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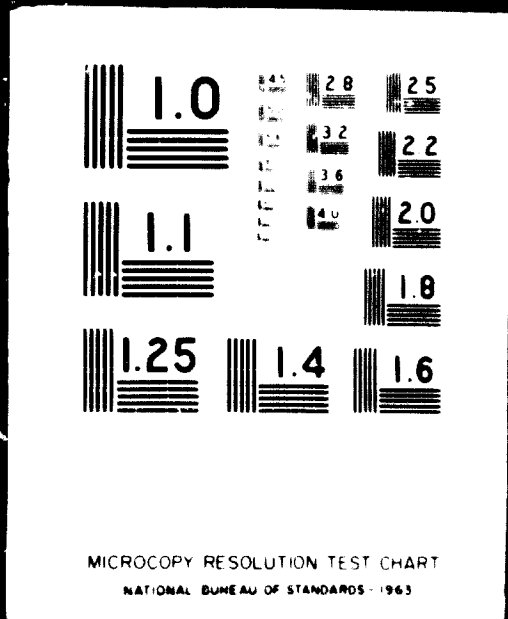
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PROGRAMME OF WORK OF UNIDO

FOR 1969

Submitted by the Executive Director of UNIDO

id. 68-409

We regret that some of the pages in the microfiche copy of this report may not be up to the proper legibility standards, even though the best possible copy was used for preparing the master fiche.

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Addendum III	Establishment of UNIDO industrial institutions	issued separately

Introduction

1. This document has been prepared in response to resolution ID/1(I) approved by the Industrial Development Board at its first session in May 1967. It contains the programmed activities for UNIDO for 1969. The programme of activities for 1968 is submitted separately in document ID/B/20/Rev.1 and Add.1.
2. In submitting the 1968 programme, the Executive Director drew the attention of the Board to certain factors that were bound to affect the activities of UNIDO in 1967 and 1968, in particular the problems of setting up the new organization and the transfer of the seat of the organization from New York to Vienna. Thus 1967, and to some extent also 1968, should be considered as transitional years. 1969 is expected to be a year of consolidation and expansion of the activities of UNIDO operating as a going concern.
3. In the establishment of the programme for 1969 the Executive Director continued to follow the guidelines drawn up by the first session of the Industrial Development Board which put a major emphasis on operational activities.^{1/} An expansion of operational activities is foreseen in 1969 for all programmes, for some of them to a substantial degree. Even at the new level, the anticipated volume of assistance would account for only a fraction of the latent needs of assistance in industry of the developing countries.
4. The 1969 programme shows a substantial increase under the technical assistance component of UNDP where the estimated value of continuing and new projects is approximately \$10 million compared to an average annual value of about \$2.5 million for the biennial programme 1967-1968. Only a modest increase has been foreseen for the projects under the regular programme as shown in the report on this programme submitted by the Executive Director to this session (ID/B/26/Add.I). As to Special Industrial Services, after the very high rate of expansion of the programme in 1967 and 1968, a certain slow-down is expected in 1969, when a total of about \$4.0 million in SIS requests is anticipated as against \$3.7 million in 1968.

^{1/} See also paragraphs 2, 3 and 4 in the Introduction to the Programme of Work for 1968, document ID/B/20/Rev.1.

5. As regards the operation of the Special Fund, there will be at the beginning of 1969 25 approved projects for which UNIDO acts as executing and participating agency. These projects, totalling in value about \$50 million, have been listed and described in the programme of work as continuing projects since they include projects approved by the Governing Council of UNDP up to January 1968. It is expected that eighteen projects which are at the present time under active consideration, at an estimated total cost of about \$36 million, will come up for approval in the June 1968 and January 1969 sessions of the Governing Council of UNDP. An additional 35 projects are in early stages of examination and it is difficult to provide an estimate of their value; moreover, it is probable that some of them would not come up for approval by the Governing Council before 1970. Leaving the latter aside and taking into account only the new projects that are under active consideration, the increase in operations under the Special Fund would be of the order of 70 per cent.
6. As in preceding years, special attention will be given in 1969 to problems of training. This is reflected in the increased share of this form of assistance in the regular programme. A considerable expansion is planned for in-plant training programmes which have already shown a considerable growth in the preceding years. These programmes cover 16 projects established in ten developed countries, at a total cost to UNIDO of \$400,000.
7. In connexion with these programmes, a number of host countries which at the present time are contributing to a substantial degree to meet the local cost of these programmes have expressed an interest in their establishment by the United Nations on a permanent basis. A note on this subject is contained in document ID/B/26/Add.III submitted to the Board by the Executive Director. In this document it is proposed that the Board consider recommending to the UNDP the establishment of the present ad hoc in-plant training schemes as Special Fund projects in which the host governments would participate financially. This would not only put the training schemes on a continuing basis but would also provide for the host countries concerned an adequate horizon of operations that would justify an input of the required financial and other resources.
8. The industrial Field Adviser programme, reference to which was made in the report on the activities of UNIDO in 1967 and the programme of work for 1968, is scheduled for further expansion in 1969. It is intended to request in that year the establishment of ten additional posts to be financed by an allocation by the

UNDP under its 1969 budget. It is also proposed to strengthen the unit established at UNIDO Headquarters for the purpose of providing adequate support to the operation of this scheme.

9. As regards supporting activities, it is proposed to continue in 1969 the reorientation of the programme of meetings towards an increasing emphasis on training of participants from developing countries. As indicated above, the in-plant training schemes account for a major part for the planned increase in the budget for these meetings. Increased attention is also given to small-scale industry.

10. As regards studies, research and promotion activities at Headquarters, special attention will be given during 1969 to the following areas of activity:

- (a) Contribution by UNIDO to the preparatory work carried out by the United Nations Development Planning Committee in connexion with the next Development Decade. This will involve collaboration with the various United Nations bodies involved in this project, including, in particular, the establishment of a joint programme with FAO for long-range planning of balanced development of industry and agriculture, based on the recognition of the complementarity of these two sectors;
- (b) Promotion of industrial support institutions in developing countries;
- (c) Promotion of financing of industrial investments following up the activities of the Industrial Promotion Service that was organized in Athens in December 1967.
- (d) Further development of the Industrial Information Centre.

11. It is also planned to complete in 1969 the work initiated in 1968, with the assistance of consultants, of preparing and publishing the proceedings of the International Symposium on Industrial Development, in the form of a set of monographs on the various sub-items of the agenda. Each of these monographs will contain a brief digest of the documentation submitted to the Symposium under the relevant topic; an account of the discussions at the meetings and a synthesis of the recommendations made by the Symposium. It is envisaged that these publications would include additional information from other sources so that each monograph, in addition to being an account of the proceedings of the Symposium, would constitute a self-contained reference document in its particular area.

12. Only a small increase in professional staff of the substantive divisions is foreseen for 1969. As is pointed out elsewhere in this document, the bulk of the increase in available staff resources in 1969 is expected to result from the gradual filling of vacancies in the course of 1968 and the rise in performance of new staff members as they become familiarized with their duties.

13. The estimated requirements for consultant funds for 1969 show a moderate increase over 1968. The Executive Director wishes to point out in this connexion that the continued need for consultant funds arises from the fact that the UNIDO field of activity covers an area of great complexity requiring highly specialized knowledge which is not always available within the staff resources of the secretariat. The recourse to outside consultants for highly specialized tasks that may be called for in connexion with some of the UNIDO activities is clearly more economical than the alternative of making use of highly specialized permanent staff whose competence would not always be utilized to full capacity.
14. The organization of this document follows that of the programme for 1968, as follows: Part I contains a summary review of the programme, including eight synoptic tables arranged by the main sub-divisions of programmed activities; Part II contains details of the individual projects as regards both the field projects under the various programmes of Technical Assistance and projects under the Headquarters' programme of supporting activities, arranged by the fifteen main groups.
15. The document contains four annexes as follows:
- Annex 1: Expert Group Meetings, Seminars, Group Training Programmes and Workshops Planned for 1969;
 - Annex 2: Study and Research Projects;
 - Annex 3: Publications; and
 - Annex 4: Groups of Activity.
16. Three documents relating to the 1969 Programme are issued separately in the form of addenda, as follows:
- ID/B/26/Add.I: Regular Programme of Technical Assistance in Industrial Development (Part V, Section 14 of the United Nations Budget);
 - ID/B/26/Add.II: UNIDO Regular Programme of Technical Assistance - Provisional 1969 Draft Programme; and
 - ID/B/26/Add.III: Establishment of UNIDO International Industrial Institutions.

Part I SUMMARY REVIEW OF UNIDO ACTIVITIES PROGRAMMED FOR 1969

A. FIELD ACTIVITIES

Breakdown by Programmes

17. The volume of programmed technical assistance activities in 1969 in the field of industry, according to sources of funds, is summarized in Table 1. The figures are estimates based on various sources available to UNIDO, including discussions with governments, recommendations of United Nations missions in the field and other indications. Differences in programming and operational patterns of the various United Nations technical co-operation programmes prevent a global comparison so that the figures are presented under three programmes; Regular and UNDP/TA (formerly EPTA), Special Industrial Services and UNDP/Special Funds.

18. The programme level of technical assistance under the provisional regular programme has been tentatively established at about 20 per cent above the 1968 figure. Details of the programme and the new procedures resulting from the transfer of responsibility for it to the Board under General Assembly resolution 2298 (XXII), are contained in Documents ID/B/26, Addenda I and II.

19. Regarding the UNDP/TA programme, the estimates take into account the new programming procedures applicable beginning with the 1969 programme. Thus estimates were made separately for continuing projects and new projects, for which only a summary forecast could be made. The programmed activities for 1969 give only an order of magnitude of technical assistance requirements under the various programmes and are, therefore, subject to modification.

20. The magnitude of the programmed technical assistance activities in industry under the UNDP/TA and the regular programme is about 18 per cent of the estimated programmes for 1969. The value of the total programmes is \$57 million for the UNDP/TA and 6.4 million for the regular programme.

21. The programme of Special Industrial Services was begun in 1966 with a view to making available to member States a broader range of technical assistance services under accelerated and simplified procedures more adapted to the particular requirements of industrial projects. As the scope and purpose of the programme became known, the volume of requests grew gradually from \$18,000 in May 1966 to a cumulative total of about \$500,000 by the end of 1966 and to nearly \$3,000,000 by the end of 1967.

The estimated value for the 1969 SIS programme is based on a projection of the experience gained in 1967 and 1968.

22. Under the UNDP/Special Fund programme of technical assistance, which provides teams of experts for long-term assistance in partnership with the assisted countries, UNIDO has at the present time the responsibility for 25 projects as participating and executing agency. Seven of these were approved in January 1968; in addition, UNIDO is an executing agency jointly with ILO for two projects. The total cost for the 25 projects is \$50 million, of which \$22.4 million is the UNDP contribution and \$27.6 million is contributed by the assisted countries. This programme is presented in Section C of Table 1, in terms of annual flows calculated on average annual values of the approved projects.^{2/}

23. The Special Fund projects in the Programme of 1969 are listed in Part II of the present document under three headings: (a) Approved projects; (b) Projects submitted by countries formally or informally for consideration by UNIDO and UNDP, listed with appropriate descriptions under the respective activity groups and included in the programme subject to approval by UNDP (total 18 projects at an estimated cost of \$36 million); and (c) Projects which are in the early stages of examination, listed with no country name or detailed description (total 35 projects).

24. Mention should be made of the proposal submitted for consideration by the Board of eventually transforming into a Special Fund project, the present in-plant training programmes in a number of host countries (See document ID/B/26/Add.III).

Breakdown by geographical areas

25. A breakdown by geographical areas of the various technical assistance programmes is given in Table 2 below. Under the regular programme, 31 per cent of the assistance is directed to Africa; 21 per cent to Latin America; 28 per cent to Asia and the Far East; 7 per cent to Europe and the Middle East; and 12 per cent to interregional activities. Under the UNDP/TA programme, Africa is allocated 31 per cent of the total programme; Asia and the Far East 26 per cent; Latin America 20 per cent; Europe and the Middle East 11 per cent; and the remaining 14 per cent is allocated to interregional activities. The Africa region has the

^{2/} For this purpose, the total project costs were divided by the number of years of the programmed operation from the date of approval until completion of field operations.

greatest share of UNDP Special Fund programme with 38 per cent; followed by Europe and the Middle East with 29 per cent; Asia and the Far East with 25 per cent; and Latin America with 8 per cent. Under the 1969 forecast, 38 per cent of the SIS programme is planned to be allocated to Africa, 25 per cent to Asia and the Far East, 21 per cent to Latin America and 16 per cent to Europe and the Middle East.

Breakdown by groups of activities

26. The activities of UNIDO have been classified under 15 groups; with few modifications (in groups 4, 5, 7 and 8 as mentioned earlier), these are similar to the groups used in the presentation of the 1968 programme. Table 3 below summarizes the technical assistance activities by sources of funds and groups of activities. A number of important activities are expected to receive special attention in the 1969 programme. UNDP/TA assistance in the field of fertilizers and food-processing industries (the latter under group 6) is expected to expand greatly in view of the special importance attached to the need for an expanding output in food and agriculture. The great emphasis in the field of metallurgy derives from the importance attached to it by developing countries, especially the development of the steel industry in a number of countries. The important area of industrial research and standardization and the field of petrochemicals are also expected to be expanded.
27. Under the SIS assistance programme, about half the estimated total value is allocated to individual industries, 32 per cent is allocated to the area of industrial institutions and services and the remainder to that of industrial policies and programming. Similarly, under the 1969 UNDP/TA programme, assistance to individual industries absorbed the greatest share, namely 55 per cent of the total, followed by industrial institutions and services (25 per cent) and industrial policies and programming projects (20 per cent). Under the UNDP Special Fund programme, 40 per cent of total allocations is directed to industrial institutions and services; the remaining 60 per cent is shared about equally between assistance to individual industries and projects under industrial policies and programming.

The size of the field programmes in terms of experts and fellowships

(a) Experts

28. The number of experts and corresponding man-months under all technical assistance field project programmes for 1968 and 1969, including interregional projects, is as follows:

	1968		1969	
	<u>No. experts</u>	<u>man-months</u>	<u>No. experts</u>	<u>man-months</u>
Regular Programme	64	502	36 ^{a/}	343
UNDP/TA	160	1,200	576	4,380
UNDP/Special Fund projects	92	1,000	120	1,300

a/ The lower number of experts in 1969 as compared to 1968 (64 experts) is due to the emphasis on the training programme.

29. As regards Special Industrial Services because of the nature of this programme, it was not possible to provide more than an extrapolation of the total value of assistance for 1969. No estimate could be made of the expert component involved, particularly since the execution of the projects requires in some cases sub-contracting to consultants.

(b) Fellowships

30. Training of nationals forms an important component of United Nations programmes of technical assistance. It is provided by the experts in the field in the course of implementation of the projects, and through the participation of nationals of the developing countries in meetings, seminars, workshops and other group activities. However, the technical assistance field projects generally contain also provision for fellowships so as to provide the opportunity for training nationals in the activity covered by the project. These individual fellowships, most of which fall in the areas of industrial technology, management and export promotion, are distributed among the various programmes as follows:

	1968		1969	
	<u>No. fellowships</u>	<u>man-months</u>	<u>No. fellowships</u>	<u>man-months</u>
Regular programme	24	140	159	944
UNDP/TA	155	930	114	735
UNDP/Special Fund	51	300	55	340

31. The figures above provide only a partial picture of the training activities under the assistance programme since additional fellowships are generally provided in the course of the year, being financed from savings in the programmes.

B. SUPPORTING ACTIVITIES

32. In addition to direct field assistance provided by experts and fellowships, the programme of UNIDO includes the provision of background support to the field operations through dissemination of information and technical know-how via expert group meetings, seminars, workshops and group training programmes. Table 4 below lists these projects, the details of which are given in Part II, Section B, under the relevant activity groups. The financial requirements for the planned activities under this heading amount to an estimated total of \$1,362,000 of which UNIDO is expected to provide \$203,000 under its own budget while about \$1,160,000 is to be provided from the various technical assistance funds. A detailed list of these activities with the indication of the proposed dates and places appears in Annex 1. The distribution by industrial activities shown in Table 4 indicates that the greater part of the funds, about three quarters of the estimated total, is allocated for the area of Industrial Services and Institutions. The largest allocation is for group 10a Industrial Training.

