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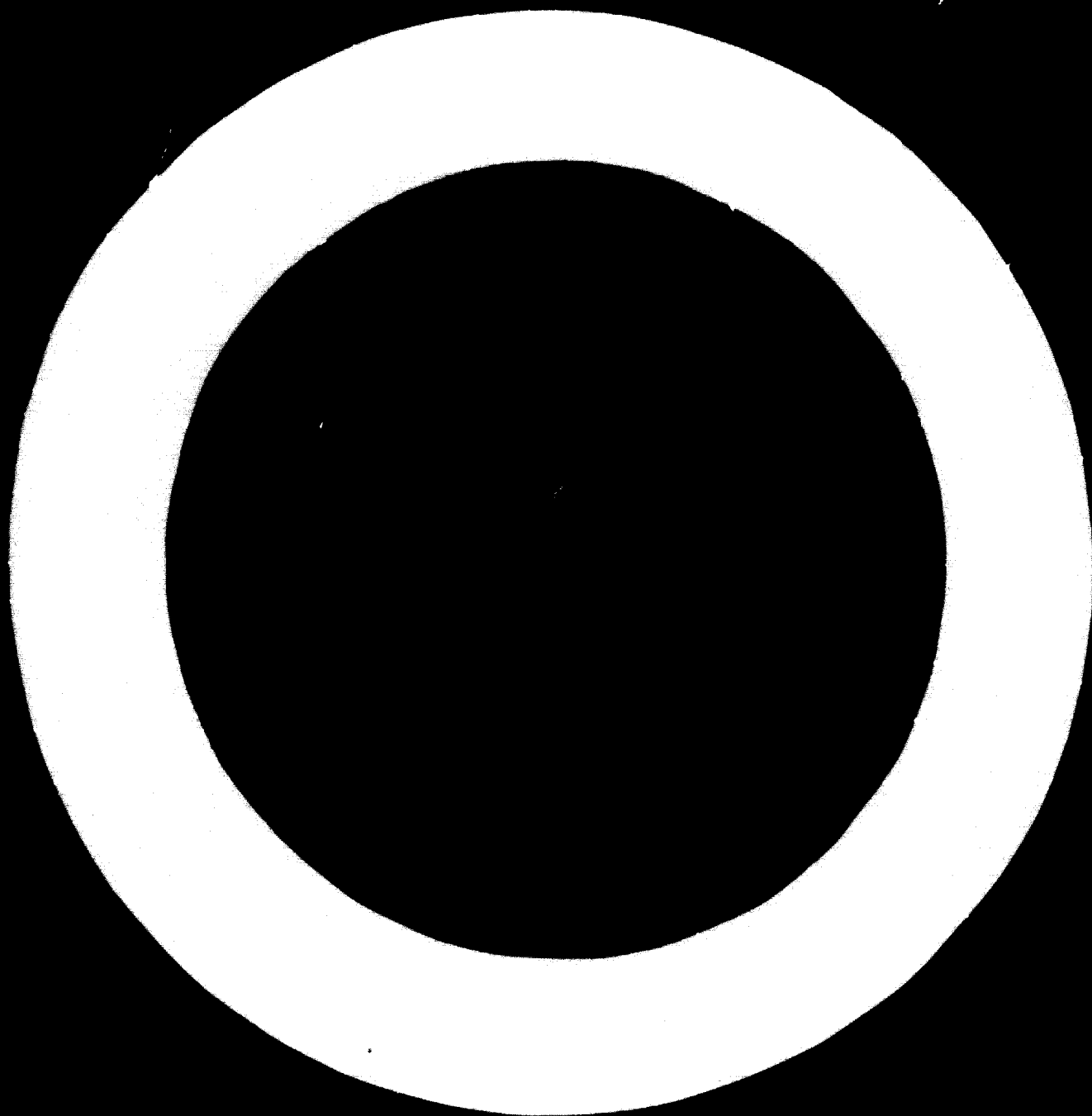
PROGRAMME OF WORK FOR 1973, REPORT OF ACTIVITIES IN 1971 AND UPDATING OF 1972 PROGRAMME

PART TWO

ADDENDUM I

Industrial Services and Institutions Division
(Groups 7 to 11 and 16)

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PROGRAMME OF WORK FOR 1973, REPORT OF ACTIVITIES IN 1971 AND UPDATING OF 1972 PROGRAMME

PART TWO

Addendum 1

Industrial Services and Institutions Division

(Groups 7 to 11 and 16)

Corrigendum

Page 73, para.223, first sentence, second line

Insert the word "in" between "decision-making" and "business enterprises".

Page 77, para.233, first sentence, third line

Insert between "establishment of" and "regional" the words "national and even" ...

D04272

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*For administrative purposes the numbers of these groups of activities have been changed from 10a to 16 and 10b to 10; the titles, competence and responsibilities of these groups remain the same.

Editorial Note: The material contained in the present document was formulated largely during the second half of 1971, with 30 September 1971 as the general cut-off date for most facts and figures. All project components under supporting and other activities are Priority A unless otherwise indicated.

INTRODUCTION

1. Within the over-all programme of co-operation between UNIDO and participating countries and organizations to accelerate industrialization in the developing countries, the Industrial Services and Institutions Division has certain specific tasks, among which are: establishment of, and improvement in, the essential industrial institutions; expansion of the practical value of the services provided by these industrial institutions through improved industrial administration and other measures (both formal and ad hoc); holding of industrial training programmes in institutions and enterprises for individuals and groups; and provision of a variety of services to support the activities related to the above-mentioned tasks.
2. Some of the activities being carried out by the Industrial Services and Institutions Division (e.g. industrial information) also contribute to the operational and supporting activities being carried out by the other substantive divisions of UNIDO.

PROGRAMME CHARACTERISTICS

3. It is anticipated that the operational programme will continue to expand during 1972 and 1973 to meet the increased volume of needs and to assist in finding solutions for new priority problem areas that have been identified, inter alia, through country programming.
4. As in past years, the supporting programme closely influences the trends of the operational programme. Each supporting project or component meets one or more of the following criteria:
 - (a) Examines and applies the results of international research to the design of potential operational activities;
 - (b) Explores the viability of a new operational activity or introduces a new operational activity by bringing it to the attention of the developing countries;
 - (c) Enhances the effectiveness of an existing operational activity;
 - (d) Implements mandates given to UNIDO by governing or advisory bodies.
5. A number of activities included in the work programme in the section "supporting and other activities" have developed into operational activities and do not meet the above criteria. These include:
 - 8.04.01 Co-operation with fairs and exhibitions (IPS);
 - 9.02.07 Selective dissemination of information service; and
 - 9.03.01 Industrial Inquiry Service.

6. An important characteristic of the supporting activities is the attention given to certain priority problem areas of the developing countries as identified by the Industrial Development Board and other United Nations bodies. For example, the list below indicates project components of the supporting activities of the Industrial Services and Institutions Division that are concerned with five of the identified priority areas of work.

**List of supporting activities significantly
contributing to priority areas of work**

Unemployment

Information service on supply and alternatives for choice of industrial equipment (9.03.02)

Case studies in adaptation of technology for small industry in selected developing countries (11.03.02)

Industrialization of the lesser developed countries and areas

Study on specialized industrial estates (11.02.03)

Small-scale industry outside metropolitan areas (11.08)

Strengthening existing institutions and organisations, both national and international

Consultations with public industrial administrators (7.01.02)

Promotion of patent information (7.03.02)

World Association of Industrial and Technological Research Organizations (WAITRO) (8.01.01)

Consultations on the establishment and operation of national quality control systems in developing countries (8.02.07)

Joint consultations and discussions with local officials and chambers of commerce and industry (8.03.05)

Training courses for the upgrading of industrial information personnel (9.01.03)

Use and development of consulting services to management in developing countries (10.01.01)

Industry-university linkages for management and consulting services (10.06.01)

Development of extension services through intergovernmental and business organisations (11.01.10)

Promotion of contacts between developing and industrialized countries

Requirements of developing countries with regard to licensing practices (7.04.02)

Co-operation with fairs and exhibitions (IPS) (8.04.01)

Explorations and strengthening of contacts with regional and international professional and business organizations (8.06.01)

Industry International (9.05.04)

UNIDO Newsletter (9.05.02)

Partnerships (11.07.01)

Improvements of high-level industrial skills for the implementation of industrialization programmes

Training of public industrial administrators (7.01.01)

International centre for industrial administration (7.01.04)

Training of patent office personnel (7.03.01)

Improvements of high-level industrial skills for the implementation of industrialization programmes (cont'd)

- Stimulation of industrial research activities (8.01.02)
- Organization and implementation of in-plant training programmes for personnel engaged in industrial research (8.01.04)
- Training of personnel engaged in standardization (8.02.01)
- Training in quality control (8.02.03)
- Training in metrology (8.02.05)
- Industrial co-operatives (8.03.02)
- Regional workshops for managerial staff of chambers of commerce and industry (8.03.03)
- Regional seminars for industrial information officers (9.01.04)
- Techniques of management information systems (10.04.01)
- Particular planning needs and requirements of business enterprises in selected developing countries (10.05.01)
- Introduction and use of corporate planning and control techniques (10.05.02)
- Expert group meeting of directors of in-plant group training programmes (16.01.02)
- Training in achievement motivation (16.04)

7. The project components in this list can easily be integrated as they have common objectives.

SIGNIFICANT ACTIVITIES

8. The operational and supporting activities implemented in 1971, reviewed and revised for 1972, and proposed for 1973 are described under the relevant groups of activities. The trend for 1972 and 1973 is towards a further reduction in the number of supporting activities, allowing the limited number of staff to concentrate on the operational activities. In this introduction, the discussion is limited to those supporting activities that are considered especially significant.

Industrial administration

9. Since its reorganization in 1970, Group 7 has expanded its activities. An important activity currently under consideration by this Group is the establishment, jointly with the Austrian Government and in co-operation with UNITAR, of an international centre for industrial administration. A preparatory meeting held in 1971 led to the design of pilot activities for 1972. Through the licensing programme, the ability of investors to negotiate licences on reasonable terms is being enhanced; the programme also serves to strengthen international institutions concerned with the transfer of technology through licenses.

Industrial institutions

10. The sustained efforts of UNIDO since 1967 led to the establishment in 1970 of the World Association of Industrial and Technological Research Organizations (WAITRO). WAITRO is now developing its own resources and has applied for consultative status with UNIDO. Co-operation with WAITRO is envisaged as a part of the UNIDO work programme.
11. A regional consultation and an expert group meeting held in 1971, both of which were concerned with the stimulation of industrial research in developing countries, recognized the necessity of, and provided guidelines for, organizing training programmes for different levels of personnel in industrial research. These programmes will be implemented starting in 1972, in co-operation with bilateral aid agencies.
12. The Industrial Promotion Service (IPS) promotes contacts at fairs to provide opportunities for industrialists from developing countries to meet potential partners from industrialized countries who can supply know-how, equipment, licences and financial co-operation. An evaluation undertaken by UNIDO shows that the assistance given through the IPS has been of significant value. The number of fairs covered by the IPS in 1971 was four; it will be increased to seven in 1972.
13. UNIDO will initiate in 1972 a programme of co-operation with regional and international professional and business organizations in order to enhance the value of the services of these organizations to the developing countries. Contacts with these organizations will be strengthened systematically by negotiating with them possible areas of joint efforts, thereby associating them more closely with the work being carried out by UNIDO.

Industrial information

14. The industrial information programme continues to demonstrate that timely information of high quality can be both a supplement to, and often a substitute for, other more costly means of technical assistance. For example, through UNIDO's programme of selective dissemination of information, which is carried out by Group 9, headquarters and field staff members are supplied with precisely the data and background material they require to keep them informed and updated in their areas of interest. Naturally, this service greatly increases the effectiveness of the staff. The expanded Industrial Inquiry Service provides both institutions and individuals in developing countries with information needed to upgrade their basic working technology. The type of information supplied is of a practical nature, often based on know-how and experience, and is frequently not readily available in any organized form.
15. The Information Service on the Supply of Industrial Equipment, applying the recommendation of the Economic and Social Council (document E/4967 of 17 March 1971), started operations in late 1971. Negotiations have been initiated for supplementary resources through co-operative programmes with a number of countries.
16. The pilot issue of Industry International was released in May 1971 to test the feasibility of a monthly periodical that could initiate a dialogue among approximately 100,000 governmental and industrial decision makers in all countries. A feasibility study has indicated the potential

for support from public and private sources and the degree of financial viability after an initial period. If adequate initial financing is available, regular publication can be initiated during 1972.

17. UNIDO's programme to encourage and assist countries and regions in the establishment of indigenous industrial information centres helps to supply local industry on the spot with the industrial information it needs. These centres are staffed with local industrial information personnel, whose training is actively supported by UNIDO. The centres are supplied with materials and equipment appropriate to the geographical and social environment in which they function and are thus close to the real and practical problems of their clients - local Government and industry. They serve as exchange centres for information among countries of a region and can also function as input and modification points for industrial technology from the developed countries.

Industrial management

18. Experience in management development in recent years has indicated the importance of two programmes: the development of consultancy services and the assistance in the provision of additional management development services.

19. An Expert Group Meeting on the Development of Management Consultancy, held in 1971, recommended the establishment of national and regional services of a semi-commercial nature to strengthen and supplement existing management consultancy services. The development of this concept will receive special attention from UNIDO in 1972 and 1973.

20. Institutions, and particularly management associations, can be assisted by UNIDO in providing added services such as management clinics. UNIDO can also assist university colleges of business and of engineering in providing a variety of management consultancy services to developing countries. A UNIDO programme with universities will be initiated in 1972 and further expanded in 1973 in co-operation with UNESCO.

Small-scale industry

21. UNIDO resources for small-scale industry development are being concentrated increasingly on operational programmes related to specific requirements of countries or groups of countries. The major supporting activities are closely related to these operational programmes.

22. The new emphasis on industrial development of the least developed countries was reflected in the organization in 1971 of an Expert Group Meeting on industrialization in these countries, and in the holding in 1972 of joint consultations on less developed areas of developing countries. These projects are expected to give rise to a number of operational activities.

23. The "partnership" programme for co-operation between enterprises and institutions in developed countries and small enterprises in developing countries will begin during 1972 and will be expanded during 1973. Initially, the programme will focus on small-scale industry development in African countries.

24. Among other noteworthy supporting programmes being undertaken by Group 11 are the promotion of technical co-operation and assistance in small-scale industry development through inter-governmental and business organizations, the promotion of self-help through professional and business organizations in developing countries, financing of small-scale industry, and domestic marketing of small-scale industry products.

Industrial training

25. The original concept of in-plant training has been expanded to include any type of training in which the individual receives practical operational experience in any type of organisation including research institutes, development corporations, financial institutions and manufacturing enterprises.

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GROUP 7: INDUSTRIAL ADMINISTRATION

Introduction

26. The programme of work of UNIDO in industrial administration is geared towards assisting the developing countries in public industrial administration, industrial legislation, patents and licensing. The main objective of the activities of Group 7 related to public industrial administration is to facilitate the introduction of modern and efficient techniques of administration in government agencies dealing with manufacturing industries. As such agencies (ministries of industry and commerce, government planning bodies, licensing and patent departments) have key roles to play in the industrial development of their respective countries, UNIDO is attempting to help them to improve their services by providing them with technical assistance in the form of advice, consultation and training.

27. The activities of UNIDO in the interrelated fields of industrial legislation, patents and licensing are directed towards the creation and improvement of modern and efficient legislation designed to promote the economic and technological development of industry. Activities in this area touch on the elaboration and application of industrial development legislation, including patents and licensing, specifically designed to create a receptive atmosphere for potential investors and licensors from various countries. Although a modern patent system represents only one part of industrial legislation, it can play a significant role in encouraging research, invention and transfer of technology, which are essential for the industrialization process of the developing countries.

28. With regard to licensing, the objective of UNIDO is to assist in the promotion and transfer of technology and proprietary know-how from developed to developing countries. To meet this objective, UNIDO assists the developing countries in the establishment of necessary conditions and machinery to encourage the flow of technology from developed to developing countries and to enable licensees in developing countries to manufacture, use and sell particular products on both the domestic and the export markets.

29. In countries where the primary responsibility for the promotion of industry rests with the Government, it is of great importance that modern administrative techniques be applied to public agencies. Equally important is the upgrading of skills of the personnel, as the lack of adequately trained administrators presents a major obstacle to the implementation of industrial development programmes. UNIDO has therefore initiated regional training programmes for government industrial administrators from countries in Africa and the Middle East, and it is planned to extend these programmes to countries in Asia and Latin America. In addition, training and fellowships in industrial administration will be arranged for individual government policy makers.

30. In the programming and implementation of its activities related to industrial administration, UNIDO maintains close co-operation with other offices and specialized agencies of the United Nations, such as the Public Administration Division of the United Nations, UNCTAD, ILO, the African and Malagasy Industrial Property Office (OAMPI), the International Patent Institute (IIB), the Licensing Executive Society (LES) and the World Intellectual Property Organization (WIPO).

OPERATIONAL ACTIVITIES

31. A major task of UNIDO with regard to industrial administration is to assist in the development and formulation of technical co-operation projects. Consultants, experts and fellowships are provided on short- and long-term bases to assist developing countries in overcoming specific problems related to industrial administration and to set up training services in this field.

32. The operational activities undertaken by UNIDO in public industrial administration are concentrated on the machinery of government agencies dealing with the structure, functions, procedures and potential of manufacturing industries. Training is also provided for the employees of such agencies in an effort to achieve an improved economy and a higher efficiency.

33. In the field of industrial legislation, UNIDO has developed operational activities that concentrate on the provision of expert advice to developing countries on reviewing and updating existing or planned legislation. An example of the work being undertaken is the assistance supplied by UNIDO to Cyprus, which is receiving expert advice on the revision and the final drafting of a law for the establishment of industrial enterprises.

34. Further, UNIDO provides assistance in the establishment and improvement of patent offices with a view to making them efficient institutions for the transfer of technology and the stimulation of invention. Another area of interest to UNIDO is the licensing of technological processes, especially the conditions under which such licensing agreements are made at the international level. It is important to the development of industrialization that such licensing agreements promote rather than hinder the flow of technology and know-how.

35. In the field of patents, UNIDO provided technical assistance in the organization of patent offices and advised on signing the Patent Co-operation Treaty (PCT) and on joining the Paris Convention for the Protection of Industrial Property. UNIDO will provide assistance to the African and Malagasy Industrial Property Office (OAMPI) in administration and organization as well as in licensing practices and the mechanism of transfer of technology in the countries of the OAMPI region.

Value of approved field projects and forecast of requirements, 1971 to 1973
(in thousands of US dollars)

Source of funds	1971 estimated expenditure	1972			1973		
		Approved projects	Requirements for new projects	Total	Approved projects	Requirements for new projects	Total
UNDP/SF	-	{	159.0	159.0	-	580.0	580.0
UNDP/TA	-		(-) ^{a/}			(-) ^{a/}	
RP	3.6	20.6	-	20.6	15.0	-	15.0
SIS	10.0	8.0	9.0	17.0	-	20.0	20.0
GTF	-	-	3.0	3.0	-	4.0	4.0
FIT	-	-	3.0	3.0	-	3.0	3.0
Total	13.6	28.6	174.0	202.6	15.0	607.0	622.0

Note: UNDP/TA and UNDP/SF are to be merged, effective 1 January 1972.

^{a/} Annual estimated costs of projects included in the UNDP Country Programmes or projects officially submitted to UNDP for approval.

List of Approved Projects and Projects
under Active Consideration

Projects over US\$100,000

Projects under US\$100,000

Public industrial administration

SWA-71/1168

(1 project)

Industrial legislation

BDI/07/2/1**
LES/07/2/1**

NIS/07/2/3**
CYP-71/1419

GRM/07/2/1**

(5 projects)

Patents

TOG/07/2/2**

(1 project)

Licensing

COL/07/1/2**
ROU/07/2/3**

NIC-71/1170
NIO/07/2/1**

(4 projects)

** Fellowship posts.

SUPPORTING AND OTHER ACTIVITIES

36. The activities of Group 7 are classified under the following projects:

Public industrial administration	7.01
Industrial legislation	7.02
Patents	7.03
Licensing	7.04

Public industrial administration (7.01)

37. In this project, the primary objective of UNIDO is to provide assistance to Governments in the rationalisation of the administration of public agencies that are concerned with industrial planning, development and promotion and that exercise regulatory and control functions over industry.

38. Managing industrial development makes complex and difficult demands on government administrators. It requires an unusually wide range of knowledge, skills and techniques, to which civil servants have normally not been exposed in traditional university courses or public service experience. The need for training in this area is evident and indisputable. In 1965, an Interregional Working Party on the Training of Economic Administrators in Industrial Development was held in Paris under the joint auspices of OECD and the United Nations Centre for Industrial Development (CID), the forerunner of UNIDO. The Working Party recommended that the United Nations, the OECD Development Center and other international organizations should, *inter alia*, "promote and undertake training programmes for the mid-career general administrator on a national and regional basis" and "initiate and organize training programmes for technical administrators in specific or specialized subjects of industrialization".^{1/} UNIDO also participated in a Seminar on the Organization and Administration of Industrial Services in Africa, held in Tangier, Morocco, in 1967.

39. The programme of Training of public industrial administrators (7.01.01), originally scheduled to start in 1971 (ID/B/80/Add.2, para.30), had to be postponed to 1972 owing to administrative difficulties. The programme will take the form of a series of regional training workshops, the first of which will be organized jointly by UNIDO, UNESOB and the Industrial Development Centre for Arab States (IDCAS). The workshop will be hosted by the Government of Kuwait. UNIDO plans to continue this series of regional training workshops with a three-week training workshop for public industrial administrators in Africa, to be held in Addis Ababa in 1972 (ID/B/80/Add.2, para.31).

40. As explained to the Industrial Development Board at its fifth session (ID/B/80/Add.2, para.32), UNIDO proposes to follow up the series of regional training workshops with a series of Consultations with public industrial administrators (7.01.02) in 1972 and 1973. The consultations are to be used as an instrument of direct, individual high-level contacts with senior government officials who have a major voice in government agencies for industry. By making the acquaintance and gaining the confidence of senior government officials, the consultations could lead to the generation of technical assistance projects in this field.

41. Although a number of studies have been made of problems affecting the structure and functions of government agencies dealing with manufacturing industries, there seems to be need for training and reference materials on the subject. UNIDO therefore proposes to include in its programme for 1972 and 1973 a series of Manuals on industrial administration (7.01.03). Utilizing the information gained through the training workshops (7.01.01), the consultations (7.01.02) and various field activities, and drawing on studies undertaken by other international and national organizations in similar or related fields, UNIDO would design its manuals to cover the structure and functions of government agencies dealing with manufacturing industries as well as the personnel, financial, supply and other auxiliary services in such agencies. The manuals would be primarily for the instruction and use of employees in industrial public administration agencies; they could also be utilized in the subsequent training workshops for public administrators (7.01.01).

42. In 1971, Austrian government officials and UNIDO staff members held a joint expert group meeting in Vienna at which the possibility was explored of sponsoring jointly, together with UNITAR, an International centre for industrial administration (7.01.04). The idea of establishing such a centre in Vienna, first proposed to UNIDO by the Austrian Government, was subsequently endorsed by UNITAR. It was felt that such a centre could serve as a focal point for special administrative training programmes for senior industrial administrators and for training seminars for personnel engaged in the development, promotion and control of industry. The centre could also be used for programmes, organized jointly with co-operating Governments, to achieve more effective industrial administration.

43. In 1972, UNIDO plans to hold further meetings with the Austrian authorities and with representatives from UNITAR in order to discuss their respective obligations with regard to the proposed centre.

44. Depending on the findings of the 1972 activities, UNIDO proposes to undertake in 1973 expert group meetings to finalize the establishment of the centre.

Industrial legislation (7.02)

45. Industrial legislation refers to any legislation regulating the promotion of industry, i.e. laws covering foreign or local investment, transfer of technology, training, industrial zoning, professional organizations, research institutes and industrial development centres and similar bodies. Patent and licensing regulations also form part of industrial legislation.

46. In 1969, UNIDO initiated a series of Industrial legislation reviews (7.02.01). In that year, three reviews covering fourteen countries were carried out, and two covering eight countries were undertaken in 1970. Owing to lack of resources, this activity could only be given priority B in 1971 (ID/B/64/Add.7, para.15), but in the 1972 work programme, it was upgraded to priority A (ID/B/80/Add.2, para.34) with a view to reviewing specific topics of industrial legislation in several Latin American countries. Should the results obtained in 1972 be favourable, UNIDO proposes to continue this activity.

47. The Study on selected branches of legislation (7.02.02; Priority B), planned for 1971 (ID/B/64/Add.7, para.15), had to be postponed owing to lack of resources. It is now felt that the specific topics that were to have been included in this study should be incorporated in the industrial legislation reviews (cf.7.02.01). For this reason, UNIDO proposes to delete this activity as a special project component from its work programme.

43. The Network of correspondents (7.02.03), initiated by UNIDO in 1970 (ID/B/64/Add.7, para.16), has become an effective instrument for the collection and selective dissemination of industrial legislation. The primary objective of this activity is to establish a type of clearing-house for the exchange of information on industrial legislation. The present methods of collecting, classifying and disseminating such information are being kept under review. The number of correspondents increased from 11 in 1970 to 20 in 1971. UNIDO receives inquiries on various legal problems relating to industrialization and requests for comparative information on specific industrial legislation and then makes available to the inquirers relevant texts and comments.

49. The present collection of legislation, however, covers only the developing countries. In order to render a more comprehensive service to these countries, UNIDO proposes to enlarge the collection by making use of various legal reference offices in developed countries. UNIDO and other United Nations staff and experts already in the field are also to be utilized in this activity for they have direct contacts with government authorities and with universities. By utilizing these sources, UNIDO can reduce the allotment of \$11,000 originally planned for this activity in 1972 to \$5,000. This reduced allotment should also suffice for future years.

Patents (7.03)

50. The primary concern of UNIDO in this field of activities is to assist developing countries in the establishment, improvement and strengthening of industrial property offices in order to make them effective institutions for the transfer of technology. Efficient industrial property offices should provide an incentive for the inventiveness of nationals of developing countries and encourage foreign investment. UNIDO provides assistance in the preparation of national and regional agreements and measures for the protection of industrial property and advises Governments on the implications of signing international conventions related to patents.

51. In order to increase the efficiency and effectiveness of patent offices in developing countries, UNIDO is concerned with the Training of patent office personnel (7.03.01). The training workshop scheduled for 1971 (ID/B/80/Add.2, para.38), was a priority B activity and

had to be cancelled owing to lack of resources. As announced to the Industrial Development Board at its fifth session (ID/B/80/Add.2, para.39), however, UNIDO has scheduled for 1972 a ten-day training workshop for senior personnel of patent offices in Asian countries. Consultations have been initiated with WIPO with a view to obtaining the co-operation of that organization in this activity.

52. In 1972 and 1973, UNIDO proposes to introduce a new activity to encourage the Promotion of patent information (7.03.02) through the development of a system or formula for co-operation among international, regional and national organizations concerned with patents. It is hoped that through this new activity UNIDO would be able to render assistance to developing countries in obtaining easier access to patents from industrialized countries and in facilitating the choice of appropriate technologies with due regard to the necessary growth of productive resources and the problem of unemployment. Legal protection of patents has proven to be less of an obstacle to the transfer of protected know-how than insufficient knowledge about technologies and basic patents. The co-operation of UNCTAD and WIPO is being sought.

Licensing (7.04)

53. In this project the objective of UNIDO is to assist in the establishment and strengthening of the necessary machinery within the appropriate ministries to accelerate the transfer of know-how and technology from developed to developing countries. To meet this objective, UNIDO provides assistance in the formulation of guidelines for licensing negotiations. Attention is focused on two aspects: (a) the promotion of the transfer of know-how and patented technology from developed to developing countries to enable the developing countries to manufacture particular products that could be sold both domestically and abroad; and (b) the development of appropriate legislation designed to support national objectives and programmes and to create a receptive atmosphere for potential licensors from different countries. In its activities related to licensing, UNIDO maintains close co-operation with UNCTAD, LES and WIPO.

54. One of the major aims of UNIDO in the field of licensing is to bring about an improvement in Licensing practices (7.04.01). In 1970, UNIDO convened an expert group meeting to finalize a manual on licensing practices (ID/B/80/Add.2, para.41). After making a number of amendments to the draft manual, the group recommended that the new version of the manual be circulated to Governments as well as to experts, organizations and agencies actively involved in the field of licensing. It was expected that the manual of licensing would be ready for publication by the end of 1971 and this was reported to the Board at the last session, but the comments and suggestions received on the draft manual have been mainly from the developed countries. It is felt that the opinions and viewpoints of the developing countries should also be secured and taken into account in the finalization of the manual. For this reason, the publication of the manual has been rescheduled to 1972.

55. In 1972, UNIDO will convene in Vienna an expert group meeting on licensing practices. Since reporting to the Industrial Development Board at its fifth session (ID/B/80/Add.2, para.43), UNIDO has changed the scope of this meeting. Utilizing the information gleaned from the data collection (7.04.02), the expert group is to assist UNIDO in formulating and planning its future activities with regard to licensing practices and policies in developing countries. Seven experts on licensing will be invited to attend the meeting. The topics for discussion

will include: payment of royalties and intangible fees; protective laws regarding the licensing of patented technology; American and European Economic Community anti-trust laws; licensing, joint ventures and franchising arrangements; and licensing of engineering and managerial services.

