0	14,000	741	629	0	0
Hungary	0	0	24,495	19,839	21,024	24,865	40,721	18,315	7,597	23,590	0
India	500,000	0	1,000,000	250,000	0	0	1,750,000	0	0	0	0
Indonesia	0	0	50,000	0	0	0	50,000	0	0	0	0
Iraq	161,291	0	0	0	0	0	0	0	0	161,291	0
Italy	0	0	0	200,000	200,000	0	200,000	200,000	0	0	0

Table 1 (continued)

Country/ organization	Unpaid balances/ advances by donors brought forward from UNIDF 1.1.86	Adjust- ments to prior pledges	IDF firm pledges for				Collections in		Exchange adjust- ments	Unpaid balance	Advances by donors
			1986- 1989	1990	1991	1992 and future years	1986- 1990	1991			
<u>General-purpose convertible (continued)</u>											
Jamaica	4,000	0	8,000	0	0	0	12,000	0	0	0	
Kenya	10,000	0	27,639	1,674	1,409	1,263	10,348	0	12,114	19,523	
Kuwait	0	0	150,000	0	0	0	0	0	0	150,000	
Lao People's Democratic Republic	1,500	0	1,500	0	0	0	1,500	0	0	1,500	
Lesotho	0	1,308	5,162	0	0	0	6,311	0	159	0	
Luxembourg	0	0	37,740	10,127	12,820	0	51,433	0	(2,867)	12,121	
Madagascar	0	0	4,534	629	715	0	3,548	629	1,155	546	
Malawi	0	0	7,166	0	0	0	5,097	0	507	1,562	
Malaysia	450	0	80,000	20,000	20,000	20,000	100,450	20,000	0	20,000	
Mali	2,611	0	0	0	0	0	0	0	(1,052)	3,663	
Malta	0	0	0	400	400	0	0	400	0	400	
Mauritius	0	0	3,458	1,000	1,000	0	3,786	1,000	14	658	
Mexico	0	4,503	15,000	0	0	0	19,503	0	0	0	
Mongolia	0	0	9,602	2,450	1,312	0	12,146	0	1,034	184	
Morocco	5,038	5,010	5,000	0	0	0	13,421	0	1,627	0	
Mozambique	4,925	0	5,063	0	0	0	5,563	0	4,425	0	
Myanmar	0	0	4,000	1,040	1,000	0	3,000	1,966	74	1,000	
Nepal	0	0	2,100	700	700	0	2,800	700	0	0	
Netherlands	0	0	0	657,895	0	0	372,079	0	8,038	277,778	
Nigeria	50,000	0	0	0	0	0	0	0	0	50,000	
Oman	12,000	0	12,000	0	0	0	12,000	0	0	12,000	
Pakistan	0	0	48,933	0	0	0	48,933	0	0	0	
Panama	0	0	0	0	0	0	2,000	0	0	4,000	
Papua New Guinea	0	0	12,871	0	0	0	14,773	0	(1,902)	0	
Paraguay	30,000	0	0	0	0	0	24,000	0	0	6,000	
Peru	25,000	0	0	0	0	0	5,000	0	0	20,000	
Philippines	6,006	0	20,000	0	0	0	14,539	3,770	0	7,697	
Portugal	0	0	30,000	0	0	0	30,000	0	0	0	
Republic of Korea	0	0	121,000	35,000	35,000	35,000	156,000	35,000	0	35,000	
Rwanda	0	0	16,000	4,000	0	0	20,000	0	0	0	
Saint Vincent and the Grenadines	0	0	1,500	0	0	0	1,500	0	0	0	
Saudi Arabia	0	0	3,000,000	0	0	0	3,000,000	0	0	0	
Senegal	29,113	0	4,000	0	0	0	20,900	0	0	12,213	
Sierra Leone	94	3,184	5,891	0	0	0	9,167	0	2	0	
Somalia	2,467	0	0	0	0	0	0	0	67	2,400	
Sri Lanka	0	0	12,666	3,333	3,333	0	15,963	3,333	36	0	
Sudan	102,712	0	0	0	0	0	0	0	0	102,712	
Suriname	2,000	0	0	0	0	0	0	0	0	2,000	
Swaziland	1,532	1,802	7,147	1,444	0	0	10,931	0	(429)	1,423	
Syrian Arab Republic	0	5,372	8,039	1,871	0	0	15,282	0	0	0	

Table 1. (continued)

Country/ organization	Unpaid balances/ advances by donors brought forward from UNIDF 1.1.86	Adjust- ments to prior pledges	IDF firm pledges for				Collections in		Exchange adjust- ments	Unpaid balance	Advances by donors
			1986- 1989	1990	1991	1992 and future years	1986- 1990	1991			
<u>General-purpose convertible (continued)</u>											
Thailand	0	0	81,930	21,032	24,206	23,500	103,501	23,735	(68)	23,500	0
Togo	3,916	0	6,514	0	0	0	9,346	0	(747)	1,831	0
Trinidad and Tobago	0	8,375	50,329	0	0	0	60,379	0	(1,675)	0	0
Tunisia	0	0	92,029	21,932	0	0	89,342	21,932	2,687	0	0
Uganda	1,000	1,000	9,000	0	0	0	2,000	0	0	9,000	0
United Republic of Tanzania	0	0	3,408	414	332	283	2,906	332	864	335	0
Venezuela	0	0	11,467	0	0	0	11,467	0	0	0	0
Viet Nam	1,000	0	0	0	0	0	1,000	0	0	0	0
Yemen	0	0	6,400	2,000	0	2,000	4,007	0	(7)	6,400	0
Zaire	3,000	0	113,000	0	0	0	0	0	0	116,000	0
Zambia	517	0	16,845	5,904	1,136	0	17,094	3,644	3,384	280	0
Zimbabwe	0	8,075	29,175	10,272	9,962	5,601	45,021	9,962	2,501	5,601	0
Organizations											
King Abdulaziz City for Science and Technology, Saudi Arabia	0	0	32,760	0	0	0	29,868	0	0	2,892	0
S.G.des Eaux Minerales de Vitte France	0	0	3,108	0	0	0	3,108	0	0	0	0
Computech Engineering Services Inc., USA	0	0	30,000	0	0	0	30,000	0	0	0	0
Cooperation Council for the Arab States of the Gulf (GCC)	0	0	11,587	0	0	0	0	0	0	11,587	0
Cordecruz, Bolivia	0	0	22,017	0	0	0	22,017	0	0	0	0
Total	1,058,086	80,578	5,899,533	1,479,184	517,378	319,482	7,450,717	549,464	(5,222)	1,359,282	0

