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United Nations Industrial Development Organization

Distr.
GENERAL

ID/B/80/Add.2
22 February 1971

ORIGINAL: ENGLISH

Industrial Development Board

Fifth Session

Vienna, 24 - 28 May 1971

Agenda item 5

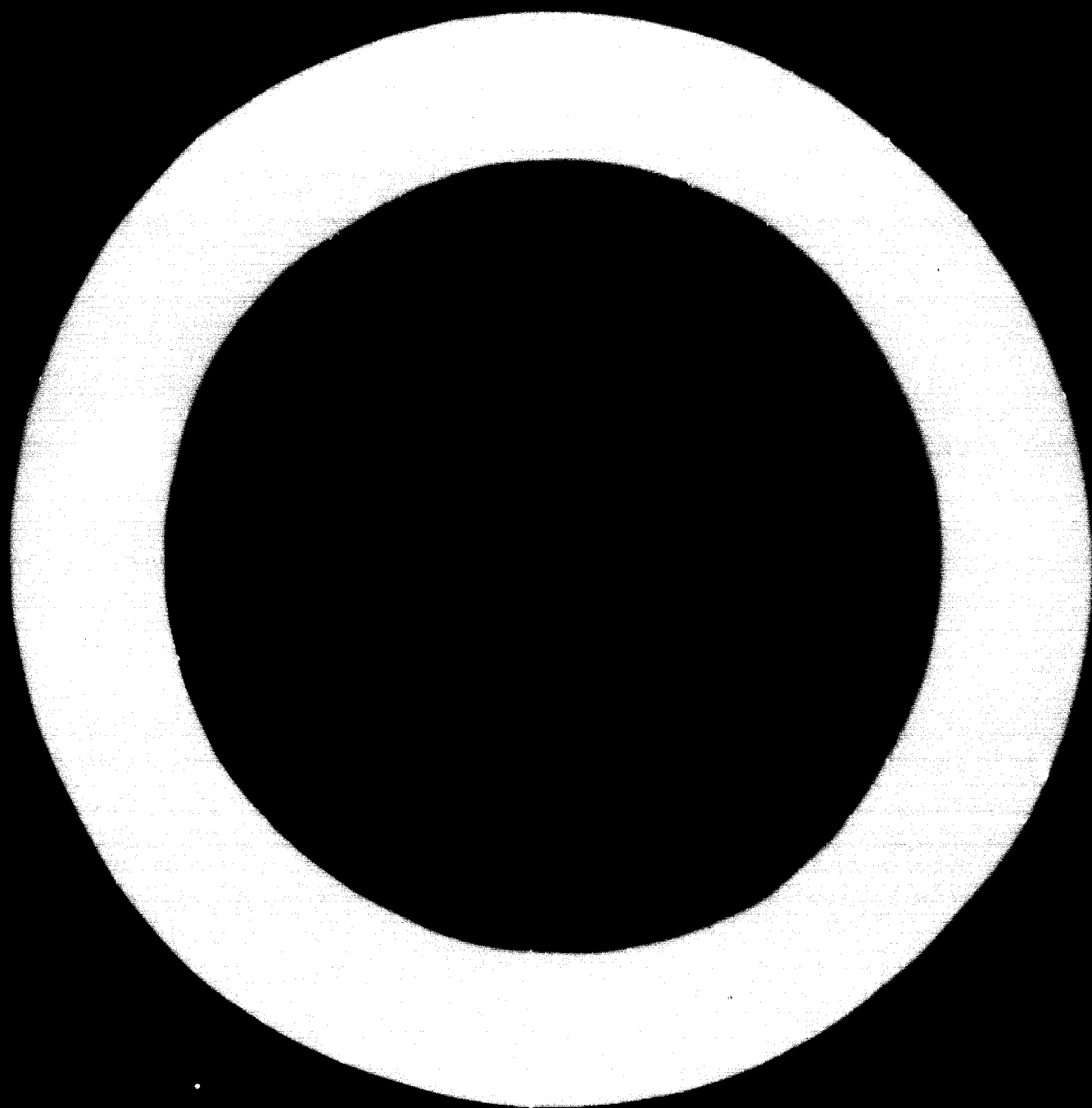
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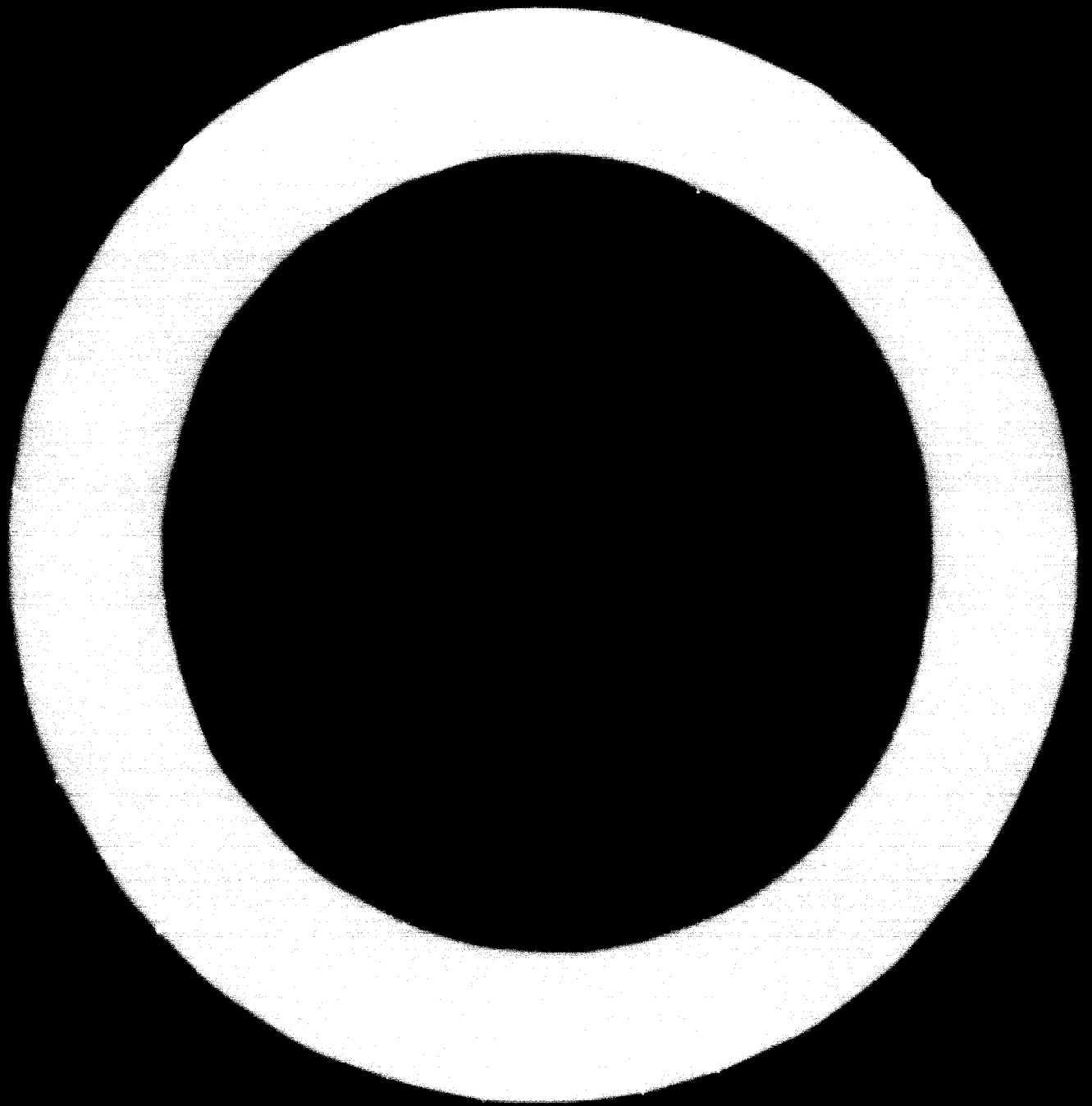
PROGRAMME OF WORK FOR 1972, REPORT OF ACTIVITIES IN 1970
AND UPDATING OF 1971 PROGRAMME

PART TWO

Industrial Services and Institutions Division

(Groups 7 to 11)





DO4220

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Editorial Note: All project components
under supporting and other activities
are Priority A unless otherwise stated.

INTRODUCTION

1. Within the over-all programme of UNIDO, the specific role of the Industrial Services and Institutions Division is to co-operate with the countries of the developing world in establishing and improving the institutions essential to accelerated industrialization; extending the direct and practical value of the services provided by individual institutions (both formally organized and ad hoc) to accelerate industrialization; undertaking in both institutions and productive enterprises skill improvement programmes for individuals; and providing a variety of services from headquarters to support these activities.

2. Some of the services provided by the Industrial Services and Institutions Division (e.g., industrial information) are also utilized to support operational activities being carried out by other UNIDO divisions.

PROGRAMME CHARACTERISTICS

3. An important characteristic of the 1972 work programme is the increased integration of individual operational and supporting projects into broader programmes, often involving co-operation with other organizations (e.g. regional economic commissions, UNESOB, ILO, the International Bank for Reconstruction and Development, the World Intellectual Property Organization, and the Federation for Documentation) and with bilateral assistance agencies.

4. In addition to normal professional backstopping, the particular nature of most operational activities in the field of institutions and services requires that considerable attention be given to the design of projects making use of the work being done under supporting activities. Both aspects have been described under backstopping.

5. A thorough examination was made of the resources allocated to supporting activities in the formulation of the proposed supporting programme for 1972. With a view to maximizing the effectiveness of future UNIDO operations, supporting projects have been selected which meet one or more of the following objectives:

- (a) To examine and apply the results of international research to the design of potential operational activities;
- (b) To explore the viability of a new operational activity or to introduce a new activity by bringing it to the attention of the developing countries;
- (c) To enhance the effectiveness of an existing operational activity; or
- (d) To implement mandates given to UNIDO by a governing or advisory body.

6. In an endeavour to obtain the objective in the shortest possible time with a minimum investment of resources, various alternate strategies were examined before proposing any single supporting activity.

MORE SIGNIFICANT ACTIVITIES

7. The operational and supporting activities as implemented for 1970, as reviewed and revised for 1971, and as proposed for 1972 are described under the relevant groups of activities. The objective here is to underline the more significant activities (both operational and supporting) that have been designed to meet the expressed needs of the developing countries and that have been introduced in 1970 or proposed for the 1971 and 1972 work programmes.

Industrial administration

8. In order to meet the requests for assistance in improving industrial administrative machinery and to implement the recommendations of the Athens Symposium, UNIDO has formed a staff group which, in co-operation with other groups and organizations dealing with the technical content, concerns itself with activities to improve the public administrative sector. Attention is being given to the improvement of training courses for officials responsible for accelerating industrial development.

Legislation

9. UNIDO is giving assistance in the improvement of industrial legislation and, upon request, in the dissemination of information on legislative decisions so that legislation can reinforce rather than frustrate industrial development policy decisions. Such information can enable one country to gain from the experience of others in the design of effective legislation.

Licensing

10. The work of UNIDO in industrial licensing is accelerating the transfer of industrial technologies by enhancing the ability of purchasers to negotiate licenses on reasonable terms.

Research

11. The more significant activities being carried out by UNIDO in industrial research, in response to requests from the developing countries, are for the design of research policies and programmes oriented towards the practical and immediate needs of industry and for the increased participation of industry in the operation of research institutions. Increased responsibility for such activities will soon be assumed by the recently established World Association of Industrial and Technological Research Organizations (WAITRO).

Standardization

12. The programmes of UNIDO in standardization and quality control are being designed increasingly with specific objectives, that is, to meet competition in export markets, to minimize danger to health etc.

Industrial promotion

13. The industrial promotion service, pioneered at the Athens Symposium, has been expanded in concept to take advantage of the opportunities presented at fairs and exhibitions for the promotion of industry and export, dissemination of information, provision of technical advice, encouragement of financial and commercial co-operation, and establishment of contacts between

purchasers and suppliers and to apply the promotion principle to other international gatherings of individuals from the developing and industrial countries as, for example, international engineering societies and international business meetings.

Information

14. In this area, the 1972 work programme of UNIDO is based on the concept that high-quality, timely and effective information services can become the least expensive of the techniques available for the transfer of knowledge and skill. Industrial information activities, particularly periodicals, have been examined with a view to their potential for commercialization in order both to improve the quality and to maximize the effectiveness of the resources available to UNIDO.

15. A number of industrial information services, supported by UNIDO headquarters activities and linked closely to extension systems, will be implemented during 1971 and 1972. For example, UNIDO will assist in the formulation and implementation of regional plans for the establishment of industrial information centres.

16. The programme of selective dissemination of information (SDI), initiated experimentally in 1969, will be expanded to make individuals and institutions in the field more effective disseminators of industrial information.

17. By 1972, the advisory service on the supply of industrial equipment will be functioning effectively and will have become an important tool for the transfer of industrial technologies and for the provision of practical ad hoc advice in support of such activities, as suggested by the General Assembly for the Second United Nations Development Decade.

Training

18. Training, like information, will increasingly be integrated into the fabric of other UNIDO activities. Within the individual fellowship programme, training plans are being carefully related to the specific responsibilities of the individual on his return to his home country. The in-plant concept will be expanded to provide individuals with the specific operational skill improvement required for a variety of industrial development activities. UNIDO has received a request from a regional economic commission for the provision of a regional adviser for 1971 to mobilize additional resources for training within the region, to help to provide liaison between individual fellowship candidates and training facilities identified by UNIDO, and to make large-scale investments in training activities more effective.

19. During 1971 achievement motivation training projects, first studied in 1969, will be implemented in response to requests from a number of countries wishing to increase the innovational skills of their entrepreneurs, managers and consultants. Starting in 1971, UNIDO will evaluate the results of the application of this new social technology.

Management

20. In the field of management, the activities of UNIDO will expand in 1972 through the inclusion of an important technique, the management clinic, for the transfer of management skills to the developing world. The areas of specialization covered will be increased to include organization analysis, management information systems and corporate planning.

21. Activities will also be undertaken in purchasing and supply management and in inventory control, in co-operation with the advisory service on the supply of industrial equipment. In 1972, UNIDO will be introducing into its programme activities to improve the management of the construction industry, as recommended by the Athens Symposium. Similarly, added attention will be given to the problem of the domestic marketing of industrial products.

Small-scale industry

22. The small-scale industry programme will enlarge its scope during 1972 in response to expressed needs of many of the developing countries. With programmes established in many countries, there is a growing realization that small-scale industry programmes should be more closely integrated into broader programmes of industrial development and of economic development as a whole.

23. Based on the work initiated in 1970 for the least developed among the developing countries, a programme for small-scale industry development outside of metropolitan areas will be initiated in 1971 and 1972. The need, as expressed by a number of developing countries, is to expand the contribution of small industry towards reducing income disparities between urban and rural areas.

Support to other UNIDO activities

24. Many services carried out within the Industrial Services and Institutions Division help to support other activities of UNIDO. (The selected dissemination of information programme has already been mentioned.) In co-operation with the Technical Co-operation Division, a fellowship programme will be established to provide training at UNIDO headquarters for officials from the developing countries, and the seminars on UNIDO operations will be continued and expanded.

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INDUSTRIAL
DIV.

GROUP 7: INDUSTRIAL ADMINISTRATION

25. The activities of this group focus on the public administrative machinery for industrial development, particularly the machinery established within government agencies and concerned with regulatory and control functions as well as with developmental functions. Group 7 deals specifically with the introduction of modern administrative and organizational techniques, as applicable to the public agencies dealing with industry, reorganization of the structures of such agencies and upgrading the skills of their employees. Particular attention is given to industrial public administration, legislation, patents and licensing. Following the recommendations made by the Industrial Development Board at its fourth session (A/8016, para.165), UNIDO has developed and strengthened its co-operation with intergovernmental and international organizations and has formulated its work programme in this field of activities to complement the work of these organizations. UNIDO will continue to co-operate with the World Intellectual Property Organization (WIPO), the International Patent Institute (IIB), the African and Malagasy Industrial Property Office (OAMPI), and the Licensing Executive Society (LES), and with the Public Administration Division of the United Nations as well as with other organizations of the United Nations family.

OPERATIONAL ACTIVITIES

26. The operational activities of UNIDO in this field are directed primarily towards improving the structure and administrative methods of public agencies dealing with industry such as ministries of industry, industrial development corporations and industrial property offices and upgrading the skills of the officials of these institutions. In legislation UNIDO has rendered assistance to developing countries in reviewing and updating existing legislation in specific fields. In licensing, assistance will be supplied in the negotiation phase of licensing agreements and in the preparation of regulations to safeguard national interests.

27. UNIDO technical assistance in the above-mentioned areas is in the developing stage. In 1970, two requests for experts and a request for a fellowship were received. It is expected that in 1971 and subsequent years more field projects will be undertaken.

Value of approved field projects and forecast of requirements, 1970 to 1972
(in thousands of US dollars)

	1970 estimated expenditure	1971		1972	
		Approved projects	Forecast of requirements	Approved projects	Forecast of requirements
UNDP/SF	-	-	-	-	-
UNDP/TA	-	-	160.0	-	159.0
IP	-	3.4	2.3	-	13.0
SIS	-	8.0	7.2	-	18.0
GPF	-	-	6.5	-	9.8
FIT	-	-	-	-	-
Total	-	11.4	176.0	-	198.8

1/ Formerly known as United International Bureaux for the Protection of Intellectual Property (BIRPI).

List of Approved Operational Projects

UNIDO REGULAR PROGRAMME

The Americas

COL/07/1/2

Industrial legislation (patents and licensing)

SIS PROGRAMME

Africa

68/419 (Sudan)

Industrial legislation (patents and industrial property)

SUPPORTING AND OTHER ACTIVITIES

28. The supporting and other activities of group 7 are classified under the following projects:

Industrial public administration	7.01
Industrial legislation	7.02
Patents	7.03
Licensing	7.04

Industrial public administration (7.01)²

29. The activities of UNIDO under this heading are aimed at upgrading the skills of officials by disseminating information about, and training in, modern public administration methods and procedures. At the national level, UNIDO is undertaking joint consultations with the officials of public industrial agencies with a view to co-ordinating the procedures of these agencies and to examining their problems. The programme of skill improvement for public officials is increasingly incorporating the results of the work initiated by groups 10a and 10b.

30. In its programme of Training of industrial public administrators (7.01.01), UNIDO proposes to hold in 1971 a regional training workshop for government administrators concerned with industrial development in the Middle East and North Africa. The Government of Kuwait has agreed to host the workshop which will be organized jointly by UNIDO, UNESOB and the Industrial Development Centre for Arab States (IDCAS). This project was originally Priority B (ID/B/64/Add.8, para.44), but has been upgraded to Priority A.

31. In 1972, UNIDO proposes to hold a similar regional training workshop for industrial public administrators in Africa. The workshop would focus on modern public administration methods and techniques as applied to industrial development programmes. Officials from some 25 African countries will be invited and possible co-operation with ECA and the Afro-Asian Organization for Economic Co-operation (AFRASEC) will be ascertained through appropriate contacts.

32. As a follow-up of the 1971 regional training workshop for government administrators in countries of the Middle East and North Africa, UNIDO proposes to hold in 1972 a series of Consultations and discussions with industrial public administrators (7.01.02). Government officials, consultants and UNIDO staff would participate in these discussions with a view to studying the organizational structure, administrative machinery and personnel capabilities of agencies such as ministries of industry and industrial development organizations. It is hoped that, as an outcome of these consultations and discussions, ways and means will be suggested to improve the operation of such agencies and recommendations will be made on possible future action by UNIDO.

^{2/} Previously listed as 8.03.01 in ID/B/64/Add.8.

Industrial legislation (7.02)³

33. In this field, UNIDO is concerned with the introduction of new legislation and with the amendment of existing legislation which would create a more favourable climate for industrialization, encourage investment and protect national economic interests. The activities of UNIDO are concentrated on the collection and dissemination of information on industrial legislation and on updating available information through the establishment of a network of correspondents. Activities in this field are being co-ordinated with those of group 13.