33. The studies and research activities are destined primarily to provide background support for the other activities. In particular, they provide part of the documentation of the various expert groups and meetings discussed above. A number of studies are prepared for publication in established periodicals and series issued by UNIDO. These activities are undertaken by the regular staff, assisted in a number of cases by consultants. The total amount of funds programmed for 1969 in the UNIDO budget for consultants under this category is \$355,000, about 20 per cent above the 1968 estimates. (See Table 5.) The amount programmed in 1969 for printed publications (sales items) is \$300,000. (See Table 6.) In addition, a number of publications will be processed internally. A detailed presentation is given in Part II.B, as well as in Annexes 2 and 3.

34. Tables 7 and 8 below summarize the estimated staff availabilities and their distribution. The total of available effective man-months is estimated to increase by more than 50 per cent in 1969 as compared to 1968. Since the planned recruitment of new professional staff in 1969 is relatively small (9 new posts against

a manning table of 131 professionals as of January 1, 1969) the increase in available man-months is due primarily to the expected increase in the productivity of staff recruited in 1968. (See Table 7 below.) The available staff time, taking the three substantive divisions as a whole, is planned to be distributed about equally between direct support to field operations and supporting activities. As compared to 1968, the distribution between direct field support and supporting activities is being roughly maintained in the areas of individual industries and industrial institutions activities. For activities in the area of industrial policies and programming, the share of direct field support is planned to increase from 35 per cent in 1968 to 50 per cent in 1969.

Table 1

Value of technical assistance in industry under
the various programmes, 1968 - 1969
(in thousands of US dollars)

	1968 approved <u>programme</u>	1969 ^{a/} proposed <u>programme</u>
<u>Section A</u>		
Regular Programme	991.4	1,187.4
UNDP/TA (formerly EPTA) continuing projects	-	2,537.5
forecast of new projects	-	7,600.0
Total UNDP/TA	2,559.8	10,137.5
<u>Section B</u>		
Special Industrial Services	- ^{b/}	4,000.0
<u>Section C</u>		
UNDP/Special Fund Projects	13,442.9	12,622.6

a/ Estimates for the 1969 regular programme were made on the basis of an anticipated increase of 20 per cent over the 1968 figures. UNDP/TA continuing project estimates are based on an assessment of the possibility for continuation of projects in operation in 1968. These were made on the basis of communications with Resident Representatives, experts' reports and field missions. The forecast of new projects is made by UNIDO from the above mentioned sources as well as from contacts with government representatives at the Athens Symposium. The estimated value of the SIS programme was based on experience gained in 1967 and 1968. The UNDP/Special Fund figures are estimated from the total cost for the 25 Special Fund projects for which UNIDO is at the present time responsible as participating and executing agency. Thus the total project cost, comprising UNDP and assisted countries' contributions, is divided by the total number of years from the date of approval until completion of field operations. This note applies to subsequent tables as well.

b/ No comparative figures are given for the SIS programme in 1968 since no approved SIS programme exists for that year because of the nature of the programme which is based on continuing requests from the field. Value of cumulative approved projects under SIS from March 1966 - December 1967 equalled \$2,951,700.

Table 2
Value of industrial development field projects by
source of funds and geographical area, 1968 - 1969
(in thousands of US dollars)

GEOGRAPHICAL AREA AND TYPE OF PROJECT	SOURCE OF FUNDS							SIS 1969 ^a / forecast	
	Regular programs		UNDP/TA programs			UNDP/Special Fund			
	1968 approved programs	1969 proposed programs	1968 approved programs	1969 continuing projects	1969 forecast of new projects	Total	average annual total cost 1968 1969		
AFRICA									
country projects	248.7	246.0	426.7	623.2	2,500.0	3,123.2	4,382.8	4,382.8	1,500.0
regional projects	96.0	124.8	-	-	-	-	419.1	419.1	-
ASIA AND FAR EAST									
country projects	123.3	201.4	781.5	745.5	1,800.0	2,545.5	3,147.0	3,147.7	1,000.0
regional projects	121.0	130.0	30.0	-	-	-	-	-	-
THE AMERICAS									
country projects	60.2	130.4	433.8	479.6	1,400.0	1,879.6	1,825.2	1,004.9	850.0
regional projects	93.3	118.0	56.7	70.8	-	70.8	-	-	-
EUROPE AND MIDDLE EAST									
country projects	79.9	65.2	398.7	310.3	800.0	1,110.3	3,668.8	3,668.8	650.0
regional projects	19.0	23.6	-	-	-	-	-	-	-
Interregional Projects	150.0	148.4	432.4 ^b	308.1	1,100.0	1,408.1	-	-	-
Total	991.4	1,187.8	2,559.8	2,537.5	7,600.0	10,137.5	13,422.9	12,622.5 ^c	4,000.0

a/ See footnote (b) in Table 1.

b/ The value of interregional projects under UNDP/TA approved for 1968 was indicated in the 1968 Programme of Work (ID/B/20 Rev.1) as \$135,500. The difference between this figure and the figure in the present table is accounted for by the value of projects whose implementation was carried over from 1967 into 1968 and those subsequently added to the 1968 work programme.

c/ Excluding projects to be approved by the UNDP Governing Council, in June 1968, January and June 1969.

Table 3

Value of technical assistance to country projects
by source of funds and by group of activities
(in thousands of US dollars)

INDUSTRIAL ACTIVITY	SOURCE OF FUNDS							SISA/ 1969 forecast	
	Regular programme		UNDP/TA programme			UNDP/Special Fund			
	1968 approved programme	1969 proposed programme	1968 approved programme	continuing projects	1969 forecast of new projects	1968	1969		
				Total					
Industrial Technology Division									
1. Engineering	-	86.4	174.2	237.9	353.0	590.9	723.6	1,242.9	300.0
2. Metallurgical	10.9	139.9	158.6	123.2	464.0	587.2	-	-	450.0
3. Construction	-	34.9	20.2	11.5	52.0	63.5	-	382.2	150.0
4. Chemicals, Petro- chemicals etc.	3.0	183.1	218.4	243.6	548.0	791.6	1,768.5	-	450.0
5. Fertilizer	-	33.8	11.0	23.1	758.0	781.1	904.5	2,266.0	300.0
6. Light Industries	80.3	84.0	88.4	101.1	1,887.0	1,988.1	-	-	300.0
Sub-total	94.2	562.1	670.8	740.4	4,062.0	4,802.4	3,396.6	3,891.1	1,950.0
Industrial Services and Institutions Division									
7. Industrial legis- lation	-	12.0	28.6	47.2	115.0	162.2	-	-	22.0
8. Ind'l research, stan- dardization, quality control, information	99.1	70.7	137.8	140.8	347.0	487.8	4,619.3	2,557.2	100.0
9. Ind'l consulting, organisation and administration	-	49.0	36.4	34.6	143.0	177.6	-	-	150.0
10. Ind'l management and training	198.3	67.6	635.8	216.5	589.0	805.5	-	884.0	830.0
11. Small-scale industries, industrial estates	293.4	106.7	228.8	295.9	361.0	656.9	1,093.5	1,975.7	160.0
Sub-total	590.8	306.0	1,067.4	735.0	1,555.0	2,290.0	5,712.8	5,416.9	1,262.0

Table 3 (continued)

INDUSTRIAL ACTIVITY	SOURCE OF FUNDS								
	Regular programme		UNDP/TA programme		UNDP/Special Fund		SISA/		
	1968	1969	1968	1969	1968	1969	1968	1969	
	approved programme	proposed programme	approved programme	continuing projects	forecast of new projects	Total	1969 forecast	1969 forecast	
<u>Industrial Policies and Programming Division</u>									
12. Ind'l planning and programming, project formulation, ind'l location and reg'l development	269.7	281.4	457.6	606.3	575.0	1,181.3	4,333.5	3,314.5	423.0
13. Ind'l policies, in- vestment financing, financial planning	36.7	31.1	364.0	117.8	185.0	302.8	-	-	185.0
14. Export promotion, export-oriented industries	-	7.2	-	29.9	123.0	152.9	-	-	180.0
Sub-total	306.4	319.7	821.6	754.0	883.0	1,637.0	4,333.5	3,314.5	788.0
Total	991.4	1,187.8	2,559.8	2,229.4	6,500.0	8,729.4	13,442.9	12,622.5	4,000.0

s/ No comparative figures are given for the SIS programme for 1968 since no approved SIS programme exists for that year because of the nature of the programme, which was based on continuing requests from the field. A global forecast of the value of this programme for 1968 is \$3,740,000.

Table 4
Expert group meetings, seminars, group training and workshops
by group of activity and source of financing, 1968-1969
(in thousands of US dollars)

	1968			1969		
	UNIDO Budget	Technical Assistance Funds	Total	UNIDO Budget	Technical Assistance Funds	Total
Industrial Technology Division						
1. Engineering	8.0	58.0	66.0	10.0	48.0	58.0
2. Metallurgical	-	125.0	125.0	7.0	14.0	21.0
3. Construction	-	100.0	100.0	-	30.0	30.0
4. Chemicals	11.0	44.0	55.0	14.0	-	14.0
5. Fertilizer	30.0	-	30.0	-	70.0	70.0
6. Light Industries	16.0	-	16.0	14.0	33.0 ^{a/}	47.0
Total groups 1-6	65.0	327.0	392.0	45.0	195.0	240.0
Industrial Services and Institutions Division						
7. Ind'l Legislation	-	11.0	11.0	10.0	48.0 ^{b/}	58.0
8. Ind'l Research	-	62.0	62.0	23.6	15.0 ^{b/}	38.6
9. Ind'l Information and Promotion	32.0	-	32.0	24.0	65.0 ^{b/}	89.0
10a. Ind'l Training					580.0	580.0
10b. Ind'l Mgt. and Consulting	106.0	392.0	498.0	39.0	60.0	99.0
11. Small-scale Industry etc.	2.0	50.0	52.0	9.5	174.6 ^{c/}	184.1
Total groups 7-11	140.0	515.0	655.0	106.1	942.6	1048.7
Industrial Policies and Programming Division						
12. Ind'l Planning	14.5	18.0	32.5	22.0	21.0 ^{d/}	43.0
13. Ind'l Policies	18.0	-	18.0	20.0	-	20.0
14. Export Promotion	16.0	152.0	168.0	10.0	-	10.0
15. General Research Projects	-	-	-	-	-	-
Total groups 12-15	48.5	170.0	218.5	52.0	21.0	73.0
Grand total groups 1-15	253.5	1,012.0	1,265.5	203.1	1,158.6	1,361.7

^{a/} Includes \$11,000 USSR contribution
^{b/} Danish special contribution

^{c/} \$75,000 from Danish special contribution
^{d/} Includes \$11,000 from Danish contribution

Table 5
Consultant services and studies, 1958-1969
(in thousands of US dollars)

	<u>Estimated cost of consultant studies</u>	
	1968	1969
<u>Industrial Technology Division</u>		
1. Engineering	5.0	12.0
2. Metallurgical	7.0	10.0
3. Construction	9.0	-
4. Chemicals, etc.	15.0	12.0
5. Fertilizers, etc.	12.5	21.0
6. Light industries	16.0	22.5
	<u> </u>	<u> </u>
Total groups 1-6	64.5	77.5
<u>Industrial Services and Institutions Division</u>		
7. Industrial legislation	-	9.0
8. Industrial Research etc.	30.0	18.5
9. Industrial information and promotion	-	24.0
10a. Industrial training		16.0
10b. Industrial management and consulting service	37.0	6.0
11. Small-scale industry	25.0	39.0
	<u> </u>	<u> </u>
Total groups 7-11	92.0	112.5
<u>Industrial Policies and Programming Division</u>		
12. Industrial planning	54.5	87.0
13. Industrial policies	11.0	23.5
14. Export promotion	18.5	9.0
15. General research projects	45.0	45.0 ^{a/}
	<u> </u>	<u> </u>
Total groups 12-15	129.0	164.5
	<u> </u>	<u> </u>
Total groups 1-15	285.5	354.5

^{a/} Includes \$10,000 allocated for general research by the Industrial Technology Division.

Table 6
Printing programs 1968-1969
(in thousands of US dollars)

	<u>Periodicals</u>		<u>Other</u>		<u>Total</u>	
	1968	1969	1968	1969	1968	1969
<u>Industrial Technology Division</u>						
1. Engineering	-	-	-	21.0	-	21.0
2. Metallurgical	-	-	-	28.0	-	28.0
3. Construction	-	-	10.4	2.4	10.4	2.4
4. Chemicals, etc.	-	-	18.0	-	18.0	-
5. Fertilizers, etc.	-	-	12.1	20.2	12.1	20.2
6. Light industries	-	-	-	16.0	-	16.0
	<u>-</u>	<u>-</u>	<u>-</u>	<u>87.6</u>	<u>40.5</u>	<u>87.6</u>
Total groups 1-6	-	-	40.5	87.6	40.5	87.6
<u>Industrial Services and Institutions Division</u>						
7. Industrial legislation	-	-	-	3.2 ^{a/}	-	3.2
8. Industrial research, etc.	9.2	-	6.5	4.4	15.7	4.4
9. Industrial information & promotion	-	32.4	-	10.0	-	42.4
10a. Industrial training	-	-	} 25.3	} 5.0	} 25.3	} 5.0
10b. Industrial mgt. & consulting services	-	-				
11. Small-scale industry	-	-	10.9	23.0	10.9	23.0
	<u>9.2</u>	<u>32.4</u>	<u>42.7</u>	<u>45.6</u>	<u>51.9</u>	<u>78.0</u>
Total groups 7-11	9.2	32.4	42.7	45.6	51.9	78.0
<u>Industrial Policies and Programming Division</u>						
12. Industrial planning	21.2	20.0	64.6	94.0	85.8	114.0
13. Industrial policies	-	-	-	-	-	-
14. Export promotion	-	-	-	9.0	-	9.0
15. General research projects	-	-	-	11.0	-	11.0
	<u>21.2</u>	<u>20.0</u>	<u>64.6</u>	<u>114.0</u>	<u>85.8</u>	<u>134.0</u>
Total groups 12-15	21.2	20.0	64.6	114.0	85.8	134.0
Total groups 1-15	<u>30.4</u>	<u>52.4</u>	<u>147.8</u>	<u>247.2</u>	<u>178.2</u>	<u>299.6</u>

^{a/} In addition, publication of Legislative Series may be undertaken subject to availability of funds.

Table 7

Staff availabilities and requirements for work programme
1968 - 1969

S t a f f	Substantive Divisions							
	Industrial Technology	Industrial Services and Institutions	Industrial Policies and Programming	T o t a l				
N u m b e r o f s t a f f m e m b e r s								
1. Staff as of 31/12/1968	43	41	47	131				
2. Recruitment during 1969	-	4	5	9				
3. Staff as of 31/12/1969	43	45	52	140				
	<u>Man-</u> <u>months</u>	<u>Per</u> <u>cent</u>	<u>Man-</u> <u>months</u>	<u>Per</u> <u>cent</u>	<u>Man-</u> <u>months</u>	<u>Per</u> <u>cent</u>	<u>Man-</u> <u>months</u>	<u>Per</u> <u>cent</u>
4. Available effective man-months ^{a/}								
1968	264	100	294	100	381	100	939	100
1969	516	100	504	100	580	100	1600	100
(i) Direct support to field operational activities (Section A):								
1968	172	65	118	40	133	35	423	45
1969	360	70	210	42	290	50	860	55
(ii) Supporting activities (Section B):								
1968	92	35	176	60	248	65	516	55
1969	156	30	294	58	290	50	740	45

^{a/} The availability in terms of effective man-months is necessarily less than the nominal man-months derived from the manning table because of the staggering of the recruitment of new staff, and the loss involved in the adjustment of new staff to their duties. The effective man-months available in 1968 have been obtained as a sum of the man-month equivalent of the staff employed as of 31 December 1967 and 25 per cent of the man-month equivalent of new recruitments during 1968.