56. In 1971, UNIDO began a systematic collection of experiences and Requirements of developing countries with regard to licensing practices (7.04.02). Studies on licensing were carried out in five developing countries in 1971. In 1972 and 1973, UNIDO plans to continue with this data collection, which encompasses national regulations, licence agreement terms, commercial considerations and types of know-how or process technology licensed. The purpose of these studies is to evaluate, on a case-to-case basis, past experiences and prevailing conditions related to the acquisition of foreign technology through licensing agreements. Additional information on legislation affecting the transfer of technology through licensing has been secured through the network of correspondents (7.02.03). The information obtained through these activities will be utilized to implement the operational activities of UNIDO in the area of licensing. The work of the network of correspondents and the carrying out of the licensing studies have led to several informal requests for technical assistance. These requests, which were received by UNIDO in 1971, are being followed up.

57. In 1973, UNIDO proposes to hold high-level regional Consultations on licensing (7.04.03; Priority B) in Latin America. The information collected in the licensing studies (7.04.02) would be used as background material for the consultations, which would be held in accordance with the recommendations to be developed by the 1972 expert group meeting (7.04.01). The consultations, of an eight-day duration, would be attended by some twenty government officials and representatives of industry as well as by three or four senior consultants, who would review policies and forms of legislation related to the acquisition of technology in Latin American countries. Representatives from developing countries would be asked to outline the orientation of their countries with regard to the purchase of technology, equity participation, government incentives and counter-guarantees for the acquisition of foreign technology. Representatives from developed countries would be asked to define corporate policies and trends regarding the transfer of technology into Latin American countries, as well as to describe the mechanics involved in respective licensing negotiations. Further activities in this area will depend on the practical results of these consultations. In this activity UNIDO will seek the co-operation of ECLA, UNCTAD, LES and WIPO.

58. UNIDO has been invited by the Licensing Executive Society (LES) to hold in 1972 a joint symposium on Problems and prospects of industrial licensing in developing countries (7.04.04) on the occasion of the annual meeting of LES in New York. One of the purposes of this symposium would be to develop a rapport between licensors and licensees in order to encourage and facilitate the flow of technology in developing countries. The symposium would be attended by approximately 150 people, including representatives of the industrial sector as well as consulting firms actively involved in this field. Following the symposium, a number of visits to various enterprises would be arranged for participants from developing countries. UNIDO would also submit to the symposium a paper on experiences and conditions in developing countries with regard to the acquisition of technology through licensing. In addition, it is proposed that a senior officer from UNIDO present an outline to the symposium on the over-all role of UNIDO in the field of licensing and transfer of technology.

Expenditures and estimated costs for supporting and other activities, 1971 - 1973
(in m/m and thousands of US dollars)

Project (Priority A)	Regular budget						Extra-budgetary resources (\$) ^{a/}			
	Staff (m/m)		Consultants (\$)			Expert group meetings (\$)		1971	1972	1973
	1971	1972	1973	1971	1972	1973	1971	1972	1973	
7.01 Public industrial administration										
7.01.01	1	2	4	-	-	-	-	-	15.0 GTF	-
7.01.02	-	3	6	-	-	-	-	-	30.0 TA	-
7.01.03	1	1	4	-	7.0	7.0	-	-	12.0 GTF	12.0 GTF
7.01.04	1	3	5	-	2.0	4.0	5.0	10.0	-	-
7.02 Industrial legislation										
7.02.01	1	2	4	-	2.0	5.0	-	-	-	-
7.02.03	1	3	3	7.4	5.0	5.0	-	-	-	-
7.03 Patents										
7.03.01	-	3	-	-	-	-	-	-	25.0 TA	-
7.03.02	-	1	4	-	2.0	2.0	-	-	-	-
7.04 Licensing										
7.04.01	1	3	3	2.0	4.0	-	-	10.4	-	-
7.04.02	2	2	4	-	2.0	2.0	-	-	-	-
7.04.04	-	2	-	-	-	-	-	-	-	-
Total	8	25	37	9.4	24.0	25.0	5.0	20.4	27.0 GTF	55.0 TA
	6	23	23							
Backstopping and servicing of operational activities	14	48	60							

a/ Operational costs shown above are included in the table on page 11.

Printed publications

1972 publications programme

	<u>Languages</u>	<u>Cost</u> <u>(US\$)</u>
- Guidelines on licensing practices (7.04.01)	E	<hr/> 800

Forecast of 1973 publications programme

- Guidelines on licensing practices (7.04.01)	F S	<hr/> 1,500
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Note: In the computation of the printing costs a standard formula was applied based on an average cost of internal and external printing.

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GROUP 8: INDUSTRIAL INSTITUTIONS

Introduction

59. The general objective of UNIDO within Group 8 is to assist the developing countries in the establishment and strengthening of certain types of organizations and institutions dealing with industrialization and in the expansion of the services they provide, including industrial research, standardization, quality control, metrology, industrial chambers of commerce and industry, professional associations, industrial co-operatives and promotional activities at fairs. Such institutions constitute an important element of the infrastructure for industrialization and technological development.

60. UNIDO is continuing its dual approach of reviewing national plans of industrial research in order to reorient them toward practical objectives that are in line with the national development plans, and of assessing the structure, efficiency and performance of industrial research institutes, including the evaluation of their individual projects. The establishment of industrial research institutes as national focal points for the introduction of suitable technologies, for the adaptation of processes and for the supply of technological and allied services to industry continues to receive high priority. In this context, UNIDO emphasizes the necessity for such institutes to be in continuous contact with the industrial and business sectors. Regional and international co-operation between research organizations in both industrialized and developing countries will continue to be promoted through collaboration with the World Association of Industrial and Technological Research Organizations (WAITRO).

61. In the area of standardization, quality control and metrology, UNIDO has adopted an approach by which the three activities are closely linked so that they have a greater impact on industrialization. UNIDO is therefore assisting in the establishment of national systems utilizing this approach and is also encouraging national standardization bodies to assume their proper role in the industrialization process. Emphasis continues to be placed on establishing, strengthening and improving national standardization bodies and on upgrading the level of their personnel. Another task being undertaken by UNIDO is the determination of priority areas in standardization and quality control. In its activities in this field, UNIDO maintains close co-operation with the International Organization for Standardization (ISO), the European Organization for Quality Control (EOQC) and the International Organization of Legal Metrology (OIML).

62. The objective of UNIDO with regard to non-governmental organizations for industrialization is to assist these organizations in expanding the scope of their activities and their collective services to their members. This assistance includes the modernization of the structures of these organizations and applies mostly to chambers of commerce and industry and to manufacturers' associations. Following the recommendations of a number of delegations at the fifth session of the Industrial Development Board (A/8416, para.285), particular emphasis is also being placed on the establishment and strengthening of industrial co-operatives. The activities

proposed in this area include promotional schemes, the upgrading of the skills of industrial co-operative personnel through training programmes and dissemination of information, and guidelines on the formulation of the establishment and operation of industrial co-operatives.

63. Recognizing the importance of industrial fairs as instruments to further the industrial growth of developing countries, UNIDO takes advantage of the opportunities offered at these fairs to organize promotional activities, bringing together, on a person-to-person basis, businessmen with common interests and initiating dialogues to promote industrial projects in the developing countries. Among the new features being introduced into UNIDO's work programme are: the use of fairs as a place for on-the-spot training of selected fair officials from developing countries; and enlarging, in the UNIDO pavilion at selected fairs, the gratis display of sample manufactures of developing countries to obtain the reactions of potential buyers on design, commercial competitiveness etc. In its activities in this area, UNIDO co-operates closely with other international organizations such as the International Union of Fairs (UFI). Assessment based on recurring follow-ups of the promotional efforts at fairs is an integral part of this activity.

64. While co-operation has already been initiated between UNIDO and some regional and international professional and business organizations with a view to enhancing the value of the services of such organizations to developing countries, measures are being taken to amplify and intensify this co-operation through exploratory discussions and negotiations with the relevant high-level officials to investigate specific areas where joint action could be taken over a wider spectrum.

OPERATIONAL ACTIVITIES

65. In the field covered by Group 8, there has been a steady increase in the number of operational projects, particularly in the areas of industrial research, standardization, quality control and metrology and as regards non-governmental organizations active in industrial development.

Industrial research

66. The assistance of UNIDO in this area has two basic objectives: the review of national plans and reorganization and streamlining of the existing structures for industrial research; and the establishment and strengthening of national organizations that could be instrumental both in introducing appropriate technologies to the developing countries in designing processes that utilize local raw materials and in supplying a variety of technical and allied services to industry. As their expertise increases, these organizations, usually called industrial or technological research centres or institutes, become important sources of technological innovations and a vital link between industry and the suppliers of technological know-how. Such institutes often serve as the technical arm of the Government and are in a position to undertake industrial projects, from the feasibility stage through the design to the supervision of implementation. The industrial community and business entrepreneurs are availing themselves of these institutes on a contractual basis. UNIDO is currently providing assistance involving experts, equipment and fellowships to industrial research institutes in Colombia, Israel, the Libyan Arab Republic, Malaysia, Paraguay, the Sudan, Thailand and Trinidad and Tobago.

67. UNIDO is continuing to emphasize the need of restructuring industrial research at the national level and of reviewing policies in order to avoid unjustified duplication and to effect reorientation of the research efforts toward useful purposes in line with the requirements of the country and in interaction with the natural environment of the research centres. Assistance is also provided by UNIDO in the evaluation of research institutes, including recommendations for improving their operations, and in the establishment of a mechanism for internal review and formulation of programmes beneficial to industries. Such assistance is either planned or being provided in Brazil, Ceylon, Chile, Indonesia, Iraq, Pakistan, the Philippines, the Republic of Korea, Senegal and Venezuela.
68. The Caribbean Industrial Research Institute (CARIRI) in Port-of-Spain, Trinidad and Tobago, is already supplying services on a contract basis, indicating a good response by the business community. The Institute is establishing a department for techno-economic studies that is to co-operate closely with the Industrial Development Corporation in pre-investment studies of industrial ventures. Work is being initiated for better utilization of sugar and sugar-cane by-products. It is also planned that CARIRI will play an important role in the evaluation, for royalty purposes, of characteristics of crude oil.
69. UNIDO is also providing assistance to the National Institute of Technology and Standards in Asuncion, Paraguay. The most significant contributions of UNIDO have been in the technical services being supplied to the lumber industry, such as the technical improvement of sawmills, the drying and seasoning of lumber and the production of veneer and plywood. A national programme of identification of species of hardwood, with determination of mechanical and physical properties and production of samples for the development of export markets, is being undertaken. These efforts have given impetus to the establishment of new and efficient sawmills. Advice on modern sawing technology, appropriate maintenance and on sharpening schedules of saws has increased the yield by more than 12 per cent.
70. Assistance to the Industrial Research Centre in Haifa, Israel, is provided in highly specialized areas such as research and development of adhesives, process evaluation of plastics, surface chemistry, textile physics, magnetic ceramics and inorganic polymers.
71. Assistance in the review of national plans and structures for industrial research has given rise to a number of interesting recommendations. In the Republic of Korea, the establishment has been recommended of an industrial research development corporation that would be endowed with governmental funds to absorb the risks involved in the commercialization of novel ideas and technologies. Another recommendation was that the Pakistan Council for Scientific and Industrial Research be reorganized to establish a liaison unit with industry and an internal project evaluation group.
72. There is a strong and growing interest in developing countries for assistance in the review of their national structures for industrial research with a view to organizing a network linking multipurpose and specialized technological research institutes with universities and national development organizations. Emphasis continues to be placed on the establishment of industrial research institutes which, inter alia, would assist in adapting known processes to local

requirements and in obtaining the maximum benefits from the utilization of local raw materials. There appears to be a great need to orient research institutes in developing countries toward practical aims and the development of meaningful projects.

Standardization, quality control and metrology

73. The scope of activities of UNIDO in this area is broad and includes assistance in establishing and strengthening national bodies dealing with standardization, quality control and metrology. The organization of a national, integrated standardization and quality control system is particularly important in connexion with export goods. The role of such national bodies should be to prepare and issue standards, to promote their utilization by trade, industry and Government and to encourage the quality marking of industrial products in accordance with established standards.
74. At present, under the UNDP/SF programme, UNIDO is assisting the Institute of Standards and Industrial Research (ISIRI) in Karaj, Iran, and the Thai Industrial Standards Institute in Bangkok, Thailand. Assistance is also being given by UNIDO in the introduction of the metric system to countries currently using the English system and in the establishment of a local basis for calibration and maintenance and repair of all types of measuring instruments used in industry and trade. Under the UNIDO General Trust Fund, equipment for general quality control purposes has been supplied to an industrial research institute and to a large match company, both in developing countries.
75. In Ethiopia, the assistance of a UNIDO expert in industrial standardization has led to the creation of a national standards body that has already begun functioning; and in Nigeria, UNIDO is providing to the Nigerian Standards Organization, for a period of three years, an OPAS expert who will have full executive responsibilities to develop and strengthen standardization in that country.
76. As part of its programme in standardization, quality control and metrology, UNIDO encourages the establishment of regional standards organizations and supports the activities undertaken by them. In this context, UNIDO is assisting the Arab Organization for Standardization and Metrology (ASMO) to undertake activities aimed at the upgrading of the professional skills of nationals of Arab countries and to translate into Arabic and disseminate relevant United Nations publications as well as recommendations of ISO, the International Electrotechnical Commission (IEC) and OIML. The East African Community has requested the assistance of UNIDO in setting up an East African standards institution. This project would include the establishment of national standards bodies in each of the three partner States (Kenya, Uganda and the United Republic of Tanzania) as well as the creation of a central metrology laboratory.
77. A UNIDO mission to Brazil developed into a request for UNDP/SF assistance to the National Institute of Weights and Measures in strengthening and expanding its industrial and legal metrology and related standardization activities. Under this project, UNIDO will also assist in the establishment of applied metrology and industrial services laboratories and of new branch institutes at state and district levels.

78. UNIDO has also undertaken a number of exploratory projects with a view to advising on requirements and action for the establishment of national standardization bodies. These short-term projects are expected to result in larger types of assistance programmes.

79. It is expected that in future years, through the evolution of standardization, quality control and metrology activities in developing countries, greater emphasis will be put on regional and subregional harmonization and integration of these activities for an optimum utilization of available skills and resources. Another trend should be the closer linkage and co-ordination at the national level of standardization, quality control and metrology. The strengthening and promotion of these activities through public information campaigns should bring about a greater involvement of industry and trade in the application of national, regional and international standards.

Non-governmental organizations for industrialization

80. In this field, the operational programme of UNIDO, which still has to be fully developed, is aimed at improving the organization and operation of non-governmental organizations active in industrial development, such as chambers of commerce and industry, associations of manufacturers, and industrial co-operatives.

81. In El Salvador, UNIDO has a team of three experts that is supplying assistance in the reorganization of the Salvadorean Industrial Development Institute (INSAFI). Another expert is entrusted with the task of initiating an industrial consultancy service within INSAFI; he is collaborating with the members of the team in the fields of food processing, textile, clothing and allied industries. According to information received, these activities will be expanded to a major project for the diversification of the services rendered to industry by INSAFI.

82. The assistance being provided by a UNIDO expert in a Latin American country is expected to lead to a major project for the establishment of an industrial co-operative, promotion and advisory centre in the country. In Mauritius, a team of two experts (an industrial economist and an engineer) has helped to formulate a major project for the establishment of an industrial promotion group in the Ministry of Industry. This project, with a total value of US\$180,000, has been included in the UNDP Country Programme.

Value of approved field projects and forecast of requirements, 1971 to 1973
(in thousands of US dollars)

Source of funds	1971 estimated expenditure	1972			1973		
		Approved projects	Requirements for new projects	Total	Approved projects	Requirements for new projects	Total
UNDP/SF	911.3	} 2,538.9	711.4	3,250.3	1,488.5	3,315.0	4,803.5
UNDP/TA	203.8		(674.0) ^{a/}			(1,720.0) ^{a/}	
RP	32.9	68.2	-	68.2	50.0	-	50.0
SIS	156.0	195.5	100.0	295.5	-	350.0	350.0
GTF	124.8	30.0	180.0	210.0	-	280.0	280.0
FIT	<u>116.5</u>	<u>200.9</u>	<u>100.0</u>	<u>300.9</u>	-	<u>300.0</u>	<u>300.0</u>
Total	1,545.3	3,033.5	1,091.4	4,124.9	1,538.5	4,245.0	5,783.5

Note: UNDP/TA and UNDP/SF are to be merged, effective 1 January 1972.

a/ Annual estimated costs of projects included in the UNDP Country Programmes or projects officially submitted to UNDP for approval.

**List of Approved Projects and Projects
under Active Consideration**

Projects over US\$100,000

Projects under US\$100,000

Industrial research

CAF (IPF)* - Establishment of national centre
for industrial research

CON(K) (IPF)* - Assistance to the Central
African Industrial Research Centre

LIB-12 (SF) - Centre for industrial develop-
ment and research

SUD-41 (SF) - Industrial research centre,
Khartoum

COL-30 (SF) - Institute for technological
research, Bogota, Phase II

PER (IPF)* - Centre for research in industrial
technology

TRI-5 (SF) - Caribbean Industrial Research
Institute, Port-of-Spain

MAL-22 (SF) - National institute for scien-
tific and industrial research

MAL (IPF)* - Assistance to the national ins-
titute of scientific and industrial research,
Phase II

THA-39 (SF) - Technological Research Institute,
Bangkok

ISR-11 (SF) - Industrial research centre

ISR-9038-71 (FIT) - Government's cash counter-
part contribution towards cost of equipment
of SF project ISR-11

PAR-22 (SF) - National Institute of Technology
and Standards, Phase II

(13 projects)

SEN-13 (UNESCO
executing)

BRA-71/1234

CHI-71/1240

COL-9037-71

VEN/71/15

LAT/08/1/3

LAT/08/2/3

CEY-71/1345

INS-70/919

KOR-70/1101

PAK-69/653

PHI-71/1402

SIN/08/1/1**

INT-VC/8/11

INT-69/669

INT-VC/8/15

(16 projects)

Standardization, quality control and metrology

CON(K) (IPF)* - Assistance in quality control
and industrial standardization

MAR (IPF)* - Industrial standards bureau

AFR (IPF)* - Standards, applied metrology and
instrument centre

BRA-60 (IPF)* - National institute of weights
and measures

UAR-VC/8/5

UAR/08/2/4**

ETH/68/27

LIR-71/1423

MAR/08/2/2**

NIR/71/2

UGA/08/2/1

EAC/08/2/2**

AFR/70/15

BAR-70/1136

BRA/69/23

DOM/08/2/3**

ECU-70/1066

ELS-71/1254

VEN/70/14

LAT/70/14

PAK/70/16

PHI-71/1432

PHI-71/1433

SIN/08/2/3**

KUW/68/2

ROM/69/6

SAU-70/853

SAU/08/2/2**

INT-VC/8/9

* Projects not yet approved but included in the Country Programmes and projects officially requested.

** Fellowship posts.

Projects over US\$100,000

Projects under US\$100,000

Standardization, quality control and metrology (cont'd)

COL (IPF)* - Assistance in quality control

IRA-34 (SF) - Institute of standards and industrial research, Karaj

THA-37 (SF) - Thai industrial standards institute

(7 projects)

(25 projects)

Non-governmental organizations for industrialization

MAR-69/654

ELS-69/628

PHI/08/2/2**

ELS-70/768

LAT/70/17

AFB/70/13

ELS-70/861

(7 projects)

Co-operation with activities of industrial fairs and organizations

CON(K)/08/2/3**

INT-VC/8/13

INT-VC/8/10

INT-VC/8/16

INT-VC/8/12

(5 projects)

Multisectoral

CUB/08/2/4**

(1 project)

* Projects not yet approved but included in the Country Programmes and projects officially requested.

** Fellowship posts.

SUPPORTING AND OTHER ACTIVITIES

83. The supporting and other activities of Group 8 are classified under the following projects:

Industrial research	8.01
Standardization, quality control and metrology	8.02
Non-governmental organizations for industrialization ^{2/}	8.03
Co-operation with fairs and exhibitions ^{3/}	8.04
Joint activities with the United Nations Advisory Committee on the Application of Science and Technology to Development (UNACAST)	8.05
Contacts with professional and business organizations	8.06

Industrial research (8.01)

84. In the activities being carried out by UNIDO under this heading, the primary objective is to provide assistance to the developing countries in the establishment and strengthening of national focal points for the introduction of suitable technologies and adaptation of processes. In order to achieve this goal, UNIDO is concentrating its activities on providing assistance in the formulation of national policies for the organisation of new and the restructuring of existing institutions contributing to the national research effort. Particular attention is devoted to the improvement of the administration of industrial research institutes, to the selection and systematic evaluation of industrial research projects and to the promotion of research consciousness and utilization of research findings by Government and industry. UNIDO is attempting to underline the necessity for research institutes to be in constant contact with industrial enterprises so that research projects become more practical and find direct application in industry. In its supporting activities in the area of industrial research, UNIDO will be maintaining close co-operation with the World Association of Industrial and Technological Research Organizations.

85. In 1969, UNIDO began promoting the creation of the World Association of Industrial and Technological Research Organisations (WAITRO) (8.01.01).^{4/} The Association was formally founded in 1970; and in 1971, the report of the founding meeting of WAITRO was reproduced internally in English, French and Spanish and distributed to all members of the Association as well as to potential members.

^{2/} This project was entitled "Non-governmental administrative machinery for industrialization" in document ID/B/80/Add.2.

^{3/} This project was entitled "Promotion of contacts at fairs and exhibitions" in document ID/B/80/Add.2.

^{4/} This project component was entitled "International association of industrial research institutes" in document ID/B/80/Add.2, para. 65.

86. In June 1971, representatives from UNIDO met with the Executive Committee of WAITRO in Vancouver, Canada, to discuss the holding of the biennial meeting of the General Assembly of WAITRO in 1972. During the meeting the following areas of possible co-operation between UNIDO and WAITRO were identified: (a) specific sectors of industrial research in need of assistance; (b) industrial training and the organization of training programmes; and (c) industrial institutes, their evaluation and improvement.

87. UNIDO proposes to continue its co-operation with WAITRO in 1972 and will participate in the General Assembly of WAITRO. In 1973, UNIDO proposes to follow up, together with WAITRO, on specific recommendations of the WAITRO General Assembly. It is expected that this follow-up will take the form of joint activities, which could include investigations of the advantages, modes of financing and past experiences of pairing industrial research institutes from developing and developed countries and the identification of priority areas for intensified regional research on primary products such as natural fibres and natural rubber. It is hoped that this co-operation will lead to a refining of UNIDO's operational programme in industrial research. It is also envisaged that WAITRO will be able to give increasing assistance to UNIDO in the execution of technical assistance projects.

88. One of the continuing activities of UNIDO in the field of industrial research is the Stimulation of industrial research activities (8.01.02). Under this heading, UNIDO held an Expert Group Meeting in Copenhagen in 1971 to examine: (a) the conditions conducive to a more efficient utilization of industrial research facilities and services in developing countries by the business community; and (b) the possibilities of encouraging large companies operating in developing countries to co-operate with national industrial research organizations. The Expert Group stressed the necessity for industrial research institutes in developing countries to re-evaluate their own roles and performance, to examine more closely their individual projects and to make every effort to strengthen their relations with the industrial and business communities in order to provide the needed practical services.

89. Aside from the recommendations, which were of a general nature, the Expert Group Meeting resulted in a number of additional benefits to the developing countries. Both the host organization, the Technological Institute in Copenhagen, and the Central Organization for Applied Scientific Research (TNO) in the Netherlands agreed to examine possible co-operation with UNIDO in the organization and implementation of training programmes for personnel engaged in industrial research (cf. 8.01.04). On the basis of talks between a Brazilian expert, representatives of the Department of Science and Technology from the United States Agency for International Development (USAID) and UNIDO staff members, USAID indicated its interest in initiating and financing a training programme, to be implemented in Brazil and the United States of America, for participants from Latin America. A programme of co-operation in the field of research and development was initiated between Denmark and Singapore. Another by-product of the Expert Group Meeting was a request for technical assistance from the Government of Singapore. The request has already been submitted and is being processed.

90. UNIDO had originally planned to hold in 1972 an interregional workshop in Asia and the Middle East to stimulate industrial research activities (ID/B/80/Add.2, para.71). This activity has now been changed to a regional workshop for Asia only and is planned as a logical follow-up of the 1971 Expert Group Meeting. The recommendations of the Expert Group will form the basis for the workshop, which will be attended by directors, managers and high officials of organizations and companies dealing with industrial research and services to industry.
91. Another continuing activity of UNIDO in this area is the series of Consultations for the improvement of industrial research in developing countries (8.01.03),^{5/} which was initiated in 1970 with a study on the methodology for evaluation of industrial research in developing countries; this study was published in 1971 as a guideline for the evaluation of industrial research institutes in developing countries. A study (Priority B) on the allocation of national resources for industrial research and financing of research institutes, which UNIDO had planned to undertake in 1971 (ID/B/80/Add.2, para.73), could not be carried out owing to lack of resources. The possibility of carrying out this study will be reviewed at a later date.
92. As a number of Latin American countries had expressed interest in the work of UNIDO with regard to industrial research, UNIDO held in 1971 in Bogota, Colombia, a Regional Joint Consultation Meeting with a view to stimulating industrial research in Latin America. Participating in the Consultation were senior executives of technological research institutes, government officials and industrialists of Latin America. The discussions centred on obstacles to the utilization of research services by the business community and on ways and means of assisting industry more effectively. The participants made practical suggestions pertaining to training of industrial research personnel and co-operation among industrial research institutes, including the exchange of experience and, where possible, equipment. An important side effect of this Consultation Meeting was the intensification of relationships and co-operation among several industrial research institutes in Latin America. It is also expected that a number of technical assistance projects will be forthcoming from the Consultations.
93. As presented to the Industrial Development Board at its fifth session (ID/B/80/Add.2, para.74), UNIDO proposes to organize in 1972, at the national level, further joint consultations for the development and strengthening of industrial research and services. The main objectives of the consultations will be the identification of obstacles to the utilization of the services and findings of research institutes and the reorganization of local research programmes towards practical needs. UNIDO plans to hold the 1972 consultations in Pakistan and Thailand, as both countries have expressed interest in this exercise.
94. UNIDO envisages the continuation of these consultations in 1973 and beyond in African and Latin American countries. Such consultations are expected to result in the formulation of practical plans of action for restructuring and reorienting, at the national level and with the assistance of UNIDO, industrial research activities in developing countries. The consultations will be organized, where feasible, in co-operation with relevant United Nations bodies, WAITRO and other organizations, including interested bilateral agencies.

^{5/} This project component was originally conceived as "Evaluation of industrial research in developing countries" (ID/B/80/Add.2, para.72).

95. One of the important measures in assisting developing countries to raise the level of their industrial research is the training and upgrading of skills of industrial research workers. The importance of staffing research institutes with personnel of the highest technical competence was underlined both at the Expert Group Meeting held in Copenhagen, Denmark (cf. 8.01.02) and at the Regional Joint Consultation Meeting held in Bogota, Colombia (cf. 8.01.03). UNIDO therefore plans to introduce into its 1972 work programme the Organization and implementation of in-plant training programmes for personnel engaged in industrial research (8.01.04). Towards the end of 1971, UNIDO prepared, in co-operation with TNO in the Netherlands and with the Technological Institute in Copenhagen, a tentative outline of a syllabus for the various categories of personnel involved in industrial research. It is hoped that the training programmes will commence in 1973 with courses for managers, directors and senior executives of research institutes and, thereafter, will be expanded to include other categories of industrial research personnel. In order to plan these programmes in more detail, UNIDO proposes to circulate the syllabus to the developing countries for comments and to incorporate these comments in the final programmes. WAITRO and specialized organizations from industrialized countries would also be invited to contribute to the review.

96. In 1973, depending upon the results of the negotiations with the Governments of Denmark and the Netherlands as well as with USAID, the training programmes would be initiated as an operational activity for countries in Latin America. In subsequent years it is planned to extend these programmes to participants from Asia and Africa. In the preparation of these training programmes, co-operation is foreseen with WAITRO and with bilateral agencies, particularly those of Denmark, the Netherlands and the United States of America, as well as other organizations interested and willing to co-operate and share in the financing.

Standardization, quality control and metrology (8.02)

97. The primary task of UNIDO in this area is both promotional and action-oriented and is geared to assistance in the development of standardization, quality control and metrology in developing countries. The scope of the activities in this area is broad, ranging from an assessment of commodities for standardization to the establishment of national integrated standardization and quality control systems.

98. In July 1971 UNIDO participated, together with UNESCO, in the first meeting of the Standing Co-ordinating Bureau for the Promotion of Standardization in the Developing Countries (DEVPRO). This Bureau was established by ISO with the participation of UNESCO and UNIDO. At this meeting, the terms of reference of DEVPRO and a tentative programme of work were agreed upon. The purpose of DEVPRO is to encourage the mutual exchange of information, to assist in establishing priorities for standardization, to maintain a roster of experts, to co-ordinate international and bilateral assistance in this area and, generally, to co-ordinate action among UNIDO, UNESCO, IEC and ISO on matters relating to the promotion of standardization in the developing countries. DEVPRO will continue to hold periodic, probably semi-annual, meetings.

99. With regard to metrology, UNIDO is providing assistance to the developing countries in the establishment of national metrology systems and laboratories that, in addition to dimension testing and "etalons", will serve as national reference centres for the provision of calibration and maintenance and repair services for measuring equipment.

100. In its activities in this area, UNIDO maintains close co-operation with ISO and other international and regional bodies dealing with standardization, quality control and metrology.