Special-purpose convertible

Argentina	0	0	0	0	0	0	60,000	(60,000)	0	0	0
Australia	(68,815)	0	162,926	2,283	3,455	0	179,470	0	0	0	(79,621)
Austria	(121,788)	0	3,216,928	1,212,937	1,017,729	372,342	4,643,365	723,203	0	331,580	0
Belgium	(480,520)	0	2,310,182	737,073	690,430	925,660	3,755,667	576,369	0	0	(149,211)
Brazil	0	0	0	226,000	0	0	256,000	0	0	0	(30,000)
Bulgaria	0	0	3,333	0	0	0	3,333	0	0	0	0
China	(289,639)	0	895,079	285,097	320,082	0	1,600,000	380,000	0	0	(769,381)
Colombia	0	0	0	0	0	0	0	5,491	0	0	(5,491)
Côte d'Ivoire	108,765	0	0	0	0	0	0	0	0	108,765	0
Democratic People's Republic of Korea	0	0	0	0	0	0	131,610	33,175	0	0	(164,785)
Denmark	0	0	594,335	462,591	1,452,751	1,123,001	1,829,755	667,350	0	1,135,573	0
Egypt	(190,893)	0	292,427	184	0	0	0	0	0	101,718	0
Finland	(259,801)	0	249,833	128,009	1,614,084	551,495	3,516,654	36,160	0	0	(1,269,194)
France	(817,302)	0	7,454,280	3,320,726	5,669,146	900,743	13,317,308	3,842,416	0	0	(632,131)
Germany	(1,807,841)	0	16,912,502	4,777,523	7,417,964	7,350,770	24,552,216	4,595,937	0	5,502,765	0
Hungary	5,597	0	(617)	0	0	0	4,980	0	0	0	0

Table 1 (continued)

Country/ organization	Unpaid balances/ advances by donors brought forward from UNIDF 1.1.86	Adjust- ments to prior pledges	IDF firm pledges for				Collections in		Exchange adjust- ments	Unpaid balance	Advances by donors
			1986- 1989	1990	1991	1992 and future years	1986- 1990	1991			
Special-purpose convertible (continued)											
Iran (Islamic Republic of)	0	0	0	0	375,160	0	373,268	0	0	1,892	0
Italy	(597,640)	0	14,819,708	9,657,446	12,014,679	7,874,448	25,506,509	12,555,846	0	5,706,286	0
Japan	(662,483)	0	4,728,020	2,279,126	3,266,575	1,639,770	7,736,947	3,237,152	0	276,909	0
Malta	31,628	0	(31,628)	0	0	0	0	0	0	0	0
Netherlands	(292,528)	0	1,292,859	218,201	755,519	200,166	3,156,663	282,153	0	0	(1,264,599)
Norway	(282)	0	0	0	445,628	247,854	1,025,871	30,429	0	0	(363,100)
Poland	0	0	0	17,211	31,789	0	31,355	25,000	0	0	(7,355)
Republic of Korea	0	0	477,230	263,287	373,903	173,222	821,989	484,357	0	0	(18,704)
Saudi Arabia	0	0	0	10,162	508,553	224,604	0	840,230	0	0	(96,911)
Spain	(38,245)	0	65,983	463	1,283	0	31,640	0	0	0	(2,156)
Sweden	72,067	0	307,833	442,189	827,410	37,092	1,005,924	212,470	0	468,197	0
Switzerland	(1,608,536)	0	4,839,546	1,637,333	2,842,247	5,270,727	5,457,154	2,010,052	0	5,514,111	0
Turkey	0	0	0	0	0	0	25,000	0	0	0	(25,000)
United Kingdom	(150,310)	0	3,910,009	1,132,920	1,062,001	349,509	4,416,742	1,512,631	0	374,756	0
Venezuela	0	0	0	0	1	0	0	193,714	0	0	(193,713)
Yemen	(2,474)	0	1,249	0	0	0	0	(1,225)	0	0	0
Yugoslavia	(1,041)	0	0	0	0	0	0	(1,041)	0	0	0
Multi-donor projects	0	0	0	1,644	204,516	1,600,630	0	0	0	1,806,790	0
Organizations											
Arab Industrial Development and Mining Organization	(19,877)	0	(123)	27,120	60,000	0	(20,000)	0	0	87,120	0
African Institute for Higher Technology Training and Research, Kenya	1,253	0	(5,004)	0	0	0	(4,311)	0	0	0	0
Banque Ouest Africaine de developpement (BOAD), Togo	0	0	2,800	0	0	0	2,800	0	0	0	0
Caritas, Austria	0	0	0	0	0	0	0	28,846	0	0	(28,846)
Chiyoda Corporation, Japan	0	0	0	127,738	(28,140)	0	126,368	(26,770)	0	0	0
Corporación Andina de Fomento (CAF)	0	0	0	143,367	380,005	40,567	570,000	0	0	0	0
Egyptian Iron and Steel Co. Gaz de France	(10,576)	0	5,863	0	0	0	0	(4,713)	0	0	0
Inverni della Beffa, Italy	0	0	0	0	0	0	0	17,967	0	0	(17,967)
Kuwait Institute for Higher Technical Training and Research	(48,229)	0	74,665	0	0	0	0	34,694	0	305	0
S.G. des Eaux Minerales de Vittel, France	0	0	21,846	0	8,044	0	33,715	0	0	0	(3,825)
Nobel Chematur, Sweden	0	0	9,040	0	0	0	9,040	0	0	0	0
Apple Computer, USA	0	0	27,531	0	0	0	33,900	(6,369)	0	0	0
Saudi Consulting House, Saudi Arabia	0	0	11,299	113	0	0	12,000	(588)	0	0	0
Total	(7,169,825)	0	62,943,141	27,195,261	41,557,011	28,938,280	105,752,932	32,224,936	0	21,443,203	(5,957,203)

Table 1 (continued)