Table 8
Staff requirements by group of activity 1969

	Total	Direct support to field activities (A)		Supporting activities (B)	
	man-months	man-months	per cent	man-months	per cent
<u>Industrial Technology Division</u>					
1. Engineering Industries	95	65	69	30	31
2. Metallurgical Industries	60	50	83	10	17
3. a/					
4. Basic Chemicals, Pharmaceuticals and Building Materials Section	72	58	80	14	20
5. Fertilisers, Pesticides and Petrochemicals	108	75	70	33	30
6. Food and Light Industries, including Textiles	120	96	80	24	20
Total groups 1-6 b/	516	360		156	
<u>Industrial Services and Institutions</u>					
7. Industrial Legislation, Patents, Licensing and Standardisation	52	19	38	33	62
8. Industrial Research and other supporting Institutions	90	38	43	52	57
9. Industrial Information and Promotion	97	17	18	80	82
10a. Industrial Training	80	40	50	40	50
10b. Industrial Management and Consulting Services	81	48	60	33	40
11. Small-scale Industry including Industrial Estates and Industrial Extension Services	104	48	46	56	54
Total groups 7-11	504	210		294	
<u>Industrial Policies and Programming</u>					
12. Industrial Programming and Project Planning	170	97	57	73	43
13. Industrial Policies and Industrial Financing	146	103	70	43	30
14. Promotion of Export-Oriented Industries	156	74	48	82	52
15. General Research Projects established as continuous activities	108	16	15	92	85
Total groups 12-15	580	290		290	
Total groups 1-15	1,600	860	55	740	45

a/ Figures for Group 3, Construction, are included in Group 4.

b/ These figures include manpower requirement (61 man-months) for general research undertaken by the Technology Division.

PART II: DESCRIPTION OF THE PROGRAMME BY GROUP OF ACTIVITIES

Preliminary Remarks

35. The planned activities of UNIDO have been classified under fifteen groups, as enumerated in Annex 4, the fifteenth group being "General Research projects established as continuing activities". The classification is similar to that used in the presentation of the 1967 Report of Activities and the 1968 Work Programme, with a few modifications. Thus Petrochemicals and Pesticides are now included in Group 5 instead of Group 4, Standardization is shifted from Group 8 to Group 7, and Industrial Information from Group 8 to Group 9. As in the previous years, in the case of activities astride of two or more groups the main component has been taken as the criterion for classification.
36. The presentation of the programme under each group is preceded by a few general remarks followed by the description of individual projects. For that purpose, the material is subdivided into Section A (Field Projects) and Section B (Supporting Activities).
37. Projects in Section A, which include country, regional and interregional projects are classified under the respective technical assistance programmes, UNDP/Special Fund, Regular Programme and UNDP/TA, Special Industrial Services, etc.
38. In view of the change in the programming procedures beginning in 1969, namely the adoption of continuing programming under set country targets, it was necessary in the case of UNDP/TA to follow a method of presentation of projects different from that adopted for the 1968 programme which, it will be recalled, was part of an approved biennial programme 1967-1968.
39. As regards the 1969 programme, projects under UNDP/TA were presented in three categories as follows: a) continuing projects expected to be carried over from previous years which are presented with essential details; b) new projects under active consideration, for which official requests have been submitted by the respective countries and which are presented in less detail; and a category c) which is limited to a summary listing of new projects that are likely to be included in the programme on the basis of information available to UNIDO, based on discussions with governments, recommendations of United Nations missions and other sources; the latter are listed by title only without any further detail except for the total estimated cost given for programming purposes.

40. Because of its ad hoc nature no detailed programming by individual projects could be made in the case of Special Industrial Services. A projection of the value of the programmes in 1969 is given in the case of some groups.

41. As regards the supporting activities of the substantive staff at Headquarters, direct support of field projects^{3/} is not indicated by individual projects since this is a continuing activity which is an integral part of the responsibilities of the staff. A global indication of staff time involved in the servicing of field projects by activity group is provided in Table 8 of Part I.

42. Section B lists specific projects under supporting activities in the form of: a) Expert group meetings, seminars, group training and workshops; b) Research projects and studies. Following the recommendations of the first session of the Industrial Development Board, these projects are arranged by broad categories or "programmes" in each group.

43. The financing of meetings is carried out either under the UNIDO budget or under the budget of the Technical Assistance programme under the category of regional and interregional projects. The preparation of the documentation for these meetings may require in some cases contribution by consultants, the cost of which is financed from the consultant fund under the UNIDO budget.

44. Research projects and studies are carried out by the UNIDO staff in some cases with the assistance of consultant services, the cost of which is also derived from the consultant fund.

^{3/} It will be recalled that direct field support consists in formulation of requests, including job descriptions of the experts; assistance in recruitment and evaluation of candidates for expert posts; follow-up of the work in the field by evaluation of experts' reports and correspondence with the field; briefing and debriefing of the experts.

INDUSTRIAL TECHNOLOGY DIVISION

Group 1 Mechanical and Electrical Engineering Industries

General remarks

45. This group of industries includes manufacturing industries engaged in the design and production of various fabricated metal products, machinery and general industrial equipment, machine tools, electrical and electronic equipment and instruments; transportation equipment, agricultural and building machinery and other equipment.
46. The Metalworking Symposium, held in 1966, covered many aspects of the development of these branches. Its proceedings are being published in 1968. In a follow-up to the Symposium, UNIDO took these branches one by one, reviewed their technical and economic characteristics and their place in industrial development. Preparations were made in previous years for a seminar on the development of the automotive industries, but for budgetary reasons the Seminar had to be postponed until 1969. An expert meeting on the status of technology in the electrical and electronic industries is scheduled to be held in 1968. Work following up the recommendations of this meeting will take place in 1969.
47. In 1967, in co-operation with FAO, a survey was prepared on the production of agricultural machinery. Greater use of agricultural equipment is considered essential for an increase of agricultural production. UNIDO will extend its activities in this area during subsequent years.
48. According to the recommendations of the Metalworking Symposium, work also started during 1967/1968 on the International Classification of Machinery and will be continued in 1969 in co-operation with international and national organizations concerned in the classification and standardization of machinery and equipment. The publication of this document is planned for 1970 and it is expected to help engineers and industrialists in developing countries in the selection of machinery.
49. Technical assistance provided by UNIDO is being expanded in new areas of importance for the engineering industry and the efficient use of machinery in the developing countries: product design, repair and maintenance of machinery and equipment, quality improvement and cost reduction programmes. Some of the study projects in 1969 are specially oriented towards the strengthening of UNIDO's technical assistance capabilities in these areas.

Group 1 (continued)

A. FIELD ACTIVITIES

1. Special Fund projects

(a) Continuing projects

AFRICA

United Arab Republic - (UAR-55):

Establishment of Engineering and Industrial Design Development Centre. This project aims at providing assistance to the Government in the establishment and initial operation of an industrial design and product development centre. Particularly, the adaptation of products to local conditions should be perfected to ease foreign exchange difficulties which led to acute shortage of spare parts and accessories.

Duration - 5 years		UNDP earmarking	\$1,035,100
Experts	9/93	Government contribution	1,224,000
Fellows	6/60	Total	\$2,259,100

ASIA AND FAR EAST

India - (IND-67):

Establishment of Design Centre for Electrical Measuring Instruments. The purpose of the project is to assist the Government of India in the establishment and initial operation of the Centre which will service the manufacturers of electrical instruments. It will make available to Indian manufacturers the technical know-how and information which will enable them to increase productivity of their plants. Necessary research will be carried out and testing and laboratory facilities will be provided for development and manufacture of prototypes of highly specialized items required in the manufacture of electrical measuring instruments.

Duration - 5 years		UNDP earmarking	\$ 833,000
Experts	5/36	Government contribution	739,000
		Total	\$1,572,000

Singapore - (SING-9)

Metal Industries Development Centre. The establishment and initial operation of the Centre is the purpose of the project, which is executed by the ILO in association with UNIDO. The Government programmes of development have tended to effect a change in the pattern of the economy from the traditional entrepôt trade towards the more sophisticated production of machinery and equipment, processing and servicing industries. The Centre will survey the problems and requirements of the metalworking industry and provide technical and consultative services to existing industrial establishments in order to improve their production processes, as well as to undertake the training programmes.

Duration - 4 years (1968-1971)		UNDP earmarking	\$ 696,700
Experts	9/22	Government contribution	1,211,000
		Total	\$1,907,700

Group 1 (continued)

(b) Projects under active consideration

AFRICA

Tunisia:

Pilot Plant for Manufacturing Machine Tools for Development of Industrial Sector. The Government, for the purpose of stimulating new industries in Tunisia, and, thereby reducing the high rate of unemployment as well as reducing the amount of foreign exchange presently used for import of machine tools, has requested UNDP's assistance in the establishment of a pilot plant for machine tools.

ASIA AND FAR EAST

India:

Research and Development Organization for the Electrical Industry, Bhopal. The UNDP/SF is requested to provide a total of 40 man-years of experts who would work on designs of current interest, train counterparts and assist in the introduction of new research and development techniques

EUROPE AND MIDDLE EAST

Bulgaria:

Device Research Institute. The Institute will turn out and utilize pneumatic, electric and electronic devices for regulation of and control over technological processes. It will design, construct and test in laboratory conditions prototypes of such devices and offer them to the industrial enterprises for serial production.

(c) New projects in early stages of examination

Metalworking Machinery Design and Development Centre (The Americas)

Assistance to Industrial Development Corporation (Asia and Far East)

Assistance to Common Facility Centre (Africa)

Pilot Plant in Electronic Industry (Asia and Far East)

Metal Industries Development Centre in Association with ILO (Philippines)

Group 1 (continued)

2. Technical Assistance (Regular Programme and UNDP/TA)

(a) Continuing projects

ASIA AND FAR EAST

India - (UNDP/TA 30-57):

Machine tool manufacture. The expert is making proposals for the introduction of more advanced methods in the production of machine tools and assists in the actual introduction of same.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/6	\$11,550

Singapore - (UNDP/TA 203-67):

Light engineering industries. The expert in light engineering industries is attached to the Economic Development Board of the country.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/12	\$23,100

Asia and Far East region - (ID/RP-01-81):

A regional adviser will assist the countries of the region in the field of industrial engineering (agricultural machinery and transport equipment).

	<u>Man/months</u>	<u>Cost</u>
Expert	1/12	\$23,100

THE AMERICAS

Chile - (UNDP/TA 130-57):

Following recommendations presented by a five-expert SIS mission in 1967, the Government requested the services of experts in 1968 in the field of industrial development programming and control of production, boiler plate, machine tools and quality control. It is likely that considerable additional resources will be required to implement the SIS mission's recommendation. Two experts will continue their activity in 1969.

	<u>Man/months</u>	<u>Cost</u>
Experts	2/20	\$38,500
Fellows	2/12	6,800
Equipment, Lab. test and documents		1,000

Group 1 (continued)

Dominican Republic - (UNDP/TA 194-60):

Industrial Adviser. The expert has been assigned to the Corporación de Fomento Industrial (CFI - Industrial Development Corporation) to assist the Director-General of the Corporación in solving problems arising from the implementation of development plans and at the same time to serve as Technical Supervisor to the CAMER project (establishment of a complex of metalworking industries). The post will be continued during 1969.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/12	\$23,100

Peru - (UNDP/TA Sub. No. 195-57/Rev.1/Corr.1 P.S. 67/43):

One expert will be attached to the Dirección de Industrias, Ministerio de Fomento y Obras Públicas, and will collaborate with the Instituto Nacional de Planificación and other organizations of the public and private sectors, especially on the problems of the automotive industries.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12	\$23,100
Fellows	2/3	3,200

EUROPE AND MIDDLE EAST

Poland - (UNDP/TA 189-60):

Training in industrial field. The Polish Government has provided in 1967-1968 UNDP/TA Programme (see DP/TA/L5, page 321) to extend this project over 1969-1970. It is anticipated that the Government will request fellowships' posts in the industrial technology field.

	<u>Man/months</u>	<u>Cost</u>
Fellows	35/105	\$77,000

Turkey - (P.S. No. 277-57):

Follow-up to the mission undertaken in February 1967 by a mechanical engineer (gear manufacturing) which was assigned to MKEK (Mechanical and Chemical Industries Establishment) to assist in training of technical personnel and management of the plant.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/6	\$11,550
Fellows	6/36	20,400

Group 1 (continued)

Lebanon - (UNDP/TA P.S. No. 26-58):

Continuation of work of an industrial engineer. (Formerly Industrial Project Development).

	<u>Man/months</u>	<u>Cost</u>
Expert	1/6	\$11,550

Group 1 (continued)

(b) Forecast of new projects

AFRICA

	<u>Man/months</u>	<u>Cost</u>
Preventive maintenance and repair	3/36	\$69,300
Agricultural machinery manufacturing (preliminary study)	1/6	11,550
Survey of metalworking industries	1/6	11,550

ASIA AND FAR EAST

Application of electronic computers in engineering industries	1/6	11,550
Preventive maintenance and repair	3/36	69,300
Manufacture of telecommunications equipment	1/12	23,100
Metal products industry (expansion plans)	1/6	11,550
Metal products industry (technical feasibility)	1/6	11,550
Fellowships	4/35	18,000

THE AMERICAS

Application of electronic Computers in engineering industries	2/12	23,100
Preventive maintenance and repair	2/24	46,200
In-plant quality control	3/9	17,325
General development of engineering industries	10/36	69,300
Automotive industry	1/9	17,325
Fellowships	4/23	13,200

EUROPE AND MIDDLE EAST

Preventive maintenance and repair	2/24	46,200
Spare parts production	1/12	23,100
Design of porcelain insulators	1/6	11,550
Fellowships	4/34	17,600

Total, new projects \$522,350

Group 1 (continued)

(c) Countries included in forecast of 1969 Technical Assistance Programme

<u>AFRICA</u>	<u>ASIA AND FAR EAST</u>	<u>EUROPE AND MIDDLE EAST</u>	<u>THE AMERICAS</u>
Kenya	India	United Arab	Argentina
Somalia	Iran	Republic	Brazil
Zambia	Malaysia		Central America
	Nepal		Chile
	Pakistan		Dominican
	Singapore		Republic
			Mexico
			Venezuela

B. SUPPORTING ACTIVITIES

Expert group meetings, seminars, group training and workshops

50. Expert group meeting on agricultural machinery industry. Some studies were started in 1968 on the demand for and production of agricultural equipment and machinery in the developing countries. This work will be continued in 1969. UNIDO will accumulate knowledge and experience on design and manufacturing of agricultural machinery and implements with special reference to the developing countries. The studies commissioned will be oriented to the conditions and special requirements for the establishment and expansion of these industries in the developing countries. An expert meeting is expected to discuss these subjects and to prepare recommendations for developing countries and UNIDO.

Cost: Meeting	\$10,000 (Regular UNIDO budget)
Studies and research on technical information	\$ 5,000 (Consultant funds)

Additional studies will be commissioned under the USSR special contribution.

51. Seminar on the automotive industry. Preparations were made in 1967 and 1968 for a seminar on the automotive industry which was planned to be held in co-operation with ECLA. This industry is already established in some of the developing countries of the ECLA region, even beyond the assembly stage, including production of parts with higher technological requirements. The participants in the seminar will discuss the status and future prospects of the automotive industry in the developing countries

Group 1 (continued)

considering all the economic, technological and financial problems involved. This project was originally intended for 1968 but has been postponed to 1969 due to lack of funds.

Cost: \$48,000 (UNDP funds - regional)

Studies and research

52. Development of product design and development capability. UNIDO is handling some Special Fund projects geared to the establishment of engineering and industrial design centres. A number of experts are already working in the field on this subject. The studies to be commissioned will be oriented towards the experience and problems of increasing the creative capabilities of developing countries in product design and manufacture of prototypes. As shown from the reports of field experts, lack of design and product engineering facilities often hampers the utilization of existing capacities and access to local and foreign markets. It is planned that in 1970 a group of experts will review and discuss these subjects. The studies will be used in back-stopping the field experts and in connexion with requests for technical assistance.

53. The design, manufacture and utilization of dies and jigs, as well as their impact on engineering design, will also be studied within this project as a continuation of work previously initiated.

Cost: \$4,000 (Consultant funds)

54. Maintenance and repair of industrial plant, transportation and agricultural machinery and equipment. Previous work carried out by UNIDO has been mostly concentrated on repair and maintenance of metalworking machinery. Technical assistance requests indicate the need for extension of this work to cover other industrial machinery, including transportation and agricultural equipment. Additional technical information papers are planned to help developing countries in the identification of requests for technical assistance. The elaboration of a project for pilot plants for repair and maintenance in developing countries is also envisaged. In connexion with this, UNIDO's publication, "Acceptance Tests for New

Group 1 (continued)

Machine Tools", will serve as a useful guide in everyday repair and maintenance work in the developing countries. It is also expected that requests for technical assistance will be facilitated by this publication.