101. In 1970, UNIDO launched a programme of Training of personnel engaged in standardization (8.02.01), which began with a subregional training workshop for standardization personnel in English-speaking African countries. In 1971, UNIDO held another training workshop in Santiago, Chile, at the headquarters of ECLA, for participants from Latin America. ECLA, ISO and the Pan American Standards Commission (COPANT) co-operated in its preparation and participated in it, together with representatives from fourteen Latin American countries and eight observers from Chile. In addition to the training aspect, the workshop led to a number of practical developments. It provided the first opportunity for top-level representatives of Latin American national standards bodies to meet and discuss their problems, exchange experiences and consult with international experts. Through the medium of the workshop, UNIDO was able to develop a closer and more practical co-operation with COPANT, a co-operation that will benefit future standardization activities of Latin American countries. The workshop also provided a forum for the exchange of information and follow-up action on a number of technical assistance projects being carried out by UNIDO in the region. It is expected that the consultations with participants in the workshop will lead to requests for technical assistance in the fields of standardization, quality control and metrology. Indicative of the contribution of such workshops to international standardization is the fact that, at the workshop, ISO announced more favourable membership conditions for developing countries.

102. UNIDO plans to hold in 1972, possibly in Dakar, Senegal, a subregional training workshop on standardization and metrology for participants from French-speaking African countries (ID/B/80/Add.2, para.77).

103. In 1973, UNIDO proposes to organise, in connexion with the ninth General Assembly of ISO, consultations in standardization and quality control. Panels would be formed to discuss specific subjects such as: the participation of developing countries in international standardization, pairing of standardization bodies, supply of equipment and standardized reference material, and placement of trainees. The consultations would also be used for a dialogue between the developing countries and the ISO Secretariat with a view to promoting more active participation of the developing countries in international standardization. The consultations would be held in the United States of America, for a duration of one week, for participants who attend the ninth General Assembly of ISO.

104. One of the basic tasks of UNIDO with regard to standardization, quality control and metrology is to assist the developing countries in the Establishment and improvement of standards organizations (8.02.02). In 1971, UNIDO initiated the preparation of a manual on the organization and administration of national standardization bodies. In 1972, a draft version will be distributed for comments, which will be incorporated in the final version of the manual, scheduled for publication in 1973.

105. The study on the establishment and activities of regional standardization organizations (Priority B), which UNIDO had proposed for 1972 (ID/B/80/Add.2, para.80), has been postponed to a later date owing to lack of resources.

106. At present, a great variety of training courses are being held in developed as well as in developing countries for personnel engaged in standardization, and the need to harmonize these training courses is becoming increasingly evident. As a first step, UNIDO therefore proposes to undertake a survey in 1973 of available training courses and those being planned. After the dissemination of the findings of the survey to developing countries, the comments and suggestions submitted to UNIDO would be taken into account in establishing a model plan for the organization of a training course that would cover international, national and company aspects of standardization.

107. With regard to Training in quality control (8.02.03), UNIDO had made all arrangements for holding in 1971 in Cairo, Egypt, a training workshop for personnel responsible for quality control in government institutes, in central testing laboratories and in industry in African countries (ID/B/80/Add.2, para.81). At the request of the host country, however, the workshop has been rescheduled for February 1972. The ISO and the Egyptian Organization for Standardization are co-operating with UNIDO in the organization of this workshop, and the European Organization for Quality Control (EOQC) will participate.

108. In 1972, UNIDO proposes to hold in Tehran, Iran, a regional training workshop on quality control for some eighteen participants from Asia (ID/B/80/Add.2, para.81).

109. In 1971, UNIDO had planned to prepare flow sheets on Quality control in selected industries (8.02.04) (ID/B/80/Add.2, para.82). Difficulties were encountered, however, in locating suitable quality control experts who were also qualified technologists with an intimate knowledge of standardization. Due to the delay in the implementation of this activity, work on the preparation of the flow sheets will start in 1972. The first set of flow sheets, originally scheduled for publication in 1972, is now planned to be issued in 1973.

110. As planned within its programme of Training in metrology (8.02.05), UNIDO held in 1971 in Nagoya, Japan, a Training Workshop on Metrology for participants from Asian countries. The Workshop, in which both UNESCO and the International Organization for Legal Metrology (OIML) took part, was attended by seventeen participants. At the Workshop, the possibility was discussed of arranging a joint activity between UNIDO, ECAFE and individual Asian countries in intercomparison of reference measurement standards.

111. In its 1971 programme, UNIDO included a study on Metrology: its role, requirements and application in developing countries (8.02.06) (ID/B/64/Add.8, para.37). The study was originally given priority B and, owing to lack of resources, it could not be implemented in 1971. In the 1972 work programme, however, this activity was upgraded to priority A (ID/B/80/Add.2, para.84). UNIDO thus will carry out this study in 1972 and has scheduled it for publication in 1973.

112. In its 1973 work programme, UNIDO proposes to introduce a new activity consisting of Consultations on the establishment and operation of national quality control systems in developing countries (8.02.07). In view of the importance of national quality control schemes, developing countries should be made aware of quality control at the very outset of the industrialization process. To this end, UNIDO plans to organize consultations at the national level in

which industrialists, standardization and quality control specialists and export promotion officials would be involved. Problems hindering efficient quality control at enterprise and national levels would be identified and practical measures for action would be formulated, including required inputs by UNIDO. The consultations would be carried out in close co-operation with ISO and EOQC. The possibility of establishing national quality control associations and of expanding the role of EOQC in relation to developing countries would also be dealt with.

Non-governmental organizations for industrialization (8.03)

113. In this project, the objective of UNIDO is to assist developing countries in improving the structure and operation of non-governmental organizations active in industrial development. Through the assistance of UNIDO it is expected that organizations and institutes such as chambers of commerce and industry, associations of manufacturers and industrial co-operatives will be able to expand the scope of their activities and provide improved collective services to their members. The practical activities of UNIDO are aimed at assisting in the modernization of the structure of these institutions and in improving and upgrading the skills of their personnel. Such assistance often involves the establishment of special units attached to these organizations for the purpose of providing collective industrial services.

114. The report on the second in the series of regional workshops on the Organization and administration of industrial services (8.03.01), held in 1970 for participants from Asia and the Middle East, was published in 1971. A similar regional workshop was held in 1971 by UNIDO, in co-operation with ECLA, for participants from Latin America. The 1971 workshop was the last of this series and follow-up work in this field will henceforth be reported in Group 7 under the heading of "Public industrial administration" (7.01).

115. In keeping with the recommendation made at the fifth session of the Industrial Development Board (A/8416, para.147), UNIDO is expanding its activities related to Industrial co-operatives (8.03.02). In line with this recommendation, UNIDO has planned its activities in accordance with the guidelines contained in the secretariat report on the "Role of co-operatives in the industrial development of individual countries",^{6/} presented to the Board at its fifth session.

116. This area of activity of UNIDO is being developed jointly with the International Co-operative Alliance (ICA). The collaboration of ICA with UNIDO extends from joint identification of technical assistance needs and implementation of field projects to the provision of ICA expertise, advice and facilities in connexion with UNIDO headquarters and field activities. The programme of supporting and other activities in the area of industrial co-operatives includes:

- (a) Regional workshops for top-level personnel concerned with the promotion and organization of industrial co-operatives;
- (b) Promotional schemes for industrial co-operatives;

- (c) Promotion and preparation of in-plant training programmes for managers and technicians of industrial co-operatives in developing countries;^{7/} and
- (d) Preparation of training material for the use of trainers of industrial co-operative personnel in developing countries.

117. In 1971, UNIDO held an Expert Group Meeting on Industrial Co-operatives to translate into practical action programmes the guidelines of the report on the role of co-operatives. The suggestions of the Expert Group have been utilized by UNIDO to develop a broader programme of activities in this area for 1973.^{8/}

118. In 1972 UNIDO plans to hold, possibly in the United Republic of Tanzania, a regional workshop for top-level personnel concerned with the promotion and organization of industrial co-operatives in Africa. The workshop would include round-table discussions on ways and means of developing potential industrial co-operative projects in the countries of the region, and field study trips would also be made to industrial co-operatives in the country. Negotiations are being held with ICA, which has a regional branch in the United Republic of Tanzania, to obtain its co-operation in organizing the workshop.

119. Further in 1972, UNIDO plans to initiate, in close collaboration with ICA, a promotional scheme for industrial co-operatives. The purpose of such a scheme would be to bring together representatives of industrial co-operatives from different countries interested in developing specific projects and in reaching agreement on mutual provision of assistance and information in such areas as technical and managerial know-how, marketing of products, provision of equipment and training. The Committee of ICA concerned with industrial co-operatives has agreed to sponsor the first such UNIDO promotional scheme immediately following the next congress of ICA, to be held in Warsaw, Poland, in November 1972.

120. In 1973, UNIDO proposes to organize another such promotional scheme for industrial co-operatives for participants from Asian countries. Discussions are being held with ICA to seek its co-operation in this project. Following the promotional activities, a period of one week would be devoted to round-table discussions, along similar lines to those of the African regional workshop proposed for 1972. UNIDO also proposes in 1973 to sponsor a three-month in-plant training programme for managers and technicians of industrial co-operatives from Latin American countries. The Polish Union of Workers' Productive Co-operatives has offered to provide the host facilities for this in-plant training programme. UNIDO intends to seek the close co-operation of ICA in this activity. The training programme itself falls under the operational activities of Group 16 (Industrial Training).

^{7/} These in-plant training programmes are included among the operational activities of Group 16 (Industrial Training).

^{8/} See "Final report - expert group meeting on industrial co-operatives" (ID/WG.108/5), UNIDO, 27 September 1971.

121. UNIDO proposes to continue its series of Regional workshops for managerial staff of chambers of commerce and industry (8.03.03), which it began in 1970 with a workshop, organized in co-operation with ECA and the Afro-Asian Organization for Economic Co-operation (AFRASEC), for participants from English-speaking African countries. The recommendations of the workshop that industrial and business communities be more deeply involved in industrial development and that the activities of their chambers be broadened to encompass the provision of needed services for industrialization have been received favourably by such international and regional organizations as the International Chamber of Commerce (ICC), its autonomous International Bureau of Chambers of Commerce (IBCC) and AFRASEC, all of which have offered their collaboration in the implementation of the present and future activities of UNIDO in this area. UNIDO also received in 1971 letters from several participants indicating that the workshop's recommendations were being followed up.

122. A regional workshop for managers and staff of chambers of commerce and industry for French-speaking countries of Africa, planned for 1971 as a priority B activity (ID/B/80/Add.2, para.91), had to be cancelled owing to lack of resources.

123. In 1972, UNIDO plans to hold a regional workshop for managerial staff of chambers of commerce and industry in the Latin American region. UNIDO proposes to hold the third in this series of regional workshops in 1973 for some fifteen participants from Arab countries of Africa and the Middle East; the co-operation of UNESOB and the non-governmental organizations mentioned above would be sought in the organization of this workshop.

124. As presented to the Board at its fifth session (ID/B/80/Add.2, para.90), UNIDO plans to organize Joint consultations and discussions with local officials of chambers of commerce and industry (8.03.05).^{2/} The basic objective of this activity is to strengthen the role of the business community in industrial development. The consultations and discussions will aim at: investigating the organization and operation of the national chambers of commerce and industry; identifying industrial services that the chamber could provide to its members on a collective basis; suggesting ways and means of putting such services into operation; and identifying specific areas in which UNIDO could assist the chamber in improving and expanding its activities.

125. In 1972, UNIDO plans to arrange joint consultations and discussions with local officials of chambers of commerce and industry in Turkey and, with the collaboration of AFRASEC, in an African country.

126. In 1973, UNIDO proposes to hold two joint consultations and discussion meetings for local industrialists, officials of the Government and national chambers of commerce and industry in Latin American countries. UNIDO consultants and staff would also participate in these consultations.

^{2/} The project component 8.03.05 previously covered the "Promotional activities in co-operation with professional associations" (ID/B/80/Add.2, para.93). These activities are now reported under project component 8.03.06.

127. UNIDO has continued its Promotional activities in co-operation with professional associations (8.03.06).^{10/} A representative of UNIDO participated in the Annual General Conference of the World Federation of Engineering Organizations (WFEO) in 1971. At this meeting the Secretary-General of WFEO urged all members to reply to the UNIDO/WFEO questionnaire so that a comprehensive survey on the role of WFEO in industrial development could then be prepared.

128. The International Chamber of Commerce (ICC) and UNIDO will exchange information on the needs of individual chambers of commerce and industry in developing countries as the need arises. In 1971, UNIDO established preliminary contacts with the European Centre for Overseas Industrial Development (CEDIMOM), the European Industrial Research Management Association (EIRMA) and the International Union of Independent Laboratories (UIIL). Further work of UNIDO related to promotional activities in co-operation with professional associations will henceforth be reported under project 8.06.

Co-operation with fairs and exhibitions (8.04)

129. UNIDO organizes promotional activities on the occasion of industrial fairs, for such fairs are important instruments to promote the industrial development of the developing countries. There are four main elements in this UNIDO service:

- (a) The arrangement at the fairs of person-to-person discussions between businessmen looking for technical and/or financial assistance for specific industrial projects and those who can supply such assistance (the mechanism of "Industry Days" is used for this purpose);
- (b) Free display of sample products from developing countries in the UNIDO pavilion at selected fairs to obtain reactions of potential buyers to quality, design, packaging, pricing etc. for the benefit of the exhibiting enterprises from the developing countries;
- (c) Advisory services through the use of UNIDO consultants on such problems as purchase of equipment, know-how, licensing and technology; and
- (d) Referral of businessmen's inquiries that cannot be answered on-the-spot to UNIDO's Industrial Inquiry Service for follow-up.

130. In the future it is proposed to test a new dimension that would include such activities as the strengthening of export-oriented industries in developing countries and the utilization of fairs as sites for on-the-spot training for fair officials from developing countries. The co-operation of Group 14 (Promotion of Export-oriented Industries) is envisaged in these activities. Participation at specialized fairs would be included where such activities as purchase of equipment, licensing and know-how are to be tested.

131. UNIDO's Activities in connexion with fairs (8.04.01)^{11/} are provided only at the request of host authorities. In response to the wishes expressed by several delegations at the fifth session of the Industrial Development Board (A/8416, para.150), a preliminary evaluation has been prepared of the results of UNIDO's promotional activities at the four fairs in which it participated in 1971 (cf. paras.132-135 below). To establish a factual basis for such an

^{10/} Previously reported under 8.03.05 (ID/B/80/Add.2, para.93).

^{11/} This project component was entitled "Promotional activities at industrial, trade and other international meetings" in document ID/B/80/Add.2.

evaluation, a follow-up procedure was devised in which two main instruments were used. First, a questionnaire was sent to the participants at these fairs inquiring about the results of their contacts with other businessmen and about the effectiveness of UNIDO's activities in matching the common interests of the participants from industrialized and developing countries. Second, when it was feasible, UNIDO retained the services of a local correspondent to follow up on the outcome of projects that had been initiated in the host country during the fair. The major difficulty with such a follow-up was the confidential aspect, since businessmen were reluctant to reveal the details of their negotiations. Assessment, based upon recurring follow-ups of UNIDO's promotional efforts at fairs, is now an integral part of UNIDO's service.

132. Arab Fair for Textile Industries in Cairo, 11-18 January 1971. This fair concentrated on the textile industries. Over 100 industrialists and government officials from thirteen developed and developing countries participated in Industry Day. From the 46 meetings arranged between businessmen with a view to initiating preliminary contacts, six projects emerged:

- (i) A joint venture between the Sudan and Hungary for a spinning and weaving factory;
- (ii) Introduction of a flat knitting system between Egypt and the Federal Republic of Germany;
- (iii) Purchase of modern equipment from Spain for a Sudanese weaving and spinning factory;
- (iv) Purchase of looms to increase blanket production in Jordan from 50,000 to 200,000, as well as a request for technical assistance in the selection of raw materials and the training of personnel;
- (v) A project for the utilization of cotton waste by the Egyptian General Organization for Spinning and Weaving, in co-operation with Poland; and
- (vi) Initiation of co-operation between the International Wool Secretariat (IWS) and the Industrial Development Centre for Arab States (IDCAS).

Advisory services were furnished by three UNIDO textile consultants who gave advice on specific problems relating to new textile techniques, processes, machinery, quality control, maintenance etc. Two Arab States requested technical assistance from UNIDO in a training programme and a feasibility study. Moreover, 24 inquiries were received from businessmen, and the requested information was provided or is being followed up. Finally, UNIDO publications were made known to a number of businessmen, resulting in a large number of requests for the publications.

133. Second Ghana International Trade Fair in Accra, 1-14 February 1971. In Accra, small-scale industry in general was featured at the trade fair. Some 130 industrialists and government representatives from sixteen countries participated in Industry Day. The following projects were the subjects of negotiations during the fair: a joint venture for an ice cream factory; financial assistance for the purchase of equipment for a fishery and cold storage enterprise; a joint venture for meat slaughtering, processing and cold storage plants; financial assistance for the expansion of a hotel; a joint venture for a minerals project; a joint venture for a radio and TV component factory; and financial assistance for the purchase of equipment for a tire retreading industry. The last project has been finalized; a bank loan was secured and the purchase of equipment is underway. Latest information indicates that the other potential projects are still under negotiation.

134. Budapest International Fair, 21-31 May 1971. At this fair, UNIDO initiated the pilot venture of displaying gratis sample manufactures from developing countries in UNIDO's pavilion. Comments from potential buyers were compiled on such matters as design, quality, packaging, pricing and delivery terms in order to assist the interested developing countries to improve the competitiveness of their export-oriented products on world markets. Six developing countries (Ceylon, Cyprus, India, Malta, Mauritius and Uganda) availed themselves of this opportunity, and their enterprises displayed transistor radios, cigarettes, fruit juices, batteries, parquet flooring, shoes, knitwear, saris, zippers, cotton yarn, a knitting machine and razor blades. A confidential UNIDO report with reactions from potential buyers to these samples of developing countries was sent to the enterprises involved in these six developing countries. All indicated they would take these comments into account in their export-oriented industry programme. In addition, business talks were held between Austria and Uganda over cotton and between Poland and Cyprus over shoes. Hungary showed special interest in cotton yarn, parquet flooring, radios, the knitting machine, shoes, zippers and knitted articles. Thirty-three inquiries were received from businessmen and were transmitted to the Industrial Inquiry Service (which is one of the activities of Group 9 (Industrial Information)). The two Industry Days, featuring precision engineering and electronics industries of Hungary, attracted 45 participants from fifteen developed and developing countries. No business transactions emerged.

135. Fifteenth Malta International Fair, 1-15 July 1971. UNIDO had not originally scheduled its participation in this fair for 1971, but the fair authorities requested UNIDO to participate even though the time for preparation was short. Thus UNIDO participated for one week. Business talks took place between Malta industrialists and government representatives from six developed and developing countries. Thirty-one inquiries were received from Malta industrialists and the information requested has been supplied or is being followed up by the Industrial Inquiry Service.

136. The participation of UNIDO in the Poznan International Fair, originally scheduled for 1971, will be implemented in 1972. It was mutually agreed with the host authorities to postpone UNIDO's participation in the Zagreb Fair to a more suitable future date; the participation of UNIDO in the Tehran Fair was cancelled for administrative reasons. Although UNIDO was unable to participate in the Kinshasa Fair owing to insufficient time for preparation and inadequate financial resources, there was a UNIDO contribution within the context of the Training Workshop on Extension Services for Small Industry (cf. 11.01.02) with the assistance of an Industrial Development Field Adviser.

137. In 1972, UNIDO plans to participate in seven fairs: Milano, Poznan, Baghdad, Algiers, the Third Asian International Trade Fair in New Delhi, the International Fair in Tripoli and the International Fair in El Salvador. At the Milano International Fair in April 1972, UNIDO will continue its experiment by displaying gratis in the UNIDO pavilion samples of exportable manufactures from selected developing countries not themselves exhibiting at the fair. A record will be kept of reactions from potential buyers on design, quality, packaging, terms of delivery, pricing, finishing etc. and will subsequently be transmitted to the exhibitors to assist them in improving their manufactured products so that they can compete more effectively on world markets. Upon request, developing countries that are exhibiting at the fair can also benefit from this UNIDO advisory service in their own pavilions; this advantage of the presence of potential buyers from industrialized countries could be grasped to establish first-hand contacts with a view to potential business transactions.

138. At the fifth session of the Industrial Development Board, many delegations approved of the concept of calling upon the expertise of the industrialized countries in fair operations to arrange discussions with fair officials of developing countries (A/5116, para.100). Originally, UNIDO had planned to hold an interregional training workshop on industrial fairs in 1972 (ID B. 30/Add.2, para.101), but it is now thought that such training could be more effective in the form of Joint consultations for effective fair administration in developing countries (8.01.03). UNIDO plans therefore to invite, in co-operation with the Milano Fair Administration, selected fair directors from developing countries to come to the Milano Fair for consultations on effective fair administration. The resulting guidelines would be incorporated in a handbook for the use of fair officials in the developing world; the handbook would subsequently be scheduled for publication.

139. In 1973, UNIDO expects to expand its co-operative activities in scope and depth to exploit all possible aspects of fairs. Consultations will be held with selected European fair directors to discuss new strategies and ways of obtaining maximum impact from fairs as important contact points. UNIDO participation at fairs and exhibitions in the industrialized countries will be strengthened, and specialized as well as general fairs will be included in this programme. Co-operation with international organizations such as the International Union of Fairs (UIF) and allied groups will be intensified. New approaches will be investigated such as the pairing of fairs. In 1973, UNIDO proposes to co-operate in six fairs in Africa, Europe, Latin America and the Middle East. Discussions would be held regarding UNIDO's possible contributions to such exhibitions as the sample fair in Basle, Switzerland.

**Joint activities with the United Nations Advisory Committee on the
Application of Science and Technology to Development (UNACAST) (8.05)**

140. In 1971, UNIDO continued to maintain liaison with UNACAST, particularly in the areas of industrial research and the development of appropriate technologies for developing countries. Two papers prepared by UNIDO for UNACAST in 1970 on "Factors affecting the effectiveness of existing industrial research organizations in developing countries" and "Technologies appropriate for industrial development" were reviewed favourably by the Co-ordinating Committee of ECOSOC at its 51st session. A member of the Division of Science and Technology at United Nations Headquarters also participated in the Expert Group Meeting on More Effective Utilization of Industrial Research in Developing Countries (cf. 8.01.02) held in Copenhagen in 1971. In 1972 and 1973 specific activities will be undertaken as required.

Contacts with professional and business organizations (8.06)

141. Co-operative relationships have been established between UNIDO and organizations such as the International Council for Scientific Management (CIOS), the European Centre for Overseas Industrial Development (CEDINOM), the European Association of Management Training Centres (EAMTC), the Afro-Asian Organization for Economic Co-operation (AFRASEC), the International Chamber of Commerce (ICC), the World Federation of Engineering Organizations (WFEO), the International Wool Secretariat (IWS), the Industrial Development Centre for Arab States (IDCAS), and the International Rubber Study Group (IRSG), but they need to be strengthened. There are many

regional and international professional and business organizations dealing with subjects in the competence of UNIDO, such as engineering, co-operatives, petrochemicals, pharmaceuticals, metallurgy, industrial programming, export promotion, research, training, management, promotion of small- and medium-scale industries and specific sectors of business. The objective of UNIDO in this activity is to work with these organizations towards common goals in their respective areas, including joint technical assistance projects, training, management, industrial promotion activities, know-how, and to involve these groups at the national, regional and international levels. A genuine partnership between UNIDO and such organizations can result in greater benefits for the developing world in promoting their industrial development.

142. Thus UNIDO intends to devote efforts towards Explorations and strengthening of contacts with regional and international professional and business organizations (8.06.01). Under this project component, contacts will be initiated with these organizations and the follow-up in substantive areas will be carried out by the various groups of activities as appropriate.

143. A dialogue is envisaged with those professional and business organizations with which UNIDO had some rapport to investigate possible joint areas for action. Preference will be given to the regional and international groups with which there is already some UNIDO co-operation. Joint endeavours can result in recruiting experts for field operations; in subcontracting for industrial research and for undertaking important studies; and in arranging joint consultations between business communities in the industrialized and developing countries for common objectives. Such activities will also serve to associate these organizations more closely with UNIDO and its work programme.

See table overleaf.

Expenditures and estimated costs for supporting and other activities, 1971 - 1973
(in m/m and thousands of US dollars)

Project (Priority A)	Regular budget						Expert group meetings (\$)			Extra-budgetary resources (\$)					
	Staff (m/m)		Consultants (\$)		1971	1972	1973	1971	1972	1973	1971	1972	1973		
	1971	1972	1973	1971										1972	1973
8.01 Industrial research															
8.01.01	8	4	3	2.5	4.0	5.0	-	-	-	-	11.0	GTF	20.0	G.F.	
8.01.02	4	6	-	1.8	-	-	7.7	-	-	-	-	-	35.0	TA	
8.01.03	-	4	6	-	-	-	-	-	-	-	11.0	GTF	11.0	GTF	
8.01.04	-	2	6	-	3.0	-	-	-	-	-	-	-	-	-	
8.02 Standardization, quality control and metrology															
8.02.01	8	5	5	-	-	-	-	-	-	-	18.8	TA	20.0	TA	
8.02.02	3	-	6	1.5	1.5	5.0	-	-	-	-	-	-	-	-	
8.02.03	6	5	-	-	-	-	-	-	-	-	-	-	32.0	TA	
8.02.04	6	3	-	-	3.5	-	-	-	-	-	-	-	-	-	
8.02.05	6	-	-	-	-	-	-	-	-	-	23.0	TA	4.0	G.F.	
8.02.06	-	3	-	-	3.0	-	-	-	-	-	-	-	-	-	
8.02.07	-	-	4	-	-	-	-	-	-	-	-	-	-	7.0	GTF
8.03 Non-governmental organizations for industrialization															
8.03.01	6	-	-	-	-	-	-	-	-	-	19.0	TA	-	-	
8.03.02	5	8	9	3.7	4.0	-	7.0	-	-	-	-	-	25.0	TA	
8.03.03	-	6	6	-	-	-	-	-	-	-	-	-	3.6	GTF	
8.03.05	-	2	6	-	-	-	-	-	-	-	-	-	20.0	TA	
8.03.06	3	-	-	-	-	-	-	-	-	-	-	-	11.0	GTF	
8.03.06	3	-	-	-	-	-	-	-	-	-	-	-	-	-	
8.04 Co-operation with fairs and exhibitions															
8.04.01	24	28	30	0.4	-	6.0	-	-	-	-	29.3	GTF	50.0	GTF	
8.04.02	-	3	3	-	-	2.0	-	-	-	-	-	-	20.0	TA	

Printed publications

<u>1971 publications programme</u>		<u>Languages</u>	<u>Cost</u> <u>(US\$)</u>
ID/30	Industrial research institutes (8.01.02) Part I: Project selection and evaluation Part II: Financial administration	} F S	
ID/69	The organization and administration of industrial services (for Asia and the Middle East) Report of the seminar (8.03.01)	E F S R	
ID/70	Guidelines for the evaluation of industrial research institutes (8.01.03)	E S	<hr/> 5,978
<u>1972 publications programme</u>			
ID/70	Guidelines for the evaluation of industrial research institutes (8.01.03)	F	<hr/> 600
<u>Forecast of 1973 publications programme</u>			
-	Manual on the organization and administration of national standardization bodies (8.02.02)	E	
-	Flow sheets for quality control in selected industries - Vol.I (8.02.04)	E	
-	Metrology: its role, requirements and appli- cations in developing countries (8.02.06)	E	<hr/> 6,600

Note: In the computation of the printing costs a standard formula was applied based on an average cost of internal and external printing.

D04275

GROUP 9: INDUSTRIAL INFORMATION

Introduction

144. The year 1971 saw an increase of interest in, and demand for, the assistance of UNIDO in the area of industrial information. Governments and industrial enterprises have come to recognize that information is not only an additional mechanism for the transfer of knowledge but is necessary for the planning process and for the establishment, operation and expansion of industries.

145. Information is an essential component of industrial infrastructure and is one of the main instruments for the transfer of technological and managerial know-how. Information amends, supplements and continuously updates other instruments and mechanisms for the transfer and supply of knowledge such as formal and professional education, training, contractual transfer of knowledge, research and expertise. In a wider sense, industrial information forms part of the indispensable basis on which decisions are made on planning and developing industrial projects and on the establishment of technical assistance requirements. The knowledge required for the industrialization of developing countries covers many aspects including facts and figures on traditional and new raw materials, processing technology, markets and prices, factory and product design, and management.

146. The activities of UNIDO in the field of industrial information are therefore directed primarily towards the establishment of information facilities through which Governments, enterprises and individuals can be provided with the technological, economic and commercial knowledge required. In industrialized countries, the mechanisms through which industrial information is disseminated are well developed and include newspapers, periodicals, books, libraries and documentation centres, special information agencies, information departments in industrial federations and such services as statistical offices and patent bureaux, industrial fairs and exhibitions, research institutes and bibliographical and abstract services that reproduce and spread the results of research, development and production in various fields. UNIDO, however, has to explore new ways and means of organizing the transfer of information and of promoting a constant flow of processed information to developing countries, most of which are suffering from the lack of reliable information. These countries cannot afford to take over the expensive information systems of the industrialized countries and, moreover, such systems are not adapted to the conditions in developing countries.

147. Faced with this situation, UNIDO is offering its assistance in the establishment of information centres that will eventually provide general or selected information to Governments, organizations and enterprises. It is hoped that these centres will be integrated into a worldwide system of co-operating agencies and correspondents. With UNIDO's assistance, they will be able to identify the resources of accessible and available information and specific local information requirements.