34. A series of Industrial legislation reviews (7.02.01) was initiated by UNIDO in 1969. In that year, UNIDO carried out reviews of industrial legislation in four West African countries (Ivory Coast, Mali, Mauritania, Senegal) and in five Asian countries (Indonesia, Malaysia, Pakistan, Philippines and Thailand). During 1970, reviews of the industrial legislation of four Arab countries (Iraq, Kuwait, Saudi Arabia and Syria) and of four other countries (Cyprus, Iran, Lebanon and Turkey) were undertaken. UNIDO plans to make a review in 1971 of legislation covering specific topics of interest to industrial development in several countries of Latin America (ID/B/64/Add.7, para.14; Priority B). UNIDO proposes to upgrade this review to Priority A in 1972 and to expand it to include several other countries. All these studies are intended for publication after review by the countries involved.

35. UNIDO had planned to undertake in 1971 a Study on selected branches of legislation (7.02.02; Priority B) (ID/B/64/Add.7, para.15), but the activity had to be postponed owing to lack of resources. In 1972 UNIDO proposes to carry out this study, subject to availability of resources, with particular emphasis on the laws and regulations affecting industry. The study would focus on standardization, industrial zoning, transfer of technology and institutions for the promotion of industries. It would provide officials of the countries concerned with a regional comparison of national legislation related to specific industrial areas.

36. In 1970 UNIDO initiated a Network of correspondents (7.02.03) to assist in the collection and selective dissemination of legislation affecting industrial development. UNIDO plans to expand this programme in 1971 and continue it in 1972. Laws on specific topics will be cross-referenced and made available to inquirers. This system will facilitate the identification of gaps or inadequacies in legislation pertaining to laws vital to industrial development.

Patents (7.03)⁴

37. The objective of UNIDO in the field of patents is to assist developing countries in establishing, improving and strengthening their industrial property offices so that these offices can become effective institutions for the transfer of technology and stimulate the inventiveness of their nations. In its activities relating to patents, UNIDO is maintaining close contact with WIPO.

^{3/} Previously listed as 7.03 in ID/B/64/Add.7.

^{4/} Previously listed as 7.02 in ID/B/64/Add.7.

38. In an effort to strengthen the patent offices of developing countries, UNIDO is undertaking the Training of patent office personnel (7.02.01). In 1970 preparation work was undertaken for a training workshop, to be held in 1971, for senior personnel of patent offices (ID/B/64/Add.7, para.10), but owing to lack of resources this workshop has been changed to Priority B.

39. UNIDO proposes to organize in 1972 a training workshop for senior personnel of patent offices in Asian countries. The workshop would provide participants with an opportunity to exchange experience and review the organization, administration and procedures of their respective patent offices in Asian countries. Supplementary to the workshop, visits would be made to the patent office of the host country. Possible co-operation with WIPO will be ascertained through appropriate contacts.

Licensing (7.04)¹

40. The work of UNIDO in licensing is concerned primarily with two aspects: (a) the granting of licenses by the appropriate governmental authority for the establishment of industrial enterprises at the national level; and (b) agreement on the utilization of a patent or a process - specifically, the contractual transfer of technology involved therein. The first aspect is covered under industrial legislation (7.02) including regulations. The second aspect is covered under the present heading.

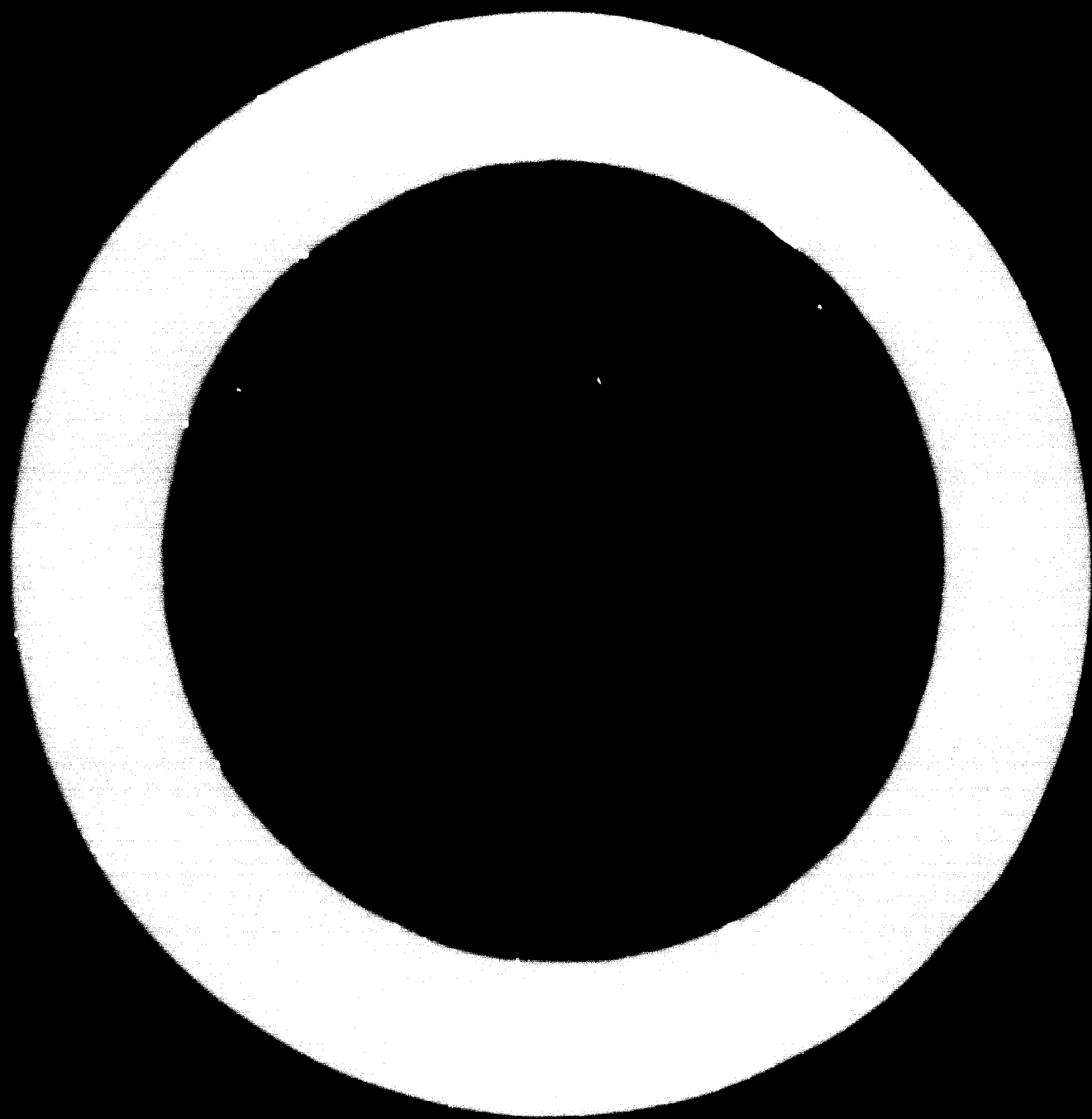
41. In an effort to improve Licensing practices (7.04.01), UNIDO convened in 1970 an expert group meeting to finalize a manual on licensing practices (ID/B/64/Add.7, para.10). The group made a number of significant amendments to the manual and further recommended that a revised version be disseminated in developed and developing countries for comments.

42. UNIDO had planned to hold in 1971 an expert group meeting on licensing regulations and practices in countries following the English legal system (ID/B/64/Add.7, para.10), but after ample discussions, it was felt that such a meeting would be premature and the meeting was postponed indefinitely.

43. In 1972, UNIDO proposes to convene an expert group meeting to assist in the preparation of a training programme for workshops on licensing. Further activities in this area will depend on the results of investigations to be undertaken in 1971 (cf. 7.04.02 below).

44. Although many licensing agreements are concluded each year, little is published on the subject particularly with regard to the details of such agreements. UNIDO therefore proposes to initiate in 1971 a systematic exploration of the experience and Requirements of developing countries with regard to licensing practices (7.04.02). Information would be collected on national regulations, statistics and, where possible, on costs, special conditions and commercial considerations of licensing technological processes in selected branches of industry. This information together with the manual mentioned under 7.04.01 would subsequently be used for training activities in 1972. UNIDO plans to continue with this data collection in 1972 and on the basis of this information prepare a study on the subject.

¹ Previously listed as 7.01 in ID/B/64/Add.7.



Project (Priority B)

7.02 Industrial legislation

7.02.01	-	3.0	-	5.0	-	-	-	-	-
7.02.02	-	2.0	4.0	5.0	-	-	-	-	-

7.03 Patents

7.03.01	-	5.0	-	10.0	-	-	-	-	-
<u>Total</u>	-	<u>10.3</u>	<u>4.0</u>	<u>10.0</u>	-	-	-	-	-

a/ Operational costs shown above are included in the table on page 7.

PRINTED PUBLICATIONS

1972 publications programme

Languages

Cost
(US)

- Guidelines on licensing practices
(7.04)

E F

950

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

GROUP 8: INDUSTRIAL INSTITUTIONS

45. The activities of UNIDO within this group deal with the establishment and improvement of non-governmental administrative machinery for industrialization and of various industrial institutions and services in such areas as industrial research, standardization (including metrology and quality control) and industrial promotion.

46. In industrial research, UNIDO is placing emphasis on orientating policy towards practical aims for better utilization by industry of available research facilities and findings. The establishment of industrial research institutes as focal points for the supply of assistance to industry will continue to receive a high priority without, however, encouraging an unnecessary proliferation of such institutes.

47. UNIDO is continuing to render assistance in the establishment, strengthening and improvement of operations of national standardization bodies. A special attempt is being made to encourage such bodies to assume their proper role in the promotion of quality control programmes, including quality marking. Attention is also being given to the identification of areas of priorities so that standardization programmes will become meaningful for the industrial development of the country. In its work in the field of standardization, UNIDO is maintaining close relations with the International Organization for Standardization. Activities relating to metrology will also be strengthened and, whenever possible, linked to existing standardization organisations.

48. In the organization and administration of industrial institutions and services, the activities of UNIDO are aimed at providing assistance in developing and improving the non-governmental institutional framework required for industrial development. This framework includes industrial development centres, chambers of industry, federations of industrialists, professional associations and industrial co-operatives.

49. By arranging industrial promotion services at trade fairs and other international institutions, UNIDO is attempting to promote the development of new industrial enterprises, the growth of existing ones and the creation of a forum for broad business contacts. At such forums, discussions and negotiations could take place about possible contractual agreements such as management training or marketing contracts, purchases of licenses and know-how, joint ventures and turn-key projects. Special attention is being given to improving the abilities of developing countries in planning and organising trade and industrial fairs.

OPERATIONAL ACTIVITIES

50. 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 and metrology.

Industrial research

51. The assistance being rendered by UNIDO in industrial research is concentrated on the establishment of new industrial research institutes and the expansion and strengthening of existing ones in order to improve their usefulness and effectiveness to the industrial sector. Thus the majority of UNDP/SF projects carried out by UNIDO within group 8 in 1970 were related to industrial research institutes. Such institutes have become important sources of technological innovation, and the industrial community is availing itself increasingly of their services on a contractual basis. A number of these institutes have also acquired designing experience and are undertaking the design of industrial plants after having carried out feasibility studies and having selected the appropriate technology. Thus, such institutes often serve as the technical arm of the Government for undertaking technical investigations required at the decision-making level. The institutes also serve as documentation and information centres on industrial processes and technologies, manufacturing equipment and economic and marketing statistics.

52. UNIDO is continuing to provide developing countries with the services of experts and consultants to assist in the organization of industrial research and to draw up industrial research policies. In 1970, the experts were engaged primarily in identifying useful research areas, formulating development programmes beneficial to the industries and in orientating the over-all research policy towards practical objectives.

53. An example of the work being undertaken in this area was the assistance supplied by UNIDO to the Institute for Technological Research in Bogotá, Colombia, in research related to food industries, plastics, metalworking and engineering industries, foundries, marketing and industrial economics. UNIDO also provided assistance in the methodology involved in the administration of research projects. The Institute, which at present has some 130 staff members, is supplying local industry with technical advisory services in quality control, new product development, feasibility studies and investigations of natural resources and local raw materials.

54. UNIDO is also providing assistance to the Industrial Research Institute in Khartoum, Sudan. The scope of the assistance includes mechanical and chemical testing, industrial management, industrial cost accounting and chemical engineering. Emphasis has been given to the introduction of modern cost accounting systems into industrial enterprises and to an increase in productivity. The Institute is contributing to the industrialization of the country by identifying investment opportunities and undertaking pre-feasibility studies for a variety of industries and is also preparing standard specifications as the Sudanese member of the International Organization for Standardization.

55. Another institute receiving assistance from UNIDO is the Technological Institute of Thailand in Bangkok, Thailand, which operates under the aegis of the Applied Science Research Corporation. UNIDO is providing research experts in organic chemistry, construction materials, chemical engineering and industrial promotion. The Institute undertakes research leading to industrial applications over a broad range of industries. Among its achievements are new techniques for rotting beef, development of bonded sand for foundries and standardization of palm oil and coconut milk - all of which have been greatly beneficial to the national economy.

56. A number of developing countries have requested UNIDO to provide assistance in reviewing their present programmes of industrial research with a view to: reorienting them towards practical objectives; establishing and maintaining contacts with industry; and advising on the implementation of planned research projects and programming research activities making optimum use of available resources. A number of such projects (e.g., in Chile, China, Iran, Pakistan) are at various stages of development.

Standardization, quality control and metrology

57. In this area, the major objective of UNIDO is to assist the developing countries in the creation and strengthening of national standardization bodies. The role of such bodies should be to prepare and issue standards, promote the utilization of published standards by trade, industry and Government and to encourage the quality marking of industrial products in accordance with the established standards. This activity is linked with quality control programmes at the national level, with particular emphasis on export goods. Assistance is also given 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.

58. UNIDO is supplying laboratory equipment for quality control, valued at \$30,000 and financed from the UNIDO General Trust Fund, to an industrial research institute in a developing country. The requirements were reviewed and matched with available equipment from a developed country. A similar project is underway to supply equipment for quality control in a match factory in a developing country. The cost of the equipment, amounting to \$27,000, will also be financed from the UNIDO General Trust Fund. It is anticipated that in 1971 quality control units for chemical and physical testing, up to a value of \$70,000, will be supplied to various developing countries under the UNIDO General Trust Fund.

59. Under the UNDP/SF programme, UNIDO has been assisting the Thai Industrial Standards Institute and the Institute of Standards and Industrial Research in Iran. These two institutes have geared their activities to practical objectives by including in their programmes calibration, repair and maintenance services to industry and quality marking of goods in accordance with established standards.

60. In Ethiopia, a UNIDO expert on industrial standardization has been advising the Ministry of Commerce and Industry on appropriate measures for the establishment of a national standardization centre. Five other experts have also advised a number of developing countries on the establishment of national metrology centres and national standardization bodies. As a result of

these efforts, two Governments have passed the necessary legislation for the creation of such bodies. Another Government has taken preparatory steps towards the establishment of calibration services and secondary weights and measures offices in all regions of the country.

Non-governmental administrative machinery for industrialization

61. The assistance of UNIDO in this area is aimed at improving the organization and operation of such bodies as chambers of commerce and industry, associations of manufacturers, industrial co-operatives and other institutions to enable them to render better services to their members and to widen the scope of their activities. To this end UNIDO had eight experts in the field in 1970 and it is expected that the preparatory work will lead to at least two UNDP/SF projects. It is hoped that technical assistance in this area will further increase in 1971 and 1972. A group of three experts has been assigned to El Salvador to work with the National Industrial Development Institute for the establishment of a department for consultancy services to industry and business.

Number and value of projects

62. The number of projects under operation in the field of industrial institutions in 1970 was 51. This figure is expected to rise to about 60 in 1971 and to about 72 in 1972.

Value of approved field projects and forecast of requirements, 1970 to 1972 (in thousands of US dollars)

	1970	1971		1972	
	<u>estimated expenditure</u>	<u>Approved projects</u>	<u>Forecast of requirements</u>	<u>Approved projects</u>	<u>Forecast of requirements</u>
UNDP/SF	840.1	2,837.2	92.0	1,915.5	789.0
UNDP/TA	124.5	57.8	470.2	3.8	542.0
RP	84.7	59.0	39.3	-	113.0
SIS	19.5	191.6	706.5	-	1,046.3
GTF	101.3	112.7	306.1	-	666.7
FIT	120.0	150.0	6.4	-	156.4
Total	<u>1,290.1</u>	<u>3,408.3</u>	<u>1,620.5</u>	<u>1,919.3</u>	<u>3,313.4</u>

List of Approved Operational Projects

UNDP/SPECIAL FUND

Africa

LIB-12	Centre for industrial development and research
SUD-12	Industrial Research Institute
SUD-41 Phase II	Industrial Research Institute

The Americas

COL-30 Phase II	Institute of Technological Research
PAR-8 Phase I	National Institute of Technology and Standards
PAR-22 Phase II	National Institute of Technology and Standards
TRI-5	Caribbean Industrial Research Institute

Asia and the Far East

CHA-28	Assistance to the Union Industrial Research Institute
IRA-34	Institute of Standards and Industrial Research
MAL-22	National Institute for Scientific and Industrial Research
THA-16	Technological Research Institute
THA-37	Thai Industrial Standards Institute
THA-39 Phase II	Technological Research Institute

Europe and the Middle East

ISR-11	Industrial Research Centre
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UNDP/TECHNICAL ASSISTANCE

Africa

ETH/68/27	Industrial standardization
UAR/70/15	Quality control of safety matches
AFR/69/3	Training workshop for personnel engaged in industrialization
AFR/69/4	Training workshop for managerial staff of chambers of industry

The Americas

BRA/69/23	Metrology - industrial standards
PER/70/6	Study tour fellowships - Industrial Research Centre

Asia and the Far East

AFG/68/4	Metric system
PAK/70/16	Introduction of the metric system

Europe and the Middle East

KUW/68/2	Standardization and quality control
POL/70/21	Digital position speed control systems

INDUSTRIAL ASSISTANCE (cont'd)

Europe and the Middle East (cont'd)

ROM/69/6 Industrial metrology

Interregional

INT/69/2 Seminar on the organization and administration of industrial services for countries of Asia and the Middle East

UNIDO REGULAR PROGRAMME

Africa

ETH/08/1/1 Industrial standardization
SEN/08/1/1 Industrial research and standardization
ID/RP/08-5 (Sudan) Industrial standardization
TUN/08/1/2 Industrial research and standardization

The Americas

ID/RP/08-5 Industrial research
LAT/08/1/3 Industrial research

Asia and the Far East

ID/RP/08-10 (India) Industrial standardization and research
ID/RP/08-6 (Iran) Industrial research - applied industrial research
IRA/08/1/3 Industrial research
MON/08/1/1 Industrial standardization and research - quality control
SIN/08/1/1 Industrial research and standardization
ID/RP/08/1 (Rep. of Vietnam) Industrial standardization - quality control

SIS PROGRAMME

Africa

69/654 MAR-11 Assistance in the establishment of industrial services
70/844 ZAM-4 Reorganization of the Industrial Division

The Americas

70/861 ELS-9 Assistance to the reorganization of INSAFI
69/628 EIS-5 Assistance in industrial consultancy
69/546 PAN-1 National Laboratory of Standards (exploratory mission)

Asia and the Far East

68/392 CHA-9 Assistance to the Union Industrial Research Institute
70/919 INS-10 Assistance in elaborating policy guidelines for further research activities
69/653 PAK-6 Assistance in conducting survey on industrial research

SIS PROGRAMME (cont'd)

Europe and the Middle East

70/813 SAU-3

Expert in industrial standardization and quality control

Interregional

69/669 INTREG-9

Assistance to the Arab Organization for Standardization and Metrology (ASMO)

UNIDO GENERAL TRUST FUND

Africa

8/5 (United Arab Republic)

Expert assistance to match company

Interregional

8/1

Seminar on the organization and administration of industrial services in Asia and the Middle East

8/3

Equipment for the installation of small testing and quality control laboratories

SUPPORTING AND OTHER ACTIVITIES

63. 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 administrative machinery for industrialization	8.03
Promotion of contacts at fairs and exhibitions	8.04
Joint activities with the UN Advisory Committee for the Application of Science and Technology to Development	8.05 ^{6/}

Industrial research (8.01)

64. In the field of industrial research, the main objective of the supporting programme of UNIDO is to encourage the establishment of a local basis both for assistance to industry in the solution of its production problems and for the introduction of suitable technologies and processes. Industries that have developed without outside assistance and whose size is such that they would be unable to undertake their own research are in particular need of such assistance and would benefit from the exchange of experience and know-how with similar organizations at the regional and international levels.