Cost: \$3,000 (Consultant funds)

Additional funds are under consideration from USSR special contributions.

Publications

55. The publication programme for 1969 relates to studies and reports completed in 1968-1969.

"International Classification Systems for Metalworking Machinery" and "Acceptance Tests for New Machine Tools" are to be issued in 1969. The printing of these papers as sales items at an estimated cost of \$14,000 is subject to availability of funds.

Agricultural Equipment and Machinery Manufacturing Industries: Reports by the participants of Expert Group Meeting and selected papers to be issued and processed internally.

Electrical Engineering Industries in Developing Countries: Reports and selected papers to be printed as sales items at an estimated cost of \$7,000.

Development of Automotive Industries: Report and selected papers delivered at the proposed Regional Seminar to be issued and processed internally.

Group 2 Metallurgical Industries

General remarks

56. The work programme of this group covers the five branches of metallurgy: ore beneficiation, light non-ferrous metals, heavy non-ferrous metals, iron and steel, and foundry industries. Although UNIDO has provided technical assistance in all these areas the majority of work has been done in iron and steel. The Second Interregional Symposium on Iron and Steel Industries, organized by UNIDO in Moscow in 1968, is expected to consolidate UNIDO's work in this field. The proceedings of the Symposium will be published during the first half of 1969.

57. UNIDO intends to contribute to the development of the other metallurgical industries mentioned above through a series of expert group meetings. The distribution of the reports of the two expert group meetings held in 1967 is expected to help in identifying requests for technical assistance in the aluminium and copper industries. Additionally, identification of technical assistance projects are expected to follow from the meeting of a group of experts on the lead, zinc and tin industries in 1969.

A. FIELD ACTIVITIES

1. Special Fund projects

(a) Continuing projects

None

(b) Projects under active consideration

AFRICA

United Arab Republic - Central Metallurgical Research and Development Institute.

The Government has requested UNDP's assistance in the expansion of the already existing Central Metallurgical Research and Development Institute (during the Institute's second five-year plan which ends in 1970) by supplying experts, fellowships and a considerable amount of equipment.

(c) New projects in early stages of examination

Pilot Plan for Direct Reduction of Iron Ore on Industrial Prototype Scale for Applications in Developing Countries.

Integrated Pilot Plant Station for mineral beneficiation and agglomeration of metallurgical ores for developing countries.

Group 2 (continued)

2. Technical Assistance (Regular Programme and UNDP/TA)

(a) Continuing projects

AFRICA

Africa region - (ID/RP-02-45):

One regional adviser stationed in the Headquarters of the United Nations Economic Commission for Africa will assist the countries of the region in the field of iron and steel industry.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/12	\$27,000

ASIA AND FAR EAST

India - (UNDP/TA - PS 30-57):

The expert will continue to advise the Government of Mysore at the Mysore Iron and Steel Works on all matters concerned with foundry operations.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/11 (12)	\$21,175

Iran - (UNDP/TA 220-57)

Industrial economist (non-ferrous metals). In co-operation and consultation with the Project Manager of the Special Fund project, the expert will advise on the development of non-ferrous metals (chrome, copper, zinc and lead). He will study the feasibility and economics of establishing a smelting plant for production of the metals in Iran, both for local consumption and for export. The adviser will also prepare necessary feasibility studies in the four fields, including processes, capacities, location, equipment, investment and production costs.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/10 (12)	\$19,250

Philippines - (UNDP/TA - PS 79-57):

The expert will continue to design metallic pattern for machine moulding for mass production of casting such as buffer plungers, buffer casting, axle boxes; advise on methods for improvement of flow of material with particular reference to core shop and moulding section; introduce

Group 2 (continued)

production planning methods; advise on the finalization of the layout of the proposed expansion of the steel foundry with reference to the equipment and materials offered; and to help in preparation of the Project Report.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/11 (12)	\$21,175

Asia and Far East region - (ID/RP/-02-82)

A regional adviser, stationed in the Headquarters of the ECAFE, will continue to assist the countries of the region in the field of metallurgical industry (ferrous and non-ferrous metallurgy).

	<u>Man/months</u>	<u>Cost</u>
Expert	1/12	\$23,600

THE AMERICAS

The Americas region - (ID/RP/-02-108)

Continuation for 1969 of the service of the regional adviser in the mechanical and metallurgical industry.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/12	\$23,600

INTERREGIONAL

(ID/RP/-02-82):

One interregional adviser will continue to assist the member countries, upon their requests, on the problems of the development of the metallurgical industry.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12	\$23,600

(b) Forecast of new projects

AFRICA

	<u>Man/months</u>	<u>Cost</u>
Steel projects and foundries	1/12	\$23,100
Adviser on aluminium industry	1/12	23,100
Adviser on iron and steel industry	1/12	23,100
Survey of natural resources for metallurgical industries	1/12	23,100

Group 2 (continued)

AFRICA (continued)

	<u>Man/months</u>	<u>Cost</u>
Metallurgy of copper	1/6	\$11,550
Industrial economist for steel industry	1/6	11,550
Adviser on direct reduction methods	3/18	34,650
Lead production	1/4	7,700
Zinc production	1/4	7,700
Adviser for small iron and steel plant	2/8	15,400
Evaluation of iron ore deposit	1/4	7,700

ASIA AND FAR EAST

Adviser on foundries and metal working	1/6	11,550
Adviser to national council of applied economic research	1/12	23,100
Adviser on non-ferrous metals	1/12	23,100
General adviser on metalworking industry	2/12	23,100
Processing of heavy beach sands	1/3	5,775
Production of carbonized briquettes	1/2	3,850
Adviser on direct reduction methods	1/2	3,850
Evaluation of project for iron and steel plant	1/1	1,925
General steel industry adviser	1/12	23,100
Improvement and expansion of existing plants	2/12	23,100
Fellowships	2/18	9,200

THE AMERICAS

Industrial economist in steel marketing	1/6	11,550
Expert in metal drop-forging	1/6	11,550
Expert on foundries	1/6	11,550
General adviser on steel industry	1/6	11,550
Expert on metal forming	1/6	11,550
Iron and steel making	4/16	30,800
Steel rolling	2/6	11,550
Steel marketing	1/2	3,850
Ore dressing and beneficiation	1/2	3,850
Adviser on non-ferrous metallurgy	1/2	3,850
Direct reduction with natural gas	1/2	3,850
Refractories	1/2	3,850
Fellowships	4/24	13,600

Group 2 (continued)

EUROPE AND MIDDLE EAST

	<u>Man/months</u>	<u>Cost</u>
Operation of steel rolling mill	1/12	\$23,100
Forging specialist	1/12	23,100
Fellowships	4/12	8,800
Total, new projects		\$528,250

(c) Countries included in forecast of 1969 Technical Assistance Programs

<u>AFRICA</u>	<u>ASIA AND FAR EAST</u>	<u>EUROPE AND MIDDLE EAST</u>	<u>THE AMERICAS</u>
Algeria	Ceylon	Israel	Argentina
Congo	Korea,	Iraq	Bolivia
Gabon	(Republic of)	Lebanon	Brazil
Guinea	India	Syria	Chile
Mali	Iran	Turkey	Colombia
Mauritania	Pakistan	Yugoslavia	Ecuador
Morocco	Thailand		Trinidad
Zambia	Philippines		Venezuela

B. SUPPORTING ACTIVITIES

Expert Group meetings, seminars, group training and workshops

58. Expert Group Meeting on Lead, Tin and Zinc Industries: Developing countries endowed with non-ferrous metal resources wish to exploit them as far as possible through beneficiation, smelting, refining and, ultimately, fabrication of the metal into the end products. These objectives were emphasized recently by participants at the International Symposium on Industrial Development. A group of experts in heavy non-ferrous metals will be invited to discuss the recent developments in lead, zinc and tin production and to analyse the present status and future potential of these non-ferrous metal industries in the economies of the developing countries. The experts and observers attending the meeting are expected to identify technical assistance projects in these fields.

Cost: Meeting	\$7,000 (Regular budget)
Papers	\$7,000 (Consultant funds)

Group 2 (continued)

59. Utilization of scrap metal in foundries in developing countries. The utilization of scrap in foundry industries is well established in developed countries. With the increase in industrialization, supplies of such scrap are now becoming available in developing countries. A group of experts will consider the various methods of collecting and grading scrap and also the technology of improving the quality of scrap melts in developing countries.

Cost: Meeting	\$7,000 (UNDP/TA funds)
Papers	\$7,000 (UNDP/TA funds)

Publications

60. "The Techno-economic Principles of the Development of the Iron and Steel Industry in the Developing Countries". Proceedings of the Second Interregional Symposium on the Iron and Steel Industry scheduled to be held in Moscow, 19 September to 9 October 1968, will be edited and published. Together with UNIDO staff, consultants will work on the editing. (Consultant funds \$3,000).

Total cost of the publication, including distribution: \$28,000.

Group 3 Construction and Building Materials

General remarks

61. In 1967 and 1968 the technical assistance provided by UNIDO in building materials industries was mostly oriented towards increased utilization of local raw materials. Papers prepared on related subjects, e.g. Puzzolana Cement; Calcium Silicate Bricks; Small-scale Cement Manufacture; Building Lime, are of particular interest to the developing countries, and are expected to help in identifying areas for technical assistance.

62. UNIDO intends to strengthen its activities in the building materials industries, following the recommendations adopted at the International Symposium on Industrial Development. It was emphasized by representatives of the developing countries that higher priority should be given, where appropriate, to the development of the building materials industries, in order to achieve greater efficiency, better utilization of local raw materials and savings in foreign exchange.

63. Studies and research will be continued in two areas in 1969, namely, fibro-cement composites and prefabrication. As to the construction industries, UNIDO continues to co-operate closely with the United Nations Centre for Housing, Building and Planning as well as with the Regional Economic Commissions.

A. FIELD ACTIVITIES

1. Special Fund projects

(a) Continuing projects

THE AMERICAS

Bolivia - (BOL-20)

Pilot plant for experimental production of asbestos. The establishment of a pilot plant for experimental production of asbestos to assist in the development of the asbestos and related industries in Bolivia.

Approved January 1968	UNDP earmarking	\$527,500
Duration - 2 years	Government contribution	237,000
Experts 2/24	Total	\$764,500
Fellows 2/24		

(b) Projects under active consideration

None

Group 3 (continued)

(o) Projects in early stages of examination

None

2. Technical Assistance (Regular programme and UNDP/TA)

(a) Continuing projects

ASIA AND FAR EAST

Ceylon - (P.S. No. 20-57/Rev.2)

An expert will continue in assistance in the initial operation of a ceramics factory.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/6 (12)	\$11,550

(b) Forecast of new projects

ASIA AND FAR EAST

	<u>Man/months</u>	<u>Cost</u>
Fellows	4/17	\$10,800

AFRICA

Research laboratory for building materials	1/3	5,775
Evaluation of gypsum-anhydrite deposits	1/6	11,550

THE AMERICAS

Fellows	4/26	14,400
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EUROPE AND MIDDLE EAST

Survey of raw materials for building materials industry	1/6	11,550
Assistance to sheet glass factory	1/6	11,550
Manufacture of concrete products for specific climatic conditions	1/6	11,550
Fellowships	4/15	<u>10,000</u>
Total, new projects		87,175

(c) Countries included in forecast of 1969 Technical Assistance Programme

AFRICA

Libya
Somalia

MIDDLE EAST

Kuwait
Lebanon

Group 3 (continued)

B. SUPPORTING ACTIVITIES

Expert group meetings, seminars, group training and workshops

64. Expert group on fibro-cement composites. Fibro-cement composites may lead to increased utilization of local raw materials and economy in the use of cement and asbestos in developing countries. In 1968 a study was initiated on asbestos-cement and similar fibro-cement materials. UNIDO is handling three technical assistance projects in asbestos production, which are expected to lead to asbestos-cement projects. At the same time, considering the general lack of asbestos in developing countries, UNIDO intends to explore the possibilities of the use of other fibres as substitutes for asbestos. The studies commissioned in this area in 1968 will serve as background documents for an expert meeting to be held in 1969 on fibro-cement composites. This is an interregional project to be financed from TA funds.

Estimated cost: \$10,000 (TA funds)

65. Regional seminar on prefabrication in the building industries in Africa.

Modernization of the construction industry should be achieved in stages firstly by improving handicraft methods and rationalization of manual operations and then by on-site prefabrication (using traditional materials and simple assembly methods and equipment) and increasing use of factory-made building components, partly based on reinforced concrete. At a later stage the extensive use of factory-made building components based on a variety of materials, including light metals and plastics, can be envisaged. The subjects to be covered in this seminar will include the use of local raw materials like bamboos, reeds, grasses, leaves, fibres, stems of trees and plants etc., in factories to produce prefabricated components. This seminar would be the third in a series on this subject, the first of which was held for the Americas (1967) and the second scheduled for 1968 for Asia and the Far East. As a regional project the seminar will be financed from TA funds. The seminar will be organized in co-operation with the United Nations Centre for Housing, Building and Planning, and with the Economic Commission for Africa.

Estimated cost: \$20,000 (UNDP-TA funds)

Publications

66. Cement from Gypsum. Study commissioned in 1968.

Estimated cost: \$2,400 (Publication funds)

Group 4 Chemicals, Pharmaceuticals and Other Related Industries

A. FIELD ACTIVITIES

1. Special Fund projects

(a) Continuing projects

None

(b) Projects under active consideration

None

(c) Projects in early stages of examination

Pilot plant for manufacture of furfural (Trinidad);

Pilot demonstration plant for manufacture of galenicals (Ethiopia);

Pilot plant for manufacture of basic drugs and pharmaceuticals
(Philippines);

Pilot demonstration plant for mechanized collection of salt (Sudan).

2. Technical Assistance (Regular programme and UNDP/TA)

(a) Continuing projects

AFRICA

Guinea - (UNDP/TA 149 - 61):

An industrial chemist/engineer will continue to be attached to the Ministry of Development to advise on various aspects of the chemical industry.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/12	\$ 23,100

Libya - (UNDP/TA 282 - 63):

A senior Industrial Research Chemist is advising and assisting the Ministry of Industry in the planning and organization of its applied chemical research programme, helping in the training of new chemistry graduates in the field of applied research and laboratory techniques.

The project will also include two fellowships for twelve months each.

Group 4 (continued)

	<u>Man/months</u>	<u>Cost</u>
Expert	1/12	\$ 23,100
Fellows	2/24	\$ 11,600

Africa Region - (ID/RP -04 - 46):

One Regional Adviser will continue to assist the countries of the region in the field of chemicals, pharmaceuticals and fertilizers industries.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/12	\$ 27,000

ASIA AND FAR EAST

India - (UNDP/TA/PS 30-57):

The organic pigments and dyes expert is expected to guide and train a group of two or three scientists in investigation in the field of dyes and finishes and in the dyeing and finishing of leather.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/10 (12)	\$ 19,250

Iran - (UNDP/TA/PS 220-57):

A Chemical Engineer will continue to carry out feasibility studies on the development of dyestuffs with a view to promoting the co-operation of the three countries of Iran, Pakistan and Turkey, and possibly setting up a joint enterprise in this field.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/10 (12)	\$ 19,250

Asia and Far East region - (ID/RP 04 - 83):

A Regional Adviser stationed in the Headquarters of the ECAFE, will continue to assist the countries of the region in the field of chemical and petrochemical industries (including pulp and paper industry).

	<u>Man/months</u>	<u>Cost</u>
Expert	1/12	\$23,600

Group 4 (continued)

THE AMERICAS

Brazil - (UNDP/TA/PS No. DP/TA/L. 5 Sub. No. 27-59 Corr. 1):

An expert, stationed in Recife, is helping SUDENE (Superintendency for Development of Northwest) in solving problems related to the chemical industry. It is expected that his work will be needed also in 1969 under UNDP/TA.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12	\$ 23,100
Fellows	1/12	\$ 5,800

Mexico - (UNDP/TA/PS No. 67-44 Sub. No. 190/65 /Rev. 2):

Study of the technical and economical possibilities of specific industrial projects in the pharmaceutical industry.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/4 (12)	\$ 7,700

Trinidad and Tobago - (UNDP/TA/PS No. DP/TA/L.6 Sub. No. 8-64):

Assistance to the chemical industry. Three fellowships to be granted in the field of chemical engineering.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12 1/6 (12)	\$ 11,550
Fellows	3/18	\$ 10,200

The Americas - region (ID/RA - 04 - 109):

Continuation for 1969 of the services of the regional advisers in pulp and paper and in the chemical industry.