148. UNIDO also assists in encouraging the flow of information on industrial opportunities, on existing production facilities and on manufactured products from developing countries to the outside world in order to promote new markets and expand industrial co-operation between industrialized and industrializing countries. The extent to which developing countries can provide industrial opportunities and can supply goods is still largely unknown. Such information may also serve to encourage regional co-operation.

149. In 1971, UNIDO's programme of activities within Group 9 was consolidated and enlarged; improved support was provided for operational projects, implementation was accelerated of plans for providing specific information services on the supply and alternative choice of industrial equipment, and the presentation was improved of periodicals and ad hoc publications, including the new periodic publication Industrial Development Abstracts.

150. Unfortunately, the implementation of some activities in the field of industrial information is endangered by the fact that funds provided by an Austrian voluntary contribution made in 1968 will be completely exhausted within the first months of 1972. A number of delegations at the fifth session of the Industrial Development Board noted with dissatisfaction the decrease in funds for supporting activities in the field of industrial information and urged that more funds and personnel be allocated to this group of activities (A/8416, para.155). Resources will have to be found for these activities if they are to continue to be effective.

OPERATIONAL ACTIVITIES

151. The number of requests addressed to UNIDO for advice and assistance in the establishment of local industrial information facilities is steadily growing. The requests, coming from Governments and government institutions, in most instances require intensive consultation, active promotion and careful preparation before the appropriate projects can be formulated and submitted for approval. Among the many aspects that have to be taken into account in the preparation of projects are: local conditions, which vary widely from country to country; existing institutions such as libraries or documentation centres; the lack of trained personnel; insufficient financial resources; the lack of reliable sources of information in the developing countries themselves; and the impossibility of simply copying the design and activities of information facilities in the industrialized countries.

152. The establishment in developing countries of industrial information facilities, whether organized as independent service centres or attached to existing institutions, can be justified only if their organization and working plans are appropriate to specific local or regional needs and compatible with local or regional conditions and limitations. In view of this situation, it is difficult to make a proper distinction between operational and supporting activities in this field, as extensive supporting activities often have to precede the implementation of operational projects.

153. The operational projects being carried out in this field by UNIDO include several types of assistance, such as experts to assist in the establishment of national industrial information facilities (in Bulgaria, Iran, Saudi Arabia, the Syrian Arab Republic and Thailand) or in the establishment of regional information centres (for the Industrial Development Centre for Arab States (IDCAS) and the Common Afro-Malagasy-Mauritian Organization (OCAM)); supply of equipment for regional industrial information centres (for IDCAS and the Regional Co-operation for Development (RCD) group; this type of assistance is generally financed under the UNIDO General Trust Fund); and training programmes for industrial information officers, including fellowships, seminars and training courses.

154. There are many projects in various stages of preparation, such as: a regional centre for industrial information for the Andean Group (Acuerdo de Cartagena); regional services for industrial information, initiated by the Permanent Secretariat of the General Treaty on Central American Economic Integration (SIECA); expert assistance (under recruitment) for an industrial documentation centre in Argentina; expert assistance (under recruitment) for information field liaison service in Brazil and Mexico; a national information centre for the high polymer and allied industries in India; and an industrial information and documentation centre in Turkey.

155. Some of the regional projects include assistance to sectoral or geographical subcentres. Assistance to IDCAS, for example, includes: central information services at IDCAS headquarters and regional; specialized subcentres for iron and steel (Algiers), textile industries (Cairo), food processing industries (Khartoum), small-scale industries (Cairo), building materials and construction industries (Amman) and petrochemical industries (site not yet decided). The OCAM project includes, according to the request submitted, the establishment of subcentres in Kinshasa, Tananarive, Abidjan and Dakar.

156. There are also several UNDP/SF type projects, which - although they fall within the competence of other groups of activities - include an important information component that needs substantive backstopping and support through Group 9. Examples of these types of projects are: the National Society for Industrial Studies and Promotion (SONEPI) in Dakar (an information expert for twelve months is under recruitment); the Industrial Research Institute in Khartoum (an information expert for three months is under recruitment); the National Centre for Industrial Studies in Tunis (the Centre includes an operational information department and needs training activities); the Centre of Industrial Studies for the Maghreb (an information expert for twelve months is under recruitment); and the Central Advisory Services in Cairo (an information expert for twelve months is under recruitment).

157. Group 9 is carrying out a number of activities (listed under supporting activities) that are crossing the border line between supporting and operational activities. This is especially true of the activities within the industrial inquiry and advisory services, which are supplying Governments, organizations and individual industrial entrepreneurs in developing countries with answers to their inquiries. In many instances, the answers to inquiries become small feasibility studies.

198. It can be expected that within the next five years, industrial information facilities will be established in most developing countries and regions. These information facilities should collect and process information in all fields in order to be able to transfer it through local inquiry and advisory services, local services for selective dissemination of information, bulletins and other publications and through other methods, as required, to those dealing with industry. The services and assistance rendered by UNIDO, which include assistance given by many co-operating agencies and institutions in developed countries, will provide a continuous back-stopping to these new facilities. In turn, the information facilities in the developing countries will provide UNIDO, and through UNIDO other countries, with information on local industries, their opportunities and their programmes.

Value of approved field projects and forecast of requirements, 1971 to 1973
(in thousands of US dollars)

Source of funds	1971 estimated expenditure	1972			1973		
		Approved projects	Requirements for new projects	Total	Approved projects	Requirements for new projects	Total
UNDP/SF	-	} 40.3	135.7	176.0	-	815.0	815.0
UNDP/TA	26.0		(15.0) ^{a/}			(30.0) ^{a/}	
RP	7.0	24.8	-	24.8	15.0	-	15.0
SIS	21.5	18.0	20.0	38.0	-	50.0	50.0
GTF	200.0	35.0	300.0	335.0	-	430.0	430.0
FIT	<u>40.0</u>	<u>50.0</u>	<u>30.0</u>	<u>80.0</u>	<u>-</u>	<u>85.0</u>	<u>85.0</u>
Total	294.5	168.1	485.7	653.8	15.0	1,380.0	1,395.0

Note: UNDP/TA and UNDP/SF are to be merged, effective 1 January 1972.

a/ Annual estimated costs of projects included in the UNDP Country Programmes or projects officially submitted to UNDP for approval.

**List of Approved Projects and Projects
under Active Consideration**

Projects over US\$100,000

Projects under US\$100,000

Building up industrial information facilities
for developing countries

CEY (IPF)* - Assistance to the national scientific and technical documentation centre

UAR-9036-71	ELS/09/1/1**	SYR-70/1134
GAB/09/2/1**	HAI/09/2/3**	SYR/09/2/4**
LES/68/12**	PER/09/2/2**	INT-VC/9/24
MAR/71/8	LAT/70/18	INT-VC/9/23
SUD/09/2/1**	IRA/70/4	INT-VC/9/17
AFR-71/1378	THA-70/958	INT-VC/9/20
ARG/09/2/3**	SAU/09/1/2	INT-VC/9/25
BRH/09/2/1**	SAU-70/834	

(1 project)

(23 projects)

* Projects not yet approved but included in the Country Programmes and projects officially requested.

** Fellowship posts.

SUPPORTING AND OTHER ACTIVITIES

159. The supporting and other activities of Group 9 are classified under the following projects:

Building up industrial information facilities for developing countries	9.01
Collection of industrial documentation and data	9.02
Industrial inquiry and advisory services	9.03
Dissemination of industrial information through publications	9.05
Audio-visual information service	9.06

Building up industrial information facilities for developing countries (9.01)

160. As stated earlier, in Group 9 there is a close relationship between operational and supporting activities. A great deal of promotional work has to be done to create better information awareness and to design new types and models of institutions appropriate for developing countries. The activities of UNIDO in this field have thus been concentrated on the upgrading of skills and training of industrial information officers; the provision of printed guidelines, directories and other material useful in the day-to-day work of information services; and the supply of communication facilities, with UNIDO acting as a clearing-house of information and as the link to sources of information.

161. The problems involved in building up industrial information facilities for developing countries have already been described under the heading of operational activities. In activities in support of projects to establish national or regional industrial information facilities, account has to be taken of the widespread inexperience, the limited financial means, the lack of trained personnel and the lack of established lines of communication to the traditional sources of information.

162. UNIDO intends to continue its modified programme of Training courses for the upgrading of industrial information personnel (9.01.03),^{12/} organized with the co-operation of UNESCO and the Government of the Union of Soviet Socialist Republics. Following the interregional course for industrial information and documentation officers from English-speaking countries in 1970, UNIDO held in 1971 a regional course for eighteen participants from Latin America at the Institute of Scientific and Technical Information (VINITI) in Moscow. Both courses had a duration of about three months and appear to have been rather successful. Many participants have subsequently been appointed to important posts or have established information services. A special study on the long-term results of these courses will be undertaken by staff members in 1972.

^{12/} Previously entitled "Interregional courses for the upgrading of industrial information personnel" (ID/R/80/Add.2, para.121).

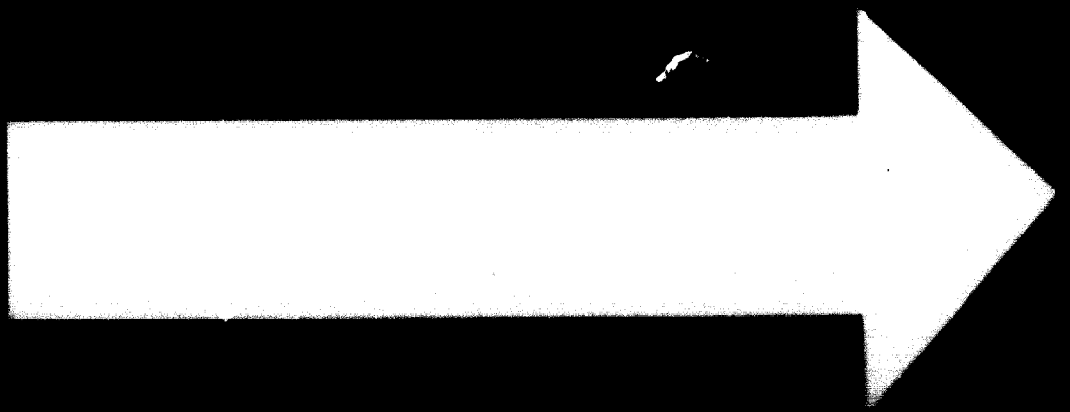
163. From 1972 on, providing that the necessary funds are available, UNIDO intends to modify these courses by shortening the basic course in Moscow to two months and adding a period of practical training in industrial and technical information services in other countries, such as the Netherlands or Denmark, and one week's training in Vienna, where participants could be familiarized with the information facilities supplied by UNIDO headquarters. The training course to be held in 1972 for some 25 participants from French-speaking countries in Africa (ID/B/80 Add.2, para.122) will be the first one under the modified conditions. In 1973, UNIDO proposes to hold a training course for 25 English-speaking participants from Asian countries. Parallel to the continuing training, all participants of former courses will be requested to evaluate the practical results of the training.

164. To date, UNIDO has held in close co-operation with the regional economic commissions two Seminars for industrial information officers (9.01.04), one in 1970 in Tehran, Iran, attended by 25 English-speaking participants from the ECA and ECAFE regions, and the second in 1971 in Lima, Peru, attended by 30 participants from the ECLA region. The reports of both seminars are scheduled for internal reproduction in 1972 because the country chapters for the report on Tehran, originally scheduled for publication in 1971 (ID/B/80/Add.2, para.123), came in too late for publication in 1971. A third seminar is planned for 1972 in Addis Ababa for participants from Africa.

165. These seminars are designed mainly to familiarize the heads of information services in developing countries and other leading information and documentation officers with the needs for industrial information and with the facilities offered by UNIDO in this area. In general, it can be said that there is a growing need for training and upgrading activities in the field of industrial information. In 1970 and 1971, the applications for participation in UNIDO's training courses and seminars exceeded by far the available places. In the future, new industrial information centres in developing countries may be able to provide practical training for specific conditions in developing countries themselves.

166. On the basis of the experience gained from the three seminars (1970, 1971 and 1972), UNIDO proposes to hold consultations (possibly in Vienna) in 1973, with the active participation of the regional economic commissions, UNESOB, leading industrial information services and some participants from earlier training courses and seminars to decide on the future needs of upgrading of skills and training in this field. At that time, it should be decided whether the method of collective training for industrial information officers in courses and seminars should be continued despite relatively high costs involved or whether priority should be given to individual fellowships and to training in industrial information services in developed countries. Offers have been made by the International Federation for Documentation (IFD), the Danish and the Canadian technical information services to assist UNIDO in this activity.

167. During 1971, UNIDO continued its activities with regard to the Promotion and organization of the exchange of industrial information (9.01.05). In resolution ID/SCU/Res.1, operative paragraph 1(d), of the Special International Conference of UNIDO,^{13/} it was recommended that UNIDO

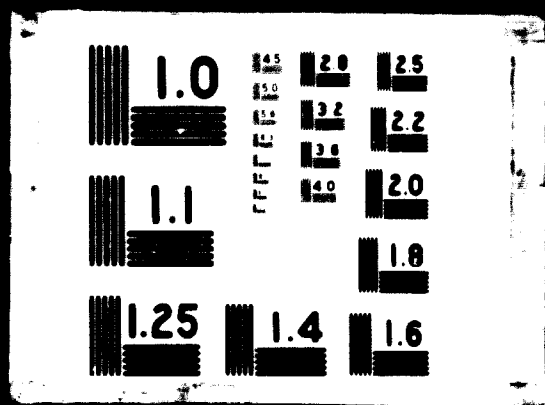


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establish a clearing-house for all kinds of industrial information. To achieve this goal, a network of correspondents is of great importance. In 1971, UNIDO undertook action to enlarge and consolidate the network and to include within it organizations, institutions and individuals prepared to co-operate with UNIDO. A standard agreement for information network correspondents was drafted in 1971, and permanent contracts were concluded with the correspondents who normally charge fees for their services. A register that already covers many countries was compiled of the correspondents, who will serve as an additional source of information for developing countries.

168. During the last few years, correspondents in developed countries have been one of the main sources of information feedback for UNIDO's industrial inquiry and advisory services. In the coming years, with the establishment of industrial information centres and services in developing countries, these services and centres will act as correspondents, assuming responsibility, inter alia, for the provision to the outside world of information on industrial opportunities and on the implementation of industrial plans in developing countries. This development will underline the close relation between sources and users of information, and will thus provide a basic link for closer co-operation with UNIDO as the principal transfer unit.

169. Despite the fact that a considerable number of correspondents are offering their services free of charge, additional funds should be made available for the increasing services of the network of correspondents, services that cover research, feasibility studies, reference material, technological information etc. The number of inquiries processed through the network of correspondents is increasing steadily, both in volume and in scope. Where appropriate, questions from developing countries are answered not only by one, but by several, correspondents in order to provide different views and facts to inquirers.

170. The contributions provided by correspondents are being collected, classified and indexed by UNIDO with a view to establishing a growing stock of readily available information to serve future information needs. Through an elaborate filing system, an archive of information has been established at UNIDO on the various fields of economy and technology. At a later stage, this information will be processed into a computerized information data bank to facilitate the identification of suppliers of information for each major problem.

171. To render effective support to industrial information centres in developing countries, UNIDO has to provide the centres with compilations of data and information that are appropriate to their needs and that are not otherwise available. UNIDO intends to provide this support through the publication of training manuals specifically designed for industrial personnel; directories providing information on suppliers and equipment; and other studies and guides on techniques and technology, all aimed at broadening the base of industrial information.

172. Through its programme of Training manuals, directories and other publications (9.01.06)^{14/} UNIDO is equipping the developing countries with a tailor-made library of basic information for the benefit of their growing industries and in order to supplement other

^{14/} Previously entitled "Training manuals and directories" (ID/B/80/Add.2, para.128).

activities aimed at upgrading the skills of industrial information personnel. A trilingual "Guide to industrial directories" was published in 1971 (ID/B/80/Add.2, para.128). An updated and amended second edition is planned for publication in 1973. The publication of a manual on industrial equipment purchasing in developing countries (the study was completed in 1969; ID/B/64/Add.9, para.34) was delayed owing to technical reasons. In order to avoid the publication of an obsolete text, a consultant was hired in 1971 to update the text and it is scheduled for publication in 1972.

173. The publication of two studies, "Organization and functions of industrial information centres" and "Equipment for industrial information centres", originally planned for 1971 (ID/B/80/Add.2, para.128), was postponed in view of the possible publication of a second edition of the UNIDO monograph on "Industrial information", in which these studies would be incorporated. The text of the first study is available and has been distributed as a working paper. A comprehensive collection of material including data and prices of equipment is at the disposal of Governments and field experts.

174. The study on "Information units in industrial plants", planned for 1971 (ID/B/80/Add.2, para.129), was commissioned to an expert-consultant and is scheduled for publication in 1972 as programmed. The publication of the study on "Classification and indexing of industrial information material", which was to be produced in close co-operation with FID, has been delayed. It is to be expected that the publication will still, however, be issued in 1972. This series of studies will be continued in 1972 with the preparation of a study on "The use of audio-visual techniques in the industrialization process" (ID/B/80/Add.2, para.130), scheduled for publication in 1973. Several directories to sources of information by industrial sectors and on specific subjects (maintenance and repair, product design) are also under preparation and will be ready for distribution in mimeographed form in 1972. They will be updated every second year.

175. Negotiations are being carried out with several experts in the field of computerization for the preparation of a study on Selection and use of computers in processing industrial information (9.01.07) (ID/B/80/Add.2, para.131). Although the subject is rather complex, the study will be ready in 1972 and is scheduled for publication in 1973.

176. In 1971, UNIDO sponsored an Expert Group Meeting on Innovative Approaches to the Dissemination of Industrial Information through Extension Services (9.01.08). Ten experts from eight nations, developed and developing, together with five members of the UNIDO secretariat met in Vienna and produced a set of recommendations that are guiding and will guide UNIDO's course in assisting the developing world to build adequate industrial information systems. Among the recommendations, which UNIDO is seeking to implement, were that Governments of developing countries should assume responsibility for effective local information transfer systems and should pay particular attention to the creation of local liaison and extension services. The Expert Group felt that UNIDO should assist Governments in this task by serving as a clearing-house for the exchange of experience and should give priority to seminars and other training and upgrading activities. UNIDO should also seek to increase the effectiveness of its publications programme and should delve more deeply into advanced audio-visual methods, particularly training aids. The final report of the Expert Group is a UNIDO working document. The findings of the Expert Group have been sent to member States.

Collection of industrial documentation and data (9.02)

177. The Industrial Documentation Unit (IDU), which deals with the library and with industrial documentation and related services, is the main collection point and distribution agent in UNIDO for industrial information needed by headquarters staff, industrial field advisers, project experts and developing countries in general. Within the Industrial Documentation Unit three main activities can be identified:

- (a) The library, with its collections of books, periodicals, documents of all sorts, reports, monographs, papers, studies etc. (9.02.01 and 9.02.02);
- (b) The Industrial Information Processing System (INDIS) (9.02.06);
- (c) The Selective Dissemination of Information service (SDI) (9.02.07).

178. These continuing activities were considerably expanded in 1971, the expansion being made possible mainly by the Austrian voluntary contribution. To maintain and continue the expansion of the services to meet the constantly growing needs of UNIDO field projects and of the headquarters and field personnel, an increased allocation of funds will be necessary, as the Austrian voluntary contribution will be exhausted early in 1972.

179. The IDU reference service provides information to staff members, experts and external users (over 5,600 questions answered and 10,000 items loaned in 1970). From October 1970 to June 1971, IDU prepared 175 bibliographies on special technical and economic topics. It produces a "Monthly list of accessions" and an annual computerized "List of periodicals currently received". Since October 1971, UNIDO has been producing, in co-operation with the IAEA library, a computerized joint accessions list for the two organizations. Since October 1971, the cataloguing has also been done jointly with IAEA.

180. The Collection of books, industrial documentation and data (library) (9.02.01)^{15/} serves not only UNIDO headquarters and field staff but also various other services such as the Industrial Inquiry Service. Book procurement for UNIDO-executed field projects amounted to 2,093 books and 162 periodical titles in 1970. In 1972 and 1973, the library expects to increase the usefulness of its services by making them more familiar to staff members, field advisers, project managers and information centres. The collection contains over 50,000 documents produced by the United Nations, including UNIDO, and its specialized agencies. There are also 5,000 books, 800 periodical titles, 20,000 vertical file items, and thousands of microfiches and microfilms.

181. Included in the vertical files are Industrial feasibility studies and technical assistance reports (9.02.02), the area information collection (country files), the subject files and the information-on-information files. These collections are extensively cross referenced.

^{15/} Previously entitled "Industrial Documentation Unit (IDU)" (ID/B/80/Add.2, para.134).

182. The Industrial Information Processing System (INDIS) (9.01.06), introduced in 1970 in close co-operation with other United Nations agencies, is the instrument for indexing, storage and retrieval of all information material generated by UNIDO. At the same time, INDIS prepares the abstract material for the regular publication of Industrial Development Abstracts, which lists the abstracts by author, subject and geographical region (cf. 9.01.03). The computerized data are stored at ILO on disc and tape and can be used for compilation of bibliographies and retrieval of information. The material indexed is being microfiched for greater accessibility. A thesaurus of descriptors used for indexing is issued annually; the first issue was reproduced internally in 1971. The INDIS activity is part of UNIDO's contribution to the over-all United Nations information system, as proposed in chapter six of the Jackson report. By the end of 1974, all documents and reports produced by CID/UNIDO since 1961 will have been integrated into INDIS.

183. A pilot Selective Dissemination of Information (SDI) service (9.02.07) was introduced in 1970 for UNIDO staff members; in 1971, it was extended to cover industrial field advisers and selected experts. Documents and other material (periodicals, studies, reports, pamphlets, press releases, newsletters etc.) received by the Industrial Documentation Unit are scanned and pre-selected from the mass of inflowing materials. Copies of the original text, or of the title with the table of contents, are then sent to the interested section chiefs or field advisers. Which subjects are currently scanned is defined by the project officers themselves, who complete questionnaires indicating their main operational projects. These questionnaires are updated annually or complemented whenever a new project is approved. Through this targeted information, the SDI service draws the attention of project officers to relevant, fresh information scattered in various sources. The improved background information enables UNIDO project and field officers to make sound decisions in constantly changing dynamic economic conditions. In 1971, an average of some 600 different notifications, articles etc., covering about 200 subjects, was sent per month.

184. UNIDO proposes to extend this service in 1972 to UNIDO-sponsored industrial information centres in developing countries that have already commenced operations. The SDI service will supply them at first with up-to-date information relevant to UNIDO operational projects planned and under implementation in their countries or regions; later, selected branch and country information will also be disseminated. The long-term task of the SDI service is to maintain a reliable flow of relevant, current information so that there will be an increased utilization of technical and economic data. In 1973, a consultant will assist the SDI service in organizing the system of "users' profiles" that are indispensable for an enlarged service.

Industrial inquiry and advisory services (9.03)

185. In accordance with the recommendations of the International Symposium on Industrial Development, held in Athens in 1967, and the priority accorded by the Industrial Development Board at various occasions, an international clearing-house for industrial information was established at UNIDO headquarters in 1968 and extended step by step in 1969 and 1970. The objective of the clearing-house is to locate sources of information that could contribute to the solution of specific problems encountered by industries in developing countries.

186. More recently, the Economic and Social Council, in resolution 1636(LI) dated 6 August 1971, recommended that arrangements be made to promote the exchange of information between developing countries on their experience in appropriate technology and product and plant design. It was further recommended that UNIDO study, in co-operation with other agencies, ways in which reliable information on known alternative technologies could be furnished in a systematic way to Governments, enterprises and industrial consultants in developing countries. UNIDO therefore initiated new approaches to enlarge its inquiry services and to implement a new type of service, which had already been recommended in principle by an expert group convened in New York in October 1967.

187. The inquiry services, as traditionally operated by UNIDO, have been divided into three major components, the second of which deals specifically with information services on supply and alternatives for the choice of industrial equipment. It was considered, however, that the advisory role of UNIDO should generally be limited to the provision of information to enable the users of UNIDO's services to make their own unbiased choice.

188. All three components of this project - Industrial Inquiry Service, Information Service on Supply of Industrial Equipment and the Roster of Consultants - are closely linked to UNIDO's network of correspondents (cf. 9.01.05), which will be enlarged considerably in 1972 and 1973 to meet the needs of the new services. In general, all these services should be limited to the functions of an industrial clearing-house for information or of a transmitter of knowledge on materials, utilities, technologies, processes, data and markets.

189. The number of inquiries received by the Industrial Inquiry Service (9.03.01) continues to rise although the existence of these services has been advertised only through the UNIDO Newsletter and the Industrial Research and Development News. In 1971, inquiries were received from more than 80 countries. From July 1970 to May 1971, UNIDO received an average, per month, of 120 new inquiries and 160 other inquiries. The inquiries submitted concerned the following types of information:

- Transfer of technological know-how (50%);
- Information on market and statistical data (20%);
- Advice on machinery and other industrial equipment (15%);
- Assistance in finding qualified consultants (5%); and
- Others (10%).

190. UNIDO has set the following targets for the Industrial Inquiry Service in 1973:

- Expansion of the dialogue with inquirers with a view to providing the utmost clarification of the needs expressed in the inquiries;
- Expansion of the network of information correspondents (cf. 9.01.05) in order to increase the access to, and diversify the sources of, information and, in co-operation with correspondents of developing countries, to channel the flow of information through industrial information centres of the network;
- Increase the efforts to evaluate and screen the information obtained;

- Improve the retrieval and utilization of information available within UNIDO, in particular the material stored by IDU and the material in the Industrial Inquiry Service's own documentation files;
- Accelerate the transfer of information and simultaneously decrease the administrative workload of the Service by authorizing network correspondents to establish direct contact with information consumers.

191. The work of the Industrial Inquiry Service is most evident in the operational activities of UNIDO. The Service seeks to meet the requirements of individual inquirers in developing countries by providing them with information on specific questions and problems. Owing to its neutral and independent status, the Service is a competent clearing-house that is greatly appreciated by its users. Often the answers provided to inquiries represent the first contacts between industrialists, executives and organizations in developed and in developing countries. In many instances, the Industrial Inquiry Service, in transmitting answers, can provide aid in explaining how to request assistance under UNIDO technical assistance programmes. A supplementary task of the Service is the building up of a documentation and retrieval system on sources of information and on fundamental informative material. At a later stage, input data might be compiled for a centralized and computerized information and documentation retrieval system.

192. The promotion campaign planned for 1972 (ID/B/80/Add.2, para.144) has been made priority B as its implementation is subject to the availability of resources needed to enlarge the activities of the network of permanent correspondents (cf. 9.01.05) and to obtain temporary assistance within the inquiry and advisory services.

193. In 1966, the Economic and Social Council in resolution 1183(XLI) requested the Secretary-General to study the feasibility of setting up an advisory service that could provide information on the sources of supply, the cost and the quality of equipment. An Expert Group Meeting on the Establishment of an Advisory Service for the Supply of Industrial Equipment to Developing Countries, held in 1967, elaborated this theme and in 1971 a programme took shape under the title "Advisory Service on the Supply of Equipment". In 1971, the Economic and Social Council, in resolution 1636(LI) confirmed the importance of this concept. UNIDO has subsequently changed the title of this project component to Information service on the supply and alternatives for the choice of industrial equipment (9.03.02). The aim of this service is not to recommend certain types or manufacturers of equipment but to provide interested parties with all the relevant information to assist them in making their final choice.

194. As this service is relatively new and as it has great potential, UNIDO is establishing it initially as a pilot project in which a small part of the projected system can be studied in depth but at minimum expense and risk. The pilot project should be carried out within a well-defined framework and with a limited scope, otherwise proper evaluation of data and procedures becomes exceedingly difficult. At the outset, only a limited number of supplier countries will be asked to participate, and equipment data will be collected and processed in only a few selected subject fields so that the flow of information can be controlled and the procedures and results properly evaluated. The pilot project will enable UNIDO: to gain experience from operations, evaluation and feedback; to establish critical factors (i.e. to determine which parameters of equipment are necessary and how they can be collected, correlated and periodically

updated) and to put these factors on a comparative basis, in order to facilitate the correct choice of equipment; and to advise, assist and co-ordinate future services in this field.

195. The project will be organized along two lines. First, the incoming inquiries concerning equipment will be dealt with within the framework of the Industrial Inquiry Service, so as not to interrupt the existing service. Second, unsolicited data and other information will be stored by the trial service, an information campaign will be organized for the developing countries and specific inquiries will be asked for, to be answered "from stock". The assistance of outside consultants will be required in both instances.

196. An attempt will be made to engage Governments and associations interested in the supply of equipment to contribute to the project not only with regard to the necessary materials but also financially (professional work, administrative and travel expenses connected with the project etc.). United Nations specialists and advisers in the field would be called upon to assist the service by suggesting existing needs and by assessing the quality of the service through feedback. Co-ordination with other members of the United Nations family, as well as with governmental agencies and professional and trade associations in industrialized countries, will be necessary.

197. On the basis of the results of the pilot project, UNIDO will expand this service during the later part of 1972 and during 1973. The expansion of the service will be twofold: an increase in the number of supplier countries and the inclusion of additional industrial branches.

198. UNIDO has continued its activities relating to the Roster of Industrial Consultants (9.03.03). At present, the Roster comprises 1,600 addresses of qualified firms in 63 countries, and interest in new registrations is still strong. New consultants are admitted to the Roster only after they have replied to a detailed questionnaire with information on their particular fields of activities and earlier contacts. UNIDO is making special efforts to include in the Roster consulting enterprises from developing countries. The Roster of Consultants is an important component of UNIDO's industrial inquiry and advisory services and is working in close co-operation with the Technical Equipment, Procurement and Contracting Office (TEPCO) of UNIDO, which keeps a similar list of consultants for its special purposes.