Country/ organization	Unpaid balances/ advances by donors brought forward from UNIDF 1.1.86	Adjust- ments to prior pledges	IDF firm pledges for				Collections in		Exchange adjust- ments	Unpaid balance	Advances by donors
			1986- 1989	1990	1991	1992 and future years	1986- 1990	1991			
Non-convertible											
Bulgaria	(222,203)	0	409,628	(22,498)	34,060	0	437,076	8,415	0	0	(246,504)
China	(54,661)	0	494,675	(90,340)	3,148	0	539,307	0	0	0	(186,485)
Cuba	(219,864)	0	253,996	52,549	11,260	0	136,479	28,572	0	0	(67,110)
Czechoslovakia	(78)	0	1,445,918	235,295	242,014	0	1,730,251	193,905	0	0	(1,007)
Egypt	21,793	0	34,894	0	0	0	72,492	0	0	0	(15,805)
Hungary	(1,360)	0	491,890	143,748	121,287	0	704,711	177,215	0	0	(126,361)
India	(399,558)	0	211,866	114,088	553,681	286,866	2,488,620	0	0	0	(1,721,677)
Iran (Islamic Rep. of)	0	0	0	0	56,667	0	0	66,667	0	0	(10,000)
Mongolia	(15,925)	0	0	0	0	0	0	0	0	0	(15,925)
Pakistan	(98,888)	0	75,439	6,471	9,166	1,531	76,046	0	0	0	(82,327)
Poland	(26,495)	0	776,863	10,283	294,042	0	924,751	274,346	0	0	(144,398)
Romania	(2,471)	0	150,904	(26,763)	80,801	0	189,228	6,667	0	6,576	0
Turkey	(2,258)	0	657,834	149,441	338,708	0	1,004,256	219,140	0	0	(79,671)
USSR	(402,605)	0	3,905,974	902,867	587,565	24,875	4,971,345	371,429	0	0	(324,098)
Yugoslavia	(57,228)	0	260,982	11,602	71,950	0	703,819	0	0	0	(416,513)
Organizations											
Egyptian Iron and Steel Co.	(26,747)	0	(5,195)	0	0	0	0	0	0	0	(31,942)
Total non-convertible	(1,508,548)	0	9,165,668	1,486,743	2,404,355	313,272	13,978,381	1,346,356	0	6,576	(3,469,823)
Grand total - IDF	(7,620,287)	80,578	78,008,342	30,161,188	44,478,744	29,571,034	127,182,030	34,120,756	(5,222)	22,809,061	(9,427,026)

Table 2

Status of resources of the Industrial Development Fund as at 31 December 1991

(In thousands of US dollars)

	Convertible		Non-convertible	Total
	General-purpose	Special-purpose		
Available for programming				
Balance from UNIDF	4,562	0	0	4,562
Pledges, 1986 to 1991	2,296	161,883	18,544	188,723
Revaluation of pledges	5	14,614	(5,393)	9,226
Interest income	4,384	0	0	4,384
Other income	106	0	0	106
Total available	17,353	176,497	13,151	207,001
Approvals				
Projects				
Expenditure, 1986 to 1991	10,087	103,342	14,883	128,312
Commitments, 1992 and future	32	7,609	169	7,810
Not yet implemented	1,847	29,291	1,309	32,447
Subtotal	11,966	140,242	16,361	168,569
Support costs, 1986 to 1991				
General-purpose convertible	1,311	0	0	1,311
Special-purpose convertible	38	12,800	0	12,838
Non-convertible a/	1,822	71	0	1,893
Subtotal	3,171	12,871	0	16,042
Reserve for support costs, 1992 and future				
General-purpose convertible	244	0	0	244
Special-purpose convertible	0	7,521	0	7,521
Non-convertible a/	192	0	0	192
Subtotal	436	7,521	0	7,957
Total approvals	15,573	160,634	16,361	192,568
Programmable balance	1,780	15,863	(3,210)	14,433
Cash position				
Balance from UNIDF	5,229	9,806	3,092	18,127
Contributions received	8,000	137,978	15,325	161,303
Interest and other income	4,495	16,377	(3,115)	17,757
Subtotal	17,724	164,161	15,302	197,187
Disbursements, 1986 to 1991 (including support costs)	13,828	111,314	14,976	140,118
Cash balance	3,896	52,847	326	57,069
Unliquidated obligations, 1991 and prior	604	7,535	1,491	9,630
Commitments, 1992 and future	32	7,609	170	7,811
Reserve for support costs, 1992 and future	436	7,521	0	7,957
Residual value of projects	1,847	29,291	1,309	32,447
Total commitments	2,919	51,956	2,970	57,845
Uncommitted cash balance	977 b/	891	(2,644)	(776)

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.

b/ Against which has been established the operational reserve totalling \$0.55 million.

Table 3

Projects approved/revised under UNIDF/IDF, 1978-1991,
according to priority area, as at 31 December 1991

UNIDF/IDF priority area	Number of projects	Special-purpose convertible	General-purpose convertible	Special-purpose non-convertible	General-purpose non-convertible	Total (US dollars)	Percentage
		(In US dollars, excluding overheads)					
Special measures for the least developed, land-locked and island developing countries	161	9,308,912	3,125,252	363,621	1,601,959	14,399,744	5.7
Development and transfer of industrial technology and industrial information	586	53,214,038	8,010,406	1,045,371	1,417,279	63,687,094	25.1
Economic cooperation among developing countries	149	1,582,104	3,782,465	179,676	1,277,734	6,821,979	2.7
Training programmes and strengthening industrial training institutions in developing countries	938	30,336,397	5,382,579	6,457,571	16,309,262	58,485,809	23.1
Industrial institutional infrastructure	145	7,052,911	2,912,293	252,212	443,293	10,660,709	4.2
Industries processing local natural resources, including export-oriented industries	188	15,166,586	2,294,986	360,983	518,365	18,340,920	7.2
Industries satisfying basic needs and support to rural industries	102	7,348,924	1,820,949	279,822	95,559	9,545,254	3.8
Promotional activities	413	59,147,220	5,438,886	1,173,865	952,342	66,712,313	26.3
Other activities	85	2,110,039	2,364,280	271,902	11,594	4,757,815	1.9
TOTAL	2,767	185,267,131	35,132,096	10,385,023	22,627,387	253,411,637	100.0

Table 4
Net approvals/revisions in 1991 of projects financed under IDF

(By region and programme component)