65. Since 1969 UNIDO has been actively involved in promoting the creation of an International association of industrial research institutes (8.01.01). In October 1970, a Conference of the founding members of the World Association of Industrial and Technological Research Organizations (WAITRO) took place in Vienna. The constitution and by-laws were adopted and a president, an executive committee and a secretary-general were elected. The Conference was attended by 96 organizations from 54 countries and some 60 of the attending organizations pledged to become full members. The report of this meeting is scheduled for publication in 1971.

66. In 1971, a meeting is scheduled between UNIDO and members of the Executive Committee of WAITRO to promote further co-operation between the two organizations (ID/B/64/Add.8, para.23). The purpose of this meeting is to assess the progress made by WAITRO, review the work programme of WAITRO with a view to identifying areas of possible co-operation, study the report prepared by an expert on the seat of the headquarters of WAITRO and to finalize the draft provisional rules of the General Assembly of WAITRO.

67. By 1972, it is expected that WAITRO will have become operational and UNIDO proposes to co-sponsor the biennial meeting of the General Assembly of WAITRO to be held in 1972. Among the subjects to be dealt with at the meeting would be the preparation of training programmes, placement of research workers, pairing of research institutes in developed and developing countries

^{6/} Previously listed as 9.04 in ID/B/64/Add.9.

and identification of possibilities for joint research between member organizations. Arrangements would be made to undertake promotional activities within the context of the seminar.

68. WAITRO is also to undertake a study to identify problems hampering the utilization of research findings by industry and areas of research where help is needed on a national or regional level. A roster of experts in industrial research will be prepared as well as a register of organizations engaged in industrial research and willing to take assignments with UNIDO.

69. In an effort to promote the Stimulation of industrial research activities (8.01.01), UNIDO published in 1970 a manual on industrial research institutes which deals with project selection and evaluation and financial administration.

70. UNIDO had planned to hold a regional meeting in 1971 for managers of industrial research institutes in developing countries (ID/B/64/Add.8, para.24). However, as the scope of this project has been widened and the emphasis placed on the stimulation of industrial research activities, UNIDO now proposes to hold in 1971 an expert group meeting to examine the possibilities of encouraging consulting and industrial research organizations from industrialized countries, working in developing countries, to contract part of their work to industrial research organizations from the developing countries. The type of work to be subcontracted would include analyses, testing of local conditions, investigations of raw materials as to their availability and suitability, and feasibility studies. The expert group is to examine various schemes for such co-operation and recommend methods of implementing it.

71. On the basis of the recommendations of the above-mentioned expert group meeting, UNIDO plans to organize in 1972 an interregional workshop for the stimulation of industrial research activities. Directors, managers and high officials of organizations and companies dealing with industrial research would be invited to attend. The workshop would provide a platform for an exchange of experience with regard to the utilization of local industrial and technical research facilities and services by local and foreign business companies. The workshop would be a logical follow-up of the expert group meeting and could translate the theoretical recommendations of the meeting into practice.

72. In support of its programme of assistance in industrial research, UNIDO is carrying out an Evaluation of industrial research in developing countries (8.01.03). As reported to the Board at its fourth session, the proposed meeting on the evaluation of industrial research institutes and their contribution to industrial development could not be held in 1970 owing to lack of resources (ID/B/64/Add.8, para.26). Work was continued in 1970 on the preparation of a manual for the evaluation of industrial research institutes in developing countries (ID/B/64/Add.8, para.25). The manual is scheduled for publication in 1971.

73. In 1971, UNIDO plans to undertake a study (Priority B) on the allocation of national resources for industrial research, the financing of research institutes, their performance, and utilization of their findings.

74. Although industrial research is being undertaken at a relatively advanced level in some developing countries, the results and achievements do not always lead to practical application in industry. It appears therefore that there is a need for joint consultations at the national

74. The gap, the coordination between government, industrial research institutes and industry to investigate the reasons why such a situation has arisen. Thus UNIDO proposes to hold in 1972 a consultation on the appraisal of industrial research in a developing country. The consultation, of one week's duration, would be attended by industrialists, government officials responsible for the establishment or application of research policies, senior staff of national research institutes and UNIDO staff members and consultants. The objectives of such a consultation would be the identification of problems hampering the utilization of the findings of research institutes, the stimulation of research activities and a reorientation of the programmes of research institutes towards practical needs. It is proposed, after possible consultation with ECAFE, to hold the first consultation in a country in Asia.

Standardization, quality control and metrology (8.02)

75. This project is aimed at promoting standardization and metrology and strengthening national bodies entrusted with such activities by focusing on their role in quality control essential for both domestic and export markets. To this end, UNIDO, ISO and the International Electrotechnical Commission (IEC) have agreed to establish the Standing Coordinating Bureau for the Promotion of Standardization in the Developing Countries (DEVPRO). In 1970, UNIDO participated in the Eighth General Assembly of ISO and presented, at the request of ISO, a short paper on the "Role of standardization in industrial development". One hundred copies of a UNIDO monograph on "Industrial standardization" were also requested by ISO for distribution to its member bodies, particularly to those in developing countries.

76. The operations of national standardization bodies can be improved by upgrading the skills of those active in standardization, whether high level officials or technical officers. To this end, UNIDO has launched a programme on Training of personnel engaged in standardization (8.02.01). Within the framework of this programme, UNIDO held in 1970 a subregional training workshop for standardization personnel in English-speaking African countries. In 1971, a similar workshop is scheduled for Latin America (ID/B/64/Add.3, para.30). Several interested regional and international organizations will be invited to participate and the co-operation of ECLA will be sought.

77. In 1972, UNIDO proposes to hold a subregional workshop for standardization personnel in French-speaking African countries. The role of standardization in reducing wastes, increasing productivity and improving quality will be discussed as well as the organization and operation of national standardization bodies.

78. As part of its programme in this area, UNIDO encourages the establishment of regional standards organizations and supports the activities undertaken by them. In this context, UNIDO has reached an agreement with the Arab Organization for Standardization and Metrology (ASMO) to organize a training seminar for participants from Arab countries and to translate into Arabic and disseminate relevant United Nations' publications and recommendations of ISO.

79. One of the primary objectives of UNIDO in this field is to assist in the Establishment of standards organizations (8.02.02). To help the Governments of developing countries to establish such bodies, UNIDO will prepare in 1971 a manual on the organization and administration of national standardization bodies (ID/B/64/Add.8, para.31). The manual is scheduled for

publication in 1972. UNIDO had also proposed to undertake in 1971 a study on requirements in regional standardization (ID/B/64/Add.8, para.32; Priority B), but this activity has been cancelled owing to lack of resources.

80. In 1972 UNIDO proposes, subject to availability of funds, to undertake a study on the establishment and activities of regional standardization organizations (Priority B). The study would analyse the activities of such organizations, their operation, performance and experience and would review the various plans for their establishment and financing. Possible co-operation with ISO on this study would be ascertained through appropriate contacts.

81. Quality control and standardization are closely linked, and thus UNIDO attaches importance to its assistance in Training in quality control (8.02.03). In 1971 a training workshop in Africa is scheduled for personnel responsible for quality control in government institutions, in central testing laboratories and in industry (ID/B/64/Add.8, para.33). UNIDO proposes to hold a similar training workshop on quality control in 1972 for countries in Asia. At the proposed workshops, elements of quality control (concept, criteria, sampling, reproducibility and reporting) and institutional and national organizational schemes will be discussed.

82. In an attempt to study Quality control in selected industries (8.02.04), UNIDO will be preparing in 1971 a set of flow sheets on quality control requirements covering industries existing in, or of interest to, developing countries (ID/B/64/Add.8, para.34). The flow sheets will indicate quality control tests required for new materials, for materials in processing and for finished products. This first set of flow sheets is scheduled for publication in 1972. UNIDO plans to continue this activity in 1972 by enlarging it to include industries not covered by the first set of flow sheets.

83. Within the context of its programme on Training in metrology (8.02.05), UNIDO will hold in 1971 a training workshop on metrology in Asia (ID/B/64/Add.8, para.36). This workshop was originally intended to be the first of a series of workshops on the subject of metrology, but as the topics of these workshops have been included in the training workshops for standardization (cf. 8.02.01), the series will not be continued.

84. UNIDO was to have undertaken a study in 1971 on Metrology: its role, requirements and application in developing countries (8.02.06; Priority B) (ID/B/64/Add.8, para.37), but owing to lack of resources the activity could not be carried out. Although various publications exist on the subject of metrology, none of them are orientated to the needs of developing countries, and for this reason UNIDO proposes to upgrade the study to Priority A in its 1972 work programme. Among the subjects to be dealt with in the study would be role, application and requirements including manpower, financial resources and equipment of metrology in developing countries.

Non-governmental administrative machinery for industrialization (8.03)⁷

85. The objective of UNIDO in this project is to provide the developing countries with assistance in the development and improvement of non-governmental organizations, active in

⁷ Formerly "Organization and administration of industrial institutions and services" (ID/B/64/Add.8).

industrial development, by upgrading the skills of their staff and promoting the reorganization and expansion of the scope of their activities.

85. In 1972, UNIDO will put special emphasis on promoting the further development of special technical assistance projects, taking into account the particular needs of each country. To achieve this objective, regional and interregional meetings will be convened in 1971, followed by consultations at the national level, to arrive at the identification of specific problems and required action for their solution.

87. In 1970, UNIDO held the second in its series of regional workshops on the Organization and administration of industrial services (8.03.01). The report of this workshop, which was attended by participants from Asia and the Middle East, is scheduled for publication in 1971. A similar regional workshop is scheduled to be held in Latin America in 1971 (ID/B/64/Add.8, para.39). The Latin American meeting will be the last in this series of regional workshops.

88. UNIDO has been continuing its activities with regard to Industrial co-operatives (8.03.02). During 1970 UNIDO, in co-operation with ILO and the International Co-operative Alliance (ICA), prepared a report on the role of co-operatives in the industrial development of individual countries, as requested by the Board at its third session in resolution 21 (III).^{8/} The future course of the activities of UNIDO related to industrial co-operatives will be based on the guidelines provided by the Board. In 1971, UNIDO has scheduled an expert group meeting to assist in the preparation of a programme of regional training in industrial co-operatives (ID/B/64/Add.8, para.40).

89. UNIDO proposes to hold in 1972 a regional training workshop on industrial co-operatives in Africa. The workshop would be held along the lines recommended by the above-mentioned expert group meeting. This activity would be co-ordinated with group 11 (small-scale industries) and possible co-operation with ILO and ICA would be ascertained through appropriate contacts.

90. In 1970, UNIDO held the first of a series of Regional workshops for managerial staff of chambers of industry (8.03.03). The workshop,* held for participants from English-speaking African countries, was organized in co-operation with ECA and the Afro-Asian Organization for Economic Co-operation (AFRASEC). UNIDO proposes to follow up the workshop in Africa by joint consultations and discussions in 1972 with chambers of industry in a selected African country.

91. A similar workshop, planned for 1971 (ID/B/64/Add.8, para.41) for participants from French-speaking African countries, has been changed to Priority B owing to lack of resources. UNIDO proposes to hold in 1972 another workshop of this type, this time for participants from Latin America.

92. The activity of regional training workshops for industrial administrators, formerly reported as project component number 8.03.04, has been transferred to group 7 where it is described as Industrial public administration (7.01).

^{8/} This report is presented to the Board as document ID/B/88.

93. Within the scope of its Promotional activities in co-operation with professional associations (8.03.05), UNIDO undertook, in co-operation with the World Federation of Engineering Organizations (WFEO), a survey in 1969 on the role of national engineering associations in industrial development. In 1970, UNIDO followed up this survey with a view to co-ordinating the activities of these associations with the activities of UNIDO. In 1971, UNIDO plans to assess the possibilities of enlarging the scope of these activities to include other professional associations and non-governmental organizations. Further activities to be undertaken in this area in 1972 will depend upon the results of the 1971 assessment.

94. UNIDO intends to strengthen its relations with the International Chamber of Commerce (ICC) and, perhaps, to undertake jointly with ICC in 1972 an investigation of the needs of chambers of industry and commerce in developing countries.

Promotion of contacts at fairs and exhibitions (8.04)

95. The objective of this project is to assist developing countries in the utilization of the opportunities presented at trade fairs, industrial exhibitions etc. for the implementation of promotional programmes. At present, the work of UNIDO in this area is concentrated on fairs and exhibitions, but it is planned to extend this activity to other types of international institutions. Consultation with the International Union of Fairs will continue with a view to evolving new concepts for fairs, concepts that are more in line with the needs and requirements of the developing countries.

96. During 1969 and 1970 UNIDO participated in six fairs and exhibitions, and the experience thus gained would seem to indicate that UNIDO should continue such promotional activities, particularly at fairs and exhibitions, held in developing countries where the promotional activity of UNIDO may be of greater benefit.

97. In its Promotional activities at industrial, trade and other international meetings (8.04.01), UNIDO attempts to provide participants from developing countries with an opportunity to meet potential partners from industrialized countries who could provide know-how, equipment, licenses or even commercial or financial co-operation. UNIDO is also attempting to draw greater attention at fairs to the products of developing countries by, for example, exhibiting products from countries that are not participating and by providing services such as a systematic collection and organization of criticisms and suggestions for product improvement. At fairs and exhibitions, UNIDO is continuing to organize special industry days during which problems and required inputs of specific sectors of industry are discussed. This activity is carried out in close co-operation with the respective sections of the Industrial Technology Division.

98. In 1970, UNIDO participated in four fairs (Hanover, Milan, Zagreb, Poznan) where activities were focused on information. Several possibilities for joint ventures were identified and a number of requests for information and documentation were received.

99. In 1971, UNIDO plans to participate in the following seven fairs: The Arab Textile Industries Fair, Cairo; Ghana International Trade Fair, Accra; International Fair, Kinshasa; International Fair, Budapest; International Fair, Poznan; International Autumn Fair, Zagreb; and International Building Equipment and Furnishings Fair, Tehran.

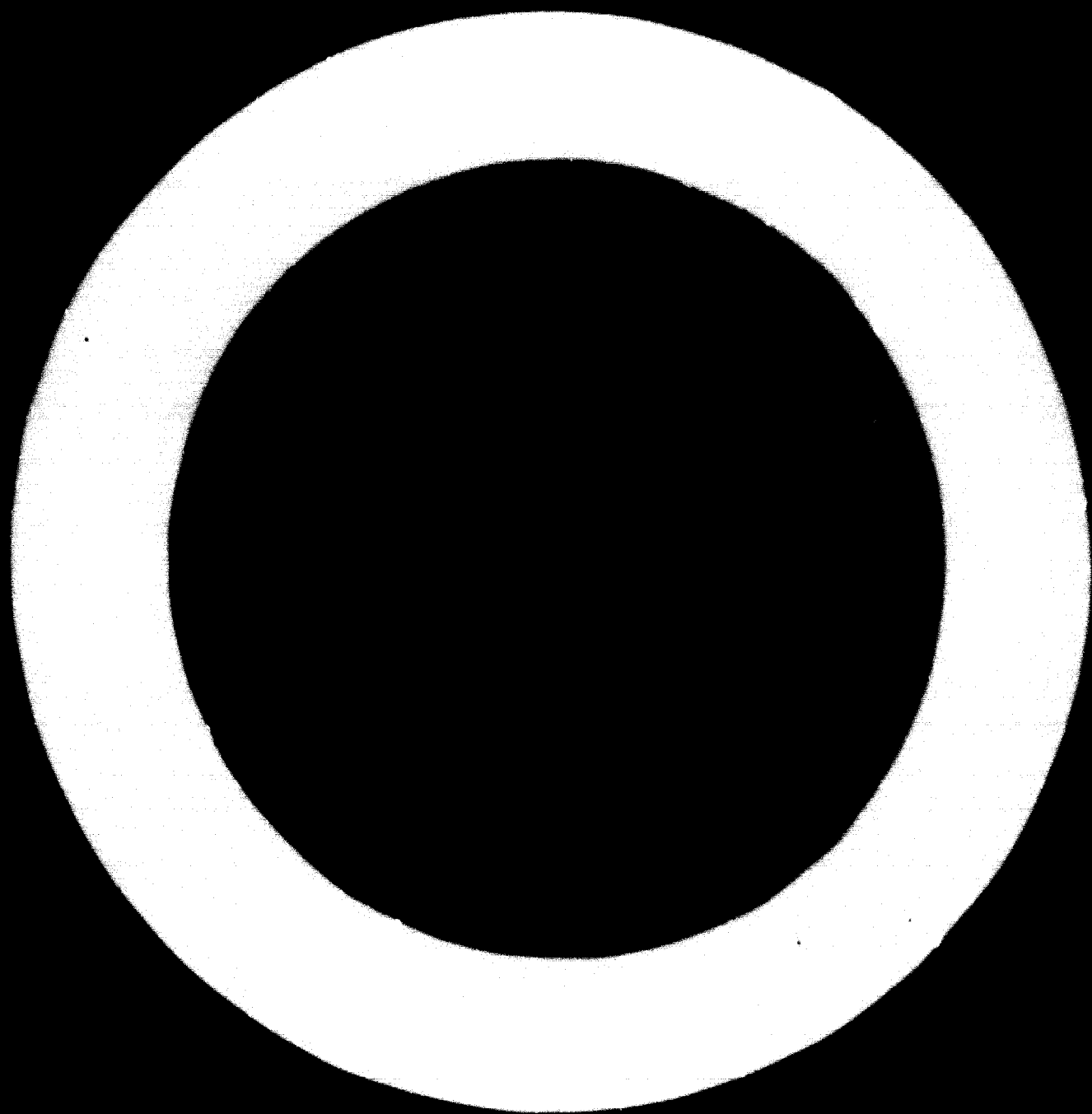
100. UNIDO plans to continue in 1972 with the organization of similar industrial promotion activities and industry days at industrial and trade exhibitions, such as the Third Asian International Trade Fair in New Delhi. UNIDO will identify the requirements of participants from developing countries and follow up on established contacts both at the fairs and at UNIDO headquarters.

101. Though trade fairs in industrialized countries are well organized and are provided with various services, developing countries may need advice, guidance and assistance in the preparation of their fairs. In the course of negotiations with individual developing countries on the organization of promotional activities, specific advice was requested from UNIDO as to ways and means of improving existing services and planning specific facilities at industrial fairs and exhibitions. UNIDO therefore proposes to hold in 1972 an Interregional training workshop on industrial fairs (8.04.02) with the aim of training officials of developing countries in the organization of such fairs. Twelve to fifteen responsible officials of well established fairs in developing countries would be given an opportunity of exchanging their experiences, reviewing their achievements and discussing how to make the fairs more effective as communication channels and contact points between industrialists and businessmen. Experts in marketing, promotion and physical organization of fairs would also be invited to participate. Possible co-operation with UNCTAD, the Union of International Fairs in Paris and the International Chamber of Commerce would be ascertained through appropriate contacts.

**Joint activities with the UN Advisory Committee for
the Application of Science and Technology to Development (8.05)²**

102. As a part of its effort to follow up on the recommendations falling within its competence and contained in the World Plan of Action, UNIDO participated in 1970 in the thirteenth session of UNACAST in New York. UNACAST examined selected aspects of industrial research and the progress made in the development of appropriate technologies for developing countries. Three studies were prepared for the Ad Hoc Working Group on Industry and Transfer of Technology of UNACAST, which took place in Vienna at the end of November 1970. The studies covered effective use of industrial research in developing countries, appropriate plant and product design and the selection and utilization of more appropriate technologies for developing countries. After discussion, the findings and recommendations of the Ad Hoc Working Group will be submitted to UNACAST. In 1971 and 1972 UNIDO will maintain liaison with UNACAST, and specific activities including field activities will be undertaken as required.

² This project was formerly reported within the activities of group 9 as 9.04 (ID/B/64/Add.9, para. 41,42).