199. In 1973, UNIDO intends to transform the Roster into a computerized data bank; preparations for this transformation will be finalized in 1972. Through this new system UNIDO will be in a position to select consultants by subject specialization, taking into account their previous performance. With the increase in questions addressed to the Industrial Inquiry Service and the gradual implementation of UNIDO's new services on supply and alternatives for the choice of industrial equipment, the Roster of Consultants will become a valuable source of information and an important instrument of co-operation.

**Dissemination of industrial information through
publications (9.05)**

200. Through Group 9, UNIDO produces three periodicals as well as a number of other publications supplementing its field-level information programmes. These publications are distributed to Governments and to UNIDO headquarters and field staff as well as to an audience whose need of, and interest in, industrial information is less immediate than at the project level. Such publications serve to promote an awareness of the purposes and aims of UNIDO among the people and institutions best able to co-operate with the organization in attaining common goals.

201. The number of issues of the Industrial Research and Development News (IRDN) (9.05.01) was reduced in 1971 pending a reorganization of the periodic publications of UNIDO. In 1972, however, quarterly publication of the IRDN will be resumed after a careful reappraisal of its design and contents. Until recently, the IRDN had a print run of nearly 6,000 copies, of which only about 1,500 were sold either as single copies or by subscriptions. UNIDO intends to expand the circulation of the IRDN through a positive sales programme with a view to reaching, in English, French and Spanish, a carefully defined and actively solicited audience of people dealing with technical, scientific and economic problems related to industrial development. The publication will also include comprehensive reports and substantial information on UNIDO activities. Professionally managed, the IRDN will become a forum for an exchange of information that the industrial development community needs but does not have.

202. In 1972, a consultant will be engaged to redesign the IRDN and the UNIDO Newsletter (cf. 9.05.02). Modest funds to pay fees for articles may help to improve and enlarge the contents of the IRDN (Priority B).

203. The UNIDO Newsletter (9.05.02), with a total circulation of 20,000 in English, French, Spanish and Russian editions, has proved to be one of UNIDO's most effective media for informing the concerned world community of UNIDO projects, meetings, publications and other activities. News items and notices in the Newsletter have generated world-wide inquiries and responses, helping to bring together specialist and project, investor and programme. In 1971, UNIDO conducted a readership study, which indicated that each copy of the Newsletter had an average of three readers, and which resulted in many suggestions for improved and expanded reports on UNIDO affairs in the Newsletter. UNIDO intends to continue the publication of the Newsletter, with the circulation restricted to a carefully chosen and continually reviewed list of specially interested or particularly valuable subscribers. The publication of the Newsletter in German to further local knowledge of UNIDO, originally planned for 1971 and delayed for financial reasons, is now envisaged for 1972; an Arabic edition is also being contemplated.

204. In 1971, UNIDO commenced publication of Industrial Development Abstracts (9.05.03). Issues 1 to 6 were published in three volumes, covering 2,000 documents, abstracted and indexed by the INDIS staff (cf. 9.02.05). The Industrial Development Abstracts have two purposes: to provide a specialized but easy-to-use guide to documentation on industrialization in the developing countries (much of which is unpublished), and to attain a more complete documentation of economic development by filling gaps in the indexes published by other United Nations organizations. The Industrial Development Abstracts contain abstracts of printed publications of UNIDO

including documents submitted to the Industrial Development Board; documents for expert working groups, workshops and seminars; studies and reports; information papers; technical assistance reports including feasibility studies; and material collected through UNIDO's Industrial Inquiry Service.

205. The Industrial Development Abstracts are especially beneficial as the abstracts of important documents can be produced with a minimum period of time. In the 1971 issues, abstracts from studies, reports and other documents originating from 1969 and 1970 were published. This activity will be continued in 1972, and it is expected that some of the technical difficulties can be overcome soon in order to permit semi-monthly publication.

206. The present publication programme of UNIDO does not meet the need for a monthly magazine dealing particularly with industrial opportunities and industrialization in the developing countries, reporting on new industrial trends and techniques and presenting world-wide industrial news. Such a magazine, written by professional journalists under the editorial control and policy guidance of UNIDO, and supported by commercial advertising and produced under commercial management, should be able to reach high-level decision makers among industrialists, planners, bankers, government officials and others concerned with, and involved in, the industrialization of the developing world. The publication could become a valuable medium through which UNIDO could make its activities known and could promote joint ventures, foreign investment and co-operation that would lead to new projects of bilateral and multilateral, private and public assistance. In 1971, a pilot issue of such a magazine was produced, entitled Industry International (9.05.04). It was published under contract with a Swiss group that offered editorial, publishing and printing facilities. The issue was made available to the delegations at the fifth session of the Industrial Development Board and at the Special International Conference of UNIDO. Although this pilot issue was published in English only, it was suggested that editions in all official United Nations languages should be considered if financially feasible. The pilot issue, though not formally presented as part of the 1972 work programme, was well received by many delegations and found the support of other United Nations agencies such as UNDP, the World Bank and the United Nations Centre for Economic and Social Information. However, owing to financial limitations and legal problems related to policy and contractual arrangements, it was decided to prepare a feasibility study on the proposed publication; the study would contain detailed information on possible financing, on policy and contractual arrangements and on envisaged co-operation with other United Nations agencies.

207. The final decision on the publication of Industry International will depend, inter alia, upon UNIDO's finances. The project would require initial funds and risk capital for the first two years. UNIDO's editorial contribution to Industry International would be provided by the Industrial Information Section, in close co-operation with all other sections. The policy guidance of UNIDO would be exercised through an editorial board, which would represent all geographical groupings.

208. Concurrent with the production of the afore-mentioned periodic publications, UNIDO is considering the issuance in 1973 of a second edition of the UNIDO Monographs, which would be updated to include additional new information, making the Monographs more suitable as general references for the developing countries.

209. In addition to its periodic publications and the printed materials that are important components of its field activities, UNIDO produces a number of publications, the main purpose of which is to promote the various services offered by its Industrial Information Centre and to disseminate technical information about UNIDO and its activities. Among such publications was the pamphlet, "Your questions answered", which proved successful in increasing the utilization of the Industrial Inquiry Service. This pamphlet will be updated in 1972 and, together with other similar brochures and pamphlets, will explain in detail the many services offered by UNIDO's Industrial Information Centre. These leaflets will be printed as give-aways, to be distributed at meetings, sent out with answers to inquiries, and circulated for the general use of headquarters and field personnel.

210. The UNIDO general mailing list (9.05.05) for all periodicals and other publications was initially built up on the basis of distribution lists for specific UNIDO documents and publications and individual requests for information. From 4,000 addresses in 1967, the list increased to 14,000 in 1971. With the co-operation of UNDP Resident Representatives, the list has been substantially enlarged to comprise Governments and government agencies in developing countries. Using a programme developed by IAEA, with coding modified to suit UNIDO, some 20,000 names were transferred from addressograph and miscellaneous in-house lists to a unified list that will reduce duplication of effort within UNIDO. Constant analysis of list profiles permits UNIDO to tailor its publications more closely to the readers' needs. Properly updated, such a well-tended list can become a valuable asset to UNIDO.

Audio-visual information service (9.06)

211. Lack of staff and resources delayed the audio-visual information service, projected in earlier UNIDO work programme, from starting active work until 1971. Between 1969 and 1971, however, UNIDO acquired audio-visual screening and production facilities with funds provided by the Austrian voluntary contribution. Equipment was selected in consultation with the UNIDO Public Information Service and the IAEA Visual Information Service in order to achieve optimal technical compatibility and to avoid duplication. Completion of these facilities in late 1971 provided UNIDO with the opportunity to begin producing basic audio-visual materials for use in the field and at headquarters.

212. In 1971, UNIDO was able to find an organization that expressed its willingness to compile an international Register of industrial films (9.06.01). Through a register of industrial films, UNIDO could make available to industry and industrial organizations in developing countries information and materials about industrial films that would enable them to acquire the know-how of modern industrial techniques and to realize their production potential. The film material would be intended for use in training courses, seminars, meetings etc. The register would include information on the purposes that can be served by the film material and where they can be borrowed or purchased. UNIDO also undertook searches for appropriate film material and equipment in response to requests from the field and headquarters staff. The audio-visual information service worked with staff members to screen some twenty films for their suitability for use in the field.

213. In 1972, work will continue with the distribution of small bulletins to staff in the field and information services in developing countries, informing them about significant industrial films. At the same time, and in line with recommendations by the 1971 Expert Group Meeting (cf. 9.01.08), UNIDO will supply in 1972 and 1973, subject to availability of resources, more advanced audio-visual material for use in the field (Priority B).

See table overleaf.

Printed publications

1971 publications programme

		<u>Languages</u>	<u>Cost</u> (US\$)
ID/53	Guide to industrial directories (9.01.06)	E F S (trilingual)	
<u>Industrial Research and Development News (9.05.01)</u>			
ID/SER.B/12	IRDN, Vol.V, No.2	F	
ID/SER.B/13	IRDN, Vol.V, No.3	F	
ID/SER.B/14	IRDN, Vol.V, No.4	E S	
<u>UNIDO Newsletter (9.05.02)</u>			
	Newsletter Nos. 33-44	E F S R	
UNIDO/LIB/ SER.B/1-6	Industrial development abstracts (9.05.03)	E (F,R,S introduction)	<u>18,130</u>

1972 publications programme

Industrial Research and Development News (9.05.01)

ID/SER.B/14	IRDN, Vol.V, No.4	F	
ID/SER.B/15	IRDN, Vol.VI, No.1	E F S	
ID/SER.B/16	IRDN, Vol.VI, No.2	E F S	
ID/SER.B/17	IRDN, Vol.VI No.3	E	
ID/SER.B/18	IRDN, Vol.VI, No.4	E	
UNIDO/LIB/ SER.B/7-12	Industrial development abstracts (9.05.03)	E (F,R,S introduction)	
<u>UNIDO Newsletter (9.05.02)</u>			
	Newsletter Nos. 45-56	E F S R (G)	
-	Manual on industrial equipment purchasing in developing coun- tries (9.01.06)	E F S	
-	Information units in industrial plants (9.01.06)	E F S	
-	Classification and indexing of industrial information material (9.01.06)	E F S	

27,100

Forecast of 1973 publications programme

Language

Cost
(US\$)

Industrial Research and Development News (9.05.01)

ID/SER.B/17	IRDN, Vol.VI, No.3	F S
ID/SER.B/18	IRDN, Vol.VI, No.4	F S
-	IRDN, Vol.VII, No.1	E F S
-	IRDN, Vol.VII, No.2	E F S
-	IRDN, Vol.VII, No.3	E
-	IRDN, Vol.VII, No.4	E

UNIDO Newsletter (9.05.02)

Newsletter Nos. 57-68 E F S R (G) (A)

UNIDO/LIB/
SER.B/13-18

Industrial development abstracts
(9.05.03)

E
(F, R, S introduction)

- Report of interregional seminar on industrial information, Vienna 1973 (9.01.04) E F S R

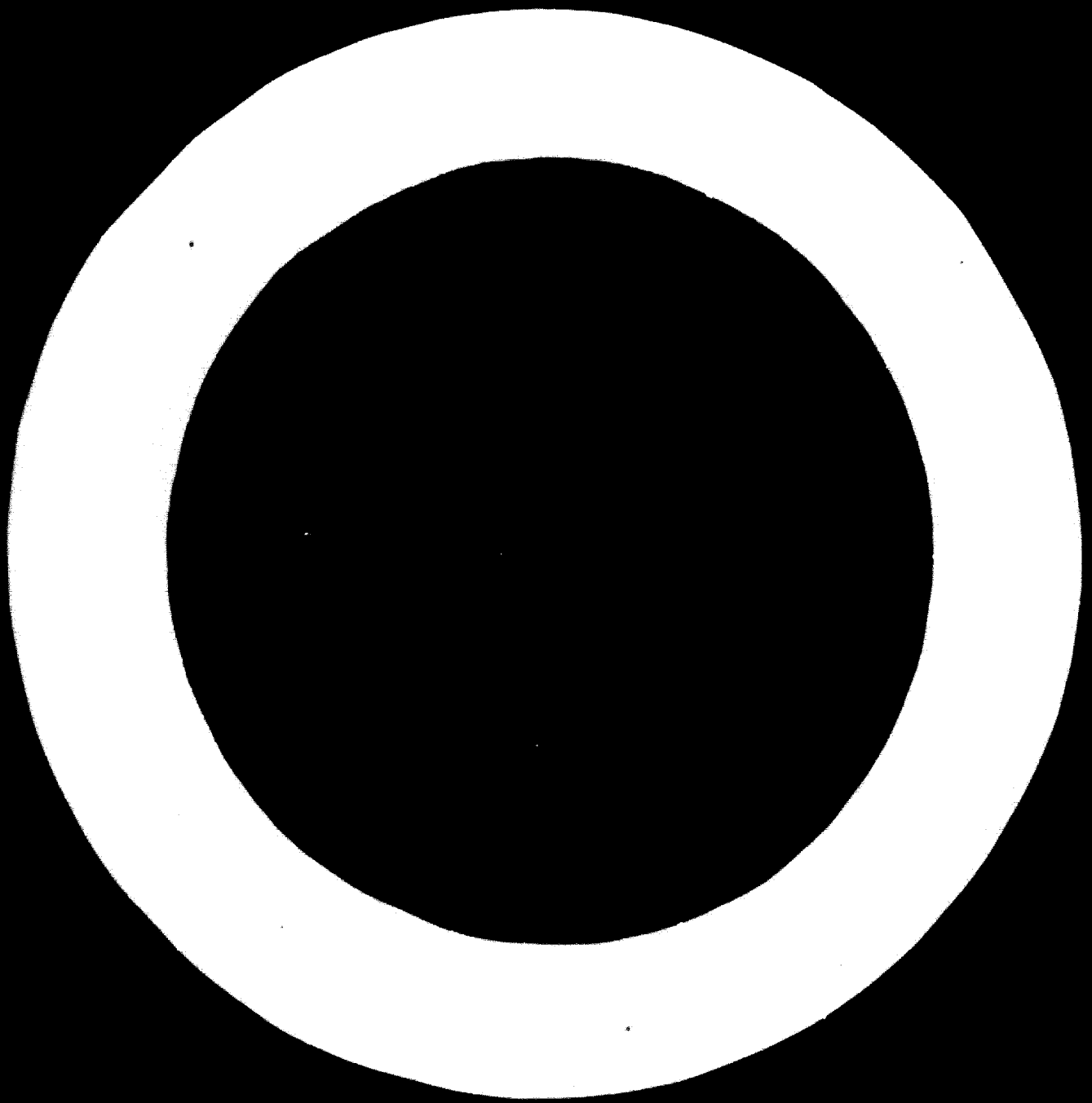
- Guide to industrial directories, revised and updated (9.01.06) E/F/S (trilingual)

- Use of audio-visual techniques in the industrialization process (9.01.06) E F S

- Selection and use of computers in processing industrial information (9.01.07) E F S

27,200

Note: In the computation of the printing costs a standard formula was applied based on an average cost of internal and external printing.



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GROUP 10: INDUSTRIAL MANAGEMENT AND CONSULTING SERVICES¹⁶

Introduction

214. In order to meet the needs of managers in the developing countries, UNIDO introduced into its 1971 and 1972 work programmes a total view of management assistance. To cope with the widespread needs of industrial management, a systems approach was developed to optimize the utilization of physical and capital resources in the industrialization process. Thus, the management programme of UNIDO has been strengthened in recent years by the addition of field projects covering a broader range of management services such as corporate planning, management information systems and organization analysis. The management programme of UNIDO is directed not only towards the larger industrial firms in the developing world, but also towards small- and medium-sized firms. Assistance to the smaller firms, for example, may take the form of providing, in co-operation with Group 11 (Small-scale Industry and Related Activities), basic management skills in such areas as marketing, cost accounting, production scheduling and quality control.

215. In its future work programmes related to industrial management, UNIDO proposes to increase the impact of its field programmes in management assistance by initiating headquarters activities directed towards the further development of efficient and progressive management in the developing world. As a first step, UNIDO proposes to study the ways and means of increasing the practical use of management education by establishing a link between real world needs and the problems of industrial managers on the one hand and university programmes in management training on the other. Furthermore, UNIDO, through Group 10 in co-operation with Group 8 (Industrial Institutions; cf. 8.06.01), is seeking to enhance its management programme capacity by examining such ventures as joint programmes with international and professional organizations. Such joint co-operation programmes might utilize, under subcontracting procedures, the services of professional organizations such as the International Council for Scientific Management (ICOS).

216. In the activities of UNIDO undertaken by Group 10, co-operation with other groups of activities in UNIDO and with other United Nations agencies and organizations such as UNESCO and ILO is particularly important as management does not exist in a vacuum; it is necessarily a functional responsibility that relates to all industries and manufacturing enterprises.

217. The work programme of UNIDO in industrial management continues to be addressed to the following objectives: assistance to industrial managers and top executives in the developing countries by providing practical solutions to their problems through the application of appropriate management concepts, principles and techniques; expansion of the activities of UNIDO directed towards the establishment and development of national consulting services; and provision of short- and long-term assistance in the over-all improvement of management knowledge and skills. Attention will continue to be directed towards such specific programme fields as the construction industry. In 1971, for example, UNIDO negotiated the country programming exercise

^{16/} For administrative purposes the number of this group of activities has been changed from 101 to 10; the title, the competence and the responsibilities of the group remain the same.

interway in Argentina to provide management assistance to the construction industry; in 1972, UNIDO proposed to further expand its industrial orientation to include the metal industries. This programme strategy for specific key industries represents a restatement of the purpose outlined in document ID/B/30/Add.2, para.190.

OPERATIONAL ACTIVITIES

218. It should be emphasized that there is a close relationship between industrial technology and industrial management. This relationship should be borne in mind, particularly in view of the interest of UNIDO in accelerating and promoting the industrialization process in the developing world. Management itself may be considered as a technology consisting of ideas, knowledge and facilities; computer and management information systems are examples of this type of management technology. In an industrial enterprise, moreover, management and production technology are closely related since the management function, running from top to bottom in the organization, is the over-all planning, co-ordinating and controlling force of all activities - human, financial, physical and technological.

219. Accordingly, the contribution of UNIDO to industrial management in the developing world has been developed on two bases, sectoral and functional. The application of management knowledge and skills involves a given industrial context such as textile management or market planning in the construction industry. Thus, one base on which UNIDO has developed assistance to management is by the given industry sector, in which management is a necessary adjunct and perspective. The second base on which assistance has been developed is by the given functional responsibility of management. In this context, the management activities of UNIDO may be regarded as an integrating system for the technological, economic and institutional aspects of UNIDO's field programmes. Consequently, the management programme of UNIDO has developed into a comprehensive system of technical assistance.

Consulting services

220. An advantage of using consulting talent in developing countries is that qualified management assistance can be provided immediately to industry. On the basis of the recommendations made by the Expert Group on the Development of Management Consultancy (cf.10.01.01), which met in Santiago, Chile, in 1971, UNIDO plans to continue the promotion of such operational projects in this area as: strengthening of local consulting organizations; assistance in the establishment of professional consulting procedures and of a code of ethics; and advice to, and co-operation with, industry and consultants.

221. In 1971, UNIDO assisted several countries in the training of high-level consultants who will, in turn, develop and train further consulting personnel within their respective countries. Ecuador, the United Republic of Tanzania and Yugoslavia are but a few of the developing countries that have been recipients of UNIDO's short-term consulting services. In 1971, UNIDO's UNDP/SF project in Yugoslavia (YUG-11) became operational; this project is directed not only towards the provision of direct consulting assistance but also towards training in management consultancy. The scope of these consulting services will be expanded in 1972 and 1973 in accordance with the expressed needs of the developing world.

Organization analysis

222. UNIDO is also striving to expand its programme of technical assistance related to management's organizational responsibilities, i.e. the breakdown of corporate plans into jobs and tasks. UNIDO is thus drawing attention to the human element, which is the primary aspect in the implementation of corporate plans regardless of organizational level. The activities of UNIDO in this area have just been initiated, but the results are promising, as is shown by a project in Poland that will be extended beyond 1972.

Management information systems

223. The techniques of management information systems are concerned with the systematic collection of data and the processing of information to assist management decision-making business enterprises. In brief, the objective of a management information system is to provide the right information at the right time to the right decision maker so that plans can be executed in the most practical manner. A well-functioning management information system also provides a source of communication to management, informing it if its decisions have been carried out in the most effective and efficient manner. One of the objectives of UNIDO is to assist industrial managers in the developing world to acquire and utilize the information, knowledge and technology which are required by their particular planning and reporting needs.

224. During 1971, UNIDO assisted several countries in analysing the needs for, and use of, computer-based management information systems, and this activity is expected to continue in 1972 and 1973.

Corporate planning

225. UNIDO will continue its efforts to increase the effectiveness of its operational programmes in areas of managerial responsibility by providing direct assistance in corporate planning, in which the sum of management science and practice is applied, especially the long- and short-term planning aspects that are the supporting elements from which all the other functions of management stem, e.g. sales planning, production, organization and financial control.

226. During 1971 UNIDO implemented several projects of this type for government holding corporations, e.g. in Ghana, Jamaica and Uganda. These projects cover many aspects related to management including market needs, production planning, product design, budgeting, planning human requirements and formulating future industrial expansions. As corporate planning is a comprehensive activity, Group 10 is co-operating with Group 13 (Industrial Financing and Investment Promotion) to strengthen the diagnostic planning sources of UNIDO with regard to basic industrial planning activities.

227. The number of management clinics conducted by UNIDO increased from one in 1970 to four in 1971, and this trend is expected to continue, contingent upon actual requests from government authorities. The management clinics held in 1971 covered a wide scope of industries including leather, wool worsted and furniture. Moreover, within the joint UNIDO/IDCAS clinic programme for the improvement of textile management in the Arab world, several new elements were introduced.

such as an interregional approach and the consideration of training local personnel to carry on subsequent programmes of this nature. Although the general policy of UNIDO in this field is to provide assistance in the application of modern management techniques, the basic practices of management such as quality control, accounting and marketing are not being neglected. UNIDO is providing these services in accordance with the needs for, and requirements of, management in the developing world.

228. Another dimension of UNIDO's operational activities in this field is the development of professional relationships and management programmes with various international business and professional organizations. Specifically, the International Council for Scientific Management (CIOS) has expressed a willingness to work more closely with UNIDO in the management field, and plans are underway to finalize details concerning priority areas and types of joint management programmes. Also, the Kaiser Aluminum and Chemical Corporation and UNIDO are currently considering a joint programme proposal for the training of top-level managers from the developing world. In 1972 and 1973, UNIDO expects to examine other joint programme possibilities through which the effectiveness of UNIDO's field programmes can be expanded in scope and substance.

229. Commencing in 1972, UNIDO's case study programme will become fully operational. In 1971, UNIDO established a series of "2 in 1" projects, which combined case study or supporting activities with selected ongoing operational projects. This approach has enabled UNIDO to reduce out-of-pocket expenditures since staff time can be utilized for both supporting and operational activities. Moreover, through this approach, UNIDO can more readily provide immediate and practical management assistance to specific projects. The findings of these case studies as well as the general field investigations being carried out by UNIDO (cf.10.05.01) are proposed for publication beginning in 1973.

Value of approved field projects and forecast of requirements, 1971 to 1973
(in thousands of US dollars)

Source of funds	1971 estimated expenditure	1972			1973		
		Approved projects	Requirements for new projects	Total	Approved projects	Requirements for new projects	Total
UNDP/SF	612.3	1,136.2	1,004.8	2,141.0	824.5	2,705.0	3,529.5
UNDP/TA	209.4		(968.4) ^{a/}			(1,230.0) ^{a/}	
RP	94.9	32.4	-	32.4	65.0	-	65.0
SIS	380.4	242.3	450.0	692.3	-	900.0	900.0
GTF	15.9	-	20.0	20.0	-	27.0	27.0
FIT	-	-	3.0	3.0	-	3.0	3.0
Total	1,312.9	1,410.9	1,477.8	2,888.7	889.5	3,635.0	4,524.5

Note: UNDP/TA and UNDP/SF are to be merged, effective 1 January 1972.

a/ Annual estimated costs of projects included in the UNDP Country Programmes or projects officially submitted to UNDP for approval.

**List of Approved Projects and Projects
under Active Consideration**

Projects over US\$100,000

Projects under US\$100,000

Consulting services

MAL/68/6 (TA) - Assistance to the Majlis Amanah Rakyat in management services, footwear manufacturing and industrial design

ALG/7/8
UAR/69/8
NIR-68/338
NIR/71/6
TAN/69/4
UPV/10/2/2**
AFR-71/1414

COS-70/1087
COS-71/1313
JAM/69/1
JAM/10/2/2**
IND/10/1/9**
INS/10/3
INS-67/177

IRA-71/128
PAK-69/10
PAK-71/1183
PAF/69/2
ISR-69/635
POL-69/500

(1 project)

(20 projects)

Organization analysis

DAH/70/2**
GUI/10/1/1**
IVC/10/1/1**
TOG/10/2/3**
BRA-71/1348
SEN/10/2/3**

ECU/10/1/1**
IND/10/1/7**
INS/10/1/4**
INS/10/1/7**
KOR/10/2/1**
LAO/10/1/1**

LAO/10/2/2**
CYP/10/1/1**
POL/10/1/1**
TUR/10/10**
TUR/10/1/3**

(17 projects)

Corporate planning

GHA-28 (SF) - Assistance to the Ghana Industrial Holding Corporation

GHA-67/163
UGA-70/1090

ECU-68/376
PHI-70/806

PHI-71/1377

GHA (IPF)* - Assistance to the Ghana Industrial Holding Corporation, Phase II

TAN (IPF)* - Assistance to the national development corporation

DOM/68/7 (TA) - Industrial development - assistance to the Dominican Corporation of Public Enterprises (CORDE)

ECU-33 (IPF)* - Technical advisory services to industry

PAK-48 (SF) - Centre for organization and development of the jute industry, Dacca

PAK-62 (SF) - Cotton textile industry development centre, Karachi

(7 projects)

(5 projects)

* Projects not yet approved but included in the Country Programmes and projects officially requested.

** Fellowship posts.

Projects over US\$100,000

Projects under US\$100,000

Prospective management programme co-operation between UNIDO and
selected international business and professional organizations

INT-VC/10b/5 INT-VC/10b/24

(2 projects)

Multisectoral

UGA (IPF)* - Management training and advisory
centre, Kampala, Phase II

YUG-11 (SF) - Centre for industrial organiza-
tion and development

(2 projects)

* Fellowship posts.

SUPPORTING AND OTHER ACTIVITIES

230. The supporting and other activities of Group 10 are classified under the following projects:

Consulting services	10.01
Organization analysis	10.03
Management information systems	10.04
Corporate planning	10.05
Industry-university co-operation for management development	10.06

Consulting services (10.01)

231. One of the major objectives of UNIDO in this project is to assist the developing countries in the development, organization and use of management consulting services. Such services, which cover the range of technological and managerial responsibilities in industry, are becoming increasingly important as the demand for management assistance grows. To be effective, however, the nature and substance of management services must be continually studied and adapted to the changing needs of industry.

232. UNIDO is continuing its programme on the Use and development of consulting services to management in developing countries (10.01.01). Following the expert group meetings in New York (1966) and Tokyo (1969), UNIDO held in 1971 in Santiago, Chile, in co-operation with ECLA, an Expert Group Meeting on the Development of Management Consultancy (ID/B/80/Add.2, para.194). Some 25 participants from developing and developed countries attended the Meeting. Among the recommendations made by the Expert Group were: the preparation of a register of consultants in Latin America with a view to establishing, on a country basis, management consulting exchanges or service centres in Latin America; direct management consulting assistance in countries where such services were not locally available; and finally, over-all assistance in the improvement of management consulting organizations and procedures in Latin America. The report and the proceedings of the Expert Group Meeting are scheduled for publication in 1972.

233. In order to follow up and implement the recommendations and programme suggestions generated at the Expert Group Meeting, UNIDO proposes in 1972 to investigate the feasibility of providing technical assistance in the establishment of regional consulting or service centres that would promote and conduct diagnostic studies to point out subsequent consulting assignments and that would meet such requirements by selecting from a prepared register the best available consulting resources. This investigation will be carried out in co-operation with selected Latin American management institutes and other interested bodies. Further in 1972, UNIDO proposes to consider the development of joint training programmes in management consulting, especially in conjunction with the Pan-American Committee of the International Council for Scientific Management (PACSIOM).

234. In 1973, UNIDO proposes to extend the consulting services programme initiated in Latin America to other regions. As a first step, UNIDO would begin consultations with those who require management consulting services and with those who can provide it. This basic programme strategy is essentially one of promoting the matching of the supply with the demand for management consulting services in selected countries on a country-by-country, pilot project basis. In short, UNIDO proposes to develop and strengthen local management consulting organizations and institutions by providing a promotion service for the short term, while considering for the long term the establishment of national management consulting centres.

Organization analysis (10.03)

235. In its programme of work related to organization analysis, UNIDO drew special attention in 1971 to the human side of industrial management. Simply stated, the employees of an industrial enterprise and their jobs and relationships with one another are an important responsibility that management must consider when introducing advanced technology and other types of technical assistance into a given organization. UNIDO proposes to continue this line of approach in 1972 and 1973 with a view to gaining a better understanding of specific organizational problems in selected enterprises. Common problems such as line and staff conflict, delegation of authority and job motivation would be examined and appropriate programmes developed to provide the necessary management assistance.