Region	US dollars	Percentage
Africa (excluding Arab States)	2,982,261	10.9
Arab States	1,776,279	6.5
Africa	1,676,114	6.1
West Asia	(32,637)	(0.1)
Regional	132,802	0.5
Asia and the Pacific	3,491,403	12.7
Europe	63,574	0.2
Latin America and the Caribbean	3,475,134	12.7
Global and interregional	15,635,812	57.0
TOTAL	27,424,463	100.0
<u>Programme component/priority area</u>		
Special measures for the least developed, land-locked and island developing countries	98,149	0.4
Development and transfer of industrial technology and industrial information	7,973,022	29.1
Economic cooperation among developing countries	655,830	2.4
Training programmes and strengthening industrial training institutions in developing countries	5,599,082	20.4
Industrial institutional infrastructure	527,406	1.9
Industries processing local natural resources, including export-oriented industries	924,546	3.4
Industries satisfying basic needs and support to rural industries	1,131,518	4.1
Promotional activities	10,189,929	37.2
Others	324,981	1.2
TOTAL	27,424,463	100.0

Note: Negative figures reflect downward revisions of existing projects during the year.

Table 4 (a)
General-purpose convertible projects
 (By region and programme component)

Region	US dollars	Percentage
Africa (excluding Arab States)	(93,861)	(35.4)
Arab States	(68,441)	(25.8)
Africa	(400)	(0.2)
West Asia	(32,637)	(12.3)
Regional	(35,404)	(13.4)
Asia and the Pacific	67,628	25.5
Europe	(795)	(0.3)
Latin America and the Caribbean	289,478	109.3
Global and interregional	70,928	26.8
TOTAL	264,937	100.0
<u>Programme component/priority area</u>		
Special measures for the least developed, land-locked and island developing countries	(61,489)	(23.2)
Development and transfer of industrial technology and industrial information	(2,326)	(0.9)
Economic cooperation among developing countries	(47,877)	(18.1)
Training programmes and strengthening industrial training institutions in developing countries	120,738	45.6
Industrial institutional infrastructure	118,587	44.8
Industries processing local natural resources, including export-oriented industries	897	0.3
Industries satisfying basic needs and support to rural industries	13,447	5.1
Promotional activities	121,839	46.0
Others	1,121	0.4
TOTAL	264,937	100.0

Note: Negative figures reflect downward revisions of existing projects during the year.

Table 4 (b)

Special-purpose convertible projects
(By region and programme component)

Region	US dollars	Percentage
Africa (excluding Arab States)	2,994,729	11.6
Arab States	1,788,720	6.9
Africa	1,620,514	6.3
West Asia	0	0.0
Regional	168,206	0.6
Asia and the Pacific	3,425,998	13.2
Europe	45,000	0.2
Latin America and the Caribbean	3,199,236	12.4
Global and interregional	14,443,984	55.8
TOTAL	25,897,667	100.0
<u>Programme component/priority area</u>		
Special measures for the least developed, land-locked and island developing countries	88,426	0.3
Development and transfer of industrial technology and industrial information	7,934,418	30.6
Economic cooperation among developing countries	627,927	2.4
Training programmes and strengthening industrial training institutions in developing countries	4,539,182	17.5
Industrial institutional infrastructure	387,819	1.5
Industries processing local natural resources, including export-oriented industries	892,816	3.4
Industries satisfying basic needs and support to rural industries	1,118,071	4.3
Promotional activities	9,985,148	38.6
Others	323,860	1.3
TOTAL	25,897,667	100.0

Table 4 (c)

Special-purpose and general-purpose non-convertible projects

(By region and programme component)

Region	US dollars	Percentage
Africa (excluding Arab States)	81,393	6.5
Arab States	56,000	4.4
Africa	56,000	4.4
West Asia	0	0.0
Regional	0	0.0
Asia and the Pacific	(2,223)	(0.2)
Europe	19,369	1.5
Latin America and the Caribbean	(13,580)	(1.1)
Global and interregional	1,120,900	88.8
TOTAL	1,261,859	100.0
<u>Programme component/priority area</u>		
Special measures for the least developed, land-locked and island developing countries	71,212	5.6
Development and transfer of industrial technology and industrial information	40,930	3.2
Economic cooperation among developing countries	75,780	6.0
Training programmes and strengthening industrial training institutions in developing countries	939,162	74.4
Industrial institutional infrastructure	21,000	1.7
Industries processing local natural resources, including export-oriented industries	30,833	2.4
Industries satisfying basic needs and support to rural industries	0	0.0
Promotional activities	82,942	6.6
Others	0	0.0
TOTAL	1,261,859	100.0

Note: Negative figures reflect downward revisions of existing projects during the year.

TRAINING ACTIVITIES IN 1991

Table 1 a/

In-plant group training programmes in 1991

Field of study	Type of programme			Host country	Number of participants			
	National	Regional	Inter-regional		of which			
					All developing countries	LDCs	Female	African participants b/
Polymer engineering	-	-	x	Austria	11	3	1	8
Management - railway spare parts	-	x	-	Belgium/Cameroon	12	2	0	12
Maintenance - rolling stock	-	x	-	Belgium/Indonesia	12	1	0	0
Entrepreneurship development	x	-	-	Bhutan	30	30	12	0
Agricultural machinery	-	-	x	China	13	3	0	5
ACT system	x	-	-	Ecuador	3	0	1	0
Industrialization of construction	-	x	-	France	20	2	3	0
Management - industrial product quality	-	x	-	France	18	0	2	0
Maintenance - biomedical equipment	-	x	-	France	20	0	1	0
Production management - food processing	-	x	-	France/Italy	18	4	3	18
Rubber processing/tyre technology	-	-	x	Iran (Islamic Republic of)	4	3	1	2
Quality improvement	-	-	x	Japan	13	1	4	1
ACT system	x	-	-	Mozambique	2	0	0	2
Reconditioning of spare parts	-	-	x	Romania	4	1	0	2
Optical technology	x	-	-	Syria	12	0	3	0
Cement industry c/	-	-	x	Turkey	29	5	0	22
Sugar industry	-	-	x	Turkey	10	3	0	5
Fruit and vegetable processing	-	-	x	Turkey	10	5	1	6
Iron and steel industry	-	-	x	Turkey	10	3	0	4
Medicinal and aromatic plant utilization in pharmaceutical industry	-	-	x	Turkey	10	3	5	7

APPENDIX H

Appendix H

Table 1 (continued)

Field of study	Type of programme			Host country	Number of participants			
	National	Regional	Inter-regional		of which			
					All developing countries	LDCs	Female	African participants b/
Small-scale foundry industry	-	-	x	Turkey	10	5	1	7
Management - rolling stock rehabilitation	-	x	-	United Kingdom/ Thailand	16	2	0	0
Maintenance - machine tools	-	-	x	USSR	13	3	0	3
Electric welding c/	-	-	x	USSR	27	9	3	11
Wheat milling and storage	-	-	x	USSR	15	6	1	7
					—	—	—	—
TOTAL					342	94	42	122

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

b/ Including participants from African Arab States.

c/ Two programmes carried out in 1991.