	<u>Man/months</u>	<u>Cost</u>
Experts	2/24	\$ 54,000

Group 4 (continued)

MIDDLE EAST

Israel - (UNDP/TA 243-57):

Continuation of an expert to assist in Pharmacological Research.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12	\$ 23,100

Turkey - (UNDP/TA/PS No. 277-57):

Continuation of the mission of Chemical and Petrochemical Engineer. Since June 1966 the expert has been assisting the Government in the development of chemical and petrochemical engineering in connexion with the industrialization plans of Turkey.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/12	\$ 23,100
Fellows	6/36	\$ 20,400

Group 4 (continued)

(b) Forecast of new projects

(i) Basic chemicals and pharmaceuticals

EUROPE

	<u>Man/months</u>	<u>Cost</u>
Production of marine salts	1/6	\$ 11,550
Natural soda ash	1/6	11,550
Alternative methods for production of sulphur	2/6	11,550

AFRICA

Extraction of potash salts from brines	1/6	11,550
Manufacture of chemicals by solar evaporation	1/6	11,550
Natural soda ash	1/6	11,550
Coal hydrogenation	2/12	23,100
Coal carbonization	1/6	11,550
Coal distillation	1/6	11,550
Sulphur from copper smelter flue gases	1/6	11,550
Manufacture of standard galenicals	1/6	11,550
Condular products from animal offals	2/6	11,550
Biosynthesis of therapeutically active products	1/6	11,550
Alginates from seaweed	1/6	11,550

ASIA AND FAR EAST

Furfural from bagasse	2/12	23,100
Chemicals from rice hulls	1/6	11,550
Caustic soda/chlorine complex	1/6	11,550
Tartaric acid from grapes	1/6	11,550
Manufacture of sodium sulphate	1/6	11,550
Solar salts	1/6	11,550

Group 4 (continued)

	<u>Man/months</u>	<u>Cost</u>
Soda ash from lake brines	1/6	\$ 11,550
Uses of industrial wastes	1/6	11,550
Chemicals by fermentation	1/6	11,550
Fellowships	14/109	57,600

THE AMERICAS

Furfural from bagasse	2/12	23,100
Utilization of hardwood	1/6	11,550
Citric acid by fermentation	1/6	11,550
Tartaric acid from grapes	1/6	11,550
Manufacture of pharmaceutically active principles	1/6	11,550
Manufacture of essential oils	1/6	11,550
Uses of wastes in paper pulp	1/6	11,550
Fellowships	3/25	13,000

Countries included in forecast of new projects in Group 4: Basic Chemical

Algeria	Zambia	Indonesia	El Salvador
Botswana	Burma	Iran	Trinidad and Tobago
Malawi	Ceylon	Philippines	Guatemala
Sudan	China (Rep. of)	Brasil	Iceland
Tanzania	India	Costa Rica	Turkey

Countries included in forecast of new projects in Group 4: Pharmaceutical

Ethiopia	Mali	Niger	Rwanda
Uganda	Mexico	Argentina	

(ii) Pulp and Paper

AFRICA

	<u>Man/months</u>	<u>Cost</u>
Evaluation of pulp and paper project	1/6	\$ 11,550
Feasibility survey of proposed paper plant	1/6	11,550

Group 4 (continued)

	<u>Man/months</u>	<u>Cost</u>
Assistance to operating paper mill	2/24	\$ 46,200
Evaluation of offers for new pulp and paper mill	1/3	5,775
Paper pulp technology	1/3	5,775
Paper pulp from waste wattle trees	1/3	5,775

ASIA AND FAR EAST

Paper pulp from bagasse	2/6	11,550
Feasibility survey for pulp-paper mill	1/3	5,775

THE AMERICAS

Paper pulp from bagasse	2/6	11,550
Review of studies for new paper mill	1/3	5,775

MIDDLE EAST

Manufacture of paper from reeds and bamboo	2/6	11,550
Pulp and paper development	2/6	11,550
Fellowships	2/7	4,800

EUROPE

Assistance to pulp and paper industry	2/12	<u>\$ 23,100</u>
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Total, new projects \$624,025

Countries included in forecast of new projects in Group 4: pulp and paper

Morocco	Kenya	Cyprus
Somalia	Cameroun	United Arab Republic
Tanzania	Guinea	Iraq
Uganda	Philippines	Dominican Republic
Congo (Brassaville)	Thailand	Colombia
Ivory Coast	Burma	Turkey

Group 4 (continued)

B. SUPPORTING ACTIVITIES

67. Although the heavy chemicals industries are already well established, there are other areas where under favourable conditions new industries can be set up with good chances for success.
68. In 1968 a series of country studies on basic chemicals made in co-operation with the Regional Economic Commissions, will become available. These papers will be published in 1969. The subjects covered are of direct interest to developing countries anxious to utilize their natural resources in the field of chemicals.
69. UNIDO is organizing in 1968 an expert working group on the modernizing and mechanizing of seawater chemical industries in developing countries. The proceedings of this group will be printed and distributed in 1969.
70. In 1969, research programmes will be carried out in the areas of pharmaceuticals and organo-chemicals. These are comparatively new subjects for technical assistance and were specially mentioned at the International Symposium.

Expert group meetings, seminars, group training and workshops

71. Consultative panel on the manufacture of chemicals by fermentation processes: UNIDO has received requests from several countries for technical assistance in the fermentation industries. In this field the main requisites are a fermentable material, suitable micro-organisms, and the establishment of conditions favourable for the growth of the micro-organisms. It is proposed to convene a consultative panel on the basis of papers prepared by experts in this field with a view to the establishment of such industries in countries where demand exists and conditions are favourable. The collaboration of the FAO will be sought in this project.

Costs: Meeting	\$ 7,000 (Regular budget)
Papers	\$ 3,000 (Consultant funds)

72. An expert group on establishment of pharmaceutical industries in developing countries will be organized in 1969. These industries have been established in only a few developing countries and therefore direct experience is limited. The expert working group will make recommendations on the best procedure to be followed in establishing pharmaceutical industries in respect of the more elementary

Group 4 (continued)

and commonly-used drugs, pharmaceutical specialities, implements, accessories, containers and processing techniques. In this project UNIDO proposes to work in close co-operation with the World Health Organization.

Cost: Meeting	\$ 7,000 (Regular budget)
Papers	\$ 5,000 (Consultant funds)

73. The subject of chemicals based on utilization of waste products was brought up at the International Symposium in Athens. Preparations will be made to convene an expert working group or seminar in 1970.

Studies and research

74. The Athens Symposium disclosed much interest by developing countries in the manufacture of liquid fuels and chemicals from coal. Special studies on the coal hydrogenation process will be commissioned which will open up the subject and provide the groundwork for a programme in 1970. These studies will in due course be used by a group of experts to make recommendations useful to developing countries in framing their technical assistance programmes. It is hoped to secure the collaboration of UNESCO in this project.

Estimated cost	\$ 4,000 (Consultant funds)
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Group 5 Fertilizers, pesticides and petrochemical industries

General remarks

75. In the Work Programme of UNIDO for 1968 (ID/B/20/Rev.1 and Add.I) chemicals, petrochemicals, pesticides, pharmaceuticals and other related industries were presented under Group 4. Fertilizer industries were presented under Group 5. However, since the production of nitrogenous fertilizers, such as liquid ammonia and of petrochemicals, such as methanol, ethylene etc. are based on the same raw materials (naphtha, oil and gas) and have many common production techniques, petrochemicals are now presented under Group 5. Pesticides and insecticides will be handled together with fertilizers and petrochemicals under Group 5.
76. The International Symposium on Industrial Development reviewed recent developments and future prospects of the fertilizer industries. There was a general agreement that, although many inputs were necessary, the most noteworthy results were to be achieved through the use of fertilizers. Many delegates felt that throughout the world there was a serious imbalance in regard to production, availability and consumption of fertilizers as between the developing and the industrialized countries, and that the correction of this imbalance was the most urgent task for the developing countries to undertake.
77. UNIDO is at present considering many projects in the fertilizer, pesticides and petrochemical field. Many delegates to the International Symposium stressed the importance of demonstration and pilot projects in developing countries.
78. The recommendations adopted at the International Symposium on Industrial Development involve a long-term programme. In 1969 UNIDO intends to implement the recommendations of the Symposium concerning improvement of information on existing production or planned productive capacity, and the drawing up of a world-wide programme for production of fertilizers.
79. In 1968 preparations are being made for a second interregional seminar on the petrochemical industries in developing countries to be held in 1969. The first interregional seminar was held in 1964 and since then technologies, end products and economies of scale have changed considerably. Many developing countries are now starting or planning the production of petrochemicals.

Group 5 (continued)

A. FIELD ACTIVITIES

1. Special Fund projects

(a) Continuing projects

ASIA AND FAR EAST

Pakistan (PAK-86)

Pre-investment studies for the promotion of the fertilizer and petrochemical industries. Assistance is being given to the Government to develop its fertilizer and petrochemical industries and to promote the use of fertilizer and petrochemical end products.

Approved June 1965. Duration: 3 years.

Experts 8/206 and 5 man/months short-term consultants

Fellows 8/96

UNDP Earmarking \$1,532,000

Government Contribution 1,100,000

\$2,632,000

AFRICA

Rwanda (RWA-3)

Pilot plant for industrialization and pyrethrum production, Mukingo. Establishment and initial operation of a pilot plant for pyrethrum production, with a capacity of 200 tons of extract per annum. The UNDP/Special Fund will provide equipment for the pilot plant, including modern machinery required for the drying, grinding and complete solvent extraction of the flowers and for the refining and processing of the product.

In conjunction with the proposed processing operations, the Government is undertaking a programme for intensified production of pyrethrum flowers. Funds for a sub-contract to undertake a specific agricultural development study in order to promote the productivity of small growers are included and the European Economic Community has taken steps to assist in the expansion of the production of pyrethrum since October 1966.

Approved January 1966. Duration: 3 years

Experts 3/36 (1969)

UNDP Earmarking \$1,459,000

Government Contribution 400,000

\$1,859,500

Group 5 (continued)

United Arab Republic (UAR-69)

Demonstration pesticides production plant based on chlorine and bromine resources. The purpose of the project is to produce 1000 tons per year of DDT, 1000 tons per year of B.H.C., 500 tons per year of bromine, bromination of 150 tons dichloropropane per year and recovery of monochlorobenzene from spent oleum.

Approved January 1968. Duration: 3 years

Experts 1/36 (1969)

UNDP Earmarking \$1,053,600

Government contribution 1,253,000

\$2,306,600

(b) New projects under active consideration

Togo - Pilot demonstration plant for production of phosphate fertilizers.

Ghana - Pilot demonstration plant for making compound fertilizers.

China (Rep. of) - Assistance to Industrial Research Institute.

(c) Projects in early stage of examination

Demonstration plant for fertilizers and industrial explosives (The Americas)

Pilot demonstration plant for production of pesticides using excess chlorine and bromine (Asia, Africa and the Americas)

Pilot demonstration plant for production, storage and application of liquid fertilizers (Asia and Africa)

Pilot demonstration plant for production of sulphuric acid from gypsum and pyrites (Asia and Africa)

Recovery of sulphur from crude oil and sour gases (Middle East, Africa, Asia and the Americas)

Assistance in the establishment of a pilot plant for manufacture of compound fertilizers and a research centre aimed at use of Kivu Lake gas (Congo and Rwanda)

Pilot demonstration plant for production of plastic products (Africa and Middle East)

Pilot demonstration plant for production of pigments and dyestuffs (Asia, Africa and Middle East)

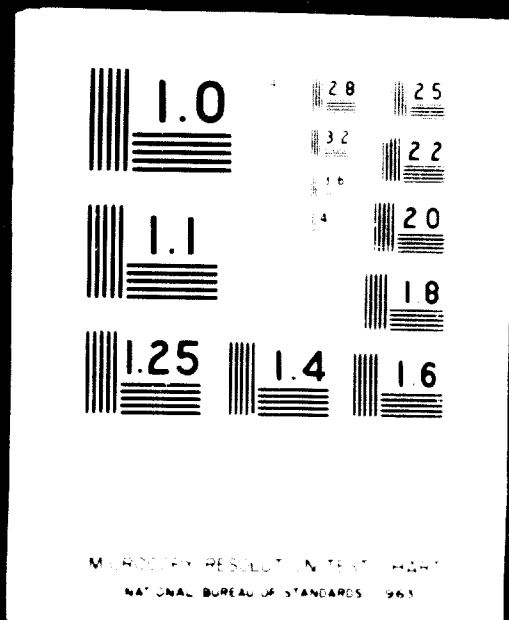


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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS - 1963

Group 5 (continued)

2. Technical Assistance (Regular programme and UNDP/TA)

(a) Continuing projects

ASIA AND FAR EAST

India - (UNDP/TA PS 37/57 and 30/57):

	<u>Man/months</u>	<u>Cost</u>
Development of polymers	1/6 (12)	\$11,550
	1/12	23,100

Asia and Far East region - (ID/RP/05-83):

A regional adviser, stationed in the headquarters of ECAFE, will continue to assist the countries of the region in the field of fertilizer industries.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/12	\$23,600

THE AMERICAS

Peru - (UNDP/TA 195-57/Rev.1/Corr.1):

An industrial adviser on fertilizers is attached to the Ministry of Development and will collaborate with the Ministry for Agriculture and the National Fertilizer Corporation on the execution of fertilizer projects within the framework of the economic and social development plan for 1967/1970. In particular, he is giving advice on the formulation of projects for the production of nitrogen, phosphate and potash fertilizers, taking into account the indigenous market as well as the requirements under the agreements of the Latin American Free Trade Association.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/6 (12)	\$11,550

Peru - (UNDP/TA 195-57/Rev.1/Corr.1):

Petrochemical industry. A petrochemical industry adviser is advising on projections of actual and potential demand for basic petrochemical products, intermediates and end-products of the petrochemical industry, both for the domestic market and that of neighbouring countries. He is also collaborating in the preparation of a list of selected petrochemical products which might be produced economically in Peru and advising on the appropriate technologies to be utilized, use of raw materials, cost estimates, economic size and suitable location.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/6 (12)	\$11,550

Group 5 (continued)

The Americas region (UNDP/TA)

One expert to assist SIECA (Secretariat for Economic Integration of Central America) in the problems of integration of the petrochemical industry of the area. The expert is to be stationed in Guatemala.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/12	\$23,600

(b) Forecast of new projects

AFRICA

	<u>Man/months</u>	<u>Cost</u>
Erection and operation of fertilizer plant	1/12	\$23,100
Assistance to existing and projected fertilizer and pesticides projects	3/36	69,300
Utilization of natural gas	2/24	46,200

ASIA AND FAR EAST

	<u>Man/months</u>	<u>Cost</u>
Assistance in establishment of fertilizer complex	1/12	\$23,100
Survey for establishment of ammonia plants	1/12	23,100
Natural gas for fertilizer production	1/12	23,100
Phosphatic fertilizer industry	1/12	23,100
Use of pyrites for sulphuric acid	1/6	11,550
Computerizing design for fertilizer projects	1/6	11,550
Survey of pesticides production	1/6	11,550
Use of liquid fertilizers	1/6	11,550
Pesticides production	1/12	23,100
Rationalization of fertilizer production	1/12	23,100
Establishment of petrochemicals and plastics industries	2/24	46,200
Production of polyolefins	1/12	23,100
Fellowships	1/6	3,400

Group 5 (continued)

<u>THE AMERICAS</u>		
	<u>Man/Months</u>	<u>Cost</u>
Construction of plant for industrial explosives and fertilizers	1/12	\$23,100
Assistance to phosphate fertilizer industry	1/12	23,100
Pesticides production	1/12	23,100
Manufacture of polyethylene and polyvinyl chloride	1/6	11,550
Production of synthetic rubber	2/12	23,100
Chemicals and plastics from bagasse	1/12	23,100
 <u>MIDDLE EAST</u> 		
Assistance to existing fertilizer projects	1/6	11,550
Construction and operation of superphosphate plant	1/12	23,100
Construction and operation of compound fertilizer plant	1/12	23,100
Construction of triple superphosphate plant	1/12	23,100
Construction of phosphorous complex	1/12	23,100
Location studies for fertilizer complex	1/12	23,100
Production of polyethylene and PVC	1/12	23,100
Production of polymers	1/12	23,100
Assistance in establishment of plastics industries	3/36	69,300
Fellowships	1/6	<u>3,400</u>
Total, new projects		\$758,700

(c) Countries included in forecast of 1969 Technical Assistance Programme

<u>AFRICA</u>	<u>ASIA AND FAR EAST</u>	<u>EUROPE AND MIDDLE EAST</u>	<u>THE AMERICAS</u>
Algeria	Ceylon	Cyprus	Bolivia
Burundi	China	Iraq	Brazil
Congo	India	Israel	Colombia
Ghana	Indonesia	Jordan	Nicaragua
Libya	Malaysia (Brunei)	Kuwait	Peru
Rwanda	Pakistan	Saudia Arabia	
Sudan		Syria	
Tunisia		United Arab Republic	
Zambia			

Group 6 Light Industries

General remarks

86. This group covers a wide range of industries producing largely consumer goods. For purposes of organization, the group is divided into the following subgroups:

- Textile industries
- Food processing
- Tanning and leather
- Wood processing industries

87. The textile industry of the world today faces difficulties emanating from the swift progress in equipment design, manufacturing techniques and keen competition in the world market. By providing technical assistance, and by conducting studies and surveys which directly support these field activities, UNIDO assists in modernizing the traditional textile industry and in the development of new industries in this field. In 1967 and 1968 UNIDO paid special attention to the problems of selection of machinery faced by developing countries. The subsequent circulation of the reports adopted by expert groups is expected to contribute to a better understanding of the options available and to the formulation of new requests for technical assistance.