Expenditures and estimated costs for supporting and other activities, 1970 - 1972
(in thousands of US dollars)

Project (Priority A)	Regular budget						Extra-budgetary resources ^a								
	Staff m/m		Consultants		Expert group meetings		1970	1971	1972						
	1970	1971	1970	1971	1970	1971				1972					
8.01 <u>Industrial research</u>															
8.01.01	15.0	8.0	6.0	2.8	3.0	5.0	14.6	-	8.8	CTF	12.0	CTF	10.0	CTF	
8.01.02	3.0	4.0	6.0	-	-	-	-	10.0	-	-	-	-	40.0	TA	
8.01.03	-	-	4.0	-	-	-	-	-	-	-	-	-	-	5.5	CTF
8.02 <u>Standardization, quality control and metrology</u>															
8.02.01	12.0	8.0	8.0	-	-	-	-	-	11.0	TA	19.0	TA	14.0	TA	
8.02.02	-	3.0	-	-	3.0	-	-	-	-	-	-	-	-	-	
8.02.03	-	6.0	6.0	-	-	-	-	-	-	-	23.0	TA	20.0	TA	
8.02.04	-	6.0	3.0	-	4.0	-	-	-	-	-	8.0	CTF	4.0	CTF	
8.02.05	-	6.0	-	-	-	-	-	-	-	-	22.0	TA	-	-	
8.02.06	-	-	4.0	-	-	3.0	-	-	-	-	-	-	-	-	
8.03 <u>Non-governmental administrative machinery for industrialization^b</u>															
8.03.01	19.0	6.0	-	-	-	-	-	-	(23.0	TA	19.0	TA	-	-	
8.03.02	12.0	5.0	6.0	12.1	-	-	-	10.0	(40.0	CTF	-	-	20.0	TA	
8.03.03	9.0	-	10.0	-	-	-	-	-	10.0	TA	-	-	(15.0	TA	
8.03.05	3.0	3.0	2.0	2.0	-	3.0	-	-	-	-	10.0	CTF	-	-	

<u>8.04 Promotion of contacts at fairs and exhibitions</u>										
8.04.01	12.0	24.0	24.0	10.9	16.0	19.0	-	-	6.2 CTF	50.0 CTF
8.04.02	-	-	6.0	-	-	-	-	-	-	15.0 TA
<u>8.05 Joint activities with UNACAST</u>										
8.05	38.0	32.0	38.0	27.8	36.0	30.0	14.6	20.0	44.0 TA	124.0 TA
<u>Total</u>										
									55.0 CTF	74.5 CTF
<u>Backstopping and servicing of operational activities</u>										
	50.0	50.0	56.0							
	138.0	132.0	144.0							
<u>Project (Priority B)</u>										
<u>8.C1 Industrial research</u>										
8.01.03	-	4.0	-	-	6.0	-	-	-	-	-
<u>8.02 Standardization, quality control and metrology</u>										
8.02.02	-	-	4.0	-	-	4.0	-	-	-	-
8.02.06	-	2.0	-	-	3.0	-	-	-	-	-
<u>8.03 Non-government administrative machinery for industrialization</u>										
8.03.03	-	6.0	4.0	-	9.0	4.0	-	-	18.0 TA	18.0 TA
<u>Total</u>										

a/ Operational costs shown above are included in the table on page 16.
 b/ In 1970 title was "Organization and administration of industrial institutions and services".

PRINTED PUBLICATIONS

<u>1970 publications programme</u>		<u>Languages</u>	<u>Cost</u> <u>(US\$)</u>
ID/30	Industrial research institutes (8.01.02) I. Project selection and evaluation II. Financial administration	E	
			<u>2,885</u>

1971 publications programme

ID/WG.61	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/30	Industrial research institutes (8.01.02) I. Project selection and evaluation II. Financial administration	F S	
ID/62	World Association of Industrial and Technological Research Organizations (WAITRO) Report on the meeting of the founding members (8.01.01)	E F S	
-	Manual for the evaluation of industrial research institutes in developing countries (8.01.03)	E	<u>4,450</u>

1972 publications programme

-	Manual for the evaluation of industrial research institutes in developing countries (8.01.03)	F S	
-	Manual on the organization and administration of national standardization bodies (8.02.02)	E F S	
-	Flow sheets for quality control on selected industries (8.02.04)	E	<u>4,600</u>

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

GROUP 9: INDUSTRIAL INFORMATION

103. The year 1970 saw an increase in the demand for, and the implementation of, the activities of UNIDO in the sphere of industrial information. These activities will continue to be emphasized by UNIDO, as industrial and technical information forms the basis on which decisions are made about the planning and development of industrial projects and the establishment of technical assistance requirements.

104. In addition to assisting in the establishment and strengthening of national and regional facilities for promoting the use of industrial information in developing countries, UNIDO attempts to give such services a definite orientation so that they can be incorporated in a world-wide information exchange system. The activities of UNIDO in industrial information require continuous backstopping to ensure the flow of information to industrial services in developing countries and, above all, to supplement the initial operations and to guide the expansion of these new services along modern and integrated lines (e.g. improved methods of disseminating information and more dynamic approaches to extension services).

105. The programmes of seminars on industrial information policy and of training courses for information personnel form part of the endeavour by UNIDO to improve local information and extension facilities in developing countries.

106. It is through group 9 that UNIDO provides documentation, library and reference services to its staff at headquarters and in the field. In 1970, a selected dissemination of information programme (cf. 9.02.07) was introduced for headquarters staff; it will be extended to the field staff in 1971 and 1972.

107. The Industrial Inquiry Service, the Advisory Service on the Supply of Industrial Equipment and the Roster of Industrial Consultants all provide contact between UNIDO and the shop-floor level of industry in developing countries.

108. The UNIDO publications programme for the dissemination of industrial information supplies current information on industrial development and on UNIDO activities as well as abstracts of relevant documentation issued within the United Nations system. In 1972, the information potential of UNIDO will be strengthened by intensifying work in the field of audio-visuals, which are gaining recognition as powerful tools for the continuous upgrading and updating of the skills of industrial personnel in developing countries.

OPERATIONAL ACTIVITIES

109. One of the objectives of UNIDO is to assist the Governments of developing countries in the provision of local industrial information facilities with a view to strengthening and modernizing local industry.
110. Following the suggestion of the Industrial Development Board at its third session (A/1617, para.162) to close the information gap by creating new, and reinforcing existing, local and regional industrial information and extension services in developing countries, UNIDO undertook a promotion campaign in 1970 which led to an increased number of requests for technical assistance in this area.
111. The following examples illustrate the work currently being undertaken by UNIDO industrial information advisers in the field: an adviser is identifying the information requirements for industry as a whole in Brazil; an expert in visual aids is placed in India; in Iran an adviser is assisting in the establishment of an information service for a development bank; within the framework of UNDP/CF projects, industrial information officers have been recruited for Tunisia and Saudi Arabia; in Saudi Arabia an adviser is compiling and evaluating documentation on industrial incentives; and Thailand requested an expert in the classification of product designs.
112. In addition to country projects, regional projects for the provision of industrial information and extension services are now under way or are being formulated for the Industrial Development Centre for Arab States (IDCAS), the Common Afro-Malagasy-Mauritius Organization (OCAM), the Andean Group, the Regional Co-operation for Development (RCD) countries and the Organization of Senegal Riparian States (OERS). The information and documentation equipment needed for these regional projects is to be financed from the UNIDO General Trust Fund.
113. The approach of UNIDO to the creation of industrial information and general extension centres is demonstrated by the procedure followed with regard to IDCAS. An industrial information adviser undertook a diagnostic mission to advise on the location of the Centre, on administrative arrangements for co-operation and co-ordination and on the distribution of work between the countries concerned; he assessed the requirements of the Centre in equipment and staff. The principal executives of the Centre were appointed and subsequently attended a training course for industrial information officers in Moscow (cf. 9.01.03). On their return to the Centre, the second phase of operations was initiated when, in co-operation with the adviser assigned to this project by UNIDO, they started practical work.
114. The programme of training and upgrading of industrial information personnel through fellowships will continue. Following the six fellowships in 1970 and the four fellowships approved for 1971, UNIDO proposes to earmark funds in 1972 for a further four fellowships.
115. At the 1970 Seminar on Industrial Information for the ECA and ECAFE regions (9.01.04) it was recommended that, as a complement to the series of training manuals (cf.9.01.06) currently in preparation, UNIDO, in co-operation with UNESCO, should explore the possibilities of financing the acquisition of the industrial information equipment and basic reference materials.

needed for the establishment of industrial information services in developing countries as well as for the reinforcement of existing services. UNIDO proposes to provide this assistance, which is fundamental to the effective functioning of all information services, as soon as funds can be made available.

116. A list of the information and documentation equipment (for example, copying machines, microfilm equipment, offset printing machinery) most suitable for information centres in developing countries was compiled in 1970. Six such centres will be equipped in 1971, financed under the UNIDO General Trust Fund.

117. The total number of approved operational projects in the field of industrial information in 1970 was 22; this number is expected to rise to 30 in 1971 and 35 in 1972.

Value of approved field projects and forecast of requirements, 1970 to 1972
(in thousands of US dollars)

	1970	1971		1972	
	<u>estimated expenditure</u>	<u>Approved projects</u>	<u>Forecast of requirements</u>	<u>Approved projects</u>	<u>Forecast of requirements</u>
UNDP/SF	-	-	-	-	-
UNDP/TA	37.5	22.8	127.2	-	176.0
RF	16.2	22.8	15.2	-	72.0
SIS	12.5	26.0	31.3	-	70.0
GTF	197.1	143.6	20.6	-	133.3
FIT	-	-	-	-	-
Total	<u>253.3</u>	<u>215.2</u>	<u>194.3</u>	<u>-</u>	<u>451.3</u>

List of Approved Operational ProjectsUNDP/TECHNICAL ASSISTANCEAfrica

LES/68/12

Industrial organization and administration

Asia and the Far East

IRA/70/4

Development banking (assistance to Industrial and Mining Development Bank of Iran (IMDBI))

Interregional

INT/69/5

Workshop for industrial information officers in Africa and Asia

UNIDO REGULAR PROGRAMMEAfrica

CAF/09/1/1

Industrial information and promotion

ID/RP/09-3 (Dahomey)

Industrial information

NIR/09/1/2

Industrial information and promotion

ID/RP/09-2 (Sierra Leone)

Industrial organization and administration

The Americas

COS/09/1/1

Industrial information

ELS/09/1/1

Industrial information

JAM/09/1/1

Industrial information

Europe and the Middle East

ID/RP/09-4 (Saudi Arabia)

Industrial information and promotion

SIS PROGRAMMEAfrica

70/1025 CON-K-7

Exploratory mission for industrial promotion services

70/1006 GHA-16

Exploratory mission for industrial promotion services

70/950 AFR-12 Phase II

Exploratory mission to establish industrial information services

The Americas

70/723 BRA-27

Technical information services designer

Asia and the Far East

70/958 THA-21

Product design and index certification

Europe and the Middle East

70/834 SAU-10

Assistance to the technical library (PETROMIN)

SIS PROGRAMME (cont'd)

Interregional

69/672 INTREG-12

Assistance to IDCAS in industrial surveys and industrial information

UNIDO GENERAL TRUST FUND

Interregional

9/4/Rev.1

Equipment for the installation or improvement of industrial documentation centres in developing countries

9/20

Co-operation between UNIDO and RCD countries in the establishment of an RCI information centre.

9/5

Training course for documentalists in the field of scientific and technological information

9/17 (00/9 (a))

Support to the Industrial Development Centre for Arab States (IDCAS): centre of documentation and five branch documentation centres

SUPPORTING AND OTHER ACTIVITIES

116. The supporting and other activities of group 9 are classified under the following projects:^{10/}

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 ^{11/}
Dissemination of industrial information through publications	9.05 ^{12/}
Audio-visual information service	9.06

Building up industrial information facilities for developing countries (9.01)

119. The Industrial Development Board at its fourth session expressed its support of the work of UNIDO in "the building up of industrial information facilities in developing countries through the establishment of regional and national industrial information and documentation centres and through the provision of expert advice and training of national personnel" (A/8016, para. 185). Thus, in its programme of industrial information training, UNIDO is extending and diversifying its activities. In view of the anticipated volume of training activities in 1972, UNIDO is striving to conclude agreements with a number of established information services to ensure their co-operation. The International Federation for Documentation (FID) has already offered its assistance in this respect. Moreover, the role of UNIDO as a clearing house in the promotion and organization of exchange of industrial information has been further consolidated in 1970.

120. The activities of UNIDO with regard to local industrial information services in developing countries and training and upgrading of industrial information personnel, formerly described under project components 9.01.01 and 9.01.02, respectively, are now listed under the operational activities of group 9.

121. UNIDO plans to continue its annual programme of interregional courses for the upgrading of industrial information personnel (9.01.03). In 1970, UNIDO, with the co-operation of UNESCO and in collaboration with the Government of the Union of Soviet Socialist Republics, organized an interregional training course for industrial information and documentation officers from English-speaking countries. The training course, held in Moscow, had a duration of three months.

122. UNIDO proposes to conduct a similar course in 1971 for Spanish-speaking participants; in 1972 it is planned to organize another course for French-speaking participants.

^{10/} Project 9.04 "Collaboration with UNACAST" has been transferred to group 8.

^{11/} Previously listed as 9.03.01 in ID/B/64/Add.9.

^{12/} Previously listed in parts under 9.03 in ID/B/64/Add.9.

123. In 1970, UNIDO held the first in a series of two-week Seminars for industrial information officers (9.01.04). The Seminar, which was held in Tehran, was attended by 25 English-speaking participants from the ECA and ECAFE regions. A report of the Seminar is scheduled for publication in 1971.

124. In 1971, a similar seminar is scheduled in Latin America for Spanish-speaking participants (ID/B/64/Add.9, para.17). This seminar will be co-ordinated with the interregional course for the upgrading of industrial information personnel (cf. 9.01.03). The report of this seminar is scheduled for publication in 1972.

125. In 1972, UNIDO proposes to hold the third in this series of seminars. French and English-speaking participants of the interregional training courses (cf. 9.01.03) would be invited to attend. The host organization would participate by contributing to the cost of the activity, as was the case in 1970 in Iran, by providing conference facilities and staff. The regional economic commissions concerned, as well as the International Federation for Documentation (IFD), would be associated in the planning and implementation of the seminars.

126. In the Promotion and organization of the exchange of industrial information (9.01.05), the network of correspondents through which information can be transferred rapidly to and from developing countries has been of great assistance in helping UNIDO to fulfill its role as a clearing house. All industrialized countries are now represented in the network. The correspondents, primarily organizations and institutions, are prepared to co-operate with UNIDO in assisting developing countries to accelerate the industrialization process. UNIDO is making efforts to enlarge this network so that not only all countries, but also all major branches of industry are represented. About 90 per cent of the information required by developing countries is supplied free of charge through the network. In order to meet the remaining requests, which call for research, for the compilation of material that is not easily accessible, or for translation or other adaptations to local conditions, UNIDO is concluding contracts with specialized organizations for the supply of such information against payment.

127. In 1970, mutual agreement was reached with a further 24 developing countries for the designation of correspondents, bringing the total number of correspondents in these countries to 77. The task of correspondents in the developing countries is not only to disseminate information supplied by industrialized countries, but to stimulate the demand for, and application of, further information from industry.

128. As an extension of its activities for upgrading industrial information personnel, UNIDO will proceed with the compilation of Training manuals and directories (9.01.06)^{13/} for the guidance of those concerned with the creation and improvement of local industrial information services. In 1970, UNIDO prepared two studies, one on "Organization and functions of industrial information centres" and the other on "Equipment for industrial information centres". These two studies as well as two papers completed in 1969 - a manual on industrial equipment purchasing in developing countries and a guide to industrial directories - are scheduled for publication in 1971.

^{13/} Previously listed as 9.03.02 in ID/B/64/Add.9.

129. Two further studies are planned for 1971: "Classification and indexing of industrial information resources" and "Information units in industrial plants". These studies are scheduled for publication in 1971.

130. UNIDO proposes to continue this series in 1972 with studies on "The use of audio-visual techniques in the industrialization process" and "Sources of industrial information: promotional literature issued by supplier firms". Further, UNIDO proposes to prepare in 1972 directories to sources of information on specific subjects such as: repair and maintenance, product and production design, and environmental problems (e.g. air and water pollution by industry, disposal of industrial wastes).

131. Following the report of the Secretary-General on the application of computer technology for development (E/480C), the Seminar on Industrial Information (cf. 9.01.04) recommended that UNIDO should undertake a feasibility study on the Selectica and use of computers in processing industrial information (9.01.07). In this study, which UNIDO proposes to undertake in 1972, emphasis will be placed on determining the stage at which the use of computers becomes technically and economically feasible. An agreement has been reached with the International Federation for Documentation for close co-operation in this project.

132. With a view to studying Innovation in the dissemination of industrial information through extension services (9.01.08), UNIDO proposes to hold in 1971 in Vienna an expert group meeting for industrial information experts. The experts would be expected to examine and evaluate present methods of industrial communications in general and, in particular, the operation and impact of extension services and their role in encouraging better utilization of the industrial information available from local documentation services and industrial bodies. New ideas and approaches to industrial information would also be discussed with a view to accelerating the transmission of technology to the developing countries. Moreover, an appraisal would be made of the programme of UNIDO in this area and guidelines would be drawn up for future activities.

Collection of industrial documentation and data (9.02)¹⁴

133. One of the continuing activities of UNIDO is the collection of specialized data on subjects of particular relevance to the work of the organization, particularly in areas where no systemized information is readily available from other sources. The other specialized data collections within the Industrial Documentation Unit make a vital contribution in the support of the operational programmes.

^{14/} The description of the work being undertaken on the Industrial Development Abstracts (previously listed under 9.02.01) is now to be found under project 9.05. The activities on data in the supply of industrial equipment and roster of industrial consultants, previously listed under project component numbers 9.02.03 and 9.02.04 respectively, have been integrated with project 9.04. The register of industrial firms, listed under 9.02.05 in document ID/B/64/Ann.9, has been transferred to project 9.06.

134. Utilizing funds provided through the Austrian voluntary contribution, UNIDO has strengthened its Industrial Documentation Unit (IDI) (9.02.01) in 1970. Besides providing specialized library and documentation services, the IDI serves not only UNIDO headquarters and field staff, but users of the Industrial Inquiry Service. The increase in the demand for IDI services is apparent in the number of reference questions received during a one-month period over the last three years: 120 in July 1968, 243 in July 1969, and 439 in July 1970. The continued expansion of IDI services in 1972 will be dependent on an increased allocation of funds, since the funds from the Austrian voluntary contribution will be exhausted by the end of 1971.

135. Special attention is being devoted by UNIDO to the collection of unpublished industrial information material such as Industrial feasibility studies and technical assistance reports (9.02.02). This collection includes studies prepared by UNIDO and by governmental and non-governmental organizations. Branch and country reports, which form an important part of this collection, contain information about industrial conditions in a number of individual countries and thus provide a comprehensive and ready source of reference for UNIDO staff, field experts etc.

136. In 1970, UNIDO began the preparation of a study to determine evaluation criteria, explore the possibilities of a computerized retrieval system and to establish procedures for the dissemination and utilization of collected data. The information gleaned from this study is being put into practice in the Industrial Information Processing System (INDIS) (cf. 9.02.06 below).

137. In 1970 UNIDO, in close co-operation with other United Nations agencies, began to develop an integrated Industrial information processing system (INDIS) (9.02.06). This system is used for the indexing, storage and retrieval of information material generated by UNIDO. The documents to be recorded are scanned to ascertain subject content, then key words (descriptors), which best describe the content, are singled out and an abstract of each document is written on the basis of these descriptors. The abstracts are then fed into the computer; computer retrieval is based on the recognition and manipulation of individual descriptors. UNIDO plans to publish, beginning in 1971, a series of these Industrial Development Abstracts (cf. 9.05.03). By the end of 1972, over 8,000 documents will have been processed, and it is anticipated that all documents and technical assistance reports produced by CID/UNIDO since 1961, together with a limited number of selected non-UNIDO documents, will have been integrated into INDIS by the end of 1974.

138. The task of reproducing UNIDO documents on microfiches was started in 1970. Further development of this project, which was initiated with funds from the Austrian voluntary contribution, is dependent upon availability of resources.

139. In 1970, UNIDO introduced a programme for headquarters staff on the Selective dissemination of information (SDI) (9.02.07). New material received in the Industrial Documentation Unit is scanned, a selection is made and the relevant information is circulated to staff members who have indicated special fields of interest. UNIDO proposes to extend this programme in 1971 and 1972 to selected UNIDO field staff in accordance with their specific requirements. Ultimately, this work should provide direct support to information centres in the field.

Industrial inquiry and advisory services (9.03)¹⁴

140. In accordance with the recommendations of the Athens Symposium in 1967 (ID/11, para.157-160) and the priority accorded by the Industrial Development Board at its third session (A/7616, para.102), an international clearing house for industrial information is now operative at UNIDO headquarters. The objective of the clearing house is to locate sources of information which could contribute to the solution of specific problems encountered by industrialists in developing countries.