TRAINING ACTIVITIES IN 1991

Table 2 a/

In-plant group training programmes in 1991

Field of study	Type of programme			Host country	Number of participants			
	National	Regional	Inter-regional		of which			
					All developing countries	LDCs	Female	African participants b/
Enterprise management and strategy development	x	-	-	Angola	30	0	5	30
Investment project financing, promotion and monitoring	x	-	-	Angola	27	0	5	27
COMFAR c/	-	-	x	Austria	21	4	6	4
Financial and economic analysis and COMFAR for Nigerian bankers	x	-	-	Austria	14	0	0	14
Industrial investment project appraisal and COMFAR application	x	-	-	Bulgaria	20	0	5	0
COMFAR	-	x	-	Burkina Faso	16	16	6	10
Training of trainers - food processing c/	-	x	-	Cameroon/Senegal	34	9	7	34
Mini-cement plant technology	-	-	x	China	17	4	0	13
Industrial development project administration and planning	-	x	-	Côte d'Ivoire	24	11	2	24
Pre-investment studies and feasibility analysis of investment projects	x	-	-	Czechoslovakia	20	0	6	0
Cement production - process control	-	-	x	Egypt	25	0	0	25
Project preparation and evaluation and COMFAR	-	x	-	Egypt	15	2	2	6
Environmental management	-	-	x	Finland/USSR	27	7	11	15
Preparation and evaluation of non-polluting industrial projects	-	-	x	France	19	9	2	17
Printing industry	-	-	x	Germany	20	4	2	5
Project preparation and evaluation and COMFAR	-	-	x	Germany	23	3	7	5
Market analysis	x	-	-	Ghana	29	0	6	29

Table 2 (continued)

Field of study	Type of programme			Host country	Number of participants			
	National	Regional	Inter-regional		of which			
					All developing countries	LDCs	Female	African participants b/
Project preparation and evaluation	x	-	-	Ghana	33	0	9	33
Industrial investment project preparation, appraisal and financing	x	-	-	Guyana	21	0	8	0
Industrial project preparation and appraisal of industrial investment	-	-	x	India	23	2	5	9
Petrochemicals training	-	-	x	India	20	0	0	12
Cement production - new approaches and technologies	-	-	x	India	11	0	0	6
Projects and COMFAR	x	-	-	Iran (Islamic Rep. of)	20	0	7	0
Industrial planning	-	x	-	Japan	8	0	5	0
Project preparation and appraisal of pre-investment studies	x	-	-	Mexico	31	0	11	0
Appraisal of industrial investment projects	x	-	-	Nigeria	33	0	2	33
Investment project preparation and appraisal and COMFAR	x	-	-	Oman	12	0	3	0
Industrial project preparation, evaluation and financing	-	-	x	Poland	18	5	5	6
Enterprise strategy and industrial development	x	-	-	Senegal	24	0	3	24
COMFAR	x	-	-	Sudan	22	22	0	22
Project evaluation and COMFAR	-	x	-	Thailand	18	0	9	0
Project preparation and evaluation	x	-	-	Togo	60	60	4	60
COMFAR	x	-	-	Togo	20	20	3	20
Cement industry	-	-	x	Turkey	9	2	0	3
Energy saving in cement production	-	-	x	Turkey	12	0	0	8

Table 2 (continued)

Field of study	Type of programme				Number of participants			
	National	Regional	Inter-regional	Host country	of which			African participants ^{b/}
					All developing countries	LDCs	Female	
Management - production of construction material	-	x	-	Tunisia	93	0	5	93
Project preparation and appraisal and COMFAR	x	-	-	United Republic of Tanzania	8	8	1	8
Management of human resources	-	-	x	USSR	12	2	5	2
Optical technology	x	-	-	USSR	12	0	3	0
Preparation and evaluation of industrial projects	-	-	x	Yugoslavia	6	4	1	6
Project evaluation for rehabilitation investment	x	-	-	Zambia	18	0	4	18
COMFAR	x	-	-	Zimbabwe	26	0	7	26
Biomass gasification	-	x	-	Zimbabwe	8	2	1	8
TOTAL					947	196	173	648

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

b/ Including participants from African Arab States.

c/ Two programmes carried out in 1991.

Table 3

Number of fellowships and study tours started in 1991,
by nationality/home area, country or territory