88. UNIDO's activities in food processing in previous years mostly covered various aspects of modernization of existing installations and the establishment of new facilities. UNIDO has provided technical assistance in the processing of animal (fish) and vegetable (soya) protein production. Information papers commissioned in previous years were circulated in 1968. Work in this area will be continued in 1969. Reference may be made in this connexion to the recommendations of the Economic and Social Council's Resolution 1257 (XLIII) on increasing the production of edible proteins and the recommendations in this area of the International Symposium on industrialization.

89. As regards tanning and leather, UNIDO has continued to provide technical assistance to developing countries. No specific research work is envisaged for 1969. UNIDO's activities in wood processing industries are based on its role as co-ordinator for industrial development within the United Nations as well as on

Group 6 (continued)

its task of helping developing countries make fuller use of their raw materials through industrialization. These activities will be intensified through an expert group meeting programmed for 1969 on the utilization of wood for construction in developing countries.

A. FIELD ACTIVITIES - TEXTILE INDUSTRIES1. Special Fund projects(a) Continuing projects

None

(b) Projects under active consideration

Project to assist Jute Industry (East Pakistan)

(c) Projects in early stages of examination

None

2. Technical Assistance - (Regular programme and UNDP/TA)(a) Continuing projectsAFRICAMorocco - (UNDP/TA PS 421-57):

Textile industry expert to continue to make an extensive survey of the technological and economic aspects of this industry and to draft the main lines of a development policy in this field.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12	\$ 23,100
Fellows	2/12	\$ 6,800

Africa region - (ID/RP 06-136):

One regional adviser, stationed in the Headquarters of the United Nations Economic Commission for Africa will assist the countries of the region upon their request in the field of engineering textiles (medium-scale industry).

	<u>Man/months</u>	<u>Cost</u>
Expert	1/12	\$ 27,000

Group 6 (continued)

(b) Forecast of new projects

AFRICA

	<u>Man/months</u>	<u>Cost</u>
Finishing of textiles	1/6	\$ 11,550
Survey of establishment of wool factory	1/4	7,700
Techno-economic problems	2/8	15,400
General survey of industry	1/4	7,700
Implementation of general survey	2/15	28,875
Mill control systems and repair and maintenance programme	1/3	5,775
Selection of equipment	1/3	5,775

ASIA AND FAR EAST

	<u>Man/months</u>	<u>Cost</u>
Evaluation of tenders for new factory	1/3	\$ 5,775
Mill control systems and repair and maintenance programme	1/3	5,775
Selection of equipment	1/3	5,775
Plant development	1/12	23,100
Fellowships	6/32	18,800

THE AMERICAS

	<u>Man/months</u>	<u>Cost</u>
Utilization of hard fibres	1/4	\$ 7,700
Raw materials utilization, including man-made fibres	1/6	11,550
Mill control systems and repair and maintenance programme	1/3	5,775
Selection of equipment	1/3	5,775
Fellowships	3/23	<u>12,200</u>
Total, new projects		\$185,000

Group 6 (continued)(c) Countries included in forecast of 1969 technical assistance programme (textile industries)

Malawi	Papua and New Guinea	Mexico
Algeria	Sudan	Venezuela
Kenya	Nigeria	Mauritius

A. FIELD ACTIVITIES - FOOD PROCESSING2. Technical Assistance - (Regular programme and UNDP/TA)(a) Continuing projectsAFRICANigeria - (UNDP/TA PS 10-61):

A food technologist (OPEX) will be assigned in 1968 to the Federal Institute of Research to assist in the elaboration of a research programme and train staff in modern industrial research methods. It is expected that his services will be required in 1969 and 1970.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/7	\$ 13,475

ASIA AND FAR EASTIran - (UNDP/TA PS 220-57):

The expert will continue to study the existing food industry with a view to identifying its production problems, with special emphasis on formulation and evaluation of food industry projects.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/10	\$ 19,250

(b) Forecast of new projectsAFRICA

	<u>Man/months</u>	<u>Cost</u>
Establishment and operation of food processing plants		
(a) Raw materials of vegetable origin	12/66	\$ 127,050
(b) Meat processing	6/40	77,000
(c) Fish processing	8/60	115,500
Assistance to vegetable oil industry	8/48	92,400
Sugar technology	3/18	34,650

Group 6 (continued)

	<u>Man/months</u>	<u>Cost</u>
Establishment of castor oil factory	1/12	\$ 23,100
Dehydration of fruits and vegetables	2/15	28,875
Assistance to milling industry	4/24	46,200
Assistance in formulation and implementation of agro-industrial development programmes	19/60	115,500
Establishment and operation of animal feedstuff factories	4/30	57,750
Modernization of wine industry	1/9	17,325
Pre-investment study for breweries	2/9	17,325

ASIA AND FAR EAST

	<u>Man/months</u>	<u>Cost</u>
Establishment and operation of food processing plants (a) Raw materials of vegetable origin	4/18	\$ 34,650
Assistance to vegetable oil industry	3/12	23,100
Sugar technology	2/15	28,875
Assistance to milling industry	3/30	57,750
Assistance in formulation and implementation of agro-industrial development programme	1/6	11,550
Establishment and operation of animal feedstuff factories	1/6	11,550
Modernization of wine industry	1/6	11,550
Agro-industrial development	1/12	23,100
Fellowships	6/22	18,600

Group 6 (continued)

THE AMERICAS

	<u>Man/months</u>	<u>Cost</u>
Establishment and operation of food processing plants		
(a) Raw materials of vegetable origin	10/48	\$ 92,400
(b) Meat processing	6/36	69,300
(c) Fish processing	3/22	42,350
Sugar technology	1/6	11,550
Assistance to vegetable oil industry	2/18	34,650
Assistance in formulation and implementation of agro-industrial development programme	5/21	40,525
Establishment and operation of animal feedstuff factories	4/27	51,975
Production of fish protein concentrate	10/24	46,200
Quinine extraction	1/6	11,550

MIDDLE EAST

	<u>Man/months</u>	<u>Cost</u>
Establishment and operation of food processing plants		
(a) Raw materials of vegetable origin	3/21	\$ 40,525
Assistance to vegetable oil industry	2/12	23,100
Assistance in formulation and implementation of agro-industrial development programme	1/12	<u>23,100</u>
Total, new projects		\$1,460,625

(c) Countries included in forecast of 1969 technical assistance programme (food processing)

Algeria	Ceylon	Iraq	Dominican Republic
Burundi	India	Israel	Argentina
Central African Republic	Iran	Jordan	Venezuela
Cameroun	Zambia	Malaysia	Bolivia
Congo(Brassaville)	Upper Volta	Pakistan	Brasil

Group 6 (continued)

Dahomey	Uganda	Philippines	Chile
Ethiopia	Tunisia	Thailand	Colombia
Gabon	Togo	Tanzania	Peru
Guinea	Sudan	Somalia	Trinidad and Tobago
Kenya	Rwanda	Nigeria	Uruguay
Madagascar	Malawi	Mali	Mauritania

A. FIELD ACTIVITIES - WOOD PROCESSING INDUSTRIES

2. Technical Assistance projects - (Regular programme and UNDP/TA)

(a) Continuing projects

None

(b) Forecast of new projects

AFRICA

	<u>Man/months</u>	<u>Cost</u>
Pre-investment survey for particle board factory	1/6	\$ 11,550
Assistance to plywood factory	1/12	23,100
Pre-investment survey for match industry	1/6	11,550
Assistance to match factory	1/6	11,550
Study for proposed chipboard mill	1/6	11,550
Marketing expert for building boards	1/6	11,550
Assistance to cardboard factory	1/12	23,100
Pre-investment studies for wood processing industries	1/6	11,550
Feasibility study for plywood plant	1/6	11,550
Feasibility study for corrugated board plant	1/6	11,550

Group 6 (continued)

ASIA AND FAR EAST

	<u>Man/months</u>	<u>Cost</u>
Survey for establishment of wood processing industries	1/12	\$ 23,100
Marketing of wood-based panel products	1/12	23,100
Improvement of furniture and cabinet making industry	1/12	23,100

THE AMERICAS

	<u>Man/months</u>	<u>Cost</u>
Assistance to plywood and particle board plant	1/6	\$ 11,550
Pre-investment survey for wood processing industries	1/6	11,550

EUROPE AND MIDDLE EAST

	<u>Man/months</u>	<u>Cost</u>
Improvement of furniture production	1/12	\$ 23,100
Total, new projects		\$254,100

(c) Countries included in forecast of 1969 technical assistance programme (wood processing industries)

Central African Republic	India	Dominican Republic
Cameroun	Solomon Islands	Guyana
Congo (Brassaville)	Philippines	Uganda
Mali	Sierra Leone	Somalia
Sudan	Tanzania	

A. FIELD ACTIVITIES - LEATHER, FOOTWEAR, TOBACCO

2. Technical Assistance projects - (Regular programme and UNDP/TA)

(a) Continuing projects

ASIA AND FAR EAST

Malaysia - (UNDP/TA PS 19-66):

An expert in leather products will continue advisory work on quantitative and qualitative improvement - the processes used for flaying, preservation and tanning of leather, as well as on auxiliary and related industries.

Group 6 (continued)

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12	\$ 23,100

Malaysia - (UNDP/TA PS 19-66):

An expert will assist the factory manufacturing branch of the tannery.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/10	\$ 19,250

(b) Forecast of new projects

AFRICA

	<u>Man/months</u>	<u>Cost</u>
Assistance in technical operation of tannery	1/12	\$ 23,100
Assistance to cigarettes, cigars and tobacco factory	1/6	11,550

THE AMERICAS

	<u>Man/months</u>	<u>Cost</u>
Modernization and expansion of leather industry	2/12	\$ 23,100
Feasibility survey for cigarettes, cigars and tobacco production	1/6	11,550
Assistance on footwear production	1/12	23,100

ASIA AND FAR EAST

	<u>Man/months</u>	<u>Cost</u>
Expert for tanning and leather industry	1/12	\$ 23,100
Total, new projects		\$115,500

(c) Countries included in forecast of 1969 technical assistance programme (leather, footwear, tobacco)

Sudan	India	Argentina
Burundi	Jamaica	Trinidad and Tobago

Group 6 (continued)

B. SUPPORTING ACTIVITIES

Expert group meetings, seminars, group training and workshops

(a) Textile industry

90. Expert group meeting on testing and manufacturing controls in the textile industry. In the last few decades methods have evolved for controlling the quality of products, improving the efficiency of the various processes, reducing the amount of waste, selecting appropriate raw materials and improving the yield per worker. In short, it is possible to determine and rectify most causes of low productivity, defective quality and wastage. The fullest possible use should be made of these methods in the textile industry in developing countries. To emphasize the importance of proper mill control systems and to provide guidance in the establishment of such systems the expert group will prepare a report on the application of testing and mill control methods in the cotton industry of developing countries. The investigation of this problem has been recommended by the group of experts meeting on the selection of machinery in the cotton industry and most of UNIDO's plant-level technical assistance operations relate to this issue.

Date: April 1969

Place: Cairo

Cost: Meeting \$ 6,000 (UNDP/TA funds)

Background documentation \$ 6,000 (UNDP/TA funds)

(b) Food processing

91. Two expert meetings will be held in 1969 in the field of production of proteins.

92. An expert meeting will be held on fish protein concentrate production in Agadir, Morocco, at the new reconstructed fish protein concentrate plant. The meeting will be dedicated to the exchange of experience between UNIDO experts and experts from interested developing countries (Chile, Brasil, Peru etc.).

Cost: Meeting \$ 7,000 (TA funds)

Papers \$ 3,000 (Consultant funds)

Group 6 (continued)

93. An expert meeting on soybean protein processing and soybean protein use and marketing under the conditions of certain developing countries will be held in Peoria, Illinois.

Cost: Meeting	\$ 7,000 (UNDP/TA funds)
Papers	\$ 3,000 (UNDP/TA funds)

(c) Wood processing industries

94. According to the recommendation adopted at the International Symposium on Industrial Development, UNIDO is requested to organize, in co-operation with FAO and other appropriate United Nations bodies, a study group to evaluate the role of wood-based products as building materials under conditions prevailing in developing countries. Studies will be commissioned in 1968 and will be reviewed at the meeting of a group of experts in 1969. It is expected that the guidelines elaborated in the meeting will contribute towards the development of wood processing industries in developing countries.

Cost: Meeting	\$ 7,000 (Regular UNIDO budget)
Papers	\$ 4,500 (Consultant funds)

Studies and research

(a) Textile industry

95. Preparation for the Second United Nations Interregional Workshop on Textile Industries in Developing Countries to be convened in 1970 to review the developments of this industrial sector since 1965. The organizing of the workshop is based on the recommendation of the Lodz Workshop (United Nations Sales Publication 66.II.B.29, page 4, If). It was recommended that the appropriate organs of the United Nations make all necessary provisions for the convening, at periodic intervals of two or three years, workshops or seminars of similar nature in the field of textiles.

Estimated cost:	\$ 8,000 (Consultant funds)
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INDUSTRIAL SERVICES AND INSTITUTIONS DIVISION

Group 7 Industrial Legislation, Patents, Licensing and Standardization

General remarks

99. UNIDO's objectives in these interrelated fields are as follows:

- (a) To assist developing countries in equipping themselves with a modern and effective patents system which will encourage local invention and the inflow of foreign proprietary technology;
- (b) To assist these countries in developing modern and effective systems of industrial legislation, with special emphasis on investment and related laws which will encourage flows of foreign industrial capital and technology while protecting national interests;
- (c) To stimulate an increased inflow of proprietary technology through industrial licensing from developed to developing countries; and
- (d) To assist these countries in developing modern, efficient industrial standards programmes with special emphasis on making their products more readily saleable in world markets.

100. In some of these fields there are long-established international public and private organizations, e.g. BIRPI, OAMPI and ISO^{4/}. In such cases, UNIDO's preliminary role will be to work with these organizations to supplement their efforts to provide greater assistance to the newly industrializing countries.

101. Through 1967, UNIDO activities in this area were largely limited to preliminary planning and development of contacts with the competent international bodies. The only major special activity in 1967 was the financing of fifteen participants from developing countries at a special development conference and other meetings in connexion with the 1967 General Assembly of the International Standards Organization in Moscow. In 1968, UNIDO plans to move forward in this area

^{4/} United International Bureau for the Protection of Intellectual Property (BIRPI)
African and Malagasy Union for the Protection of Industrial Property (Office
Africain et Malagache de la Propriété Industrielle) (OAMPI)
International Standards Organization (ISO)

Group 7 (continued)

in several directions:

- (a) Increasing field activities serving individual developing countries;
- (b) Sponsoring an advisory meeting of experts on industrial patents for developing countries; and
- (c) Holding an expert group meeting to design an effective programme for increasing the flow of licensing from industrialized countries to developing countries.