141. The Industrial Inquiry Service, the Advisory Service on the Supply of Industrial Equipment, and the Roster of Industrial Consultants will be consolidated in 1971. An indication of the growth of these services is the number of inquiries received from the field during a one-month period over the last three years: in July 1968, 18 inquiries were submitted to the Industrial Inquiry Service, the Advisory Service and the Roster; in July 1969, 83 inquiries were submitted; and in July 1970, 270 inquiries were addressed to these three services. As the number of inquiries is increasing, a larger number of questions will have to be sent to appropriate institutes for processing.

142. Special emphasis will be given in 1972 to the provision of practical, directly applicable information on industrial equipment in order to assist developing countries to make the proper selection of such information and to facilitate its supply. In line with ECOSOC resolution 1183 (XLI), the recommendations of the Expert Group convened in New York in October 1967 and the study carried out in 1969/1970, the Advisory Service on the Supply of Industrial Equipment will conclude agreements with selected trade and professional associations, as well as with research and technical organizations, with a view to securing up-to-date information on sources of supply, specifications, costs and delivery terms for industrial equipment.

143. Another dimension of the inquiry and advisory services - the provision of advice to industry in developing countries on available consulting skills and services - will be expanded through the Roster of Industrial Consultants in engineering, management and other specialized fields. Simultaneously, classified data on industrial firms offering license and/or other forms of partnerships and financial institutions orientated towards the development of industries will be added to the computerized data bank of the roster.

144. A promotion campaign for the inquiry and advisory services will be launched in 1972. This campaign will make use of: the illustrative material acquired by the Industrial Inquiry Service in the processing of the thousands of problems handled since its inception; the material assembled on industrial agencies in developing countries; and the computerized UNIDO General Mailing List.

^{14/} This project previously appeared as project component 9.03.01 (ID/B/64/Add.9). The activities previously described under project components 9.03.02, 9.03.03 and 9.03.04 are now incorporated in project 9.05.

145. Given the multi-sectoral and trouble-shooting nature of the services, it must be anticipated that the campaign will eventually have an effect on the technical assistance programme of UNIDO, particularly with regard to the SIS component. (In 1970, six SIS projects resulted from inquiries originally processed by the Industrial Inquiry Service.)

Dissemination of industrial information through publications (9.05)¹⁶

146. At present UNIDO is publishing several periodicals designed to supplement existing literature on industrial development. Moreover, the periodicals reflect the work of the United Nations in industrial development. UNIDO is concerned with improving the quality of its periodical publications and is attempting to put them on a sounder financial footing by increasing their sales. In 1970, questionnaires were sent out to validate the UNIDO General Mailing List, and the information obtained from these questionnaires should provide a basis for the reorganization and possible commercialization of the publications.

147. As in the past, the main part of the Industrial Research and Development News (IRDN) (9.05.01) will describe institutes and current activities in the field of industrial development. In accordance with the recommendations of the Industrial Development Board at its fourth session (A/8016, para.189), a proportion of each issue will be devoted to the findings of UNIDO expert group meetings and to achievements in the field. From 1971 onwards, UNIDO proposes to increase the number of IRDN issues from four to six per year.

148. The eight-page UNIDO Newsletter (9.05.02) will continue to appear in English, French, Spanish and Russian on the first day of each month. UNIDO proposes to publish a two to four-page sector-oriented supplement to the Newsletter, as needs arise, on topics such as industrial opportunities, repair and maintenance and selected sectors of technology. These supplements would be distributed according to a restricted list of subscribers. In 1971, UNIDO proposes to translate the Newsletter into German; subject to availability of resources, the German edition will be continued in 1972.

149. In 1971, UNIDO plans to commence the monthly publication of the Industrial Development Abstracts (9.05.03), utilizing the abstracts prepared by WDIS, referred to in 9.02.06 above.

Audio-visual information service (9.06)¹⁷

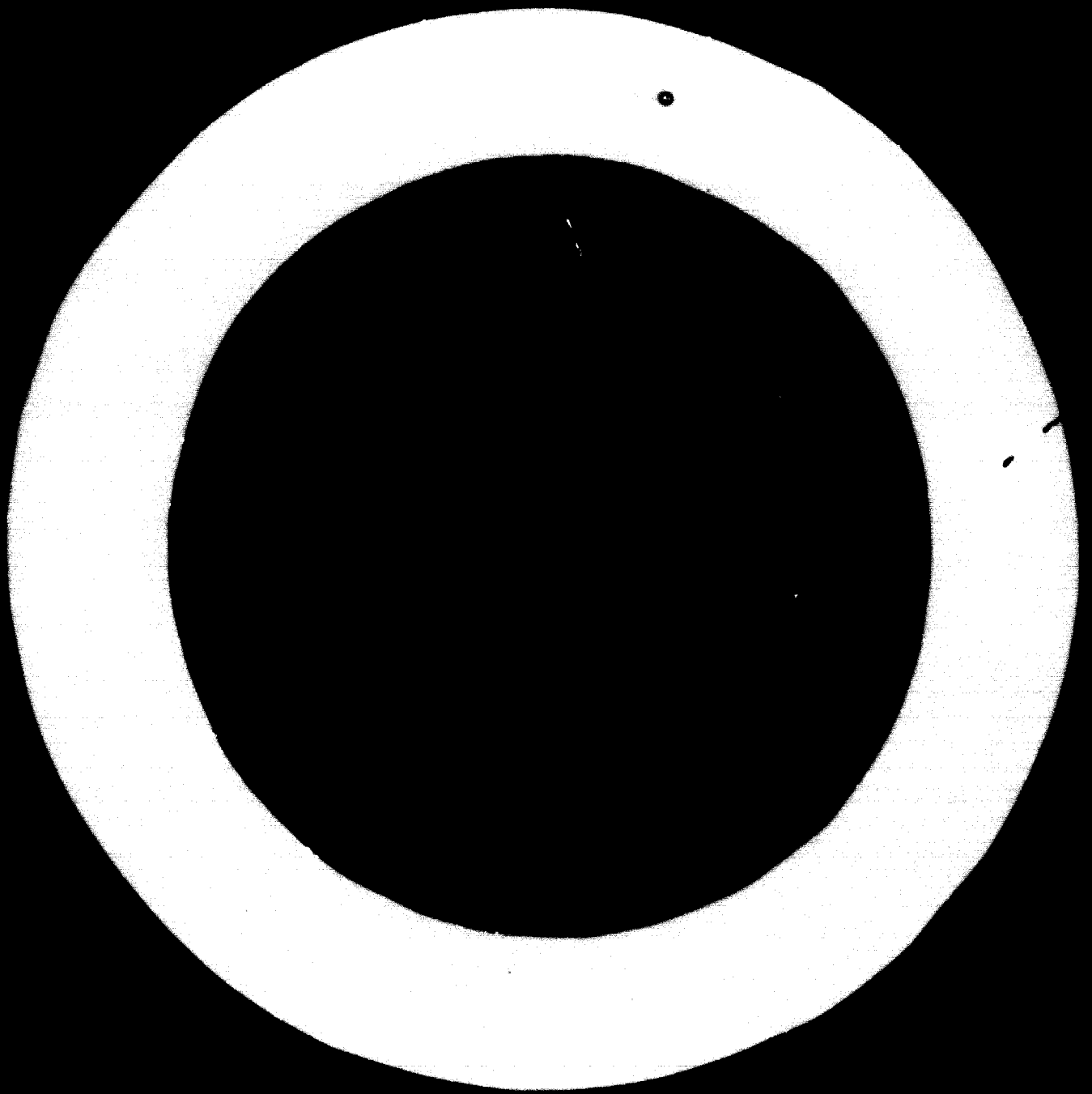
150. The compilation of a register of industrial films, originally planned for 1970^{*} (ID/B/64/Add.9, para.30), had to be deferred owing to lack of resources. However, exploratory work was undertaken in 1970 to identify an institute which could initiate work on the register in 1971. An inquiry is being carried out among United Nations bodies, international and national organizations and private firms to determine which industrial films can be acquired free of charge or on loan. It may be possible to establish a bank of films which could be used to promote industrialization in the developing countries.

^{16/} Activities under this project were previously listed as 9.03.01, 9.03.02, 9.03.03 and 9.03.04 in ID/B/64/Add.9.

^{17/} Project 9.06 previously appeared under the title "Register of industrial films" as project component 9.02.05 (ID/B/64/Add.9, para.30).

151. All films would be screened by headquarters staff, using the equipment purchased in 1970 and 1971, with a view to selecting those which would best meet the particular industrial needs of developing countries. The films selected would then be announced in UNIDO publications.

152. In 1973, UNIDO proposes to employ a consultant to examine the progress of this project, to inject information on the available films into the computerized INDIS system (cf. 9.02.06), and to ensure that optimum utilization is made of the audio-visual material in the field.



Expenditures and estimated costs for supporting and other activities, 1970 - 1972
(in thousands of US dollars)

Project (Priority A)	Regular budget						Extra-budgetary resources		
	Staff m/m		Consultants		Expert group meetings		1970	1971	1972
	1970	1971	1972	1970	1971	1972			
9.01 <u>Building up information facilities for developing countries</u>									
9.01.03	6.0	3.0	3.0	-	-	-	104.4 GTF	80.0 GTF	(40.0 TA) (40.0 GTF)
9.01.04	6.0	3.0	3.0	-	-	-	33.5 TA	20.0 TA	30.0 TA
9.01.05	6.0	2.0	4.0	2.3	-	-	20.0 GTF	15.0 GTF	12.0 GTF
9.01.06	4.0	2.0	4.0	-	4.9	3.6	-	-	-
9.01.07	-	1.0	2.0	-	-	5.8	-	-	-
9.01.08	-	1.0	2.0	-	-	3.6	-	-	-
9.02 <u>Collection of industrial documentation and data</u>									
9.02.01	24.0	24.0	24.0	-	10.8	3.6	-	-	53.0 GTF
9.02.02	12.0	4.0	6.0	-	-	-	-	-	30.5 GTF
9.02.06	-	4.0	6.0	-	-	3.6	-	-	-
9.02.07	-	4.0	6.0	-	-	-	-	-	-
9.03 <u>Industrial inquiry and advisory services</u>	28.0	24.0	30.0	9.5	10.8	16.2	-	-	-
9.05 <u>Dissemination of industrial information through publications</u>									
9.05.01	12.0	12.0	12.0	-	-	-	-	-	-
9.05.02	8.0	5.0	5.0	-	-	-	-	-	5.2 GTF
9.05.03	-	2.0	2.0	-	-	-	-	-	-

9.06	<u>Audio-visual information service</u>	<u>106.0</u>	<u>3.0</u>	<u>3.0</u>	<u>112.0</u>	<u>11.8</u>	<u>26.5</u>	<u>36.6</u>	<u>40.0</u>	<u>3.5</u>	<u>13.0</u>	<u>10.0</u>	<u>70.0</u>	<u>72.0</u>
	<u>Total</u>													

<u>Backstopping and servicing of operational activities</u>	<u>14.0</u>	<u>14.0</u>	<u>20.0</u>
	<u>120.0</u>	<u>108.0</u>	<u>132.0</u>

a/ Operational costs shown above are included in the table on page 35.

PRINTED PUBLICATIONS

1970 publications programme

Languages

Cost
(US\$)

Industrial Research and Development News (9.05.01)

ID/SER.B/10	IRDN, Vol.IV, No.4	E
ID/SER.B/11	IRDN, Vol.V, No.1	E F S
ID/SER.B/12	IRDN, Vol.V, No.2	E S
ID/SER.B/13	IRDN, Vol.V, No.3	E S

UNIDO Newsletter (9.05.02)

Newsletter Nos.21-32

E F S
(12 issues)

Nos.27-32

R
(6 issues)

17,349

1971 publications programme

Industrial Research and Development News (9.05.01)

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 F S
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 F S
ID/SER.B/18	IRDN, Vol.VI, No.4	E F S
ID/SER.B/19	IRDN, Vol.VI, No.5	E F S

ID/53 Guide to industrial directories (9.01.06)

E/F/S
(trilingual)

UNIDO/LIB/
SER.B/1-12 Industrial development abstracts (9.05.03)

E

ID/WG.77 Report of the seminar on industrial information (for the ECAFE and ECA regions) Tehran 1970 (9.01.04)

E F S

- Manual on industrial equipment purchasing in developing countries (9.01.06)

E F S

UNIDO Newsletter (9.05.02)

Newsletter Nos.33-34

E F S R (G)

1971 publications programme (cont'd)

Languages

Cost
(US\$)

-	Organization and functions of industrial information centres (9.01.06)	E F S	
-	Equipment for industrial information centres (9.01.06)	E F S	
			<u>29,000</u>

Forecast of 1972 publications programme

Industrial Research and Development News (9.05.01)

ID/SER.B/20	IRDN, Vol.VI, No.6	E F S	
ID/SER.B/21	IRDN, Vol.VII, No.1	E F S	
ID/SER.B/22	IRDN, Vol.VII, No.2	E F S	
ID/SER.B/23	IRDN, Vol.VII, No.3	E F S	
ID/SER.B/24	IRDN, Vol.VII, No.4	E F S	
ID/SER.B/25	IRDN, Vol.VII, No.5	E F S	
UNIDO/LIB/ SER.B/13-24	Industrial development abstracts (9.05.03)	E	

UNIDO Newsletter (9.05.02)

Newsletter Nos.45-56

E F S R (G)

-	Classification and indexing of industrial information material (9.01.06)	E F S	
-	Information units in industrial plants (9.01.06)	E F S	
-	Report on the seminar for industrial information officers (Latin America, 1971) (9.01.04)	E F S	

27,000

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

D04224

GROUP 10a: INDUSTRIAL TRAINING

153. The objective of UNIDO in the field of industrial training is to assist the developing countries in upgrading the skills, knowledge, experience and awareness of managerial, technological, planning and administrative personnel involved in industrial development. In previous work programmes, activities related to in-plant group training have been classified under supporting activities, but under the 1972 work programme they are included under operational activities.

154. UNIDO is organizing its training programmes in close co-operation with relevant national agencies and institutions, using the various financial resources available, and is maintaining co-operation at the international level with other United Nations agencies and non-governmental organizations. The training activities of UNIDO include in-plant group training programmes, individual fellowship training programmes and training workshops in selected industrial areas.

155. In-plant group training programmes, which comprise the principal operational activities of group 10a, have been organized into three types: pre-employment training, upgrading and training for senior officers. In 1971 and 1972, the programmes are scheduled to expand along functional lines and to include several additional industrial sectors such as the chemical and fertilizer industries and electric welding. In addition to courses in maintenance and repair, courses will be arranged for value engineering/analysis and materials handling. UNIDO will continue to look into the possibilities of conducting in-plant training courses in the developing countries themselves rather than in industrialized countries. Moreover, it is anticipated that more training programmes will be financed in 1971 and 1972 on a long-term basis. Many countries have made financial contributions, in full or in part, to host in-plant training programmes, while other programmes are financed to a large extent from the UNIDO General Trust Fund.

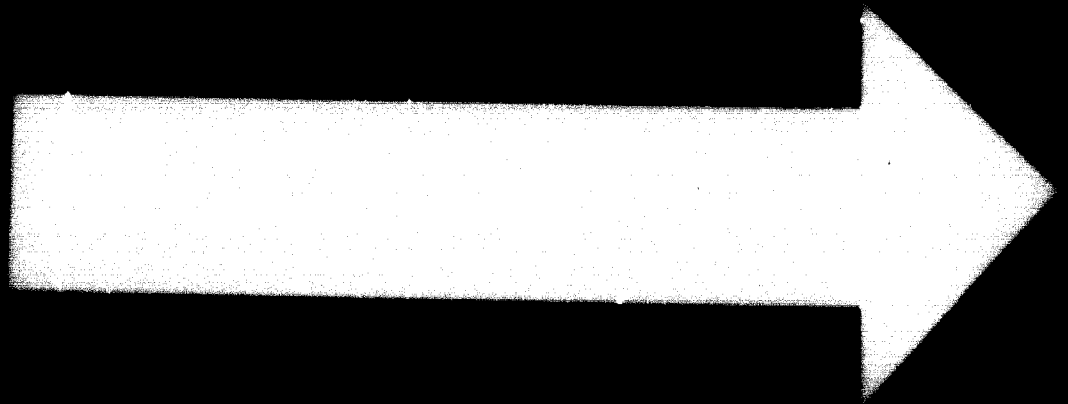
156. Individual training programmes are carried out through fellowships. The number of individual fellowship posts established in 1970 is approximately 600 for all funds, including UNDP/SF projects. In 1971, it is expected that there will be approximately 700 individual fellowships and a further increase is likely in 1972. The individual fellowship programme covers training in such fields as metal products, fertilizers, petrochemicals, industrial information, project preparation and evaluation, maintenance and repair. The individual fellowship programmes, reported in document ID/B/64/Add.10 (10a.09) under supporting activities, is an operational activity and is considered as part of the over-all programme on fellowships, reported under technical co-operation.

157. Training workshops are programmed in such areas as industrial surveys, industrial banking techniques, investment promotion techniques, project evaluation and implementation, financial analysis and export promotion techniques. The programmes are covered under groups 12, 13, 14 and 15a. Training workshops are also conducted in the fields of licensing, patents, standardization, quality control, metrology, industrial administration and information offices, which are covered under groups 7, 8 and 9. The emphasis in training workshops is upgrading the knowledge and skills of national technical and administrative personnel with related responsibilities to enable them

to cope with complicated industrial problems. Seminars on UNIDO operations have been conducted since 1969, and this programme will be continued and expanded with similar seminars of shorter duration, involving top level officials from developing countries.

158. The training programme in achievement motivation for industrial development is based on the hypothesis that individuals can be assisted to think and act as entrepreneurs, i.e. as motivated agents of change in a developing society. This programme is designed for the training of industrial entrepreneurs, managers, loan officers and administrators in achievement motivation related to industrial development aims and objectives.

159. An in-house staff development programme for UNIDO professional staff will be initiated on an ad hoc basis in 1971 and will be expanded in 1972.



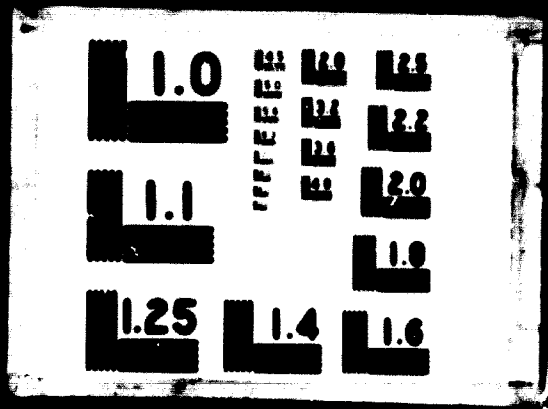
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OPERATIONAL ACTIVITIES

160. The major objective of the operational activities of UNIDO in the field of industrial training is the upgrading and improvement of skills and knowledge of national technical personnel of developing countries to equip them to meet the specific needs of industries and hence to contribute to the qualitative improvement and quantitative increase of industrial production.
161. In-plant group training programmes comprise the major part of the operational activities carried out within group 10a. The number of in-plant training programmes has increased from six in 1969 to nine in 1970. It is anticipated that 16 in-plant training programmes, including those financed under UNDP/SF, will be implemented in 1971, subject to availability of funds and to the successful conclusion of agreements with the host countries. For 1972, 36 projects are programmed.
162. In-plant group training programmes conducted by UNIDO fall into two main categories: sectoral programmes covering branches of industries, and functional programmes related to cross-industry problems.
163. In the sectoral programmes, efforts are made to conduct an integrated training programme in specific branches of industries, such as iron and steel industry, pulp and paper industry, metalworking and electrical industries.
164. An example of this type of programme was the in-plant training course in the electrical industry carried out by UNIDO in 1970 in Sweden. This course was attended by 15 participants from 15 developing countries of Africa, Asia, the Far East and Latin America. Another example is the training programme in the textile industry, carried out by UNIDO in 1969 and 1970 in Poland.
165. UNIDO carried out a total of 8 sectoral in-plant group training programmes in 1970. This number is expected to rise to 13 in 1971, and a total of 23 programmes is forecast for 1972.
166. In-plant training programmes along functional lines, reported in document ID/B/64/Add.10 (10a.06) under supporting activities, are mostly scheduled to be implemented in 1971 and 1972. The functional programmes are designed for engineers and specialists already engaged in industries to upgrade and improve their knowledge in a specific functional activity that covers all sectors of industries, such as maintenance systems, standardization and quality control.
167. An example of this type of programme was the course on organization and management of maintenance systems in Sweden, organized in 1970, which will be repeated in 1971 and 1972. This course was attended by 16 participants from 16 developing countries. Another large programme on maintenance and repair will be conducted in 1971 in Italy. A training programme in standardisation will be carried out in 1971 in the Union of Soviet Socialist Republics.
168. UNIDO carried out one functional in-plant group training programme in 1970; three are scheduled for 1971, and thirteen for 1972.