Nationality/home area, country or territory	Number of individuals placed									Total
	UNDP			Regular programme			Other programme :			
	Male	Female	Total	Male	Female	Total	Male	Female	Total	
AFRICA a/										
Angola	10	0	10	0	0	0	0	0	0	10
Botswana	0	0	0	0	0	0	1	6	7	7
Burkina Faso	7	0	7	0	0	0	0	0	0	7
Burundi	3	0	3	0	0	0	0	0	0	3
Cameroon	8	3	11	0	1	1	0	0	0	12
Cape Verde	0	0	0	0	0	0	1	1	2	2
Chad	1	0	1	0	0	0	0	0	0	1
Côte d'Ivoire	0	0	0	0	0	0	0	2	2	2
Ethiopia	20	2	22	1	0	1	11	0	11	34
Ghana	3	0	3	0	0	0	1	0	1	4
Guinea-Bissau	3	0	3	0	0	0	0	0	0	3
Guinea	1	0	1	1	0	1	0	0	0	2
Kenya	12	1	13	0	0	0	5	1	6	19
Lesotho	0	1	1	0	0	0	0	0	0	1
Madagascar	12	2	14	0	0	0	0	0	0	14
Malawi	5	2	7	0	0	0	3	1	4	11
Mozambique	1	1	2	0	0	0	0	0	0	2
Namibia	0	0	0	3	0	3	0	0	0	3
Niger	2	3	5	0	0	0	0	0	0	5
Nigeria	38	3	41	4	0	4	2	0	2	47
Rwanda	13	1	14	0	0	0	0	0	0	14
Sao Tome and Principe	0	0	0	5	0	5	0	0	0	5
Seychelles	2	0	2	0	0	0	1	1	2	4
Sierra Leone	5	0	5	0	0	0	0	0	0	5
Togo	10	1	11	2	0	2	0	0	0	13
Uganda	7	4	11	0	0	0	4	1	5	16
United Republic of Tanzania	3	0	3	1	0	1	4	0	4	8
Zambia	7	0	7	2	0	2	5	0	5	14
Zimbabwe	1	1	2	1	1	2	5	0	5	9
Total Africa	174	25	199	20	2	22	43	13	56	277
ARAB STATES										
Algeria	34	5	39	0	0	0	4	0	4	43
Egypt	21	2	23	0	0	0	8	0	8	31
Jordan	6	0	6	0	0	0	0	0	0	6
Libyan Arab Jamahiriya	10	0	10	0	0	0	33	0	33	43
Morocco	6	0	6	1	0	1	7	0	7	14
Saudi Arabia	8	0	8	0	0	0	0	0	0	8
Sudan	0	1	1	0	1	1	5	0	5	7
Syrian Arab Republic	0	0	0	1	0	1	0	0	0	1
Tunisia	1	2	3	1	0	1	6	0	6	10
Yemen	2	1	3	0	0	0	0	0	0	3
Total Arab States	88	11	99	3	1	4	63	0	63	166

Table 3 (continued)

Nationality/home area, country or territory	Number of individuals placed									Total
	UNDP			Regular programme			Other programmes			
	Male	Female	Total	Male	Female	Total	Male	Female	Total	
ASIA AND THE PACIFIC										
Afghanistan	7	0	7	0	0	0	0	0	0	7
Bangladesh	15	1	16	0	0	0	1	0	1	17
Bhutan	6	2	8	1	0	1	0	0	0	9
China	96	13	109	3	0	3	34	11	45	157
Democratic People's Republic of Korea	19	3	22	0	0	0	4	0	4	26
Fiji	0	0	0	0	0	0	1	0	1	1
India	68	2	70	0	0	0	14	0	14	84
Indonesia	12	5	17	0	0	0	0	0	0	17
Iran (Islamic Republic of)	7	4	11	7	0	7	0	0	0	18
Malaysia	19	3	22	0	0	0	0	0	0	22
Mongolia	6	6	12	0	0	0	0	0	0	12
Myanmar	0	0	0	0	0	0	12	0	12	12
Nepal	37	1	38	1	0	1	0	0	0	39
Pakistan	14	0	14	0	0	0	0	0	0	14
Papua New Guinea	1	0	1	0	0	0	0	0	0	1
Philippines	22	8	30	5	1	6	2	0	2	38
Republic of Korea	14	0	14	1	0	1	0	0	0	15
Singapore	1	0	1	0	0	0	0	0	0	1
Sri Lanka	33	5	38	0	0	0	2	0	2	40
Thailand	20	15	35	0	0	0	1	1	2	37
Tonga	1	0	1	0	0	0	0	0	0	1
Tuvalu	2	0	2	0	0	0	0	0	0	2
Vanuatu	6	1	7	0	0	0	0	0	0	7
Viet Nam	118	47	165	1	0	1	3	1	4	170
Total Asia and the Pacific	524	116	640	19	1	20	74	13	87	747
EUROPE										
Albania	6	2	8	0	0	0	0	0	0	8
Bulgaria	1	0	1	0	0	0	0	0	0	1
Belarus	59	8	67	0	0	0	1	2	3	70
Cyprus	18	0	18	0	0	0	0	0	0	18
Czechoslovakia	9	0	9	0	0	0	0	0	0	9
Greece	0	0	0	0	0	0	0	1	1	1
Hungary	22	2	24	0	0	0	22	5	27	51
Malta	1	0	1	0	0	0	0	0	0	1
Poland	20	0	20	0	0	0	3	1	4	24
Portugal	13	0	13	0	0	0	0	0	0	13
Romania	19	6	25	0	0	0	0	0	0	25
Turkey	23	6	29	0	0	0	6	0	6	35
USSR	0	0	0	0	0	0	5	0	5	5
Yugoslavia	20	4	24	7	1	8	1	3	4	36
Total Europe	211	28	239	7	1	8	38	12	50	297

Table 3 (continued)

Nationality/home area, country or territory	Number of individuals placed									Total
	UNDP			Regular programme			Other programmes			
	Male	Female	Total	Male	Female	Total	Male	Female	Total	
LATIN AMERICA AND THE CARIBBEAN										
Antigua and Barbuda	2	0	2	0	0	0	0	0	0	2
Argentina	3	1	4	2	0	2	14	1	15	21
Bolivia	19	0	19	0	0	0	2	0	2	21
Brazil	6	7	13	0	0	0	5	0	5	18
Chile	0	0	0	0	0	0	4	2	6	6
Colombia	11	1	12	0	0	0	7	1	8	20
Costa Rica	0	0	0	0	0	0	4	0	4	4
Cuba	8	0	8	4	0	4	6	5	11	23
Ecuador	20	0	20	0	0	0	4	0	4	24
Guatemala	0	2	2	0	0	0	1	0	1	3
Guyana	5	1	6	0	0	0	0	0	0	6
Jamaica	0	2	2	0	1	1	0	0	0	3
Mexico	2	0	2	0	0	0	2	0	2	4
Paraguay	2	2	4	0	0	0	0	0	0	4
Peru	17	0	17	0	0	0	3	0	3	20
Uruguay	0	0	0	0	0	0	2	0	2	2
Venezuela	1	1	2	0	0	0	12	1	13	15
Total Latin America and the Caribbean	96	17	113	6	1	7	66	10	76	196
GRAND TOTAL	1,093	197	1,290	55	6	61	284	48	332	1,683 b/

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

b/ Including 251 females, 233 individuals from least developed countries, 425 individuals from African countries (including African Arab States).