102. In 1969, UNIDO activities in this area will be concentrated on further efforts to increase direct assistance to developing countries. An expert group meeting on licensing costs will be held. In addition, a basic manual on industrial licensing will be prepared. An international licensing expansion programme will be launched, in accordance with the suggestions of the expert group meeting in 1968. Standards development work will be intensified in co-operation with ISO and the United Nations regional commissions.

A. FIELD ACTIVITIES

1. Special Fund projects

(a) Continuing projects

EUROPE AND MIDDLE EAST

Jordan:

Centre for Industrial Development (Industrial Standardization Expert). Within the general activities of the Centre for Industrial Development, an expert will advise and assist the government agencies concerned with the setting up of standards and establishing of quality controls. (This project is detailed under Group 12).

Group 7 (continued)

2. Technical Assistance projects (Regular programme and UNDP/TA)

(a) Continuing projects

AFRICA

Ethiopia:

Industrial standardization expert (UNDP/TA 44-65). An expert will survey the existing standardization activities, study the standardization requirements of the country, and advise the Government on institutional, physical, legislative and other matters pertinent to the standardization activities and the establishment of a national standards body.

Experts (man/months)	1/9
Fellows (man/months)	2/12
Cost	\$24,125

ASIA AND FAR EAST

Thailand (UNDP/TA 82-57) An industrial standards expert on continued assignment to the Ministry of Industry is to assist in the study, preparation, issuance, promotion and adoption of industrial standard specifications.

Experts (man/months)	1/12
Cost	\$23,100

(b) Forecast of new projects

	<u>Experts</u>	<u>Man-months</u>	<u>Cost</u> \$
Industrial standardization experts	4	24	46,200
Industrial legislation experts	2	12	23,100
Licensing experts	2	12	23,100
Patent office organization experts	2	12	23,100
Total, new projects			<u>\$115,500</u>

3. Special industrial services

Forecast based on 1967/1968 activities and trends in this sector:

No. of projects	6
Cost	\$22,100

Group 7 (continued)

108. Licensing stimulation. A project for licensing stimulation will be launched reflecting the recommendations of the expert group meeting to be held on this subject late in 1968. This will involve efforts to find, in co-operation with the national and international licensing agencies such as NRDC (National Research and Development Corporation), relevant proprietary technology and to increase its availability to developing countries.

New project	
Estimated cost	\$10,000 (\$3,000 Regular UNIDO budget; \$7,000 Consultant funds)

Programme IV: Standardization

109. Study of standardization. A study will be undertaken on problems related to the standardization.

New project	
Staff man-months	2
Estimated cost	\$2,000 (Consultant funds)

110. Regional standardization meetings. UNIDO will continue to give support to regional standardization meetings sponsored by ECA, ECAFE and ECLA. About three man-months of UNIDO staff time will be involved.

Group 8 Industrial Research and Other Supporting Institutions

General remarks

111. The role of industrial research institutes, industrial study and development centres, industrial development corporations, industrial testing laboratories, ministries or departments of industry, industrial co-operatives and other public, semi-public and private supporting institutions in stimulating industrial growth has been amply demonstrated in both the developed and the developing countries. As it has done in the past, UNIDO will continue to place emphasis on promoting the institutional aspects of industrialization and on assisting developing countries to establish and improve industrial support institutions.

112. In 1967, UNIDO activities in this area concentrated on identifying problems and requirements of developing countries and assistance for the establishment and/or improvement of industrial research institutions and the strengthening of organizational and administrative machinery for industrial development. As part of this type of assistance, UNIDO organized and supervised an interregional workshop for managers and directors of research institutes. A manual on this subject was published by the Centre for Industrial Development in 1966. UNIDO completed and reproduced a number of country surveys of existing industrial services in the countries concerned. A number of other studies were also completed dealing with the problems and role of various types of non-governmental organizations in industrial development.

113. In 1968, UNIDO plans to continue these main lines of activity with emphasis on direct assistance to industrial research and other supporting institutions and the development of new types of supporting institutions, such as industrial development centres, whose functions will cover a wide range of needed industrial services. A number of meetings, studies, publications and other special promotional activities will be carried out in order to prepare for more direct and diversified assistance to the developing countries.

114. Field activities in this area are expected to increase considerably in 1969. There were 45 UNIDO experts in these fields of work in 1967; 43 are foreseen for

Group 8 (continued)

1968 and 75 for 1969. There were five Special Fund projects in 1967; seven are foreseen for 1968 and ten for 1969.

115. Supporting activities in 1969 will continue to emphasize three main programmes covering support and promotion for the establishment and improvement of the following:

- (a) Industrial research institutes and development centres;
- (b) Government departments of industry and various public, semi-public and private organizations that promote the process of industrialization or are involved in the establishment of new industries; and
- (c) Certain novel types of institutions designed to mobilize additional resources for industrial improvement and expansion.

A. FIELD ACTIVITIES

AFRICA

1. Special Fund projects

(a) Continuing projects

Sudan-Industrial Development Institute (SUD-12): The purpose of this Institute is to promote industrial development through the application of industrial research and technology adapted to the country's conditions and resources. This involves the establishment of a local source of practical information providing assistance, professional advice and counsel of processes, standards and efficient techniques of industrial production and management technology.

The project was approved by the Special Fund Governing Council in June 1963 for a duration of five years; the project became operational in April 1965. The full cost of the project is \$1,422,900 of which \$748,900 are Governing Council earmarkings and \$674,000 are provided by the assisted country.

Experts (man/months)	1968	5/60	1969	4/15
Equipment (estimated expenditure)			1969	\$34,000

(b) Projects under active consideration

Mauritius-Industrial Promotion Centre: The objective of this project is the establishment and initial operation of an Industrial Promotion Centre to provide the Government and industry with a number of urgently

Group 8 (continued)

needed industrial services including a standards unit; thus promoting the acceleration of industrial development and help to attract domestic and foreign investment.

Ivory Coast-Centre for Research and Industrial Promotion: The objective of this project is the establishment and initial operation of a Centre for Research and Industrial Promotion to provide the Government and industry with a number of urgently needed industrial services; thus promoting the acceleration of industrial development and help to attract domestic and foreign investment.

(c) Projects in early stages of examination

Congo (Brazzaville)-Office for Industrial Research, Development and Promotion: Assistance in the establishment of an organization for industrial studies, development and promotion of industrial development activities in the Congo.

Mali: Assistance in the establishment of an organization for industrial studies, development and industrial information.

Guinea: Assistance in the establishment of an organization for industrial studies, development and promotion.

2. Technical Assistance projects (Regular Programme and UNDP/TA)

Nigeria (UNDP/TA PS 10-61): Director, Federal Institute of Industrial Research (OPEX). The Director will establish the Institute's policy, co-ordinate its work with related research programmes in other fields (i.e. agriculture) and plan and direct execution of research programmes.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/10 (12)	\$13,750
(b) <u>Forecast of new projects</u>		
Assistance in the establishment and/or improvement of industrial co-operatives	12	\$23,100
Assistance in the establishment and/or improvement of industrial co-operatives	12	23,100
Assistance for the strengthening of organisational and administrative machinery for industrial development	12	23,100

Group 8 (continued)

	<u>Man/months</u>	<u>Cost</u>
Assistance for the strengthening of organizational and administrative machinery for industrial development	12	\$23,100
Fellowships	18	<u>10,200</u>
Total, new projects		\$102,600

3. Special Industrial Services

Forecast based on 1967/68 activity in this industrial sector.

No. of projects	4
Cost	\$24,000

ASIA AND FAR EAST

1. Special Fund Projects

(a) Continuing projects

Thailand-Technological Research Institute (THA-16): The purpose of the Technological Research Institute is to assist the Government with the development of its principal research agency, the Applied Scientific Research Corporation.

The work of the Institute is divided into four groups which are concerned with: Industrial Chemistry, based on the utilization of agricultural and other plant products, including solar energy and industrial effluent control; minerals and metals; materials of construction and fibres and textiles.

The project was approved by the Governing Council in January 1964 for a duration of five years; the project became operational in November 1964. The full cost of the project is \$3,012,300 of which \$846,300 are Governing Council earmarkings and \$2,167,000 are provided by the country.

Experts (man/months)	1968 5/50	1969 2/24
Fellows (man/months)	1968 8/72	1969 8/42
Equipment (estimated expenditure)		1969 \$66,500

(b) Projects under active consideration

Malaysia-Establishment of a National Scientific and Industrial Research Institute: The Government has requested UNDP's assistance in the

Group 8 (continued)

establishment and initial operation of a Malaysian Research Institute. The Institute would provide free technical information service to industry, including field technical information officers. It would also provide maintenance, repair and calibration of industrial instruments, as well as chemical and biological analytical and testing work. The Institute would also assist in industrial product development.

(c) Projects in early stages of examination

Philippines - Testing and Standards Centre: The Centre will have responsibility for maintaining the national standards of physical measurement, disseminating secondary standards, and providing testing and analytical services in the field of metrology, physics, chemistry, metallurgy, materials and engineering.

2. Technical Assistance projects (Regular Programme and UNDP/TA)

(a) Continuing projects

Afghanistan (UNDP/TA 155-63): Metric System Expert. The expert will assist the Minister of Commerce and Trade to adopt and utilize the metric system in Afghanistan.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/12	\$23,100

Indonesia (UNDP/TA 43-57): The Industrial Research Adviser will be expected to advise on how to integrate and co-ordinate the various existing industrial research institutions, with a view to achieving an integrated research programme, and to co-ordinating the work of research centres. In addition, he will extend laboratory studies to the phase of pilot plant production and techno-economic feasibility studies towards large scale industrial production. He will be attached to the Praesidium, Ministry of Industry.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/12	\$23,100

Iran (UNDP/TA 220-57): An adviser on industrial research will be attached to the Institute of Standards and Industrial Research of Iran (ISIRI). His main functions will be to advise on the programme of research including selection of research projects.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/6 (12)	\$11,550

Group 8 (continued)

Malaysia (UNDP/TA) (RF): A UNIDO expert will advise the newly created Federal Industrial Development Authority (FIDA) in the field of public relations for industry.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/12	\$23,100

Singapore (UNDP/TA 203-67): A senior industrial research adviser is to continue assistance to the Industrial Research Unit of the Economic Development Board, with special reference to the expansion of its testing and other technical services as well as to the research and development programmes of the Chemical Section of this Unit.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/12	\$23,100

Thailand (UNDP/TA 82-57): Industrial Economist. The expert is advising a group which will form part of the Applied Scientific Research Corporation of Thailand, which is the Government's agency for undertaking scientific research relating to all phases of national development.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/12	\$23,100

ECAFE Regional (ID/RP-08-137): A regional adviser is to continue to advise, upon request, countries of the region on planning and setting up new industrial institutes as well as on the improvement of existing ones.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/12	\$23,600

ECAFE Regional (ID/RP-08-80): Regional Adviser on Standardization. The main objective of the project is to continue to advise member countries on the development of industrial standards and assist those countries which do not have national standard bodies in the establishment of such institutions.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/6	\$12,000

Group 8 (continued)

(b) <u>Forecast of new projects</u>	<u>Man/months</u>	<u>Cost</u>
Assistance for the establishment and/or improvement of industrial co-operatives	1/12	\$23,100
Assistance for the establishment and/or improvement of industrial co-operatives	1/12	23,100
Assistance for the strengthening of organizational and administrative machinery for industrial development	1/12	23,100
Assistance for the strengthening of organizational and administrative machinery for industrial development	1/12	23,100
Establishment and expansion of industrial research facilities	2/24	46,200
Industrial research and selection of research projects	1/12	<u>23,100</u>
Total, new projects		\$161,700

3. Special Industrial Services

Forecast based on 1967/68 activity in this industrial sector.

No. of projects	4
Cost	\$26,000

EUROPE AND MIDDLE EAST

1. Special Fund projects

(a) Continuing projects

Israel-Industrial Research Centre (ISR-11): The purpose of the Institute is to promote the application of the findings of pure research to industrial production as a means of accelerating industrial development. The work of the Centre is devoted, initially, to food technology, plastics, textiles, fibres and some aspects of inorganic and organic chemistry primarily significant for potential export industries.

The project was approved by the Governing Council in January 1964 for a duration of five years. The project became operational in April 1966. The full cost of the project is \$5,236,500 of which \$1,266,500 are Governing Council earmarkings and \$3,970,000 are provided by the assisted country.

Group 8 (continued)

Experts (man/months)	1968	12/144	1969	12/56
Fellows (man/months)	1968	10/120	1969	10/48
Equipment (estimated expenditure)			1969	\$162,425

2. Technical Assistance projects (Regular Programme and UNDP/TA)

(a) Continuing projects

none

(b) Forecast of new projects

	<u>Experts</u> <u>Man/months</u>	<u>Cost</u> <u>\$</u>	<u>Fellows</u> <u>Man/months</u>	<u>Cost</u> <u>\$</u>
Assistance for the establishment and/or improvement of industrial co-operatives	1/12	23,100		
Assistance for the strengthening of organisational and administrative machinery for industrial development	1/12	23,100		
Industrial research and supporting institutions			2/9	5,600
Fellowships			1/6	3,400

3. Special Industrial Services

Forecast based on 1967/1968 activity in this industrial sector

No. of projects	2
Cost	\$6,000

THE AMERICAS

1. Special Fund Projects

(a) Continuing projects

Colombia-Institute for Technological Research (COL-30): Second Phase. The purpose of this project is to expand the facilities of Colombia's Institute for Technological Research at Bogotá, for more effective assistance in the development of operating techniques for improved utilisation of raw materials and equipment and provisions of technical advice through consultation, seminars and publications. Industries covered are food, processing of agricultural products, metallurgical, mechanical and chemical.

Group 8 (continued)

The project was approved by the Governing Council in January 1968 for a duration of four years. The full cost of the project is \$1,763,700 of which \$760,700 are Governing Council earmarkings and \$1,003,000 are provided by the assisted country.

Experts (man/months)	1968 8/75	1969 9/81
Fellows (man/months)	1968 3/18	1969 5/36
Equipment (estimated expenditure)		1969 \$95,000

Paraguay-Technical Standards National Institute (PAR-8): The purpose of the Institute is to prepare standards of quality and methods of quality control, with particular reference to major export products, meat, timber, vegetable and essential oils, hides, skins and cotton, (together these products account for 70 per cent of exports). The work of the Institute has been expanded, with a view to its functioning as a national bureau of standards.

The project was approved by the Special Fund Governing Council in May 1962 for a duration of five years. The full cost of the project is \$908,900 consisting of \$543,900 Governing Council earmarkings and \$365,000 contributions by the assisted country.

Experts (man/months)	1968 2/24	1969 6/73
Fellows (man/months)	1968 6/72	

(b) Projects under active consideration

none

(c) Projects in early stages of examination

Peru-Industrial Technology Research Centre: The project will aim to reduce food losses, stimulate and assist the development of modern food plants for existing and new food products, improve existing food industries, improve the nutritional status of the population and study the industrialisation of various food crops envisaged under the programmes of Agricultural Development and Agrarian Reform.

2. Technical Assistance Projects (Regular Programme and UNDP/TA)

(a) Continuing projects

none

Group 8 (continued)

(b) Forecast of new projects

	<u>Man/months</u>	<u>Cost</u>
Assistance for the establishment and/or improvement of industrial co-operatives	1/12	\$23,100
Assistance for the strengthening of organizational and administrative machinery for industrial development	1/6	\$11,550
Assistance for the strengthening of organizational and administrative machinery for industrial development	1/6	\$11,550
Total, new projects		\$46,200

3. Special Industrial Services

Forecast based on 1967/1968 activity in this industrial sector.

No. of projects	6
Cost	\$56,000

4. Regional projects

The Americas region (ID/RP-08-110): A regional adviser, stationed in the ECLA Headquarters, will continue to assist the countries of the region in the field of industrial research.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/12	\$23,600

B. SUPPORTING ACTIVITIES

Programme I: Industrial Research and Development Centres

Expert group meetings, seminars, group training and workshops

116. An expert group meeting will be held in Vienna in early 1969 to work out a proposal detailing objectives, membership, financial requirements and activities of a planned "International Association of Industrial Research Institutes".

New project	3
Staff man-months	\$5,600 (Regular UNIDO budget);
Estimated cost	\$1,000 (Consultant funds)

Group 8 (continued)

117. An interregional training programme will be organized in Denmark for senior personnel of industrial research institutes with emphasis on plant visits and field work.