236. In 1971, UNIDO continued its Field investigations (10.03.01) of organizational problems. These investigations of the application of organization analysis, which include (but are not limited to) case studies, are carried out largely within the framework of selected field activities of UNIDO. This procedure has been adopted as it results in savings to financial and personnel resources and has the added advantage of keeping such investigations attuned to actual field needs. Some staff time is called for, however, over and above normal backstopping activities as the investigations require pre- and post-project attitude surveys as well as on-site interviews. The case studies that UNIDO plans to continue in 1972 and 1973 would also be included within the framework of operational projects. The Expert group meeting (10.03.02), which UNIDO had proposed to hold in 1972 (ID/B/80/Add.2, para.195), will be cancelled owing to a general revision of the project.

237. In 1973, UNIDO proposes to introduce a new component to its project on organization analysis, namely Enterprise organization development (10.03.03). Specifically, UNIDO proposes, on a pilot project basis: to study and assess within one selected country the management needs and requirements for management assistance projects as envisaged in their industrial planning; and to initiate a dialogue with all parties concerned in both the business and government sectors as a first step towards formulating a programme of action for the training of managers and the development of management information systems and other management techniques.

238. In this project, emphasis would be placed on the establishment of consultations and dialogues with the parties concerned, professional or governmental, to construct a programme of technical assistance.

Management information systems (10.04)

239. The primary objective of UNIDO in this project is to introduce and adapt the techniques of management information systems to the practical needs of managers in the developing world. The range of UNIDO's assistance in this area runs from simple management control reports to the introduction, where appropriate, of sophisticated computer systems.

240. In 1971, UNIDO initiated field investigations on the Techniques of management information systems (10.04.01). These investigations were conducted, in part, as case studies in connexion with selected field projects under implementation by UNIDO. For example, UNIDO studied the manner and means by which a computer-based management information system might best be introduced and implemented in an industrial enterprise. It is proposed to continue this activity in 1972 and 1973, but mainly as an operational activity. Several of these studies will be prepared for subsequent publication, given appropriate government clearance of non-confidential information.

241. The expert group meeting on the Value and application of improvement designs (10.04.02), which UNIDO had proposed in its 1972 work programme (ID/B/80/Add.2, para.196), will not be held as this activity has already been successfully implemented as an operational project.

Corporate planning (10.05)

242. Corporate planning has been previously identified as the co-ordinating management activity for setting objectives, developing basic plans, organizing work activities and, ultimately, controlling and evaluating performance against plan. Corporate planning covers a wide spectrum of interrelated activities: production planning (operation schedules and control, value analysis, quality control etc.); financial planning (cost accounting, capital budgeting, financial analysis etc.); and marketing planning activities (market research, sales promotion, market analysis, new product development etc.).

243. Corporate planning varies both as to form and level of management depending upon the size and concentration of industry and also upon the extent of government responsibility for such planning. Thus, for some countries, corporate planning exists only at the government or holding corporation level, while in others, it is at the industry or enterprise level. UNIDO directs its efforts in corporate planning to all levels, and its activities in this area are relevant to both industrial managers and industrial administrators.

244. UNIDO continued in 1971 with its series of field investigations on the Particular planning needs and requirements of business enterprises in selected developing countries (10.05.01). Noteworthy in 1971 was the development of corporate planning case studies in conjunction with the UNDP/SF project being executed by UNIDO in Yugoslavia (YUG-11). The carrying out of field investigations in connexion with this operational project resulted in additional on-the-job training for the local personnel in consulting procedures and in the development of additional training materials for the Yugoslav Centre for Industrial Organization and Development. Further, UNIDO completed in 1971 a general survey of corporate planning needs in the developing world and subsequently developed a programme strategy that is scheduled for implementation in connexion with new field projects.

245. All the field investigations being carried out by UNIDO (cf.10.03.01 and 10.04.01) have been streamlined to increase their practicability by consolidating their case study aspects under one heading, i.e. corporate planning (10.05.01). Thus, the case studies relating to organization analysis and management information systems will be codified, analysed and reported under the broader topic heading of corporate planning. Present as well as future case studies will be carried out as part of the operational activities.

246. UNIDO plans in 1972 to continue its field investigation programme in corporate planning to ensure that the various levels of corporate planning techniques are properly applied to the needs of industrial firms and enterprises in the developing countries. This activity would include interviews and follow-up activities with appropriate officials and managers in selected developing countries. The findings and recommendations of these investigations that are not of a confidential nature will be prepared for publication in 1973, perhaps as a monograph series on management. The publication could be used in the promotion of related technical assistance projects. In sum, the corporate planning activities of UNIDO are expected to become fully operational by 1973.

247. The expert group meeting on the Introduction and use of corporate planning and control techniques (10.05.02), envisaged for 1972 (ID/B/80/Add.2, para.197), will not be held as the substance of the proposed meeting is being included in the field investigations under project component 10.05.01, noted above.

Industry-university co-operation for management development (10.06)

248. UNIDO proposes to introduce this new project into its work programme for 1972. The objective of UNIDO in this project is to increase the practical value to industry of general management education conducted in the developing world. It is a task that should and would be carried out in co-operation with other international organizations. UNIDO proposes to direct its initial efforts towards one aspect of the programme, namely the improvement of the interaction between industrial managers and university faculties dealing with management training. Experience has shown that in the developing world, one of the greatest obstacles to management development is the lack of co-operation and understanding between industry and institutes of higher learning. Too often, management regards university programmes as too theoretical, with little if any bearing on the actual needs of industry. Industrial managers, on the other hand, are often accused of being unable and unwilling to accept new ideas and techniques to improve both management practices and their own individual efficiency. UNIDO is interested in improving the quality of management in industrial enterprises by drawing upon the resources of both the academic and practical worlds.

249. In 1972, UNIDO proposes to undertake a preparatory investigation to determine the ways and means of developing an assistance programme that would encourage Industry-university linkages for management and consulting services (10.06.01). The benefits of such a linkage would be twofold: national management development programmes would be strengthened, theoretically and practically; and the management programme of UNIDO would be enhanced through the establishment of working relationships with various management institutes in industry and universities. In 1971, UNIDO, in co-operation with the Austrian Management Institute, began negotiations with the Arya-Mehr University in Iran to develop a joint industry/university training programme. This programme would involve industrial managers as well as members of the university faculty.

250. As a logical development of the preliminary investigations proposed for 1972, ICMU plans to hold in 1973 an expert group meeting to consider the ways in which the linkage between industry and university could be strengthened, especially with regard to management and consulting services. Among the subjects for consideration by the expert group would be:

- Exchange programmes for selected industrial managers and university instructors so that practical management know-how and techniques are reflected in management programmes offered by universities;
- Industry/student programmes with a view to exposing the student to the first-hand problems of practical management as part of his university curriculum; and
- Development of industry/university advisory centres, including the establishment of consulting services to assist in practical problem solving and in the development of consultancy skills.

Expenditures and estimated costs for supporting and other activities, 1971 - 1973
(in m/m and thousands of US dollars)

Project (Priority A)	Regular budget						Expert group meetings (\$)			Extra-budgetary resources (\$) ^{a/}			
	Staff (m/m)		Consultants (\$)		Expert group meetings (\$)		Extra-budgetary resources (\$) ^{a/}						
	1971	1972	1973	1971	1972	1973	1971	1972	1973	1971	1972	1973	
10.01 <u>Consulting services</u>													
10.01.01	3	7	6	6.1	4.0	5.0	14.4	-	-	-	-	-	12.0 GTF
10.03 <u>Organization analysis</u>													
10.03.01	3	4	3	-	-	-	-	-	-	-	-	-	-
10.03.03	-	-	3	-	-	-	-	-	-	-	-	-	7.0 GTF
10.04 <u>Management information systems</u>													
10.04.01	2	4	4	-	-	-	-	-	-	-	-	-	-
10.05 <u>Corporate planning</u>													
10.05.01	8	7	6	9.2	5.0	-	-	-	-	-	-	-	-
10.06 <u>Industry-university co-operation for management development</u>													
10.06.01	1	3	6	-	5.0	-	-	-	-	10.0	-	-	-
Total	17	25	28	15.3	14.0	5.0	14.4	-	-	10.0	-	-	19.0 GTF
<u>Backstopping and servicing of operational activities</u>													
	54	83	80										
	71	108	138										

^{a/} Operational costs shown above are included in the table on page 74.

Printed publications

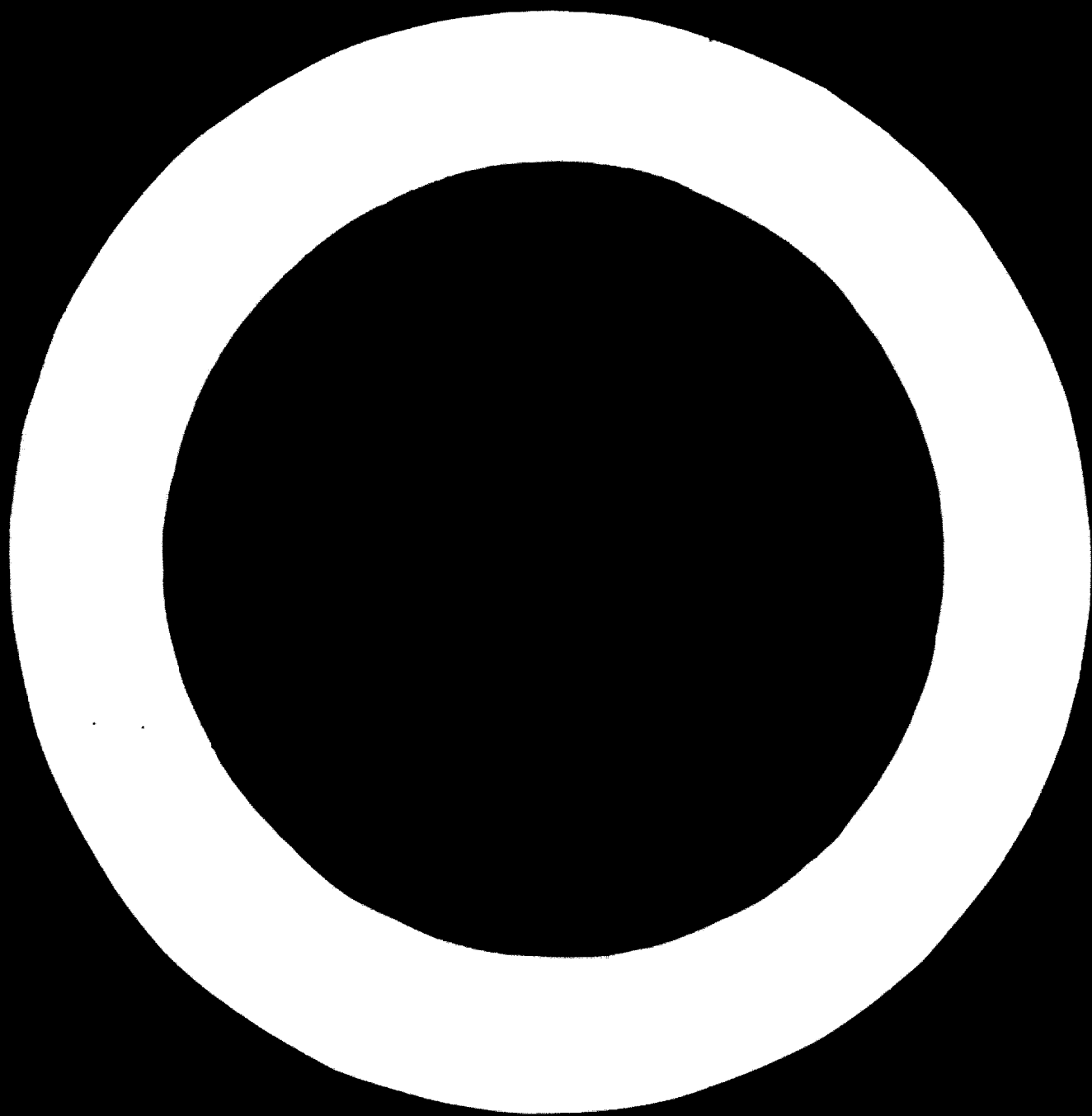
1972 publications programme

	<u>Languages</u>	<u>Cost</u> (US\$)
- Development of management consultancy in Latin America Report of the expert group meeting (10.01.01)	E S	
- Proceedings of the expert group meeting (10.01.01)	E S	
		<u>5,400</u>

Forecast of 1973 publications programme

- Particular planning needs and requirements of business enterprises in selected developing countries Monograph series on the use and application of corporate planning techniques (10.05.01)	E	<u>600</u>
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Notes: In the computation of the printing costs a standard formula was applied based on an average cost of internal and external printing.



DO4277

GROUP 11: SMALL-SCALE INDUSTRY AND RELATED ACTIVITIES

Introduction

251. For many years, the efforts of UNIDO to promote small-scale industry have been aimed largely at inducing and assisting Governments to set up or strengthen the government-sponsored machinery (institutions and facilities) required for carrying out comprehensive programmes of small-scale industry development. The government-sponsored machinery includes extension centres, industrial estates, common facilities and financial facilities; and the programmes cover measures for the stimulation of entrepreneurship, supervised credit, various incentives and technical, managerial and marketing assistance and training. UNIDO's efforts - in the form of both operational and supporting activities - have been directed towards developing countries at all levels of development and in all regions. Until recently, the need for special measures for the least developed among the developing countries or for the less developed areas of relatively advanced countries had been recognized by some experts serving in these countries or areas, but had not been reflected until recently in UNIDO's programme of supporting activities in the field of small-scale industry.

252. During the 1960s, the number of technical co-operation projects in the field of small-scale industry expanded very rapidly. Between 1967/1968 and 1970/1971, the number of operational projects increased by more than two and a half times.^{17/} The increase was particularly great in the less developed countries, especially in Africa. Thus, the need was felt to focus a large part of UNIDO's promotional action, meetings, training programmes, research studies and other supporting activities in this field on problems of small-scale industry development in these countries. Since there was little scope for self-help measures in these countries, UNIDO's operational and supporting activities were centred on the establishment of, and assistance to, government-sponsored programmes and facilities.

253. In many of the relatively more advanced countries, a government machinery for small-scale industry promotion was set up during the 1960s, but there remains a need for technical co-operation on the part of UNIDO in many areas, especially in financing, marketing, subcontracting and industrialization of the less developed areas of these countries. While the role of the Government will continue to be preponderant, there is scope, in some of these countries, for promoting self-help on the part of small-scale industries, either through their professional associations or through other business and financial groups. This self-help would complement and multiply the action of government-sponsored facilities and programmes. UNIDO intends, wherever possible, to stimulate promotion and assistance by the business community itself and to provide technical co-operation to facilitate such actions. National organizations, public and private,

^{17/} See ID/B/20/Rev.1 and ID/B/80/Add.2.

will be encouraged to undertake supporting activities, especially training programmes and seminars, with the co-operation of UNIDO. In some of these countries, UNIDO expert teams will have a role to play in the organization and conduct of projects of this type.

254. In recent years, UNIDO has established contacts with certain intergovernmental organizations - especially the Common Afro-Malagasy-Mauritian Organization (OCAM), the Regional Co-operation for Development (RCD) and the Industrial Development Centre for Arab States (IDCAS) - with a view to promoting, under the aegis of these organizations, certain institutions or programmes for the development of small-scale industries in their member countries. Consultations for these purposes will be continued and broadened in the future.

OPERATIONAL ACTIVITIES

255. As part of its programme of operational activities in this field, UNIDO has continued to assist Governments in establishing institutions, facilities and services for the promotion of, and assistance to, small-scale industries in developing countries. Projects have involved advice to Governments on policies and programmes for small-scale industries within broader industrialization programmes, measures to promote new small-scale industries and to stimulate entrepreneurship as well as direct assistance in the establishment and operation of industrial extension services, industrial estates and industrial enterprises.

256. The number of operational activities in the field of small-scale industry has increased steadily. This is evidenced by the fact that in 1971 there were some 110 expert posts in this field in 43 countries. On the basis of requests and programmes already prepared by the end of 1971, it is expected that by 1973 the number of posts will grow to 160 in 57 countries.

257. One feature, particularly noticeable in projects in Asia, Europe and the Middle East and Latin America, has been assistance to small-scale industries and institutions in non-metropolitan areas. A number of UNDP/SF projects being carried out through Group 11 are concerned either wholly or partly with the creation of institutions, industrial estates and industries in provincial areas, e.g. in Brazil (Bahia), Greece (Salonika), Iran (Ahwaz), Thailand (Chiang Mai), Turkey (Gaziantep) and Zambia (rural areas). Elsewhere in Latin America, experts have been assisting in the development of industrial estates at San Francisco (Cordoba/Argentina), Antofagasta, Arica and Concepcion (Chile) and Jalisco (Mexico). The San Francisco and Ahwaz projects, where groups of UNIDO experts are advising and assisting local small-scale engineering and other industries to improve and modernize their production facilities in connexion with their location or relocation on the industrial estates, are particularly successful.

258. For some years, there had been relatively little interest in Asia in seeking UNIDO's help in the small-scale industry field mainly because institutions for assisting small-scale industries had already been developed. In 1971, however, the assistance of UNIDO was sought in the strengthening of several of these institutions such as: the Institute for Small Industries at the University of the Philippines; the Small Industry Service Institute, started by ILO in Thailand; the Medium Industry Bank in the Republic of Korea, which is being assisted by ILO, with the

co-operation of UNIDO, to provide extension services to small- and medium-scale industries; and the Malaysian Industrial Development Finance Board, which, with the assistance of UNIDO, is seeking to create an advisory service for small-scale industries. New advisory services for small-scale industries are also being planned with UNIDO assistance for Ceylon, India and Nepal.

259. The operational projects in Asia and Europe and the Middle East have shown progress. In Iran, the second phase of the industrial estate at Ahwaz has been completed; factories and workshops have been occupied, common facilities have been put into operation and financing schemes for the industries have been evolved with the co-operation of the Organization for Small-scale Industries (OSSSI) and the Industrial Estates of Iran (IEI). In Salonika (Greece), the planning of the industrial estate has been completed with the assistance of a team of consultants. In Turkey, plans for the industrial estate were ready by mid-1971 and it was expected that the estate would become operational by mid-1973. Both of these projects are providing teams of experts to give extension services to small enterprises in the regions concerned. In other countries of these regions, experts have been advising on policies and programmes for small-scale industry development and on ways of developing technical advisory services. Such work was carried on during 1971 also in Brunei, Cyprus and the Yemen Arab Republic; and related projects were developed for Jordan and Malta.

260. In Latin America, requests for assistance have been concerned primarily with the planning and establishment of industrial estates. In 1971, several countries in Latin America also asked for UNIDO assistance to existing organizations or for help in creating new institutions to provide technical and managerial advice to small-scale industries. Such requests have come from Colombia, Costa Rica, Peru and Uruguay. In the Caribbean, UNIDO assisted the Industrial Development Corporation, Trinidad and Tobago, to set up an industrial liaison and extension service for small-scale industries.

261. In Africa, the activities of UNIDO in this field have been concentrated in the less developed countries south of the Sahara. At the end of 1971, 50 expert posts were established in the small-scale industry and industrial estate fields in no less than 24 countries of Africa, both French- and English-speaking.

262. In French-speaking Africa, help is being given to strengthen offices and institutions set up specifically to promote local entrepreneurship such as Office de promotion de l'entreprise ivoirienne (OPEI) in the Ivory Coast, Office de promotion de l'entreprise voltaïque (OPEV) in the Upper Volta, and Office de promotion de l'entreprise zairaise (OPEZ) in Zaire. UNIDO also provided expert assistance through UNDP/SF projects to the National Society for Industrial Studies and Promotion (SONEPI) in Senegal and Centre national de promotion des petites et moyennes entreprises (CNPPME) in Togo. SONEPI, with UNIDO assistance, has assisted several Senegalese enterprises with finance, managerial and technical advice and factory accommodation. The CNPPME is receiving expert assistance in the establishment of an industrial estate in Lomé and the identification of possibilities for new small-scale industries.

263. Projects have been prepared in Gabon to assist PROMOGABON to create an industrial estate at Owendo and to assist small-scale entrepreneurs. In the Niger, an expert team will carry out

studies for an industrial estate and new small enterprises in Niamey; in Madagascar, plans are being drawn up for small-scale industries on an estate at Tananarive. Other projects being carried out by UNIDO in Africa include the provision of policy advice to the Government of Nigeria and assistance in the creation of an industrial development centre in the western part of the country; assistance to the Ethiopian Government in developing a pilot industrial estate at Addis Ababa; and assistance to the Government of Lesotho in the creation of a crafts and small-scale industries development centre. Experts have also been requested by the Governments of Botswana, the Central African Republic, Chad and Somalia to advise the respective Governments on programmes of assistance to small-scale industries.

264. It is significant that UNIDO is providing, or has been requested to provide, technical assistance in the field of small-scale industry to nearly all the 16 African countries included in the list of the 25 countries designated as the least developed among the developing countries. Some of these least developed countries want to examine the feasibility of establishing industrial estates while others are principally concerned with the identification of resources and possibilities for local small industries.

265. In several of the central and southern African countries, there is interest in the creation of commercial corporations to promote small enterprises. UNIDO is helping such an organization, RU-COM Industries Ltd. - a daughter company of the Industrial Development Corporation of Zambia - in the creation of new local small enterprises in provincial towns in Zambia. Botswana and Lesotho would also like to initiate similar small enterprise corporations to promote local indigenous enterprises.

266. It has become increasingly clear that some of the problems of Africa in this field cannot be solved by unilateral country action. For example, there is no suitable institutions for training extension officers for small-scale industries in French-speaking African countries. The projects in these countries have suffered acutely from the lack of local personnel to assist in the development of small enterprises. In an attempt to solve this problem, UNIDO held preliminary discussions with the Common Afro-Malagasy-Mauritian Organization (OCAM) on the possibility of creating, with UNDP assistance, an institution to provide training on a continuous basis to French-speaking extension personnel from small-scale industry centres. The first draft of a request to UNDP for assistance in creating such an institution has been prepared by UNIDO. It is hoped that during 1972 the project will receive the support and endorsement of a group of French-speaking African countries.

267. In African countries, the needs for technical assistance in the establishment of local small enterprises are so great that the resources of the assistance programmes of UNIDO and other multilateral and bilateral programmes are not sufficient to provide the assistance required. To fill this gap, UNIDO has embarked on a new project to create "partnerships", linking enterprises in developed countries with small and medium indigenous African industries in related fields. Through this "partnerships" programme, which was initiated as a supporting activity in 1971, UNIDO hopes to provide continuous information, advice, guidance and assistance to enable the African small enterprises to overcome the problems of installation and growth. A request is in preparation for UNDP assistance in the development of a regional project for Africa in 1973 to help in organizing this partnerships project; it is hoped to obtain during 1972 the support of African countries in submitting this request to UNDP.

268. The experience of the past years in technical assistance reveals that the chronic lack of financial resources of the developing countries not only has hampered the provision of adequate financial assistance to potential small entrepreneurs to enable them to launch their projects but has delayed the building of infrastructure needed to create industrial development programmes. During 1971, first contacts were established with the International Bank for Reconstruction and Development (IBRD) and with some regional financial institutions in an effort to generate financial resources to help the small-scale industry sector in various developing countries. It is envisaged that during 1973, closer links will be established between the UNIDO small-scale industry assistance programme and the financial assistance programmes of international financial institutions.

269. As regards the implementation of technical assistance programmes, the greatest problem remains that of recruiting adequate qualified personnel to fill the posts created by the projects. The figures mentioned earlier, namely, 110 expert posts in 43 countries in 1971 and 160 posts in 57 countries in 1973, show the magnitude of the problem.

270. During 1971, efforts were made to overcome some of these difficulties by finding suitable personnel through the subcontracting of several projects to consulting firms. This has been done for projects in Greece, the Niger and Turkey, as well as for a few individual posts in other countries. The experience of subcontracting projects will be analysed carefully and if these first ventures prove successful, this system may be extended to other projects to overcome the recruitment problem.

Value of approved field projects and forecast of requirements, 1971 to 1973
(in thousands of US dollars)

Source of funds	1971 estimated expenditure	1972			1973		
		Approved projects	Requirements for new projects	Total	Approved projects	Requirements for new projects	Total
UNDP/SF	997.6	2,425.9	486.0	2,911.9	966.9	3,790.0	4,756.9
UNDP/TA	396.6		(454.5) ^{a/}			(1,990.0) ^{a/}	
RP	48.2	118.4	-	118.4	80.0	-	80.0
SIS	205.0	308.5	220.0	528.5	-	650.0	650.0
GTF	-	-	3.0	3.0	-	4.0	4.0
FIT	64.0	56.0	55.0	111.0	-	115.0	115.0
Total	1,711.4	2,908.8	764.0	3,672.8	1,046.9	4,559.0	5,605.9

Note: UNDP/TA and UNDP/SF are to be merged, effective 1 January 1972.

^{a/} Annual estimated costs of projects included in the UNDP Country Programmes or projects officially submitted to UNDP for approval.

**List of Approved Projects and Projects
under Active Consideration**

Projects over US\$100,000

Projects under US\$100,000

Industrial extension services

CHD (IPF)* - Economic planning team on management and development of small-scale industry

CHD (IPF)* - Industrial feasibility studies for the development of small-scale industries

CON(K) (IPF)* - Promotion of Zairian enterprises

LES (IPF)* - Small-scale industries development

NIR-47 (IPF)* - Promotion and assistance to indigenous small-scale industries

RWA/68/14 (TA) - Promotion of small-scale industries

PAK-59 (IPF)* - Assistance to West Pakistan Small Industries Corporation in establishing light engineering service centre in small industries estate, Sukkur

PHI (IPF)* - Assistance to the Institute of Small-scale Industries of the University of the Philippines

BDI/68/3
CMR/69/8
CAF-70/1089
CHD/68/14
CON(B)/11/2/1**
DAH/69/1
ETH-70/846
ETH/11/2/3**
GAB-69/657
GAM-71/1399
GHA-69/616

GHA/11/2/1**
LES/70/6
MAU/11/2/1**
NIR/11/2/2**
SIL/11/2/1**
SUD/11/1/2**
SWA/11/2/1**
TAN-71/1304
TOG/11/2/4**
TOG/71/5
TUN/11/2/2**

UPV/68/20
AFR/70/30
AFR/11/2/4
BAR/11/1/1**
PAR-71/1271
PER-71/1186
PAK/11/2/7**
CYP/11/1/3
MAT/11/1/1**
YEM/11/1/2**

(8 projects)

(32 projects)

Industrial estates

CON(K) (IPF)* - Establishment of an industrial estate near Kinshasa

LIR-13 (IPF)* - Establishment of an industrial area and industrial estate near Monrovia

TOG-19 (SF) - Small-scale industries and establishment of an industrial estate near Lome

UPV-11 (IPF)* - Establishment of an industrial estate

ARG/70/23 (TA) - Industrial parks, San Francisco

GRE-26 (SF) - Industrial area and industrial estate near Salonika

BDI/11/2/2**
CMR-67/233
IVC-69/520
MAG-69/551
NER-70/859
UPV-69/637
UPV/11/2/3**
BRA/11/1/3**
CHI/70/14

ECU/69/12
ECU-67/101
HAI-70/974
HON-70/767
MEX/11/2/1**
MEX/71/10
IND/11/2/3**
CMR-12 (ILO
executing)

INS/11/1/5**
INS/11/1/6
IRA-9024-70
LAO/11/2/3**
PHI/11/1/8**
THA/71/16**
JOR/71/10

(6 projects)

(24 projects)

* Projects not yet approved but included in the Country Programmes and projects officially requested.

** Fellowship posts.

Projects over US\$100,000

Projects under US\$100,000

Production improvement in small-scale manufacturing

<p>GAB (IPF)* - Development of small-scale industry and development centre</p> <p>(1 project)</p>	<p>GAB/71/4 TOG-70/1071 BOL/70/14</p>	<p>UPV-903)-71 PER/71/16 IND/71/43**</p>	<p>PAP/69/5 SOY/11/1/1**</p> <p>(3 projects)</p>
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Financing of small-scale industry

<p>MAL (IPF)* - Assistance to the Malaysian Industrial Development Finance Board in the field of small-scale industries</p> <p>(1 project)</p>	<p>BRU-70/841</p>	<p>THA/70/23</p>	<p>AFE/70/29</p> <p>(3 projects)</p>
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Marketing problems of small-scale industry

<p>SIN-70/715</p>	<p>TUR-69/493</p>	<p>(2 projects)</p>
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Co-operation between small enterprises

THA-41 (IPF)* - Industrial services institute, Phase II

(1 project)

Multisectoral

<p>SEN-14 (SF) - National Society for Industrial Studies and Promotion (SONEPI)</p> <p>UCA-7 (SF) - Small-scale industries development programme and establishment of an industrial estate, Kampala</p> <p>ZAM-6 (SF) - Development of small-scale industries</p> <p>BRA-44 (SF) - Industrial development centre, Feira de Santana</p> <p>TRI/70/3 (TA) - Small-scale industries</p> <p>IRA-11 (SF) - Establishment of an industrial estate, Ahwas, and the development of small-scale industries</p> <p>TUR-25 (SF) - Small-scale industries development programme</p> <p>(7 projects)</p>	<p>CON(K)-9021-70 CON(K)/11/1/8 ETH/70/2 LIR-71/1264</p>	<p>NIR-70/976 SOM/11/1/4 ARG/70/10 DOM/68/8</p>	<p>MEX-69/598 PHI-71/1172 YEM/71/4 INT/11/2/4</p> <p>(12 projects)</p>
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* Projects not yet approved but included in the Country Programmes and projects officially requested.