Table 4

Fellowships and study tours started in 1991, 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	9	1	3	13
Australia	26	0	1	27
Austria	96	1	18	115
Austria (UNIDO Headquarters)	56	9	14	79
Bangladesh	2	0	0	2
Barbados	1	0	0	1
Belgium	35	0	0	35
Brazil	18	3	5	26
Bulgaria	5	0	0	5
Burkina Faso	0	0	2	2
Burundi	3	0	0	3
Canada	8	1	0	9
China	21	0	0	21
Côte d'Ivoire	7	1	0	8
Cuba	1	3	0	4
Cyprus	1	0	0	1
Czechoslovakia	24	0	5	29
Democratic People's Republic of Korea	1	0	0	1
Denmark	19	0	8	27
Egypt	3	2	29	34
Ethiopia	0	0	2	2
Fiji	9	0	0	9
Finland	5	0	4	9
France	139	3	61	203
Germany	186	6	45	237
Ghana	0	2	0	2
Greece	5	0	0	5
Guinea	3	0	2	5
Hong Kong	21	0	20	41
Hungary	14	0	8	22
India	91	7	10	108
Indonesia	7	0	0	7
Ireland	3	3	0	6
Italy	87	2	61	150
Jamaica	2	0	0	2
Japan	37	2	12	51
Jordan	5	0	0	5
Kenya	16	0	6	22
Kiribati	1	0	0	1
Madagascar	1	0	0	1
Malawi	1	0	0	1
Malaysia	10	0	0	10
Marshall Islands	1	0	0	1
Mauritius	6	1	0	7

Table 4 (continued)

Country/ geographical area/ territory of study	Number of individuals placed			Total
	UNDP	Regular programme	Other programmes	
Mexico	7	0	15	22
Morocco	10	0	0	10
Myanmar	1	0	0	1
Netherlands	33	0	4	37
New Zealand	3	0	0	3
Nigeria	1	4	0	5
Norway	12	0	0	12
Pakistan	10	0	0	10
Peru	9	0	0	9
Philippines	33	0	0	33
Poland	25	0	0	25
Portugal	11	5	2	18
Republic of Korea	37	0	0	37
Senegal	6	2	0	8
Singapore	38	0	10	48
Spain	15	2	2	19
Sri Lanka	8	0	0	8
Swaziland	0	0	1	1
Sweden	34	0	0	34
Switzerland	62	1	4	67
Tanzania	5	0	0	5
Thailand	27	1	0	28
Togo	3	0	0	3
Trinidad and Tobago	3	0	0	3
Tunisia	5	0	0	5
Turkey	11	3	2	16
Uganda	0	1	0	1
Union of Soviet Socialist Republics	13	6	0	19
United Arab Emirates	8	0	0	8
United Kingdom	145	4	46	195
United States of America	135	4	16	155
Venezuela	63	0	0	63
Viet Nam	1	0	0	1
Yugoslavia	20	0	0	20
Zambia	0	0	6	6
Zimbabwe	4	0	16	20
TOTAL	1,784	80	440	2,304

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 815 or 35.4 per cent are arranged in developing countries, thus contributing to technical cooperation among developing countries.

APPENDIX I

AGREEMENTS CONCLUDED BY UNIDO IN 1991

Agreements with StatesAlbania

Basic cooperation agreement between the United Nations Industrial Development Organization and the Government of the Republic of Albania, signed on 8 November

Czechoslovakia

Agreement between the United Nations Industrial Development Organization and the Government of the Czech and Slovak Federal Republic regarding the arrangements for the Fourth Consultation on the Capital Goods Industry with Emphasis on Machine Tools, signed on 10 September

Denmark

Agreement between the United Nations Industrial Development Organization and the Government of Denmark regarding the arrangements for the Conference on Ecologically Sustainable Industrial Development, signed on 18 and 26 July

Djibouti

Basic cooperation agreement between the United Nations Industrial Development Organization and the Government of the Republic of Djibouti, signed 21 November

Greece

Agreement between the United Nations Industrial Development Organization and the Government of Greece regarding the arrangements for the Second Consultation on the Building Materials Industry, signed on 31 October

Guinea

Basic cooperation agreement between the United Nations Industrial Development Organization and the Government of the Republic of Guinea, signed on 8 June

India

Exchange of letters between the Permanent Representative of India and the Director-General concerning a further extension until 31 March 1992 of the agreement concluded on 25 March 1988 on basic terms and conditions governing UNIDO projects and its related documents, signed on 25 March

Exchange of letters between the Permanent Representative of India and the Director-General extending the application of the agreement concluded on 25 March 1988 on basic terms and conditions governing UNIDO projects and its related documents to the activities financed by Wockhardt Limited, signed on 17 May and 30 August

Exchange of letters between the Permanent Representative of India and the Officer-in-Charge of UNIDO extending the application of the agreement concluded on 25 March 1988 on basic terms and conditions governing UNIDO projects and its related documents to the activities financed by the Rockefeller Foundation, signed on 6 and 12 September

Italy

Exchange of letters between the Permanent Representative of Italy and the Director-General concerning the extension until 31 December 1991 of the agreement concluded on 29 June 1988 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 4 and 8 January

Exchange of letters between the President of the Research Area of Trieste and the Director-General concerning the revision of project document GE/GLO/89/002 and the approval of project document GE/GLO/90/002 concerning the five-year work programme of the International Centre for Genetic Engineering and Biotechnology, signed on 12 December 1990 and 20 February 1991

Exchange of letters between the President of the Research Area of Trieste and the Director-General concerning the extension until 30 May 1992 of the provisions of the 14 August 1989 trust fund agreement, signed on 20 February

Japan

Memorandum concerning the interregional project of the UNIDO Service in Japan for the promotion of industrial investment in developing countries, signed on 21 August

Latin America

Document of intent concerning the regional programme for industrial automation of the capital goods sector of Latin America, concluded between the United Nations Industrial Development Organization, the Government of Venezuela and the Institute of Engineering, on 15 July

Portugal

Agreement between the United Nations Industrial Development Organization and the Republic of Portugal with regard to a special-purpose contribution to the Industrial Development Fund and to the establishment of a UNIDO service in Portugal for the promotion of industrial investment and the strengthening of cooperation with developing countries, signed on 18 November

Saint Vincent and the Grenadines

Basic cooperation agreement between the United Nations Industrial Development Organization and the Government of Saint Vincent and the Grenadines, signed on 1 and 28 November

Switzerland

Agreement between the United Nations Industrial Development Organization and the Government of Switzerland with regard to a special-purpose contribution to the Industrial Development Fund and to the extension of the UNIDO Investment Promotion Service in Zurich, signed on 7 February