Regional programs - 1970 to 1972

Training sector	Country	No. of participants	Duration (in months)	Year	
				1970	1971
Plastic industry (II)	Argentina/Brazil	15	3	-	X
Plastic industry (I)	Austria	20	3	X	X
Shoe industry	Czechoslovakia	20	3	-	X
Diesel engines	Czechoslovakia	20	3	X	X
Cement industry	Denmark	20	3	-	X
Leather production	Federal Republic of Germany	20	3	-	X
Food processing (II)	India	20	3	-	X
Basic chemicals	Japan	14	3	-	X
Mechanical industry	Japan	14	2½	X	X
Electrical and electronic industries	Netherlands	18	6	-	X
Textile industry (I)	Poland	20	5	X	X
Electrical industry	Sweden	20	4	X	X
Pulp and paper	Sweden	12	3	X	X
Foundry technology	Sweden	20	3	-	X
Engineering industry	Switzerland	15	3½	-	X
Chemical industry	Switzerland	12	3	-	X
Textile industry (II)	United Arab Republic	20	4	-	X
Food processing (I)	United Kingdom	14	3	-	X
Fire and rubber production	United States of America	20	3	-	X
Iron and steel	Union of Soviet Socialist Republics	60	6	X	X
Metalworking industry	Union of Soviet Socialist Republics	20	4	X	X
Fertilizer industry	Union of Soviet Socialist Republics	12	4	-	X
Electrical welding	Union of Soviet Socialist Republics	20	3	-	X

169. Within the scope of its in-plant training programmes, UNIDO is carrying out a number of UNDP/IF projects aimed towards assisting developing countries to establish programmes for pre-employment training of newly graduate engineers as a basic in-plant training course at the national level. These training programmes will be carried out in industrial enterprises that make available facilities for in-plant training. Several Asian and Latin American countries have indicated interest in having such projects carried out in selected branches of industry, e.g. in the textile, metalworking and fertilizer industries. It is anticipated that project requests will be submitted to UNDP for approval in 1971 and 1972.

170. At the request of the developing countries, industrial training experts, financed under UNDP/TA or SIS, will be closely associated with industrial training activities carried out at an enterprise, branch of industry, or national level. In 1970, six training experts were stationed in the field; more training experts are expected to be working in developing countries in 1971, reaching the number of 15 in 1972.

171. In order to cope with the various and complex problems of training in relation to industrial development, UNIDO proposes to appoint, with the mutual agreement of the regional economic commissions and UNECOB, regional training advisers, one in 1971 and three in 1972, to be attached to these organizations. The regional training advisers will advise the Governments of the countries within the region on industrial training aspects of industrial development.

172. The series of seminars on UNIDO operations was initiated in 1969. This programme is aimed at acquainting senior government officials responsible for industrial development planning and for technical assistance programming with the functions and activities of UNIDO, so that they might better assist their Governments in making the most effective use of resources available for industrial development. Four seminars on UNIDO operations were held in Vienna in 1969 and three in 1970. In 1971 three four-week seminars, to be held in Vienna, and two regional seminars are scheduled to take place. The first regional seminar is to be held in Dakar for the French-speaking West African countries; the location of the other seminar will be decided at a future date. It is anticipated that a similar number of seminars will be carried out in 1972. UNIDO has extended this programme, financed by the Swiss Government, to include one-week seminars for high-level officials.

Value of approved field projects and forecast of requirements, 1970 to 1972

(in thousands of US dollars) *

	1970 estimated expenditure	1971		1972	
		Approved projects	Forecast of requirements	Approved projects	Forecast of requirements
UNDP/IF	39.5	551.1	-	535.4	50.0
UNDP/TA	122.0	17.0	823.0	-	950.0
IFP	138.0	-	63.5	-	62.0
SIS	40.9	28.0	35.2	-	129.4
GTF	248.6	63.0	20.3	-	300.0
FIT	-	-	-	-	-
Total	589.0	* 654.1	942.0	535.4	1,491.4

Functional programs - 1970 to 1972

Training sector	Country	No. of participants	Duration (in months)	Year	
				1970	1971
Value analysis engineering	Denmark	15	2½	-	X
Systems analysis	Federal Republic of Germany	20	2	-	X
Financial management	Federal Republic of Germany	20	3	-	X
Industrial consultancy	Federal Republic of Germany	20	3	-	X
Maintenance transport	Federal Republic of Germany	20	3	-	X
Management of maintenance and repair	Italy	20	3	-	X
Small-scale light industry	Italy	20	2½	-	X
Maintenance instruments	Hungary	20	3	-	X
Maintenance shipbuilding	Norway	14	2½	-	X
Maintenance systems	Sweden	14	3	X	X
Materials handling	United Kingdom	20	3	-	X
Maintenance in fertilizer industry	United States of America	20	3	-	X
Standardization	Union of Soviet Socialist Republics	25	5	-	X
				1	3
					13

List of Approved Operational Projects

UNDP/SPECIAL FUND

Europe and the Middle East

TUR-79 In-plant training centre for engineers

Interregional

INTREG-13 Advanced industrial training for the electrical and electronic industries

INTREG-14 Higher training for textile industries

UNDP/TECHNICAL ASSISTANCE

Asia and the Far East

NFP/70/6 Industrial advisory mission - cost analysis and control

PAP/69/2 Indigenous entrepreneurship

Interregional

INT/68/2 In-plant training in electrical engineering, Sweden

INT/68/9 In-plant training in pulp and paper industry, Sweden

INT/69/6 In-plant training programme for production engineers in the metalworking industry, Union of Soviet Socialist Republics

INT/69/8 In-plant training in the shoe industry, Czechoslovakia

INT/69/21 In-plant training in the field of oil engines, Czechoslovakia

INT/69/7 Group training programme for engineers in the field of food processing

UNIDO REGULAR PROGRAMME

Interregional

ID/RP/10-9 Sixth in-plant group training programme in iron and steel industries

SIS PROGRAMME

The Americas

70/1035 NTC-7 Central American school for training in textiles (exploratory mission)

Asia and the Far East

69/556 IND-11/12 Organization and management quality control schemes and seminars on quality control techniques

69/618 NEP-1 Industrial advisory mission - assistance to Industrial Development Corporation

SIS PROGRAMME (cont'd)

Europe and the Middle East

70/833 SAU-9

Assistance in industrial management training (PETROMIN)

Interregional

70/824 INTREG-14

In-plant group training programme in mechanical engineering industry

UNIDO GENERAL TRUST FUND

Interregional

10a/3

In-plant group training programme in the field of shoe industry

10a/6/Rev.1

In-plant group training programme in the field of mineral fertilizers industry

10a/9

In-plant group training programme for engineers in the field of oil engines

10a/20

In-plant group training programme for engineers in the field of food processing industry

10a/22 (00/9(h))

Fellowships for training and briefing of staff of the Industrial Development Centre for Arab States (IDCAS) and advisers principally related to the activities and programmes of UNIDO

-

Training programme for officers of developing countries

10a/1

In-plant training programme for production engineers in metalworking industry

10a/7

In-plant training programme for production engineers in metalworking industry

SUPPORTING AND OTHER ACTIVITIES

173. The supporting and other activities of group 10a are classified under the following projects:^{18/}

Improvement of industrial training programmes, methodologies and techniques	10a.01
Training manuals	10a.02
Staff development programmes	10a.03
Training in achievement motivation	10a.04
Training in industrial administration	10a.05

Improvement of industrial training programmes, methodologies and techniques (10a.01)

174. In order to improve Training methodologies and techniques (10a.01.01), as utilized in various industrial training programmes, UNIDO began preliminary investigations in 1970 on the applicability of the results of current educational research carried out by qualified institutions in the field of training and education. These investigations will be continued in 1971 with the aim of utilizing the findings in all UNIDO training activities, with particular regard to their applicability to, and practicability for, both headquarters and field activities.

175. In the light of the increased number of in-plant training programmes, UNIDO and the national directors of in-plant group training programmes propose to convene in 1972 an Expert group meeting (10a.01.02). It is planned to invite some ten directors of in-plant group training programmes and other experts to this five-day meeting. The report of the meeting is scheduled for publication in 1972.

176. In the course of its in-plant group training programmes, seminars, training workshops and individual fellowship programmes, UNIDO has been responsible for training over 1,000 nationals of developing countries. In an effort to obtain Evaluations of training programmes (10a.01.03), UNIDO sends out questionnaires to former trainees, conducts interviews and evaluates final reports. In 1968, UNIDO initiated a systematic evaluation of in-plant training programmes, and this evaluation will be continued. A systematic evaluation of the individual fellowship programmes was initiated by UNIDO in 1970. In an effort to improve further its activities in the field of industrial training, UNIDO proposes to intensify the evaluation activities in 1971 and 1972. UNIDO plans to maintain regular contact with former participants of group and individual training programmes in order to follow up their progress and to be of assistance to them. As part of this activity UNIDO proposes to prepare in 1971 an alumni directory of all former participants.

177. In 1970, UNIDO undertook, in co-operation with ILO and UNESCO, preparatory work on its contribution to the Implementation of General Assembly Resolution 2259 (XXII) (10a.01.04) on

^{18/} As the in-plant training programmes have been transferred to operational activities, the projects and project numbers of the supporting activities described in the present document do not correspond to those previously listed in ID/B/84/Add.10.

"The role of the United Nations in training national technical personnel for accelerated industrialization of the developing countries", in which the Secretary-General was requested to prepare a report on the above subject in the light of studies carried out by the appropriate organs of the United Nations system. UNIDO will prepare the final report, as called for in the resolution, in order to have it submitted to the Economic and Social Council at its 51st session.

178. In the Implementation of the Industrial Development Board Resolution 8 (II) (10a.01.05), UNIDO prepared in 1970 an outline for a detailed long-term training programme, as requested in operative paragraph 6 of the resolution. This outline will be submitted to Governments for their comments and, after the incorporation of these comments, it will be submitted to the Board at a future session.

Training manuals (10a.02)

179. In 1970, UNIDO prepared four training manuals for in-plant training programmes in diesel engines, repair and maintenance, iron and steel (part one) and the cereal processing industry. These manuals are scheduled for publication in 1971. In 1971, UNIDO proposes to prepare the following four training manuals, which would be published in 1972: food processing, plastic processing, iron and steel (part two) and metalworking. UNIDO plans to publish in 1972 a handbook on its operations for use in the seminars on UNIDO operations.

Staff development programme (10a.03)

180. The objective of the staff development programme is to improve the knowledge and skills of professional staff members in order to maximize present and future individual efficiency and to ensure the effectiveness of the over-all operations of UNIDO. UNIDO is faced with highly diversified problems, and to achieve effectiveness in daily operations, it is highly desirable to integrate the various specialized approaches and to improve the understanding of the complexity of problems involved in the process of industrial development. The staff development programme was initiated in 1970 on an ad hoc basis by giving orientation to new staff members; it will be further developed in 1971 by improving communication through a staff journal exchanging views between field experts and headquarter staff. The programme is being planned and executed jointly with the Division of Administration, in close co-operation with other Divisions.

Training in achievement motivation (10a.04)

181. The objective of this project is to train industrial entrepreneurs, industrial managers, industrial administrators and other persons engaged in the process of industrial development in achievement motivation. Through awareness of this concept, they can begin to think and to act as agents of change in a developing society and realize more fully opportunities for industrial growth. This programme, which was initiated by UNIDO in 1969 (cf. ID/B/64/Add.10; 10b.05), will further expand in 1971 and 1972. At the request of Governments, UNIDO is planning to build into a number of projects, especially UNDP/SF projects, an achievement development component. A number of requests for assistance have already been received from developing countries.

182. In 1970, UNIDO held a seminar for staff members on achievement motivation, and exploratory work was carried out to identify possible activities. Implementation of the first

operational projects will begin in 1971 and continue in 1972. In 1971, UNIDO proposes to initiate an evaluation of projects employing this new social technology. As a next step, UNIDO plans to convene in 1971 an expert group meeting to examine the results of the projects to date, including experts responsible for similar projects undertaken by co-operating organizations, and to suggest guidelines for future projects. The report of the meeting is scheduled for publication in 1972.

Training in industrial administration (10a.05)

183. The expanded activities in industrial public administration, projected under group 7 (7.01) will be given additional support through the design, testing and implementation of improved training courses for public officials dealing with industrialization. Industrial development agencies can acquire further dynamism by introducing some of the techniques developed for industrial enterprises, such as organizational analysis. UNIDO plans, beginning in 1972, to incorporate the techniques developed for the skill improvement of officials in the higher echelons of governmental agencies and related industrial institutions into the skill improvement projects of group 7. This training project will be closely co-ordinated with groups 7 and 10b.

184. UNIDO proposes to commission a consultant in 1971 to plan the training project in more detail. Improvements will be made in 1972 and the same year, UNIDO will convene an expert group meeting to evaluate the new subject matter introduced into the training courses. The report of this meeting is scheduled for publication in 1972.

Expenditures and estimated costs for consulting and other activities, 1970 - 1972
 (in thousands of US dollars)

Project (Priority A)	Regular budget						Extra-budgetary resources			
	Staff m/s		Consultants		Expert group meetings		1970	1971	1972	
	1970	1971	1972	1970	1971	1972				1970
10a.01 <u>Improvement of industrial training programmes, methodologies and techniques</u>										
10a.01.01	2.0	2.0	3.0	-	1.5	1.5	-	-	-	-
10a.01.02	-	1.0	2.0	-	-	-	-	-	-	9.0
10a.01.03	4.0	2.0	3.0	1.0	1.0	2.0	-	-	-	-
10a.01.04	4.0	2.0	-	1.0	-	-	-	-	-	-
10a.01.05	2.0	2.0	-	-	-	-	-	-	-	-
10a.02 <u>Training manuals</u>	4.0	2.0	3.0	4.6	3.0	3.5	-	-	-	0.5 GTF
10a.03 <u>UNIDO staff development programme</u>	2.0	3.0	4.0	-	2.5	-	-	-	-	-
10a.04 <u>Training in achievement motivation</u>	2.0	8.0	10.0	-	-	-	-	-	-	5.0
10a.05 <u>Training in industrial administration</u>	-	3.0	3.0	-	2.0	3.0	-	-	-	8.0
<u>Total</u>	20.0	25.0	28.0	6.6	10.0	10.0	-	-	-	22.0
<u>Backstopping and servicing of operational activities</u>	64.0	47.0	56.0							
	84.0	72.0	84.0							

a/ Operational costs shown above are included in the table on page 56.

PRINTED PUBLICATIONS

1970 publications programme

		<u>Languages</u>	<u>Cost (US\$)</u>
ID/SER.D/3/1-8	The Łódź textile seminars	E	5,198

1971 publications programme

ID/SER.D/3/1-8	The Łódź textile seminars	F S	
-	Handbook of UNIDO operations seminars (10a.02)	E F S	

Training manuals (10a.02)

-	Cereal processing	E	
-	Diesel engines	E	
-	Iron and steel (I)	E	
-	Repair and maintenance	E	

17,000

1972 publications programme

-	Training methodology and techniques (10a.01.01)	E	
-	In-plant training Report on expert group meeting (10a.01.02)	E	
-	Training directory (10a.01.03)	E F S	

Training manuals (10a.02)

-	Plastic processing	E	
-	Food processing	E	
-	Iron and steel (II)	E	
-	Metalworking industry (10a.02)	E	
-	Achievement motivation Report on expert group meeting (10a.04)	E	
-	Training in industrial administration Report on expert group meeting (10a.05)	E	

16,000

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

104225

UNIDO Ann.
E/1977/11

GROUP 10b: INDUSTRIAL MANAGEMENT AND CONSULTING SERVICES

185. The objectives of the programmes of UNIDO in industrial management and consulting services are: (a) to continue to assist industrial managers and top executives in the developing countries in solving their problems in a practical way by the application of appropriate management concepts, principles and techniques related to both the social and technical aspects of industrial management; (b) to expand the activities of UNIDO directed at the establishment and development of national consulting services; and (c) to provide long and short-term assistance in the over-all improvement and upgrading of management knowledge and skills.

186. In addition, UNIDO, through its programme of supporting activities, is continuing to investigate the dynamic and changing needs of managers in the developing countries in order to increase the effectiveness of existing operational programmes and to formulate and direct assistance in such additional areas of managerial responsibility as organization analysis, management information systems and corporate planning.

OPERATIONAL ACTIVITIES

187. Industrial managers in the developing countries face complex problems associated with the process of industrial growth and development. Accordingly, in planning its programme, and with regard to the Second United Nations Development Decade, UNIDO has introduced additional dimensions to the various types of management assistance. In particular, recognition is given not only to the differing and changing needs in the developing countries but also to the advancing stages of management knowledge. The management activities of UNIDO are directed towards the primary objective of improving the level of management practice in specific industrial contexts, either through short-term problem-solving assistance, as implemented by the management clinics, or through longer-term assistance, as the assistance rendered in the establishment and development of indigenous research and consultancy services.

188. The implementation of these programmes in industrial management has given rise to innovations in the form and substance of actual management assistance. First, UNIDO has initiated interdisciplinary project teams which conduct short-term management clinics to provide managerial assistance through on-the-spot work sessions. Second, UNIDO has further developed the joint co-operation approach by undertaking a mutual assistance programme in the form of a centre, thereby utilizing existing institutes and facilities rather than creating additional ones. Third, UNIDO has proposed a substantive upgrading of management assistance that would include not only the traditional forms such as work rationalization, production efficiency, cost reduction and preventive maintenance, but also such broad skills and techniques as corporate planning and control, management and information systems, operations research and systems analysis, required in the more advanced and systematic study and application of management. UNIDO's concept of the management system includes the full spectrum of enterprise work activities. For example, purchasing and inventory control is regarded as a vital management consideration for cost-effectiveness analysis (e.g. in value engineering) as is the co-ordination of internal operations (production) with the flow of external consumption (sales).¹⁹

189. The technique of management clinics is illustrated by the clinic projects held by UNIDO in Indonesia, Pakistan, Yugoslavia and the recent clinic conducted in El Salvador from 10 August - 4 September 1970, in which on-the-spot trouble-shooting and free dialogue brought to the surface specific problems such as standard costs, break-even analyses, cash-flow forecasts, and stock control techniques. On the basis of the results of this clinic in the textile industry, the packaging and food processing sectors have approached the governmental institute (INSAFI) for similar clinics.

190. UNIDO plans to utilize further the management clinic as an instrument to evaluate and design prospective assistance programmes in such key industries as the construction, iron and steel and metal fabrication. In particular, UNIDO will consider in more detail ways and means for developing specific assistance to the construction industry, as recommended by the International Symposium on Industrial Development^{19/} held in Athens in 1967. Provision is now being

^{19/} Document ID/11, para.326 (2).

made in the 1971 and 1972 work programmes for the administration and implementation of additional management clinics by 1972, in line with the encouragement of the Industrial Development Board at its fourth session (A/LOI, para. 00).

191. Additional technical assistance of a long-term nature is being directed towards the development of indigenous consultancy services. For example, in 1970, UNIDO initiated a programme in Yugoslavia that, *inter alia*, called for the establishing and training of national consultant firms and personnel through actual case study projects. In view of the expressed interest for similar training of consultants in other developing countries, it is estimated that by the end of 1972 four additional projects of this nature will be undertaken.

192. The total number of approved operational projects in the field of industrial management and consulting services in 1970 was 83. This number is expected to rise to 90 in 1971 and to 105 in 1972.