** Fellowship posts.

SUPPORTING AND OTHER ACTIVITIES

271. The supporting and other activities of Group 11 are classified under the following projects:

Industrial extension services	11.01
Industrial estates	11.02
Production improvement in small-scale manufacturing	11.03
Promotion of small-scale industry in selected groups of countries ^{18/}	11.04
Financing of small-scale industry	11.05
Marketing problems of small-scale industry	11.06
Co-operation between small enterprises in developed and developing countries	11.07
Small-scale industry outside metropolitan areas	11.08

272. The proposed programme for 1973 of supporting and other activities of Group 11 reflects the three main directions mentioned in the introduction: (a) activities oriented towards the least developed countries; (b) activities for the developing countries in general; and (c) activities to be carried out in co-operation with intergovernmental organizations. Special supporting activities for the least developed countries were already undertaken in 1970 and 1971. Such activities programmed for 1972 and 1973 relate to industrial extension services (11.01.01), industrial estates (11.02.04), appropriate technology (11.03.02) and the "partnerships" scheme (11.07.01). Supporting activities for the benefit of the developing countries in general are included under industrial extension services (11.01.01 and 11.01.10), small-scale industry in centrally-planned economies (11.04.07), financing of small-scale industry (11.05.02), marketing for small-scale industry (11.06.01), encouragement of subcontracting (11.06.02) and small-scale industry outside metropolitan areas (11.08). As regards supporting activities in co-operation with intergovernmental organizations, a beginning was made in 1971 and the work will be continued in 1972 and 1973 (11.01.10).

Industrial extension services (11.01)

273. The supporting activities under this heading are geared to backstop and assist the continually increasing number of operational projects, particularly in the least developed countries.

^{18/} This project was previously entitled "Surveys of small-scale industry" (ID/B/80/Add.2).

271. A Group training programme for industrial extension officers from Latin America (11.01.01), originally programmed for 1971 (ID/B/30/Add.2, para.211), had to be postponed to 1972 owing to lack of resources and non-availability of host facilities. This programme will be organized for participants from Central American countries and the Dominican Republic. In addition to this programme, UNIDO will hold in 1972 a second programme, for French-speaking participants from African countries (ID/B/30/Add.2, para.212). Each of these group training programmes will have a duration of five weeks. It is proposed to hold the programme for French-speaking participants in an African country in association with a national training institution; the programme for Spanish-speaking participants will be arranged in co-operation with two sub-regional institutions. As stated in document ID/B/30/Add.2, para.215, efforts are being made to institutionalize the provision of facilities for the training of extension officers. During 1971, UNIDO held preliminary discussions with officials of ECA, ECLA, OCAM and the Secretariat of the organization for Regional Co-operation for Development (RCD) on the subject of these training programmes. After 1972, training programmes of this type are expected to be organized by subregional intergovernmental institutions (see 11.01.10).

275. During 1971, UNIDO organized a Training Workshop on Extension Services for Small-scale Industry (11.01.02) for senior officials from the French-speaking countries of Central and North Africa and the Malagasy Republic (ID/B/64/Add.11). It was held in Kinshasa, Zaire, from 17 to 28 June 1971 and was attended by 27 participants from eight countries. Since UNIDO is carrying out a long-term project for assistance to small-scale industry in Zaire, participants of the workshop studied the methods of, and the experience gained from, this project.

276. With regard to Common service facilities for small-scale industries (11.01.04), it was decided not to undertake the two proposed studies (ID/B/30/Add.2, para.217) on common service facilities for small-scale industries (ceramics, textiles) during 1971, owing to the pressure on staff resources of work for other activities. The studies already prepared on facilities for the leather, rubber and metal finishing industries and the toolroom were utilized for operational activities. The study on woodworking, mentioned in document ID/B/30/Add.2, para.217, was not completed by the consultant. These studies, which were originally scheduled for publication during 1972, will be published in 1973.

277. UNIDO started in 1971 the Development of extension services through intergovernmental and business organizations (11.01.10). During 1971, UNIDO initiated consultations with OCAM and RCD with a view to establishing or strengthening organizations and facilities for the training of extension officers on a regional or subregional basis. Consultations with OCAM will be continued during 1972 with the aim of setting up an institution through which member countries could receive assistance in industrial extension activities, especially through the training of industrial extension officers, training in methods of supervised credit, and collection and dissemination of information on small-scale industry extension and financing. As a follow-up of these consultations, UNIDO proposes to organize in 1973, in co-operation with OCAM, the first group training programme of that institution.

278. UNIDO proposes to hold similar consultations with the Andean Group (Acuerdo de Cartagena), the Andean Development Corporation (CAF), the Caribbean Free Trade Association (CARIFTA), and

the Caribbean Development Bank, as well as with the East African Community, the East African Development Bank and IDCAS during 1972 and 1973 to induce them to organize subregional activities for the training of extension officers. Assistance required in this respect would be proposed for UNDP financing. In line with these consultations, UNIDO further proposes to hold in 1973 a seminar on financial assistance and extension services for the promotion of small-scale industry in the Caribbean countries.

279. Where Governments have already established extension services, UNIDO will seek to increase the participation of business organizations such as associations of small-scale industries and chambers of commerce and industry in industrial activities involving training and information programmes, group discussions and special activities for the promotion of subcontracting and the establishment of consultant services or common facilities on a joint basis. The aim would be to assist such organizations to develop self-help programmes that would complement the services extended by government agencies or provide new and additional services. Depending upon the results of these efforts, UNIDO proposes to hold in 1973 an expert group meeting, to be attended by small-scale industry representatives from developing and developed countries, with a view to exchanging and disseminating experience on self-help programmes. The expert group meeting will be organized in co-operation with the Organisation for Economic Co-operation and Development (OECD) and the International Association of Crafts and Small and Medium-Sized Enterprises (IACME).

Industrial estates (11.02)

280. A considerable amount of work has been carried out in the past by UNIDO and its forerunner, the Centre for Industrial Development, in promoting industrial estates as a tool for the development of modern small-scale industries. The seminars, studies and publications have stimulated a considerable number of country projects. In 1971, UNIDO had projects in this field in 32 countries. In most of these projects, the establishment of an industrial estate formed an integral part of a comprehensive small-scale industry development programme, which included the provision of financing and of extension services. Care is taken to ensure that initial investments are commensurate with results expected in the immediate future. The establishment of an industrial estate is undertaken only after feasibility studies on its viability have indicated prospects of success.

281. The study that UNIDO prepared on Free-zone industrial estates (11.02.02) will be utilized as background material for a training workshop on industrial free zones, to be held in 1972 (cf. 14.03.01). The study was not submitted for publication in 1971, as originally planned (ID/B/80/Add.2, para.222) since consideration is being given to publishing it as part of a broader study on industrial free zones to be compiled by Group 14 (Promotion of Export-oriented Industries).

282. The draft study on Specialized industrial estates (11.02.03) was not submitted for publication in 1971 (ID/B/80/Add.2, para.223) since it was considered desirable, in the light of

the experience gained from operational projects, to include in it experience and examples from more countries. It is proposed to complete the study in 1972 for publication in 1973.

283. Although industrial estate projects are expensive in terms of total investments required, the demand from developing countries for UNIDO assistance in establishing industrial estates has been continually increasing. The Industrial Development Board, at its fifth session (A/8416, para.190), stressed the importance of making an Evaluation of the development of industrial estates (11.02.04). It is therefore proposed to take stock of the experience of UNIDO with operational projects for the establishment of industrial estates with a view to providing guidelines to developing countries on the potentialities as well as the limitations of industrial estates. In the first half of 1972, UNIDO staff will prepare the outline of such an evaluation study, in the form of a questionnaire, which will be circulated in the second half of 1972 to project managers and national authorities in countries receiving UNIDO assistance in this field as well as to national authorities in other selected countries where industrial estates have been established without UNIDO assistance. Early in 1973 it is hoped to analyse and evaluate the information received with a view to formulating suitable guidelines for developing countries, especially for the least developed, in planning, establishing, financing and operating different types of industrial estates, including worksheds, industrial clusters or other forms of groupings of factories requiring lower initial investments. It is proposed as a part of the study to collect and evaluate information on appropriate low-cost designs developed in certain countries, particularly in projects assisted by UNIDO. The study will be conducted by UNIDO in consultation with selected experts on industrial estates.

Production improvement in small-scale manufacturing (11.03)

284. The study on Quality in small-scale manufacturing (11.03.01), originally scheduled for publication in 1971 (ID/B/80/Add.2, para.225), will be submitted to the expert group meeting on domestic marketing of small-scale industry products in 1972 (cf. 11.06.01). It was also decided to submit this study as an article for publication in the UNIDO Industrialization and Productivity Bulletin in 1972 and not as a separate publication.

285. During 1972, UNIDO will collect and analyse Case studies in adaptation of technology for small industry in selected countries (11.03.02). Actual instances of adaptation of technology, developed by experts or by industrialists in developing countries, will be analysed together with studies carried out by certain organizations, with a view to identifying the problems and preparing a project that could be undertaken in 1973. Close co-operation will be maintained with ECA and other organizations and individuals engaged in this work. It is hoped through this process to disseminate useful information to developing countries and small-scale industry experts in the field. Special emphasis will be given to agro-industries in rural areas.

286. The case study on Small-scale manufacturing (11.03.03) of sewing machines, originally scheduled for publication in 1971 (ID/B/80/Add.2, para.227), will be published in 1972.

287. The revolving seminar on Low-cost automation (11.03.05), scheduled to be held in 1971 (ID/B/80/Add.2, para.229), had been submitted for UNDP financing in 1972. This activity would be implemented in co-operation with ECAFFE.

288. UNIDO is continually supplying Information on small-scale industry projects, schemes, equipment and design (11.03.06) to operational projects in the field, field experts and small-scale industry agencies in developing countries. This work is carried out in co-operation with Group 9 (Industrial Information).

**Promotion of small-scale industry in selected
groups of countries (11.04)¹⁹**

289. As part of its efforts towards the promotion of small-scale industry in selected groups of countries, UNIDO contributed a paper and sent a representative to participate in the Second Afro-Asian Conference on Small-scale Industries, organized jointly by the Afro-Asian Organization for Economic Co-operation (AFRASEC) and the Government of India, in New Delhi in April 1971.

290. In 1971, UNIDO held in Vienna an Expert Group Meeting on Industrialization in Countries at Early Stages of Development, with Special Reference to Small-scale Industry (11.04.03).^{20/} The Expert Group made recommendations on strategies and policies for the industrial development in these countries; the promotion of small-scale industries, artisan and handicraft activities and trade and service industries; education and training; and international and regional co-operation for the development of industries in these countries. The recommendations made by the Expert Group in its report (ID/WG.109/17) will be implemented through operational projects.

291. The main findings of the study on The place of small-scale industry in the industrial framework - a statistical analysis (11.04.04) were published in the Industrialization and Productivity Bulletin No.14 (Sales No.: E.69.II.B.12). It has therefore been decided not to publish the full study (ID/B/64/Add.11, para.46).

292. The publication of the study on the Promotion of small-scale industry in the developing countries (11.04.05) has been postponed from 1971 (ID/B/64/Add.11, para.47) to 1972, in order to include more up-to-date analysis in it.

293. In 1971, UNIDO held a Meeting on the Promotion of Small-scale Industries in the RCD Countries (11.04.06) in Tehran, in co-operation with the Secretariat of the organization for Regional Co-operation for Development (RCD) (Iran, Pakistan and Turkey) and the Government of Iran. The Meeting was attended by twenty-one participants from Iran, six participants from Pakistan, eight participants from Turkey, seven UNIDO experts, three observers from the RCD Secretariat and by a UNIDO staff member. The Meeting made a number of recommendations on

^{19/} This project was previously entitled "Surveys of small-scale industries" (ID/B/80/Add.2).

^{20/} This component was previously entitled "Expert group meeting on small-scale industry in countries at early stages of development" (ID/B/30/Add.2).

regional co-operation including the establishment of a regional small-scale industry development centre to provide technical assistance to Governments in the formulation and implementation of policies and programmes, to train bank officials and officers of national promotion and extension institutions, and to undertake research on small-scale industry development problems. The report of the meeting is being studied by the Governments of the RCD countries.

294. Within its series of studies on Small-scale industry in centrally-planned economies (11.04.07), UNIDO made a study in 1970 on small-scale industry in Poland. The study provides a comprehensive analysis of the role of small-scale industry, its legal basis, the institutional framework for its development within the national and regional planning system, and the measures and incentives for small-scale industry development in Poland. It is scheduled for publication in 1972. UNIDO intends to carry out further country studies (Priority B) on small industry development in Socialist economies during 1972, subject to availability of resources, with a view to gathering information and disseminating it to developing countries in which central planning, the role of the public sector and the role of co-operatives are significant. This activity will be continued in 1973.

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Financing of small-scale industry (11.05)

295. In 1971, UNIDO held, in co-operation with ECAFE and the Government of India, a Seminar on Financing of Small-scale Industry in Asia and the Far East (11.05.01). The Seminar, which took place in New Delhi, was attended by 17 participants from 14 ECAFE countries and territories; a staff member and a consultant from UNIDO; representatives of ECAFE, ILO, the Asian Development Bank, the Asian Productivity Organization and the World Bank Group Office in New Delhi. At the Seminar, a number of recommendations were made on regional co-operation and on financial assistance to small-scale industries in the countries of the region.

296. The studies carried out by UNIDO as well as the seminars held in the regions of ECLA (1970) (ID/B/80/Add.2, para.239) and ECAFE (1971) have stimulated interest in the developing countries and have resulted in country operational projects. Expert assistance is being provided or has been proposed in 14 developing countries.

297. The reports of the two regional meetings and some of the studies prepared will be brought out in 1972 as a publication entitled "Financing of small-scale industry in developing countries".

298. There is an obvious need in many of the developing countries for Training in methods of credit investigation and supervised credit (11.05.02). Both of the above-mentioned seminars on the financing of small-scale industry recommended that UNIDO should assist in training bank personnel and extension officers in methods of credit investigation, preparation of feasibility studies related to project appraisal, screening of loan applications and supervised credit schemes. Under its programme for industrial extension services (11.01.10), UNIDO will include training in these aspects and will encourage and assist subregional intergovernmental organizations to organize and undertake such activities.

294. Consultations took place in 1971 with a representative of the Asian Development Bank (ADB) on possible UNIDO assistance to training programmes that might be organized by ADB. Beginning in 1972, UNIDO proposes to initiate discussions with other regional and subregional financial institutions with a view to assisting them in organizing such training programmes at the regional, subregional or national level.

300. UNIDO will also continue to hold Consultations with international and regional financial institutions (11.05.03) in connexion with the provision of funds to national agencies for the financing of small-scale industries and loans for the establishment of industrial estates. UNIDO experts have been requested to provide information on projects, which might lead themselves to financing by IBRD, the International Development Association (IDA) and regional and subregional banks. Thus, a closer link between UNIDO technical assistance and financial follow-up by international agencies would be established. Consultations were held with IBRD and the Inter-American Development Bank in December 1971 and were confirmed by correspondence. UNIDO proposes to hold consultations in 1972 with the Caribbean Development Bank and the East African Development Bank on means of increasing the participation of these subregional banks in the financing of small-scale industries (through national financial institutions) and of industrial estates.

301. An important gap in the analyses carried out so far on the financing of small-scale industry is the study of the relevant experiences of Western European countries and the United States of America. Considerable work has been done in these countries in connexion with regional development, development of backward areas and upgrading of backward sectors, e.g. handicrafts and artisans, through special policies and measures of financing. UNIDO therefore proposes to carry out in 1973 Studies on financing of small-scale industry (11.05.04) in these countries. The studies would be carried out in co-operation with OECD and the Small Business Administration of the United States of America.

Marketing problems of small-scale industry (11.06)

302. During 1970 and 1971, UNIDO carried out studies on Marketing methods and distribution channels (11.06.01) for small-scale industry products and on the training and advisory services required in this connexion. These studies will serve as discussion papers for the expert group meeting on domestic marketing of small industry products in developing countries, which is to be held in Dublin in June 1972 (ID/B/80/Add.2, para.241). The Expert Group, which will focus on practical measures for improving domestic marketing, will be expected, among other things, to increase the number of requests from Governments for technical co-operation in this field. Until now, this number has been small.

303. With regard to domestic Subcontracting (11.06.02), the report and selected documents of the Expert Group Meeting on the Role and Promotion of Subcontracting in Industrial Development were prepared during 1971 by a staff member of UNIDO for publication in 1972. Work will be continued in 1972 and 1973 on collection and analysis of case studies, especially in the field of specialized subcontracting, whereby subcontractors produce for large industries parts and components, which are not manufactured by these industries. It is expected that these case studies

will be of assistance in operational projects in developing countries. The case studies will be disseminated, case by case, during 1972 and 1973.

304. Operational projects in Latin America and contacts with Latin American countries and ECLA indicate that several of the countries in this region have already developed their industrial structure to the stage that subcontracting between large and small enterprises contributes considerably to the expansion of industrial output and employment. There is considerable interest in the promotion and expansion of such relationships and ECLA has expressed interest in co-operating with UNIDO in this area. Thus, UNIDO proposes to undertake during 1972 and 1973 Consultations on promotion of subcontracting in Latin America (11.06.03) for the identification of subcontracting possibilities in selected countries. The practical experience of subcontracting in this region will be analysed with a view to formulating concrete measures for expanding both domestic and intra-regional subcontracting in Latin America and to working out ways and means through which technical assistance programmes might assist towards this end. This activity would be carried out in co-operation with Group 14 (Promotion of Export-oriented Industries).

**Co-operation between small enterprises in developed
and developing countries (11.07)**

305. A start was made in 1971 to foster the idea of joint ventures or Partnerships (11.07.01) between enterprises in developed countries and new or existing small enterprises in developing countries (ID/B/80/Add.2, para.243). As a first stage, the effort is concentrated on co-operation with small enterprises in African countries where the lack of management skills, entrepreneurship and capital is particularly serious. Skills, technical know-how and finance (loans or equity participation) would be provided by the enterprises of the developed countries. Contacts were made during 1971 with chambers of commerce, industry associations, foundations and individual enterprises in Austria, the Federal Republic of Germany and the Netherlands with a view to identifying potential participants in "partnerships" from these developed countries. Contacts were also made with small-scale industry agencies and UNIDO experts in African countries with a view to identifying potential entrepreneurs or enterprises interested in obtaining technical know-how, equipment or investment from developed countries.

306. In 1972, the project will enter a new stage with the help of experts working in African countries, who will seek out enterprises ready to enter into such arrangements. It is expected that chambers of commerce and industry and the National Committees for UNIDO in both developed and developing countries will ensure liaison between the co-operating enterprises. It is hoped that by the end of 1972 the first joint venture or partnership projects will come into being.

307. Consultant services were utilized in 1971 and will continue to be employed in 1972 to help expand the project. The consultants are to assist in prospecting suitable firms in the developed and developing countries. Depending upon the results of efforts made in 1971 and 1972, the project is expected to benefit from the assistance of UNDP in 1973.

308. UNIDO proposes to introduce a new project component, Groupings of small enterprises (11.07.02), into its 1973 programme. This activity would be concerned with the problem of the excessive number of small enterprises within certain sectors of industry and with the policies and measures needed for grouping them together into larger and more viable units. In several developing countries, certain industrial sectors include a large number of such small enterprises, each of which is unable to grow and to develop because of the strong competition of other small units and is lacking the resources for the necessary investments to reduce production costs. The smallness of the units also acts as a deterrent to purchasing and marketing on an economical scale. The countries thus afflicted are seeking ways by which several small units could be induced to group together, at least for some of their activities, so as to become more economical. The forms that self-help measures may take through grouping of small-scale industries are many, including:

- (a) Direct mergers of two or more small units into a larger, though still small or medium-sized, enterprise;
- (b) Co-operatives in which all or part of the activities of a number of small units are co-ordinated through the association of owner-managers of small industrial enterprises. Co-operatives may also be set up for specific activities such as purchasing, marketing, financing or co-operation in the promotion process, e.g. preparation of materials or finishing stages of certain products (electroplating, textile printing etc.);
- (c) Associations may be formed, though not necessarily on a co-operative basis, to undertake functions such as sales, procurement or provision of common facilities for a group of small enterprises.

309. Apart from the above possibilities, other measures or forms of groupings would be considered to increase the size of operations to a point of viability. This project component would be carried out in co-operation with Group 8 (Industrial Institutions). The co-operation of OECD will be sought through appropriate channels.

Small-scale industry outside metropolitan areas (11.08)

310. In most developing countries, industry, including small-scale industry, is concentrated in the main metropolitan centres, and large areas of the countries remain rural and frequently backward. The development of such areas may be stimulated by the establishment of small-scale industries, for which location criteria are less rigorous than for those of large-scale industries. UNIDO is already executing operational projects in such rural areas in several developing countries (see para.257 above).

311. In view of the increasing demand for such projects, UNIDO undertook a study during 1971 (ID/B/80/Add.2, para.244) on the problems of small-scale industry development in provincial towns of 50,000 to 100,000 population in selected countries of Latin America. The study analyses the experiences of industrialization in such areas, problems of small industry development and special measures and services required to stimulate the growth of small and medium industries and of employment in these areas. In the light of the findings of the study and taking into account the experience gained in current operational projects, UNIDO proposes to cancel

the expert group meeting scheduled for 1972 (ID/B/80/Add.2, para.244) and to reformulate this activity. In lieu of the proposed meeting, UNIDO would send in 1972 a staff member and, subject to availability of resources, a few experts (Priority B) to visit two selected areas, hold round-table discussions in the field, prepare an action programme taking into account local conditions and resources, and to formulate technical assistance requests that would be submitted to UNDP for financing.

Expenditures and estimated costs for supporting and other activities, 1971 - 1973
(in m/m and thousands of US dollars)

Project (Priority A)	Regular budget						Expert group meetings (\$)		Extra-budgetary resources (\$)		
	Staff (m/m)		Consultants (\$)				1971	1972	1971	1972	
	1971	1972	1971	1972	1971	1972	1971	1972	1971	1972	
<u>11.01 Industrial extension services</u>											
11.01.01	2	4	-	4.0	-	-	-	-	20.0 TA	-	-
11.01.02	4	-	-	-	-	-	-	8.0 TA	-	-	-
11.01.04	1	2	-	-	-	-	-	-	-	-	-
11.01.10	-	3	5	-	-	10.0	-	-	-	-	98.5 TA
<u>11.02 Industrial estates</u>											
11.02.03	1	1	-	-	-	-	-	-	-	-	-
11.02.04	-	3	4	-	3.5	-	-	-	-	-	-
<u>11.03 Production improvement in small-scale manufacturing</u>											
11.03.02	1	2	4	-	1.0	-	-	-	-	-	-
11.03.05	-	1	-	-	-	-	-	-	70.0 TA	-	-
11.03.06	4	2	4	-	-	-	-	-	-	-	-
<u>11.04 Promotion of small-scale industry in selected groups of countries</u>											
11.04.03	4	1	-	-	-	6.3	-	-	-	-	-
11.04.06	3	-	-	-	-	-	-	5.2 GTP	-	-	-
11.04.07	1	1	2	-	-	-	-	-	-	-	-
<u>11.05 Financing of small-scale industry</u>											
11.05.01	3	2	-	-	-	-	-	10.7 TA	-	-	-
11.05.02	-	2	2	-	-	-	-	-	-	-	-
11.05.03	1	1	1	-	-	-	-	-	-	-	-
11.05.04	-	-	2	-	3.0	-	-	-	-	-	-

Printed publications

<u>1971 publications programme</u>		<u>Languages</u>	<u>Cost (US\$)</u>
ID/20	Technical services for small-scale industries (11.01.07)	F S	
ID/21	Small-scale industries in Arab countries of the Middle East (11.04.02)	F S	
ID/27	Small-scale industry in Latin America (11.04.01)	F	
ID/SER.K/1	Bicycles: A case study of Indian experience (11.03.03)	F	
			<hr/> 14,411

1972 publications programme

-	Sewing machines (11.03.03)	E	
-	Promotion of small-scale industry in developing countries (11.04.05)	E	
-	Small-scale industry in Poland (11.04.07)	E	
-	Financing of small-scale industry in developing countries (11.05.01)	E	
-	The role and promotion of subcontracting in industrial development Report and selected papers of expert group meeting (11.06.02)	E	
			<hr/> 9,500

Forecast of 1973 publications programme

Common service facilities for
small-scale industries

	No.1 Toolroom (11.01.04)	E	
	No.2 Leather, metal finishing, rubber (11.01.04)	E	
-	Specialized industrial estates (11.02.03)	E	
-	Sewing machines (11.03.03)	F S	

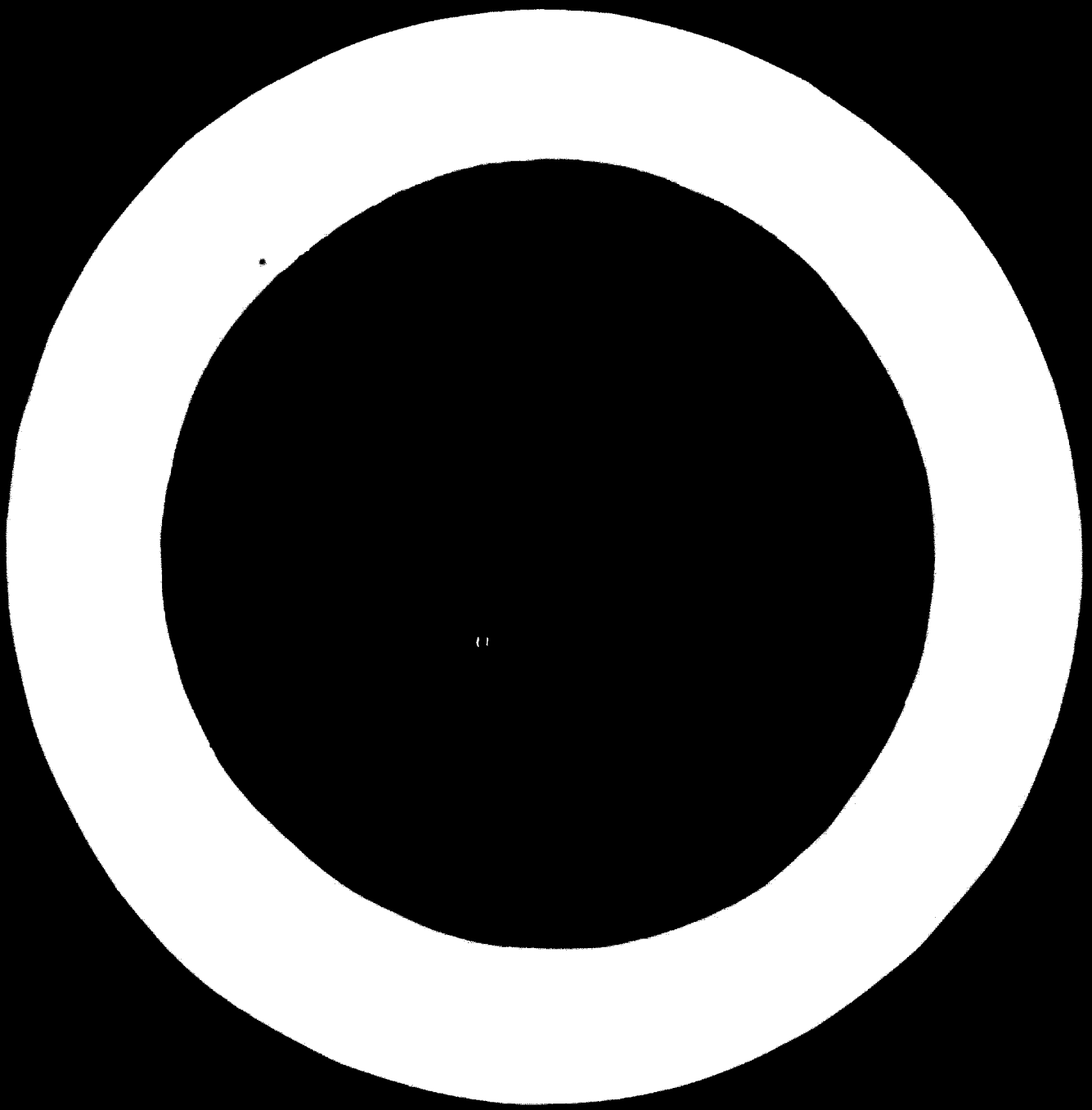
Forecast of 1973 publications programme (cont'd)

Languages

Cost
(US\$)

-	Promotion of small-scale industry in developing countries (11.04.05)	F S	
-	Small-scale industry in Poland (11.04.07)	F S	
-	Financing of small-scale industry in developing countries (11.05.01)	F S	
-	The role and promotion of subcontracting in industrial development Report and selected papers of expert group meeting (11.06.02)	F S	
			<hr style="width: 10%; margin-left: auto; margin-right: 0;"/> 22,600

Note: In the computation of the printing costs a standard formula was applied based on an average cost of internal and external printing.



D04278

GROUP 16: INDUSTRIAL TRAINING²¹

Introduction

312. In the field of industrial training, the objective of UNIDO has remained unchanged: to assist developing countries in improving and upgrading the skills and knowledge of their national technical personnel in order to meet the specific needs of industry, thereby contributing to the qualitative improvement and quantitative increase of industrial production. To achieve this objective, UNIDO has two types of activities: (a) operational activities, which include in-plant group training programmes and individual fellowship training programmes, financed under one of the technical assistance programmes; and (b) supporting activities aimed at strengthening the operational activities.