Agreements with the United Nations, specialized agencies and other organizations within the United Nations system

ILO

Working arrangement between the United Nations Industrial Development Organization and the International Labour Organisation, signed on 25 September and 7 October

UNDP

Agreement between the United Nations Industrial Development Organization and the United Nations Development Programme regarding execution of international development cooperation activities, signed on 26 July and 8 September

UNEP

Interagency letter of agreement between the United Nations Industrial Development Organization and the United Nations Environment Programme regarding specified activities within the project for training in advanced biotechnological technologies, signed on 14 and 19 March

Agreements with other intergovernmental organizations

African Intellectual Property Organization (OAPI)

Relationship agreement between the United Nations Industrial Development Organization and the African Intellectual Property Organization, signed on 15 November

Financial Fund for Development of the Plate River Basin (FONPLATA)

Relationship Agreement between the United Nations Industrial Development Organization and the Financial Fund for Development of the Plate River Basin, signed on 11 July

Fund for Solidarity and Economic Development of the West African Economic Community (FOSIDEC)

Relationship Agreement between the United Nations Industrial Development Organization and the Fund for Solidarity and Economic Development of the West African Economic Community, signed on 11 June

Preferential Trade Area for Eastern and Southern African States (PTA)

Relationship agreement between the United Nations Industrial Development Organization and the Preferential Trade Area for Eastern and Southern African States, signed on 22 March

Agreements with other institutions

Arab School of Science and Technology

Memorandum of understanding between the United Nations Industrial Development Organization and the Arab School of Science and Technology, Syrian Arab Republic, signed on 8 and 20 December

OUTPUTS IMPLEMENTED AGAINST OUTPUTS PLANNED, 1990-1991 a/

Department/ Division	Envisaged output				Actual output			
	Programmed 1990-1991 (1)	(of which re- formulated b/) (2)	Additional outputs c/ Legislative Secretariat (3) (4)		Completed d/ 1990-1991 (5)	Postponed e/ (6)	Partly implemented f/ (7)	Not implemented g/ (8)
DPPD								
SMA	17	(2)	4	-	21	-	-	-
AREA	69	(8)	3	-	65	4	1	2
IPP	30	(2)	-	-	23	4	3	-
ICFM	26	(-)	-	-	26	-	-	-
ODDG	1	(-)	-	-	1	-	-	-
Subtotal	143	(12)	7	-	136	8	4	2
DIPCT								
II	21	(-)	-	-	19	2	-	-
CONSULT	51	(1)	-	-	45	6	-	-
TP	67	(1)	-	-	50	11	3	3
TD	27	(1)	-	-	27	-	-	-
ODDG	1	(-)	-	-	1	-	-	-
Subtotal	167	(3)	-	-	142	19	3	3
DIO								
I	33	-	-	-	11	-	22	-
IIS	17	-	-	-	9	4	4	-
OS	20	-	-	-	8	2	9	1
ODDG/Interregional Advisers	7	-	-	-	3	-	-	4
Subtotal	77	-	-	-	31	6	35	5
ODG	25	-	-	2	25	-	1	1
TOTAL	412	(15)	7	2	334	33	43	11
Biennial comparison								
1988-1989	349	(9)	1	13	220	26		94 h/
1990-1991	412	(15)	7	2	334	33	43	11

- a/ See explanatory notes on following page.
b/ Reformulated if output differed significantly in nature or scope from description.
c/ Additional outputs shown in those instances where they were required by virtue of a legislative decision or were added at the initiative of the Secretariat.
d/ Completed if output completed during the period 1990-1991.
e/ Postponed if the output (whether commenced or not) was rescheduled for following biennium or later date.
f/ Partly implemented if work had commenced, but was subsequently terminated.
g/ Not implemented if work had not commenced.
h/ In previous biennium, not implemented covered the two categories: partly implemented and not implemented.

$$(1)+(3)+(4)=(5)+(6)+(7)+(8)$$

Explanatory notes

Compared to the previous two-year period, technical cooperation deliveries in 1990-1991 reached record levels. During the second year of the biennium, however, the drop in the rate of approvals observed in the previous year became more marked and in certain instances project delivery was appreciably less than estimated (see chap. II, table 7). These downward trends are reflected in the table and explain in part the fact that in the Department of Industrial Operations, for example, the number of outputs completed is relatively low. Under the system used, an output can only be shown as completed if both the project approval and completion targets have been met. The table masks the fact that in some subprogrammes, the completion of projects far exceeded the level programmed: one subprogramme achieved a completion factor of 254 per cent and three others registered levels in excess of 120 per cent. Over-achievement, however, is not registered in the tabular system - merely failure to achieve a target determined two years in advance. It is precisely this degree of pre-determination that makes for difficulties as delivery is a reactive process contingent upon requests that often defy precise forecasting.

Another contributory factor was the fact that resources were constrained. The vacancy factor was high throughout the biennium, while consultancy, meeting and travel funds were limited. For the Department for Industrial Promotion, Consultations and Technology, for example, output completed in the biennium 1990-1991 was merely 85 per cent of that programmed, a level directly related to the fact that the Department ultimately received only 75 per cent of its consultancy funds and 85 per cent of its meeting funds. To a certain degree, this shortfall was offset by securing funds from other sources but, as in all other Departments, it imposed a major burden on staff.

In the Department for Programme and Project Development, the completion factor was higher than that of the other two substantive Departments. It should be noted, however, that the number of reformulated outputs also meant a reduction in scope of some of the original outputs so that they could be completed using reduced resources.

In other instances, for example, the Office of the Director-General, certain output citations were a mere description of activities whose completion was almost a foregone conclusion.

The following abbreviations have been used:

DPPD	Department for Programme and Project Development
SMA	Special Measures and Activities Division
AREA	Area Programmes Division
IPP	Industrial Policy and Perspectives Division
ICFM	Industrial Cooperation and Funds Mobilization Division
DIPCT	Department for Industrial Promotion, Consultations and Technology
II	Industrial Investment Division
CGNSULT	System of Consultations Division
TP	Industrial Technology Promotion Division
TD	Industrial Technology Development Division
DIO	Department of Industrial Operations
T	Industrial Operations Technology Division
IIS	Industrial Institutions and Services Division
OS	Industrial Operations Support Division
ODDG	Office of the Deputy Director-General
ODG	Office of the Director-General