Value of approved field projects and forecast of requirements, 1970 to 1972
(in thousands of US dollars)

	1970 estimated expenditure	1971		1972	
		Approved projects	Forecast of requirements	Approved projects	Forecast of requirements
UNDP/SF	123.2	1,222.5	57.0	1,021.8	100.0
UNDP/TA	68.2	187.7	670.3	39.3	750.0
RP	93.1	95.2	-	-	100.0
SIS	423.2	370.3	136.0	-	500.0
GTF	104.9	97.7	-	-	100.0
FIT	-	-	-	-	-
Total	812.6	1,973.4	863.3	1,061.1	1,550.0

List of Approved Operational Projects

UNDP/SPECIAL FUND

Africa

GHA-28 Assistance to the Industrial Holding Corporation

Asia and the Far East

PAK-48 Centre for the organization and the development of the jute industry

PAK-62 Establishing a cotton textile industry development centre

Europe and the Middle East

YUG-11 Centre for industrial organization and development

UNDP/TECHNICAL ASSISTANCE

Africa

TAN/69/4 Assistance to National Development Corporation

UAR/69/8 Quality control - certification marking and informative labeling; training; in-plant standardization

UAR/69/24 Statistical quality control

The Americas

BAR/70/3(RP) Industrial management adviser

DOM/68/7 Industrial development (assistance to CORDE)

JAM/69/2 Industrial management and maintenance systems

Asia and the Far East

CHA/68/2 Industrial management and training

INS/68/11 Industrial management

INS/70/3 Textile industry

KOR/70/7 Industrial management

MAL/68/6 Assistance to MARA (Commerce and Industry Division)

THA/69/30 Industrial development

Europe and the Middle East

TUR/69/16 Operational research

UNIDO REGULAR PROGRAMME

Africa

ID/RP/10/4 (Algeria) Industrial management - purchasing engineer

DAH/10/1/1 Industrial management and training

ID/RP/10-2 (Ghana) Industrial management - specific industrial management subjects for high-level technical personnel of selected industries

ID/RP/10-5 (Ghana) Training in industrial management

UNIDO REGULAR PROGRAMME (cont'd)

Africa (cont'd)

GUI/10/1/1	Industrial management and training
IVC/10/1/1	Industrial management and training
ID/RP/10-2 (Nigeria)	Industrial training
RWA/10/1/2	Industrial training and management
SEN/10/1/3	Industrial management and training
ID/RP/10-3 (United Republic of Tanzania)	Industrial management - specific industrial management subjects for managers and high-level technical personnel of nationalized industries
TOG/10/1/1	Industrial management and training
ID/RP/10-5 (United Arab Republic)	Industrial management
UAR/10/1/3	Industrial training and management
ZAM/10/1/1	Industrial management - management techniques; long-range country programming (8 missions)

The Americas

BOL/10/1/1	Industrial management and training
ID/RP/10-4 (Chile)	Industrial training - seminar for textile executives
CHI/10/1/2	Industrial management
CUB/10/1/4	Industrial management and training
ECU/10/1/1	Industrial management and training
JAN/10/1/2	Industrial management and training

Asia and the Far East

IND/10/1/3	Industrial management
ID/RP/10-9 (India)	Industrial management and training
ID/RP/10-3 (Indonesia)	Industrial management
INS/10/1/4	Industrial management and training

Europe and the Middle East

CYP/10/1/1	Industrial management and training
GRE/10/1/1	Industrial management and training
POL/10/1/1	Industrial management and training
TUR/10/1/3	Industrial management
ID/RP/10-3 (Yugoslavia)	Industrial management
YUG/10/1/1	Industrial management and training - work organization and management in scientific institutions

SIS PROGRAMME

Africa

66/2 GHA-2	Assistance to Fibre Bag Manufacturing Corporation (FBMC)
67/163/Rev.3 GHA-5	Assistance to Ghana Industrial Holding Corporation
69/593 GHA-9	Assistance in valuation of physical assets

SIA PROGRAMME (cont'd)

Africa (cont'd)

65/304 MII-1
65/338 NIR-10
70/951 TIN-14

Organization of state-owned enterprises
Assistance to glass industry
Assistance to mechanical workshops

The Americas

69/515 BAR-2
70/733 BAR-3
61/227 BRA-4
67/238 BRA-8
69/645 BRA-21
70/991 BRA-32
68/327 DOV-6
68/376 ECU-7

69/664 ELC-4

Industrial management
Industrial management
Assistance to the Commission for Industrial Development
Corporate financial planning - Petrobras
Industrial management adviser
Industrial management clinic
Assistance to the Public Enterprises Corporation
Assistance to the Centre de Desarrolle (CENDES) - industrial management
Industrial management advisory and problem solving mission in cotton textile industry

Asia and the Far East

67/174 INS-3
67/177 INS-6
69/527 IRA-19

69/473 PAK-7

69/499 PAK-5

70/806 PHI-13
70/850 PHI-15

68/404 SIN-11
68/405 SIN-12

Spinning mill
Paper mills
Exploratory mission to investigate short and long-term plans to be undertaken with a view to designing a management information and decision making system in the Ministry of Economy
Assistance to the newsprint mill, shipyard and Industrial Development Corporation
Survey to formulate recommendations for co-ordination and efficient utilization of the steel, iron and engineering industries
Assistance to four-weeks seminar in value analysis
Organization and management quality schemes in manufacturing industries
Assistance to the Economic Development Board (management accounting)
Assistance to the light industries services (management accounting)

Europe and the Middle East

69/635 ISR-9
69/560 POL-3

69/552 ROM-5

70/916 SAU-12

68/339 YUG-3

68/340 YUG-4

Industrial management (modern management techniques)
Assistance in reorganization and improvement of management in existing and newly-designed plants
Assistance in introduction of use of computers to management systems of machine tools, metallurgical and chemical industries
Exploratory mission for assistance to the General Petroleum and Mineral Organization (PETROMIN) in management information systems
Establishment of a market research and product forecasting programme for a group of industries
Establishment and management of a computer based production planning and control system at the shipyards

EIS PROGRAMME (cont'd)

Europe and the Middle East (cont'd)

- | | |
|---------------|---|
| 68/431 YUG-5 | Establishment and management of a computer based production planning and control system |
| 68/342 YUG-6 | Assistance to automobile engines manufacturing plant |
| 68/347 YUG-11 | Assistance to furniture factory |
| 68/343 YUG-13 | Assistance to the mechanical factory |
| 70/980 YUG-32 | Application of digital computers |

SUPPORTING AND OTHER ACTIVITIES

193. The supporting and other activities of group 10b are classified under the following projects:^{20/}

Consulting services	10b.01
Organization analysis	10b.03 ^{21/}
Management information systems	10b.04 ^{22/}
Corporate planning	10b.05

Consulting services (10b.01)

194. The Board, at its fourth session (A/8016, para.201), stressed that the proficiency of consulting services in the developing countries should be improved. In this connexion, UNIDO proposes to follow up the expert group meetings held in New York (1966) and Tokyo (1969) with an action-oriented programme on the Use and development of consulting services to management in developing countries (10b.01.01). In 1971, UNIDO proposes to hold an expert group meeting in Latin America to help formulate and direct development work in this region, including both technical and managerial aspects of consulting services. The report of this meeting is scheduled for publication in 1972.

Organization analysis (10b.03)

195. As a final stage in the development of a full-scale management programme, UNIDO will be focusing attention on modern organization theory and practice. In 1971 and 1972, Field investigations (10b.03.01) will be undertaken to analyse organizational problems such as line and staff authority, task force management, the traditional requirements of authority/activity alignments, and enterprise structures. UNIDO has three objectives in these investigations: (a) to gain a better understanding of specific organizational problems in given enterprises and/or industries; (b) to formulate terms of reference for extended effort in this area; and (c) to consider the "vertical slice" technique of management development by which managers at the various levels in a given organization are regarded as a training unit or team. In this connexion, UNIDO proposes to convene in 1972 an Expert group meeting (10b.03.02), which will be an additional contact mechanism for the generation of new programmes of technical assistance.

Management information systems (10b.04)

196. In 1971, UNIDO will initiate a field investigation on the Techniques of management information systems (10b.04.01) such as systems analysis and managerial auditing. On the basis

^{20/} Project 10b.02, "Industrial management clinics", previously listed under supporting activities (ID/B/64/Add.10), is now included under operational activities.

^{21/} This project was previously entitled "Studies on particular management techniques in developing countries" (ID/B/64/Add.10). The present project 10b.03 covers former project component 10b.03.06. Former project components 10b.03.01 and 10b.03.02 have been included in project 10b.05. Former project components 10b.03.03 through 10b.03.05 have been dropped from the programme.

^{22/} This project was previously entitled "Mobilization of expert resources" (ID/B/64/Add.10).

of this and similar studies to be continued in 1972, UNIDO proposes to hold in late 1972, an expert group meeting on the Value and application of improvement designs (10b.04.02). The meeting would cover every major decision area in the management of industrial enterprises - production, sales and finance.

Corporate planning (10b.05)

197. UNIDO proposes to conduct in 1971 and 1972 a series of investigations on the Particular planning needs and requirements of business enterprises in selected developing countries (10b.05.01). As a second step, UNIDO will then hold in 1972 an expert group meeting on the Introduction and use of corporate planning and control techniques (10b.05.02). This meeting would give special emphasis to the application in production/distribution systems in order to better meet the requirements of developing countries in such critical areas of management responsibilities as marketing, long-range planning, and inventory control. In both the investigations and in the expert group meeting, staff members and consultants will be used to test ideas, seek opinions and to develop specific work requests in these projected areas of management assistance so as to optimize the combination of study and practice.

Expenditures and estimated costs for supporting and other activities, 1970 - 1972
(in thousands of US dollars)

Project (Priority A)	Regular budget						Extra-budgetary resources ^{a/}			
	Staff m/a		Consultants		Expert group meetings		1970	1971	1972	
	1970	1971	1972	1970	1971	1972				
<u>10b.01 Consulting services</u>	5.0	3.0	6.0	-	-	5.0	-	-	-	-
10b.01.01							14.0			
<u>10b.02 Industrial management clinics b/</u>	6.0	-	-	3.2	-	6.0	-	-	-	-
<u>10b.03 Organization analysis</u>	-	5.0	6.0	-	-	-	-	-	-	-
10b.03.01										
10b.03.02										5.0
<u>10b.04 Management information systems</u>	-	1.0	1.0	-	-	-	-	-	-	-
10b.04.01										
10b.04.02										9.0
<u>10b.05 Corporate planning</u>	3.0	16.0	6.0	-	9.0	5.0	-	-	-	-
10b.05.01										
10b.05.02										9.0
<u>Total</u>	<u>14.0</u>	<u>26.0</u>	<u>38.0</u>	<u>3.2</u>	<u>9.0</u>	<u>10.0</u>	<u>6.0</u>	<u>14.0</u>	<u>6.0</u>	<u>23.0</u>
<u>Backstopping and servicing of operational activities</u>	<u>70.0</u>	<u>70.0</u>	<u>70.0</u>							
	<u>84.0</u>	<u>96.0</u>	<u>108.0</u>							

a/ Operational costs shown above are included in the table on page 67
b/ From 1971 on this project is included under operational activities.

PRINTED PUBLICATIONS

Forecast of 1972 publications

	<u>Languages</u>	<u>Cost (US\$)</u>
- Development and use of consulting services in developing countries (10b.01.01)	E S	<u>1,300</u>

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

GROUP 11: SMALL-SCALE INDUSTRY AND RELATED ACTIVITIES

198. The activities of UNIDO in the field of small-scale industry have been increasing steadily, particularly in the less developed of the developing countries. Both the operational and supporting activities are aimed principally at promoting the development of small-scale industries within over-all industrialization programmes of developing countries and include advice and assistance in the provision of necessary facilities and services.

199. With regard to industrial extension services, promotional action will be directed towards inducing chambers of commerce and industry, industrial research institutes and industrial associations to undertake training and other activities complementing those provided by government-sponsored agencies. Increasing attention will be devoted to the problems of small industry development in the least developed among the developing countries and in non-metropolitan areas of developing countries.

200. With a view to meeting requests from the field for information on technologies appropriate for small-scale industry, including minimum size of plant, design etc., group 11 will co-operate with group 9 (Industrial Information) in the collection and dissemination of information.

201. Other important activities being undertaken by UNIDO in this field relate to financing of small industry, domestic marketing of small industry products, subcontracting between large and small industries and promotion of co-operation between small enterprises in developed and developing countries.

OPERATIONAL ACTIVITIES

202. The major objective of the operational activities in this field is to assist Governments in establishing institutions, facilities and services for the promotion of small-scale industry. UNIDO renders assistance in the establishment and operation of industrial extension services, industrial estates, common service facilities, subcontracting exchanges etc. Advice to Governments on the role of small industry within broader industrialization programmes, on measures for promotion of small industry and assistance in the establishment and operation of small industrial enterprises are other important activities.
203. A UNDP/SF project in Zambia, for example, is aimed at the industrialization of rural centres through the establishment of Zambian manufacturing and servicing enterprises. Mini-estates are to be set up in selected centres and assistance is provided in woodworking, metalworking, building materials, tanning and other trades.
204. Another UNDP/SF project, in Turkey, is promoting the development of small industries in the Gaziantep area through a pilot programme of integrated services and facilities, including relocation of small enterprises in an industrial estate.
205. Projects in Madagascar, Niger, Togo and Upper Volta started with feasibility studies for the establishment of small enterprises in industrial estates, and are being developed into the stages of construction of facilities and establishment of enterprises. These projects, which were initiated under SIS or UNDP/TA programmes, may lead to UNDP/SF assistance.
206. Through an SIS project in India, UNIDO provided assistance in the establishment of subcontracting exchanges in Bombay and Madras for facilitating subcontracting of orders from large enterprises to small enterprises. A similar project was carried out in Istanbul, Turkey.
207. Assistance is at present being provided through a UNDP/SF project in the Feira de Santana area of Bahia State, Brazil. The project includes provision of industrial extension services, feasibility studies, investment promotion activities and common service facilities. A survey of industrial possibilities and promotion of industrialization in the area has already been carried out. Assistance in the field of industrial estates is being provided to Argentina, Chile, the Dominican Republic, Ecuador, Honduras, Mexico (Jalisco region) and Venezuela. Assistance in the transformation of traditional industries is being provided to Bolivia.

206. The total number of approved operational projects in the field of small-scale industries in 1970 was 102. This is expected to rise to 120 in 1971 and 135 in 1972.

Value of approved field projects and forecast of requirements, 1970 to 1972
(in thousands of US dollars)

	1970	1971		1972	
	<u>estimated expenditure</u>	<u>Approved projects</u>	<u>Forecast of requirements</u>	<u>Approved projects</u>	<u>Forecast of requirements</u>
UNDP/SF	491.3	1,827.4	-	1,644.9	156.0
UNDP/TA	244.9	228.9	831.1	144.0	967.0
RP	154.4	109.6	73.1	-	282.0
SIS	176.4	190.4	418.0	-	659.2
GTF	2.0	7.4	178.2	-	466.7
FIT	<u>0.7</u>	<u>41.2</u>	<u>-</u>	<u>-</u>	<u>41.2</u>
Total	1,069.7	2,404.9	1,500.4	1,788.9	2,572.1

List of Approved Operational Projects

UNDP/SPECIAL FUND

Africa

CMR-12	Centre for assistance to small industries (in participation with ILO)
SEN-14	National Society for Industrial Studies and Promotion (SONEPI)
TOG-19	Small-scale industries and establishment of an industrial estate
UGA-7	Small industries development programme and establishment of an industrial estate
ZAM-6	Development of small-scale industries

The Americas

BRA-44	Industrial development centre
CHI-22	Department of small industries (in participation with ILO)

Asia and the Far East

IRA-11	Establishment of an industrial estate and the development of small-scale industries
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Europe and the Middle East

GRE-26	Industrial area and industrial estate
TUR-25	Small industries development programme

UNDP/TECHNICAL ASSISTANCE

Africa

BDI/68/3	Development of small-scale industries
CHD/68/14	Economic planning team - development of small-scale industries
COB/68/13	Industrial production - small-scale industries
DAH/69/1	Development of small-scale industries
LIR/68/11	Small-scale industrial development
RWA/68/14	Promotion of small-scale industries
UFV/68/20	Small and medium-scale industries
AFR/69/9	Training workshop on extension services for small-scale industry in the West and East African subregions

The Americas

ARG/68/6	Assistance to INTI
DMI/69/2	Small-scale industries
DOM/68/8	Development of small and medium-scale industries
ECU/69/12	Industrial estates
ELS/68/6	Small-scale industries
JAM/69/1	Industrial management
TRI/70/3	Small-scale industry adviser

UNDP/TECHNICAL ASSISTANCE (cont'd)

The Americas (cont'd)

LAT/69/10

Meeting on financing of small-scale industries

Asia and the Far East

CEY/69/24

Industrial design (small-scale industry)

MAL/68/6

Assistance to MARA (Commerce and Industry Division)

PAP/69/5

Development of sericulture industry

PHI/69/8

Industrial estates

Europe and the Middle East

SOY/69/12

Small-scale industries

UNIDO REGULAR PROGRAMME

Africa

ID/RP/11-3 (Botswana)

Small-scale industries (organization)

BOT/11/1/1

Small-scale industries (management)

ID/RP/11-4 (Central African Republic)

Small-scale industries

EGG/11/1/1

Small-scale industries

GAM/11/1/1

Small-scale industries

ID/RP/11-4 (Ghana)

Preparatory assistance for the establishment of a centre for training and development of small-scale industries

ID/RP/11-3 (Ivory Coast)

Industrial estates

ID/RP/11-2 (Lesotho)

Small-scale industries

LIR/11/1/1

Small-scale industries

ID/RP/11-4 (Madagascar)

Industrial estates

MLW/11/1/1

Small-scale industries

ID/RP/11-2 (Niger)

Industrial estates

SIL/11/1/1

Small-scale industries

ID/RP/11-2 (Somalia)

Small-scale industries

SUD/11/1/2

Small-scale industry

SWA/11/1/1

Small-scale industries

TAN/11/1/2

Small-scale industries

ID/RP/11-2 (Togo)

Small-scale industries

TOG/11/1/2

Small-scale industries

ID/RP/11-13 (Regional)

Small-scale industries - intermediate technology group

The Americas

BAR/11/1/1

Small-scale industries

ID/RP/11-2 (Bolivia)

Small-scale industries

ID/RP/11-6 (Brazil)

Consultations in connection with Special Fund project BRA-44

ID/RP/11-2 (Dominican Republic)

Small-scale industries

ID/RP/11-2 (El Salvador)

Small-scale industries

UNIDO REGULAR PROGRAMME (cont'd)

The Americas (cont'd)

GUY/11/1/1	Small-scale industries
HON/11/1/1	Small-scale industries
ID/RP/11-2 (Jamaica)	Small-scale industries
MEX/11/1/2	Industrial estates
ID/RP/11-3 (Trinidad and Tobago)	Small-scale industries

Asia and the Far East

INS/11/1/5	Small-scale industries and industrial estates
VIE/11/1/2	Small-scale industries
ID/RP/11-11 (Regional)	Small-scale industries and industrial estates - ECAFE Regional Industrial Development Course and Fifth Consultancy Course on Small-scale Industries
ID/RP/11-12 (Regional)	Preliminary training seminar in low cost automation (ECAFE/UNIDO joint venture)

Europe and the Middle East

ID/RP/11-3 (Cyprus)	Small-scale industries
IRQ/11/1/1	Small-scale industries
ID/RP/11-1 (Lebanon)	Small-scale industries
MAT/11/1/1	Small-scale industries
ID/RP/11-2 (Saudi Arabia)	Small-scale industries
SYE/11/1/1	Small-scale industries
ID/RP/11-1 (Yemen)	Small-scale industries

Interregional

INT-REG/11/1/4	Small-scale industries
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SIS PROGRAMME

Africa

70/846 ETH-11	Small industries adviser
69/657 OAB-6	Development of small-scale industry
69/616 CHA-10	Assistance to small industries
69/520 IVC-2	Development of small-scale industry and industrial estates
69/640 LES-2	Assistance to industrial estates
69/551/Req.1 MAC-12	Feasibility study of pilot industrial estate and small industries promotion
68/308 RMA-5	Industrial estates (small-scale industries)
67/184 SEN-1	Industrial estate (pre-investment)
69/550 SUD-18	Assistance and development of small industries
69/637 UPV-13	Feasibility study of a pilot industrial estate

SID PROGRAMME (cont'd)

The Americas

65/411 BRA-14	Assistance in the establishment of industrial estates
65/444 BRA-15	Assistance for the development of small and medium-scale industries
67/101 ECU-2	Advisory mission - industrial estates
70/974 HAI-3	Organization and management of industrial estates
70/167 HON-4	Assistance to industrial estates
69/538 MEX-2	Industrial development areas and industrial estates
69/564 TRI-15	Assistance in development of small industries

Asia and the Far East

70/841 BRU-1	Planning of small and light industries
69/561 IND-19	Establishment of subcontracting exchanges
68/400 PAK-3	Small-scale industry promotion
67/253 PHI-5	Pilot industrial estate
69/521 PHI-8	Industrial estate
70/715 SIN-15	Assistance in the development of small industry products for export and the tourist market
68/301 THA-7	Marketing organization for small-scale industries and hand-crafts

Europe and the Middle East

69/493 TUR-12	Small industry development subcontractors exchanges
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UNIDO GENERAL TRUST FUND

Interregional

11/3	Technical meeting on small industries in the RCD countries
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FUNDS-IN-TRUST

Africa

9021-70 (Congo, Democratic Republic of)	Industrial assistance (dispensary)
LES/SIDA/8	Small-scale industries

The Americas

9005-68 (Brazil)	Industrial estates
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SUPPORTING AND OTHER ACTIVITIES

209. 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
Surveys of small-scale industry *	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

Industrial extension services (11.01)

210. In order to meet the increasing need in developing countries for trained national personnel in industrial extension activities for small-scale industries, UNIDO is organizing two types of training programmes. The first is a group training programme of a duration of eight weeks for extension officers at the working level; the programme includes lectures, case studies and in-plant work and is carried out in close co-operation with promotion agencies or extension institutions in the host country. The second programme is a training workshop of two weeks duration to provide intensive training and orientation to senior officials in charge of small industry promotion.