313. The basic strategy of UNIDO's training programmes is that training related to industry should be carried out at a practical level within industrial enterprises, institutions or laboratories. Underlying this strategy are several basic principles:

- The approach of UNIDO to the development of personnel engaged in the process of industrialization in developing countries is based on short- and long-term planning of training programmes in order to satisfy the actual training needs of the developing countries;
- The resources (financial, staff and physical facilities), both domestic and external, needed to carry out such programmes are committed in such a way as to ensure the consistency of training programmes at the lowest possible cost to the parties concerned;
- As training is an integral part of the process of industrial development, training programmes result in by-products, such as various forms of technical assistance, and are a means of encouraging direct contact between enterprises of developing countries with their counterparts in developed countries;
- Training is geared to the direct transfer of technology as well as to an exchange of experiences in the complex field of industrial development so as to ensure a substantial impact on industrial growth;
- Constant negotiations are carried out with governmental agencies, non-governmental organizations, enterprises and institutions in developing and developed countries with a view to securing training opportunities; and
- Training is a continuous exercise and training programmes mark the beginning of a process of upgrading and updating skills and knowledge, conditioned by technological progress; follow-up measures are therefore essential for optimal results.

314. Seminars and training workshops are important instruments in UNIDO's training programme. From 1967 through 1971, UNIDO organized 71 training workshops and seminars for approximately

^{21/} For administrative purposes the number of this group of activities has been changed from 10a to 16; the title, competence and responsibilities of the group remain the same.

1,560 participants. In 1972, 29 such workshops and seminars are planned for some 610 participants. The number of training workshops and seminars that can be implemented depends largely on two factors: requests from Governments of developing countries and the availability of financial and staff resources to UNIDO.

315. All of UNIDO's seminars and workshops are carried out within the programmes of the various groups of activities and are thus reported on within the programmes of the respective groups. For the period 1971 to 1973, a list of all such seminars and training workshops is included in Part Three of the work programme document.

OPERATIONAL ACTIVITIES

In-plant group training programmes

316. The major part of the operational activities implemented by UNIDO through Group 16 falls within the in-plant group training programmes. The in-plant group training programmes carried out by UNIDO are divided into two categories: sectoral programmes covering specific branches of industry; and functional programmes related to cross-industry problems.

317. In 1971, UNIDO had four approved UNDP/SF projects within the scope of its in-plant group training programmes. In addition, one UNDP/SF project, which was operational in Turkey, was oriented towards assisting the country to establish, at the national level, programmes for pre-employment training of new graduate engineers. Training programmes of this type are carried out in industrial enterprises that make their facilities available for this purpose. During 1971, UNIDO sent two missions to determine the desirability and feasibility of establishing such programmes in Iran and Pakistan; other requests for such missions are anticipated and projects, if approved, will be incorporated in the UNDP Country Programme of the respective countries.

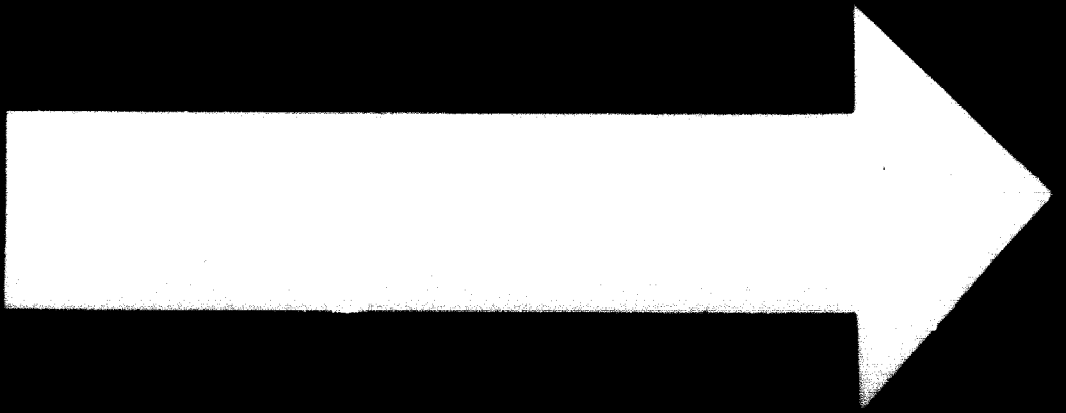
318. In 1971, UNIDO carried out nine of the thirteen scheduled sectoral in-plant training programmes (cf. ID/B/80/Add.2, page 55). The programmes in the shoe industry and on diesel engines, to have been held in Czechoslovakia, had to be postponed owing to technical considerations at the training facilities. The training programme in the fertilizer industry, to have been held in the Union of Soviet Socialist Republics, had to be rescheduled to 1972. The programme in electrical and electronic industries, to have been executed in the Netherlands, could not be put into operation in 1971. Not included in last year's listing was a tenth programme on pesticide industries, which was held in the United States of America in 1971.

319. In 1972, UNIDO plans to carry out sixteen sectoral in-plant group training programmes. In 1973, UNIDO proposes to hold twenty sectoral in-plant group training programmes. However, the programme of UNIDO in this field for 1972 and 1973 is not completely clear owing to a number of reasons, including the change in the administration of these programmes as a result of the new UNDP procedures for interregional and regional projects. Thus, the sectoral in-plant group training programmes proposed by UNIDO for 1972 and 1973 can be shown only as a list of programmes, the implementation of which is subject to administrative and financial constraints.

Sectoral programmes, 1971 to 1973

Training sector	Country	Number of participants	Duration (in months)	Year		
				1971	1972	1973
Basic chemicals (4)	Japan	14	3	-	x	x
Cement industry (4)	Denmark	20	3	-	x	-
Chemical industry (4)	Switzerland	12	3	-	x	-
Cotton textile industry (6)	Egypt	20	4	-	x	x
Diesel engines (1)	Czechoslovakia	20	3	-	x	x
Electric welding (1)	Union of Soviet Socialist Republics	20	3	-	x	x
Electrical industry (1)	Sweden	20	4	x	-	x
Engineering industry (1)	Switzerland	15	3½	-	-	x
Fertilizer industry (5)	Union of Soviet Socialist Republics	12	4	-	x	x
Food processing (I) (6)	United Kingdom	20	3	x	x	x
Food processing (II) (6)	India	20	3	x	x	x
Iron and steel (2)	Union of Soviet Socialist Republics	60	5	x	x	x
Mechanical engineering (1)	Pakistan	18	3	-	-	x
Mechanical industry (1)	Japan	14	2½	x	x	x
Metalworking industry (1)	Union of Soviet Socialist Republics	20	4	x	x	x
Pesticides (5)	United States of America	20	2	x	x	x
Petrochemical industry (5)	Romania	20	4	-	-	x
Plastics industry (5)	Argentina	20	3	-	-	x
Plastics technology (5)	Austria	15	3	x	x	x
Pulp and paper (4)	Sweden	12	3	x	x	x
Shoe industry (6)	Czechoslovakia	20	3	-	-	x
Textile industry (6)	Poland	20	5	x	x	x
				10	10	10

Note: The figure in round brackets against the training sector indicates the group of activities involved.

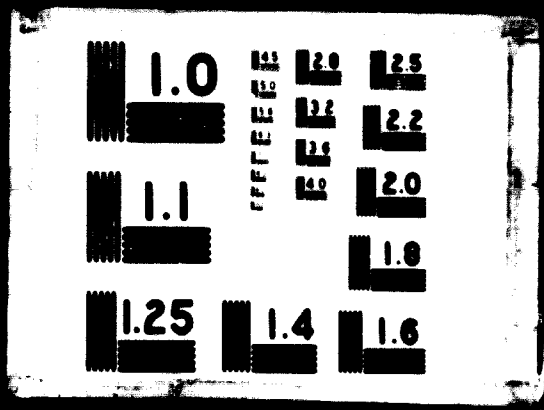


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Functional programmes, 1971 to 1973

Training sector	Country	Number of participants	Duration (in months)	Year		
				1971	1972	1973
Financial management (10)	Federal Republic of Germany	20	3	-	X	X
Industrial consultancy (10)	Federal Republic of Germany	20	3	-	X	X
Industrial co-operatives (8)	Poland	20	3	-	-	X
Industrial design (9)	Egypt	20	3	-	-	X
Industrial information (9)	Union of Soviet Socialist Republics	20	3	X	X	X
Industrial management (10)	Italy	30	3½	-	-	X
Maintenance - instruments (1)	Hungary	20	3	-	X	X
Maintenance - transportation equipment (1)	Federal Republic of Germany	20	3	X	X	X
Management of maintenance and repair (1)	Italy	25	3	X	X	X
Management of maintenance systems (1)	Sweden	20	3	X	X	X
Materials handling (10)	United Kingdom	20	3	-	X	X
Packaging (17)	Spain	15	2	-	-	X
Quality control (10)	Sweden	20	3	-	-	X
Ship repair and maintenance (1)	Norway	15	2½	-	X	X
Standardization (8)	Union of Soviet Socialist Republics	20	5	X	X	X
Systems analysis (10)	Federal Republic of Germany	20	2	-	X	X
Value analysis/engineering (10)	Denmark	15	2½	-	X	-
				5	12	16

Note: The figure in round brackets against the training sector indicates the group of activities involved.

320. With regard to the functional in-plant group training programmes, UNIDO carried out in 1971 three programmes according to plan (cf. ID/B/80/Add.2, para.108). Two additional functional programmes have been implemented in the areas of standardization and of industrial information in the Union of Soviet Socialist Republics.

321. UNIDO plans to carry out twelve functional programmes in 1972. The implementation of these programmes, however, is dependent upon the provision of host facilities and the availability of resources.

322. For 1973, sixteen functional in-plant group training programmes are planned. In addition to the established programmes, there will be new programmes on quality control and industrial design. As is the case with the proposed sectoral in-plant group training programme, however, the implementation of the 1973 programme of UNIDO in this field is subject to a number of constraints.

Individual training programmes

323. Individual training programmes carried out through fellowships are increasing continually. In 1971, approximately 500 fellowships were awarded to nationals from developing countries. It is anticipated that the present trend of increasing fellowship requests will continue in the next few years. It is to be feared, however, that placement of fellows in industry in the industrialized countries may become increasingly difficult. To counteract this difficulty, UNIDO plans to enter into agreements with host authorities for collective placements.

324. In order to improve the quality of training offered through fellowships, UNIDO plans to exercise greater control during the training period and to follow up the training by periodically sending the participants of training programmes information about progress and recent innovations in their respective fields of work.

Seminars on UNIDO operations

325. UNIDO carries out as part of the activities within Group 16 a series of seminars on the operations of UNIDO. This series, which is financed from the Swiss voluntary contribution, was initiated in 1969 when four such seminars were held in Vienna. In both 1970 and 1971 three seminars were held on the operations of UNIDO. Out of this total of ten seminars, five were conducted in English, three in French and two in Spanish. UNIDO proposes to continue this series by carrying out similar seminars in 1972 and 1973, again with a frequency of three per year. All of these seminars have been, and will continue to be, held in Vienna.

326. In 1971, UNIDO held the first regional seminar on UNIDO operations. The seminar, which took place in Dakar, Senegal, was organized for participants from the French-speaking countries of West Africa. The regional seminar is an innovation; it is oriented more towards the field programme of UNIDO, with special regard to projects being implemented by UNIDO in the countries represented at the seminar. Four such regional seminars on UNIDO operations have been planned for the immediate future: two in 1972 and two in 1973. In order to include all interested countries, it would be necessary to hold an additional eight seminars. Implementation, however, will depend upon the availability of resources.

Expert assistance

327. UNIDO appoints, upon request of Governments, individual experts or teams of experts to assist in conducting training activities on a specific subject such as quality control or maintenance and repair or to assist existing institutions in establishing or improving their training facilities.

328. UNIDO can also provide training assistance on other levels. An industrial training adviser can be attached to national agencies in charge of policies, planning and the execution of industrial training programmes on a national level. Such a training adviser could instruct and assist training officers and directors in organizing training programmes in individual industrial enterprises or for specific branches of industry. From 1973 onwards, this element of the technical assistance programme will be incorporated in the country programming. The number of experts, however, will depend upon country requests.

329. As a further step towards the promotion of training, a regional training adviser, appointed by UNIDO in consultation with ECAFE, was stationed in 1972 at ECAFE headquarters in Bangkok. The regional training advisers, co-operating closely with the regional economic commissions and UNESOB, will play an important role in assisting the industrializing countries to develop their industrial training programmes.

330. Increasing interest is being shown by the developing countries in achievement motivation training. In 1971, UNIDO carried out two missions to assess the feasibility of operational projects in achievement motivation. As a result of the first mission, which visited Asia and the Far East, one country has requested UNIDO's assistance in implementing such a training programme. The second mission went to Africa and in 1972 UNIDO, in co-operation with ECA, will explore the interest of African countries in achievement motivation training. It is envisaged that by the end of 1972, six projects in achievement motivation will be operational. It is proposed to expand this programme in 1973 to cover Latin America, the Middle East and some European countries (cf. 16.04).

Value of approved field projects and forecast of requirements, 1971 to 1973
(in thousands of US dollars)

Source of funds	1971 estimated expenditure	1972			1973		
		Approved projects	Requirements for new projects	Total	Approved projects	Requirements for new projects	Total
UNDP/SF	107.3	} 719.9	585.6	1,305.5	526.6	1,938.0	2,464.6
UNDP/TA	167.0		(70.0) ^{a/}			(150.0) ^{a/}	
RF	252.0	36.0	-	36.0	140.0	-	140.0
SIS	1.0	24.0	2.0	26.0	-	50.0	50.0
GTF	324.1	223.8	527.5	751.3	-	1,000.0	1,000.0
FIT	-	-	3.0	3.0	-	3.0	3.0
Total	851.4	1,003.7	1,118.1	2,121.8	666.6	2,991.0	3,657.6

Note: UNDP/TA and UNDP/SF are to be merged, effective 1 January 1972.

^{a/} Annual estimated costs of projects included in the UNDP Country Programmes or projects officially submitted to UNDP for approval.

**List of Approved Projects and Projects
under Active Consideration**

Projects over US\$100,000

Projects under US\$100,000

Improvement of industrial training programme,
methodologies and techniques

BUL (IPF)* - Individual fellowships (fields not specified)	UAR/10/1/3** MOR/10/2/1**	SIN-71/1150 AFE/10/1/8	AFE/10/2/4 VC/10a/23
VC (GTF) - Training course and study tours (Swiss contribution)	IDCAS/10/2/1**		
(2 projects)			(7 projects)

Functional training programme

INT-15 (SF) - Maintenance and repair of rail and road transport equipment	INT/70/28** INT/70/20** INT/70/39	INT/10/1/14** VC/10a/26 VC/10a/13**	VC/10a/29 VC/10a/30
(1 project)			(8 projects)

Sectoral training programme

IRA (SF) - In-plant training for engineers	IRA-71/1197	INT/70/48	VC/10a/16**
TUR-29 (SF) - In-plant training for engineers, Kinkale	PAK/70/38 INT/69/8**	INT/70/21** INT/70/27**	VC/10a/14** VC/10a/28
INT-13 (SF) - Advanced industrial training for the electrical and electronic industries	INT/70/22** INT/70/23**	INT/10/1/5** INT/69/7**	VC/10a/31
INT-14 (SF) - Higher training for textile industries			
INT-22 (SF) - In-plant group training programme in the field of diesel engineering, Czechoslovakia			
INT/10/1/13 (RP) - Seventh in-plant group training programme for engineers and technicians in iron and steel industry, Zaporozhye, Union of Soviet Socialist Republics			
(6 projects)			(14 projects)

* Projects not yet approved but included in the Country Programmes and projects officially requested.

** Fellowship posts.

SUPPORTING AND OTHER ACTIVITIES

331. The supporting and other activities of Group 16 are classified under the following projects:^{22/}

Improvement of industrial training programmes, methods and techniques	16.01
Training course material	16.02 ^{23/}
Training in achievement motivation	16.04

Improvement of industrial training programmes, methods and techniques (16.01)

332. The main objective of UNIDO in this project is to adjust and improve the present training programmes of UNIDO, particularly the in-plant group training programmes, by analysing the experience with training methods used in this programme. On the basis of such an analysis, UNIDO will negotiate with host authorities in an attempt to improve the programmes.

333. The improvement of industrial Training methods and techniques (16.01.01) is an important and continuous responsibility of UNIDO. The application of the proper methods and techniques is necessary to obtain optimal results, and to this end UNIDO carried out in 1970 and 1971 preliminary investigations on the applicability of current research results to the field of industrial training in general; these investigations will be compiled in a study that is scheduled for publication in 1972. The emphasis of this activity in 1972 and 1973 will be on the study and the analysis of the actual experience gained in the in-plant group training programmes. On the basis of this study, UNIDO will then propose the utilization of the most appropriate training methods and techniques in its present and future in-plant group training programmes. This task will be carried out in co-operation with government authorities offering host facilities for the execution of these programmes.

334. The first meeting of directors of UNIDO's in-plant training programmes was held in 1967, at which time the future development of the training programmes was discussed. The conclusions reached at the meeting had a positive influence on the development of UNIDO's in-plant group training programmes. In view of the considerable increase in the number of in-plant group training programmes since 1967, UNIDO will hold in 1972 an Expert group meeting (16.01.02) of directors of in-plant group training programmes (ID/B/80/Add.2, para.175). To this meeting will be invited not only directors of ongoing programmes, who can benefit from an exchange of experience with other directors, but also prospective directors of new in-plant training programmes as well as other parties interested in initiating such training programmes. The report of the expert group is scheduled for publication in 1972.

^{22/} The project entitled "Staff development programme" (10a.03 in ID/B/80/Add.2, para.180) is being implemented by the Division of Administration, and the project entitled "Training in industrial administration" (10a.05 in ID/B/80/Add.2, paras.183-184) has been transferred to Group 7 for implementation.

^{23/} This component was previously entitled "Training manuals" (ID/B/80/Add.2, para.179).

335. Through the UNIDO individual fellowship programme and the in-plant group training programmes, an increasing number of nationals from developing countries are being trained abroad. In many instances, such training represents the best way of supplementing training received in the home country. One of the disadvantages of training abroad, however, is that there is less chance of maintaining a continuous contact between the former trainee and the institutions or organisations where he was trained. In an attempt to alleviate this problem UNIDO initiated in 1970 an activity related to Evaluations and follow-up of training programmes (16.01.03).²⁴ In 1970 and 1971, UNIDO sent out to former participants of UNIDO training programmes questionnaires covering two types of activities: (a) the individual fellowship programme; and (b) the in-plant group training programmes. On the basis of these questionnaires, UNIDO intends to make an evaluation of its training programmes; the evaluation will subsequently be submitted as a report to the Industrial Development Board. It is the intention of UNIDO to undertake regular and systematic evaluations covering various aspects of its training programmes such as administration and social aspects, contents and design of the programmes, the relevance and applicability of the training, and follow-up activities.

336. In-plant training programmes can be evaluated in a variety of ways: questionnaires; reports submitted by the participants and the organizing institutions; personal interviews by UNIDO staff members of the participants, the lecturers and the organizers; participation in group sessions or discussions at evaluation meetings; personal observations during the course; and an analysis of the various sources of information such as correspondence, course material and other training documents.

337. Much of the information received from evaluation sessions, reports, questionnaires etc. is used as feedback information to adjust and improve future programmes. Among the innovations introduced into the programmes are seminars in addition to lectures, and term papers, based on individual assignments. Complaints on accommodations have been taken into consideration to improve boarding facilities; and at the suggestion of the participants, irrelevant subjects have been deleted and others added. More practical training in factories has been included when participants have stated that there was a need for it, and specialization in practical areas has been introduced to meet the requirements of developing countries. Thus the evaluation and follow-up of training programmes have already produced concrete results.

338. In a further effort to maintain contact with participants of its training programmes, UNIDO prepared in 1971 an alumni directory of all former participants in UNIDO training programmes (ID/B/80/Add.2, para.176); this directory is scheduled for publication in 1972.

339. The evaluation and follow-up of training programmes are continuing activities, and UNIDO will carry on with these activities in 1972 and 1973, parallel to its training courses. In 1972, UNIDO proposes to introduce a new element, which would entail the periodic dissemination of information, literature and relevant subjects to former training programme participants. By providing the former participants with this type of material, which often is not easily available in their home countries, it is expected that the impact of the training programmes can be increased. For this follow-up activity, it is anticipated that special funds will be made available.

²⁴ This component was previously entitled "Evaluations of training programmes" (ID/B/80/Add.2, para.176).

340. The preparatory work that UNIDO, in co-operation with ILO and UNESCO, undertook as its contribution to the Implementation of General Assembly Resolution 2528(XXIV) (16.01.04) on "The role of the United Nations in training national technical personnel for accelerated industrialization of the developing countries" was completed in 1970 (cf. ID/B/80/Add.2, para.177). In 1971, UNIDO finalized the report, which was submitted as document E/5024 to ECOSOC at its 51st session, as requested. The report was subsequently submitted to the General Assembly.

341. In 1971, as part of its Implementation of the Industrial Development Board Resolution 8(II) (16.01.05), UNIDO, after having consulted other United Nations agencies, submitted to Governments its report on an outline of a detailed training programme. The report on the training of national personnel for industrial development is submitted as document ID/B/101 to the Board for consideration at its present session.

342. In 1972, UNIDO proposes to introduce into its work programme a series of studies aimed at the Improvement of selection and training procedures (16.01.06). UNIDO proposes to issue, on a yearly basis, a brochure to inform the countries about current and future training programmes that UNIDO could offer in the field of industrial training. The brochure would also contain information on the various aspects and procedures related to the awarding of fellowships.

343. UNIDO also proposes to carry out in 1972 a pilot study (Priority B) to determine the training needs and procedures related to the proper selection of candidates within a given country and to the preparation of the participants before they attend a training programme. The selection of qualified candidates, the programming of the most suitable training programmes and the intensive counselling of the candidates prior to the training course are important aspects that ultimately determine the success or failure of a training programme. It is intended to investigate and streamline the procedures for the nomination of candidates. To lay a firm basis for the identification of potential candidates for future training programmes, a comprehensive study on the actual training needs would also be carried out within this series.

Training course material (16.02)²⁵

344. After analysing the training course material previously scheduled for publication as training manuals (ID/B/80/Add.2, para.179), UNIDO has decided to reproduce this material internally as training course material rather than as manuals. The material will be used in the respective in-plant group training programmes as well as by interested parties in the developing countries conducting training programmes on the topics concerned. The work undertaken on the training course material for diesel engineering, maintenance and repair, iron and steel (part I) and cereal processing has been elaborated, and it is expected that the material on these subjects will be reproduced internally in 1972. In 1971, UNIDO began the preparation of training course material on metalworking, standardization, iron and steel (part II) and plastic processing, and some of this material will be reproduced internally in 1973. In addition, UNIDO will publish in 1972 a handbook on UNIDO operations, based on material compiled in 1971 during the seminars on UNIDO operations (ID/B/80/Add.2, para.179).

^{25/} This project was previously entitled "Training manuals" (ID/B/80/Add.2).

Training in achievement motivation (16.04)

345. As reported in the previous work programme (ID/B/80/Add.2, para.18.2), UNIDO plans to convene an expert group meeting to establish guidelines for technical assistance projects in the field of achievement motivation, with a view to training industrial entrepreneurs, managers, and administrators. The meeting, which was originally scheduled for 1972, will take place in Vienna in 1973; the report of the meeting is also scheduled for publication in 1973. As achievement motivation is a new social technology, the scope of its application is not yet fully known. On the basis of evaluations and studies of the operational projects, and in line with the recommendations of the expert group meeting, UNIDO proposes to develop this project further in 1973.

Expenditures and estimated costs for supporting and other activities, 1971 - 1973
(in m/m and thousands of US dollars)

Project (Priority A)	Regular budget						Expert group meetings (\$)			Extra-budgetary resources (\$) ^{a/}					
	Staff (m/m)		Consultants (\$)		Expert group meetings (\$)		1971			1972			1973		
	1971	1972	1973	1971	1972	1973	1971	1972	1973	1971	1972	1973	1971	1972	1973
16.01 <u>Improvement of industrial training programmes, methods and techniques</u>															
16.01.01	2	3	3	2.4	2.0	4.0	-	-	-	-	-	-	-	-	-
16.01.02	1	2	-	-	-	-	-	-	12.6	-	-	-	-	-	-
16.01.03	2	3	4	1.0	2.0	4.0	-	-	-	-	-	-	-	-	-
16.01.04	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16.01.05	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-
16.01.06	1	2	3	-	4.0	4.0	-	-	-	-	-	-	-	-	-
16.02 <u>Training course material</u>															
16.02.01	2	3	3	0.7	-	-	-	-	-	-	-	-	-	-	-
16.04 <u>Training in achievement motivation</u>															
16.04.01	8	6	4	-	-	10.0	-	-	-	-	-	5.0	-	-	-
Total	24	21	17	4.1	3.0	22.0	-	-	-	-	-	12.6	-	-	-
<u>Backstopping and servicing of operational activities</u>															
	52	87	91												
	76	108	108												
Project (Priority B)															
16.01 <u>Improvement of industrial training programmes, methods and techniques</u>															
16.01.06	-	2	2	-	7.5	8.0	-	-	-	-	-	-	-	-	-
Total	-	2	2	-	7.5	8.0	-	-	-	-	-	-	-	-	-

a/ Operational costs shown above are included in the table on page 112.

Printed publications

1971 publications programme

	<u>Languages</u>	<u>Cost (US\$)</u>
ID/SER.D/3/1-8 The Lodz textile seminars	F S	
		<u>5,117</u>

1972 publications programme

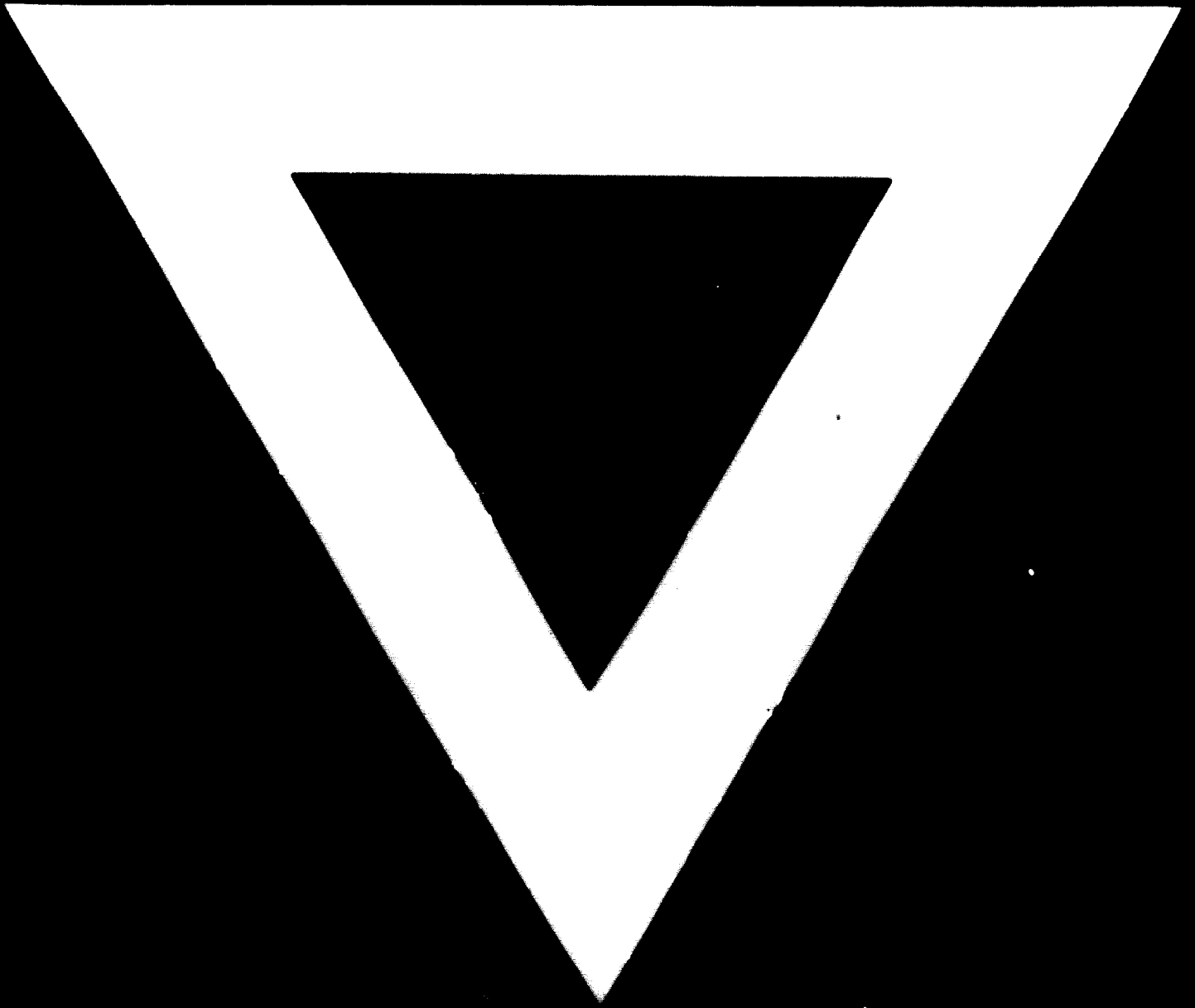
- Training methods and techniques (16.01.01)	E	
- In-plant training Report on the expert group meeting (16.01.02)	E	
- Alumni directory (16.01.03)	E	
- Handbook on UNIDO operations (16.02)	E	
		<u>4,700</u>

Forecast of 1973 publications programme

- Achievement motivation Report on expert group meeting (16.04)	E	
- Handbook on UNIDO operations (16.02)	F S	
		<u>1,500</u>

Note: In the computation of the printing costs a standard formula was applied based on an average cost of internal and external printing.





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