211. UNIDO plans to organize in 1971 a Group training programme for industrial extension officers (11.01.01). This group training programme is scheduled for some 20 Spanish-speaking participants (ID/B/64/Add.11, para.19). The programme, which may be held in Puerto Rico, will be carried out in co-operation with the host country.

212. UNIDO proposes to organize in 1972 a similar group training programme for French-speaking participants. This programme was originally scheduled for 1970 (cf. ID/B/64/Add.11, para.18), but had to be postponed.

213. UNIDO organized two Training workshops on extension services for small industry in Africa (11.01.02) during 1970: one in Dakar, in co-operation with ECA, for 20 participants from West African countries, and one in Kampala for 14 participants from East African countries (ID/B/64/Add.11, para.20). Both workshops took place in countries where UNIDO is carrying out UNDP/SF projects related to small-scale industry.

214. In 1971, UNIDO will organize a training workshop for senior officials from the French-speaking countries of Central and North Africa, and Madagascar (ID/B/64/Add.11, para.20).

²³/This project was previously entitled "Techno-economic aspects of small industry development" (ID/B/64/Add.11).

215. Efforts will be made to induce selected extension service organizations to undertake similar training programmes. Fellowships would be provided for a certain number of trainees. In this connexion, work would be undertaken during 1972 to establish or strengthen organizations and facilities for the training of extension officers on a regional or subregional basis; and to induce and assist chambers of commerce and industry, applied industrial research institutes and industrial associations to provide extension services to small-scale industries.

216. The Joint UNIDO/ILO missions for the establishment and strengthening of industrial extension service organizations, formerly described under project component 11.01.03 (ID/B/64/Add.11), are part of the operational programme.

217. With regard to Common service facilities for small-scale industries (11.01.04), UNIDO commissioned during 1970 studies on common service facilities for small-scale woodworking, leather, rubber and electro-plating industries. Similar studies will be prepared on small-scale ceramics and textile industries during 1971. These studies, which are intended as manuals for guidance of UNIDO experts and small industry organizations in developing countries, as well as a study on the tool room are scheduled for publication in 1972.

218. The activities of UNIDO with regard to small industry centres and modernization campaigns, formerly described under project components 11.01.05 and 11.01.06, respectively (ID/B/64/Add.11), are included in the operational programme.

219. The study on Technical services for small-scale industry (11.01.07) was published in 1970.

220. In view of the importance attached by the Board at its fourth session (A/8016, para.206) to financing of small-scale industry (previously 11.01.08) and marketing of small-industry products (previously 11.01.09), the two components are now listed as separate projects, i.e. 11.05 and 11.06, respectively.

Industrial estates (11.02)

221. No new supporting activities will be undertaken in the field of industrial estates, since the past promotional efforts of UNIDO and of its forerunner, the Centre for Industrial Development, have resulted in a considerable number of country projects, studies and publications. The broader aspects of location of industrial estates and types of programme suitable for developing countries are dealt with under projects 11.04 and 11.08. The status of projects mentioned in document ID/B/64/Add.11 is reviewed below.

222. The study on Free-zone industrial estates (11.02.02) is scheduled for publication in 1971.

223. The study on Specialized industrial estates (11.02.03) was completed in 1970 and is scheduled for publication in 1971.

Production improvement in small-scale manufacturing (11.03)²⁴

224. Assistance is provided to field experts and small industry agencies in developing countries through studies and information related to operational problems, e.g. types of products to be manufactured on a small scale, quality in manufacturing, appropriate production techniques and appropriate product design.

225. The study on Quality in small-scale manufacturing (11.03.01), completed during 1969, is scheduled for publication in 1971.

226. In 1970, a number of Case studies in adaptation of technology for small industry in selected developing countries (11.03.02), relating to fishnets, pencil and solar cookers, were undertaken in Ghana, Nigeria and Togo by the Intermediate Technology Development Group Ltd., London, on behalf of UNIDO and ECA. In Ghana, assistance was provided to the Technology Advisory Service of the Kumasi University of Science and Technology in feasibility studies, production techniques and extension services. In Nigeria, assistance was in the field of manufacture of hospital equipment. In Togo, feasibility studies and project reports were prepared for introducing the manufacture of sheet metal, textiles and light engineering products. UNIDO experts in these countries will follow up the recommendations of the consultant firm and provide further assistance in the establishment of viable small enterprises.

227. The case study on Small-scale manufacturing (11.03.03) of sewing machines is scheduled for publication in 1971.

228. The description of the follow-up activities of the Expert Group Meeting on Subcontracting (previously 11.03.04) has been included under the project component "Subcontracting" (11.06.02).

229. During 1970, UNIDO provided support to ECAFE in organizing in Manila a training programme on Low cost automation (11.03.05) for participants from the region. As a follow-up of this training programme, ECAFE proposes to organize during 1971 a roving seminar on low cost automation in five developing countries in Asia, and UNIDO will provide support to this project.

230. In response to requests from experts in the field, UNIDO will make efforts to collect Information on small industry projects, schemes, equipment and design (11.03.06), and to disseminate it to the experts and to small industry agencies in developing countries. This work will be carried out by group 11 in co-operation with group 9 (Industrial Information). Studies carried out by various organizations in developed and developing countries for evolving appropriate technologies will be utilized in this project.

Surveys of small-scale industry (11.04)²⁵

231. The major objective of this project is to provide regional and national analysis of, and information on, small-scale industry and to promote regional or inter-country co-operation in this field.

^{24/} This project was previously entitled "Techno-economic aspects of small industry development" (ID/B/64/Add.11).

^{25/} From 1972 on, this project will be entitled "Regional co-operation and industrial decentralization".

232. UNIDO is co-operating with the Afro-Asian Organization for Economic Co-operation (AFRASEC) and the Government of India in the second Afro-Asian conference on small-scale industries, to be held in April 1971 in New Delhi.

233. The study on the development of Small-scale industry in Arab countries of the Middle East (11.04.02) was published in 1970.

234. Studies were undertaken by UNIDO in 1970 in preparation for the Expert group meeting on small-scale industry in countries at early stages of development^{26/} (11.04.03), which is to be held in Vienna in 1971 (ID/B/64/Add.11, para.45). This project will be undertaken in co-operation with the Industrial Policies and Programming Division.

235. The study on The place of small-scale industry in the industrial framework - a statistical analysis (11.04.04) is scheduled for publication in 1971 (ID/B/64, para.46).

236. In 1970, UNIDO completed a study on the Promotion of small-scale industry in the developing countries (11.04.05). The study is scheduled for publication in 1971 (ID/B/64, para.47).

237. In 1971, UNIDO will organize, in co-operation with the Secretariat of the Organization for Regional Co-operation and Development (Iran, Pakistan and Turkey) and the Government of Iran, a meeting on the Promotion of small industries in the RCD countries (11.04.06). The meeting, in which government officials and representatives of the business community of the three countries have been invited to participate along with UNIDO officials and experts, will review policies and programmes for development of small industries, evaluate the progress and problems in implementing programmes, explore ways and means of joint action on a regional basis and make recommendations on co-operation in this field among the three countries and on possible technical assistance from UNIDO. This project is to be financed by the UNIDO General Trust Fund.

238. In 1970, UNIDO completed a study on Small-scale industry in centrally-planned economies (11.04.07). The study, which was made on small-scale industry in Poland, will serve as an illustration of the role and methods of small industry development in centrally-planned economies.

Financing of small-scale industry (11.05)²⁷

239. A regional meeting on the financing of small-scale industry in the developing countries of the ECLA region was held in Buenos Aires, Argentina, in November 1970 and attended by participants from 19 countries (ID/B/44, para.308). A similar meeting for developing countries of Asia and the Far East will be held by UNIDO, in co-operation with ECAFE and the Government of India, in New Delhi, India, in April 1971 (ID/B/64/Add.11, para.30). On the basis of the information gleaned from these meetings and the studies carried out by UNIDO, a publication will be issued on the subject in 1972.

^{26/} Previously entitled "Industrialization of countries at early stages of development with special reference to small-scale industry" (ID/B/64/Add.11).

²⁷ Previously listed as project component 11.01.08 (ID/B/64/Add.11).

Marketing problems of small-scale industry (11.06)

240. With a view to providing assistance to developing countries in the marketing of small-scale industry products, UNIDO has carried out work on the promotion of domestic subcontracting and has prepared studies on domestic marketing and distribution channels. The work in the field of subcontracting has resulted in operational projects in three countries. The studies on domestic marketing will be disseminated with a view to providing guidance for operational projects.

241. Two studies were carried out by UNIDO in 1970 on Marketing methods and distribution channels (11.06.01)^{28/} for products of small-scale industries. UNIDO plans to carry out further studies in this area in 1971, and to convene an expert group meeting in 1972 in co-operation with group 10b.

242. With regard to Subcontracting (11.06.02)^{29/}, the report and selected documents of the Expert Group Meeting on the Role and Promotion of Subcontracting in Industrial Development, held in 1969, are scheduled for publication in 1971. Aside from promoting operational projects on subcontracting, UNIDO has continued its studies on the practical aspects of the subject. On the basis of the experience gained from the three operational projects, staff and experts will promote in 1971 and 1972 domestic subcontracting in selected countries through visits and formulation and organization of programmes. It is also proposed to arrange training in subcontracting promotion in developed countries through the award of fellowships.

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

243. On the basis of suggestions made during the Seminars on UNIDO operations for Government officials from developing countries (cf. group 10a, para.172), a pilot project will be initiated in 1971 to promote direct assistance by enterprises in developed countries to small industrial enterprises in developing countries. UNIDO would stimulate initial contacts between small enterprises in developed and developing countries with a view to promoting the transfer of technologies, know-how and managerial skills.

Small-scale industry outside metropolitan areas (11.08)

244. UNIDO has a growing number of technical co-operation projects involving the promotion of small-scale industry in less advanced regions of developing countries. With a view to providing support to these operational activities and developing other suitable projects, UNIDO proposes, as a first step, to study in 1971 the actual experience in a few selected countries of policies and methods for small industry development, outside the metropolitan areas. As a second step, UNIDO proposes to convene in 1972 an expert group meeting to review the findings, exchange experiences and formulate programmes and measures, including one or two pilot projects. This project will be undertaken in co-operation with group 12.

^{28/}Previously listed as 11.01.09 (ID/B/64/Add.11).

^{29/}Previously listed as 11.03.04 (ID/B/64/Add.11).

Expenditures and estimated costs for supporting and other activities, 1970 - 1972
(in thousands of US dollars)

Project (Priority A)	Regular budget						Extra-budgetary resources			
	Staff e/s		Consultants		Expert group meetings		1970	1971	1972	
	1970	1971	1972	1970	1971	1972				
11.01 Industrial extension services										
11.01.01	3.0	3.0	4.0	-	2.0	2.0	-	-	15.0 TA	15.0 TA
11.01.02	4.0	3.0	5.0	-	2.5	2.0	-	-	20.0 TA	10.0 TA
11.01.04	2.0	2.0	4.0	4.0	-	-	-	-	-	-
11.02 Industrial estates										
11.02.02	2.0	-	-	-	-	-	-	-	-	-
11.02.03	4.0	2.0	-	-	-	-	-	-	-	-
11.03 Production environment in small-scale manufacturing										
11.03.01	-	2.0	-	-	-	-	-	-	-	-
11.03.02	1.0	-	-	-	-	-	-	-	16.5 RP	-
11.03.03	2.0	1.0	-	-	-	-	-	-	-	-
11.03.05	1.0	2.0	-	-	-	-	-	-	7.0 RP	-
11.03.06	-	-	4.0	-	-	-	-	-	-	-
11.04 Surveys of small-scale industry by										
11.04.03	3.0	4.0	-	8.0	3.0	-	-	9.0	-	-
11.04.04	-	1.0	-	-	0.5	-	-	-	-	-
11.04.05	1.0	1.0	-	-	-	-	-	-	-	-
11.04.06	2.0	2.0	-	-	-	-	-	-	-	7.4 GTF
11.04.07	1.0	-	-	-	-	-	-	-	2.0 GTF	-

11.05	<u>Financing of small-scale industry</u>	4.0	4.0	4.0	-	-	-	-	11.5 TA	15.0 TA	-
11.06	<u>Marketing problems of small-scale industry</u>										
11.06.01		3.0	3.0	8.0	3.8	2.0	3.0	-	-	-	-
11.06.02		3.0	2.0	6.0	-	-	2.0	-	-	-	-
11.07	<u>Co-operation between small enterprises</u>	-	4.0	8.0	-	3.0	6.0	-	-	-	-
11.08	<u>Small-scale industry outside metropolitan areas</u>										
	<u>Total</u>	<u>36.0</u>	<u>40.0</u>	<u>71.0</u>	<u>15.8</u>	<u>15.0</u>	<u>20.0</u>	<u>5.0</u>	<u>31.5 TA</u>	<u>40.0 TA</u>	<u>15.0 TA</u>
									23.5 RP	7.4 GTF	2.0 GTF
	<u>Backstopping and servicing of operational activities</u>	<u>60.0</u>	<u>56.0</u>	<u>70.0</u>							
		<u>96.0</u>	<u>96.0</u>	<u>120.0</u>							

a/ Operational costs shown above are included in the table on page 72.

b/ For 1972 the title of project 11.04 will be changed to "Regional co-operation and industrial decentralization".

PRINTED PUBLICATIONS

1970 publications programme

		<u>Languages</u>	<u>Cost</u> <u>(US\$)</u>
ID/4	Industrial estates in Europe and the Middle East	S	
ID/20	Technical services for small-scale industries (11.01.07)	E	
ID/21	Development of small-scale industries in Arab countries of the Middle East (11.04.02)	E	
ID/27	Small-scale industry in Latin America (11.04.01)	S	
ID/SER.K/1	Bicycles; a case study of Indian experience (11.03.03)	S	
			<u>18,361</u>

1971 publications programme

ID/20	Technical services for small-scale industries (11.01.07)	F S	
ID/21	Development of 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	
-	Free-zone industrial estates (11.02.02)	E	
-	Specialized industrial estates (11.02.03)	E	
-	Quality in small-scale manufacturing (11.03.01)	E	
-	Sewing machines (11.03.03)	E	
-	The place of small-scale industry in the industrial framework: A statistical analysis (11.04.04)	E	
-	Promotion of small-scale industry in developing countries (11.04.05)	E	
-	The role and promotion of subcontracting in industrial development Report and selected papers of expert group meeting (11.06.02)	E	
			<u>22,300</u>

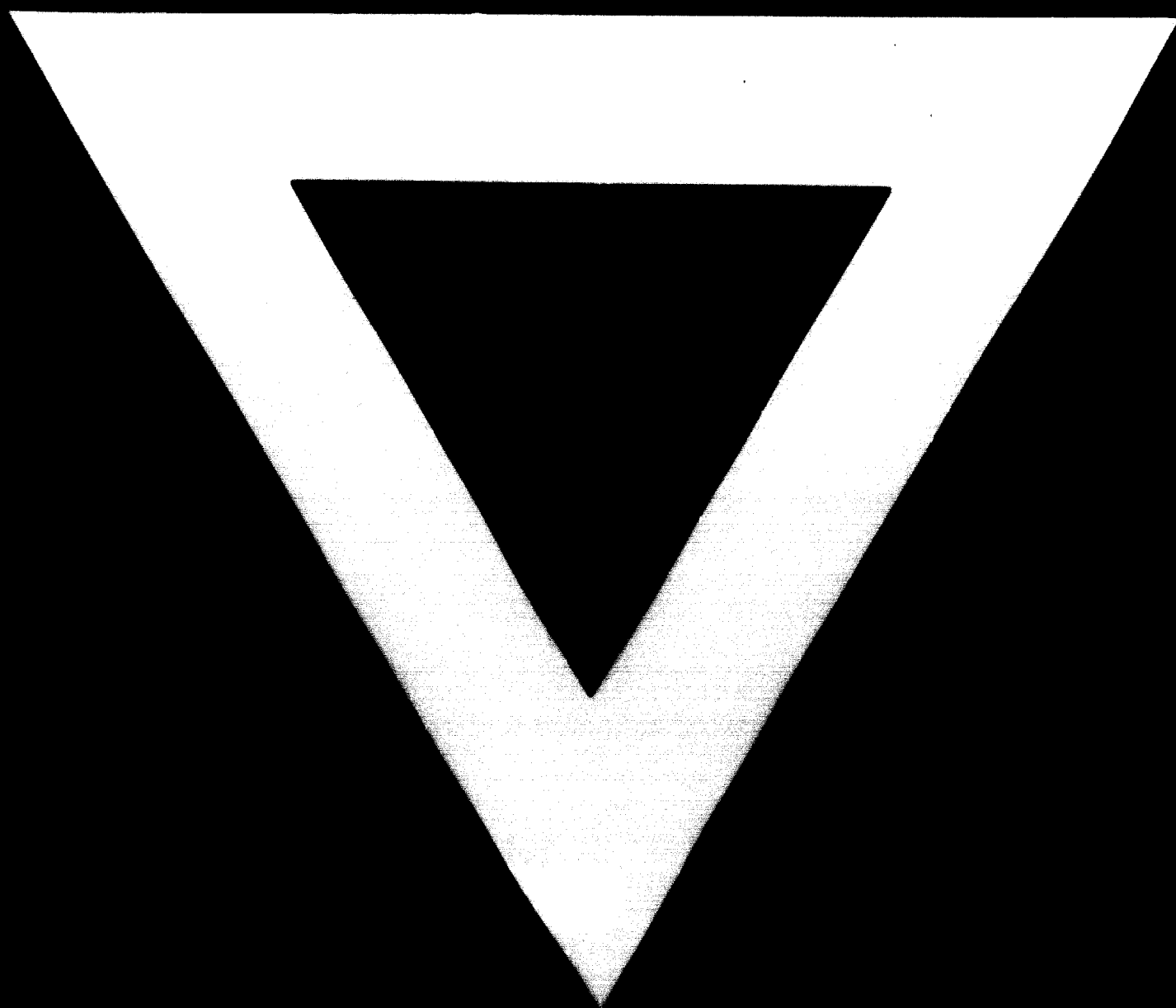
Forecast of 1972 publications programme

<u>Common service facilities for small-scale industries</u>		
-	No.1 Tool room (11.01.04)	E F S
-	No.2 Woodworking, leather, metal finishing, rubber, ceramics and textiles (11.01.04)	E F S
-	Free-zone industrial estates (11.02.02)	F S
-	Specialized industrial estates (11.02.03)	F S

Forecast of 1972 publications programme (cont'd)

	<u>Languages</u>	<u>Cost</u> <u>(US\$)</u>
- Quality in small-scale manufacturing (11.03.01)	F S	
- Sewing machines (11.03.03)	F S	
- Promotion of small-scale industry in developing countries (11.04.05)	F S	
- Financing of small-scale industry in developing countries (11.05)	E F S	
- The role and promotion of subcontracting in industrial development Report and selected papers of expert group meetings (11.06.02)	F S	
		<u>29,700</u>

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



22.7.74