New project	
Staff man-months	3
Estimated cost	\$15,000 (Danish Government contribution)

118. Joint activities will be undertaken in 1969 with the regional commissions of Africa, Asia and the Far East, the Americas, the Economic and Social Office in Beirut and UNESCO to prepare a directory of industrial and technological research institutes, listing activities, facilities and professional staff as a first step toward regional and interregional co-operation.

Continuing project	
Staff man-months	3

Publications

119. A "Manual for the Evaluation of Industrial Research Institutes" for the use of interested organizations and governments will be completed and published in 1969.

Continuing project	
Staff man-months	2
Estimated cost	\$4,360 (Publication funds)

Programme II: Governmental and Non-Governmental Supporting Organizations

120. A regional workshop on the organization and administration of Industrial Services in Latin America is planned for 1969 in collaboration with ECLA. Our workshop was organized in Africa in 1967 and another is scheduled in Asia in 1968. Surveys have been completed by UNIDO staff and outside consultants on industrial services and institutions in a number of countries in Latin America and the Caribbean. The workshop will make use also of previous studies prepared by UNIDO on the role of certain private organizations in industrial development. Efforts will be made to encourage observer participation at this workshop of manufacturers' associations and other organizations in the region.

Continuing project	
Staff man-months	3
Estimated cost (UNIDO's share)	\$18,000 (Regular UNIDO budget); \$ 2,500 (Consultant funds)

Group 8 (continued)

121. A comparative study of administrative machinery for industrial development will be undertaken with the assistance of an outside consultant.

New project	
Staff man-months	3
Estimated cost	\$3,000 (Consultant funds)

Programme III: Further Development of New Types of Supporting Institutions

122. UNIDO will promote the establishment and initial operation of one or two pilot industrial equipment repair and maintenance centres in developing countries. UNIDO has already undertaken research in this field which will be used in the implementation of this project (see para. 54). Additional expenditure for equipment and for consultants in the field are expected to be provided through contributions outside the budget of UNIDO.

New project	
Staff man-months	8
Estimated cost	\$6,000 (Consultant funds)

123. UNIDO will endeavour to stimulate in close co-operation with relevant international, regional and national finance institutions the organization of one new international industrial equity capital fund for financing new industries in the developing countries. Additional funds will be sought from outside contributions.

New project	
Staff man-months	6
Estimated cost	\$3,000 (Consultant funds)

124. UNIDO will seek to encourage the establishment of international industrial pilot franchising organizations to serve the developing countries. Such organizations would involve provision of external capital, know-how and supervision to chains of locally-owned small factories in particular industries. Additional funds to be sought from extra-budgetary sources.

New project	
Staff man-months	5
Estimated cost	\$3,000 (Consultant funds)

Group 9 Industrial Information and Promotion

General remarks

125. UNIDO's long-range objectives in the complementary areas of industrial information and promotion are as follows:

- (a) To help create an information transfer network through which users in developing countries can have ready access to the full range of industrial technical information on a world-wide basis; and
- (b) To establish an effective system for identifying industrial projects in developing countries requiring external technical and financial assistance and for matching these projects with international, national and private resources of such assistance.

126. Attaining these objectives requires the performance of a liaison function, pooling the experience and data within UNIDO with the resources of relevant national and international bodies. By the end of 1968, the status of the main activities serving these objectives will be as follows:

- (a) In the Near East and North African areas, local information transfer facilities will have been strengthened through a limited number of field projects initiated in 1967 and carried to an operational phase in 1968;
- (b) UNIDO's Industrial Information Service, drawing mainly on voluntary correspondents in advanced countries and selected central UNIDO information banks, will be equipped to handle requests for advice on industrial and technical problems at a rate of approximately 100 cases a month. The Advisory Service for the supply of industrial equipment to developing countries and the roster of consultants will be operational as part of this service;
- (c) Following up the initial operation of the Industrial Promotion Service in Athens in 1967, - where it served over 500 representatives from private and public industrial bodies of more than 60 countries, both advanced and developing - UNIDO will have established a master matrix of industrial potentials in developing countries and the beginnings of an "opportunity-resource" matching system.

127. In 1969, while working to bring the various elements of the Headquarters central service into full operation, priority will be given to helping developing countries establish and operate adequate local industrial information transfer facilities. Fifteen industrial information experts in the field are foreseen for 1969 compared with two in 1967 and six scheduled for 1968. Perhaps as many as 25 additional short-term experts will be involved in the Industrial Promotion Service

Group 9 (continued)

activities. Supporting activities in 1969 will emphasize the further development of the Information Service and special information banks mentioned above and trial operations of several new types of industrial promotion activities.

A. FIELD ACTIVITIES1. Special Fund projects(a) Continuing projectsAFRICATunisia - (TUN-15)

Industrial information documentation expert within the industrial research institute (TUN-052/SC) to maintain liason within industry and to organize documentation and information services. (12 man-months in 1969 with an estimated cost of \$19,000.) (This project is detailed under Group 12.)

(b) Projects under active consideration

None

(c) Projects in early stages of examination

None

2. Technical Assistance projects (Regular and UNDP/TA)(a) Continuing projectsASIA AND FAR EASTMalaysia - (UNDP/TA Revolving Fund)

An expert to assist in the establishment of a service centre for industry to be created by the Government within the newly established Federal Industrial Development Authority (FIDA). This post was established earlier in 1968 and will continue through 1969.

Expert (man/months)	1/12
Cost	\$23,100

Group 9 (continued)

EUROPE AND MIDDLE EAST

Turkey - (UNDP/TA 277-57)

Industrial Economist is assisting the Ministry of Industry in setting up an industrial project office within this Ministry.

Expert (man/months)	1/6 (12)
Cost	\$11,550

(b) Forecast of new projects

	<u>Experts</u> <u>Man/months</u>	<u>Fellowships</u> <u>Man/months</u>	<u>Cost</u>
Expert in industrial information and documentation and one counterpart scholarship	1/18	1/12	\$40,450
One industrial documentalist and one industrial information expert and two fellowships	2/24	2/12	53,000
Organisation of information and documentation centre	2/24		46,200
Fellowships	13/64		<u>38,609</u>
Total, new projects			\$178,250

(c) Additional anticipated projects 1969

UNDP/TA and regular

No. of projects	3
Experts (man/months)	3/36
Estimated cost	\$69,000

3. Special Industrial Services

No. of projects	12
Cost	\$57,000

B. SUPPORTING ACTIVITIES

Programme I: Industrial Information Service

128. In 1969 UNIDO will seek to bring the Central Industrial Information Service into full operation. This will include comprehensive data collections in the following subject areas:

- (a) Sources of industrial information;
- (b) Purchase of industrial equipment;
- (c) Industrial consultants (roster);
- (d) Industrial technical assistance projects; and
- (e) Industrial investment opportunities (matrix).

Group 9 (continued)

129. In addition to these special information areas, UNIDO will maintain a selected collection of industrial books and periodicals which will also serve as UNIDO's Technical Library. The funds required for this project in 1969 include contributions from the Austrian Special Contribution and other extra-budgetary sources as well as from the UNIDO budget. Within this project an Advisory Service is being organized for the supply of industrial equipment to developing countries in response to ECOSOC Resolution 1183(XLI) and in accordance with the recommendations of the Expert Group on the establishment of an Advisory Service for the supply of industrial equipment to developing countries convened in New York in 1967. The estimated cost of \$5,000 is to be financed from the regular UNIDO budget. In addition a roster of consultants specializing in industrial development will be established at an estimated cost of \$4,000 under the regular UNIDO budget.

Continuing project	
Staff man-months	20
Estimated cost	\$9,000 (Regular UNIDO budget)

130. In establishing effective information transfer facilities, agreements will be made with the established institutions (including local documentation and information centres established or sponsored by UNESCO, FAO or other international or regional organizations active in this area) and with consultants in developing countries to help in the identification of information needs and to serve as local information transmitters to industry in developing areas.

New project	
Staff man-months	2

131. Arrangements will be made to secure the services of local correspondents in selected industrialized countries through contracts with appropriate institutions and individual consultants to service industrial information requests from developing countries. The cost is to be financed from extra-budgetary sources.

New project	
Staff man-months	1

Expert group meetings, seminars, group training and workshops

132. An expert group meeting to develop further the activities of UNIDO's Advisory Service for the supply of industrial equipment is proposed for 1969.

New project	
Staff man-months	1
Estimated cost	\$8,000 (Regular UNIDO budget)

Group 9 (continued)

133. An interregional seminar on industrial information will be held in Denmark in the first part of 1969 for approximately 40 participants from developing countries.

New project	
Staff man-months	1
Estimated cost	\$65,000 (Danish special contributions)

Publications

134. The following publications are proposed to serve as vehicles for the systematic dissemination of information on industrial development:

- (a) The UNIDO Newsletter which will be published monthly in English, French and Spanish in 1969 with reports on field projects, meetings, missions etc. putting special emphasis on industrial promotion activities.

Continuing project	
Staff man-months	3
Estimated cost	\$18,000 (Publication funds)

- (b) The Industrial Research and Development News has served since 1967 as a liaison journal for those engaged in industrial research and development activities, particularly in developing countries. In 1969, this journal will be issued quarterly.

Continuing project	
Staff man-months	7
Estimated cost	\$12,000 (Publication funds)

- (c) Industrial Development Abstracts will be compiled monthly from abstracts prepared in accordance with ECOSOC directives from technical reports and documents issued by the United Nations system. This publication will complement similar compilations of abstracts prepared by other specialized bodies of the United Nations system.

New project	
Staff man-months	5
Estimated cost	\$2,400 (Publication funds)

- (d) Information pamphlets and directories: In response to indicated needs in developing countries, UNIDO will publish a limited number of information pamphlets and directories. Examples of such publications might be summaries of answers to technical questions and instalments of the Directory of Industrial Agencies.

New project	
Staff man-months	3
Estimated cost	\$10,000 (Publication funds)

Group 9 (continued)

135. To guide this technical publications' programme, it is proposed to undertake a survey of the approximately 10,000 addresses on UNIDO's mailing list in order to determine their industrial information priorities.

Continuing project	
Staff man/months	1/2
Estimated cost	\$5,000 (Consultant funds)

136. To ensure the compatibility of UNIDO's information service with the information and documentation services of other bodies in the United Nations system and with a maximum number of professional bodies (such as FID or ICSU^{5/}) and regional bodies (such as OECD^{6/}) - UNIDO will participate in a number of co-ordination panels. In particular, in setting up procedures for the Reference Centre of its Clearing-house, UNIDO will co-operate closely with the counterpart services of the International Atomic Energy Agency, the other United Nations body situated in Vienna, to minimize duplication and to assure the best use of resources.

Continuing project	
Staff man-months	1

Programme II: Industrial Promotion Services

137. The term "industrial promotion" is used by UNIDO in three related senses:

First, it is a broad concept of gearing an increasing proportion of UNIDO's over-all activities to mobilising external resources of financial and technical assistance and bringing them to bear on the specific industrial needs of developing countries. In this sense, "industrial promotion" activities will be found throughout the 1968 and 1969 UNIDO work programmes, including, for example, such activities as the proposed consultants' consortium the proposed exploration of new methods of increasing the flow of proprietary technology from developed to developing countries the proposed exploration of new types of equity financing organizations and a number of projects described under the activities of the Industrial Policies and Programming Division and Industrial Technology Divisions of UNIDO;

5/ International Federation for Documentation (FID)
International Council of Scientific Unions (ICSU)

6/ Organisation for Economic Co-operation and Development (OECD)

Group 9 (continued)

Second, "industrial promotion" represents a series of specific projects in the UNIDO Industrial Services and Institutions Division which are described below; and

Third, the "UNIDO Industrial Promotion Service" was the specific title of the activities which were organized in conjunction with the 1967 Industrial Development Symposium in Athens to facilitate face-to-face discussions between representatives of developing countries and industrialized countries on specific projects or problems.

138. One or two specific efforts to reproduce the Athens IPS pattern of face-to-face discussions in conjunction with major meetings or trade fairs at which large numbers of industrialists from developing and developed countries will, in any case, be present. The forthcoming Asian International Trade Fair in Teheran is one likely locale for such a service.

New project	
Staff man-months	5
Estimated cost	\$7,000 (Regular UNIDO budget)

139. Continuing efforts to increase the universe of specific identified and documented industrial development projects in developing countries known to UNIDO. This will include further development and maintenance of the "industrial opportunities matrix" which will have been started in 1968, and the expansion of a business community contact network involving business organizations in developing countries in 1969.

Continuing project	
Staff man-months	3
Estimated cost	\$3,000 (Consultant funds)

140. Continuing efforts to expand the universe of sources of technical and financial assistance to industrial development projects known to UNIDO. This will involve, primarily, widespread solicitation of listings in UNIDO's roster of services which is described elsewhere in this programme.

Continuing project	
Staff man-months	4
Estimated cost	\$6,000 (Consultant funds)

Group 9 (continued)

141. Intensified efforts will be made to match specific projects with available sources of assistance. Activities in this direction will include:

- (a) Use of UNIDO publications as described elsewhere in this programme;
- (b) Specific efforts to refer sponsors of specific projects in developing countries to potential sources of assistance by mail;
- (c) Mounting, in co-operation with UNIDO's Industrial Technology Division, of teams of potential investors in a specific industry who would visit a number of countries in a given region to investigate and, hopefully, put together specific arrangements for external financial and technical assistance to promising projects.
- (d) Mounting, on a pilot basis, of group visits by local sponsors of industrial projects in a particular developing country to several industrialized countries to seek support for their projects. This type of team would be a new departure - in the direction of specific promotional orientation - of the traditional United Nations fellowship approach.

New project

Programme III: Liaison with United Nations Advisory Committee
for the Application of Science and Technology
to Development

142. To co-operate in the action programme and priorities established by the United Nations Advisory Committee for the Application of Science and Technology to Development in the subject areas of direct concern to UNIDO including transfer of technological know-how.

New project

Group 10a. Industrial Training

General remarks

143. The aim of UNIDO in the field of industrial training is to assist the developing countries in increasing the number and improving the quality of managerial, technical and economic personnel in order to sustain and accelerate industrialization^{1/}. In this connexion, the role of UNIDO is threefold: (a) to co-ordinate the technical assistance of international and regional organizations in the field of industrial training; (b) to assist the developing countries in organizing suitable national training programmes and organizations in co-operation with the ILO, UNESCO and other international organizations; (c) to implement integrated long-term regional and interregional training programmes for selected types of industrial and administrative personnel.

144. The work of UNIDO in the field of industrial training through 1968 has been of six major types as follows:

- (a) Direct assistance to the developing countries on subjects, in accordance with the UNIDO-ILO agreement;
- (b) Organizing in-plant training programmes in the industrialized countries for engineers from the developing countries;
- (c) Preparations for organizing intensive in-plant training programmes for newly graduated university engineers in the developing countries themselves;
- (d) Preparations for training programmes for industrial administrators in the developing countries;
- (e) Participation in the selection of suitable candidates for fellowships on behalf of UNIDO;
- (f) Conducting ad hoc specialist meetings on subjects related to the areas of training of special concern to UNIDO.

^{1/} The General Assembly, in its resolution 1824 (XVII) called for a substantial increase in the work of the United Nations in training for accelerated industrialization of the developing countries. The Secretary-General, in response to this resolution, outlined a number of suggestions in the document E/3901, Add.1 and Add.2 and two specifically tailored training programmes were initiated by the Centre for Industrial Development (predecessor to UNIDO). The General Assembly, in its resolution 2090 (XX), further called for expansion of activities in training for industrialization and the Committee for Industrial Development (predecessor to the UNIDO Industrial Development Board), in its various sessions, called for increased support to these programmes from the UNDP.

Group 10a. (continued)

145. The three main aspects of the work programme for 1969 will be:

- (a) To increase the number of field experts in the developing countries. The number of direct technical assistance projects in this field is expected to total eleven in 1969, as compared with six in 1968 and none in 1967;
- (b) To increase the number of in-plant training programmes for engineers, both in the developing and the developed countries, in an integrated way as part of a long-term plan. Twenty-five such projects are planned for 1969, as compared with nine in 1968 and six in 1967;
- (c) To initiate the first training programmes for government industrial administrators as part of a long-term plan.

146. In addition, UNIDO will take over the full responsibility of the selection, placement and follow-up of all fellowships from BTAO - Geneva; will continue the co-operation with the ILO in establishing, in selected countries, industrial training organizations (ITO's), and will seek to establish, in co-operation with ILO and UNESCO, pilot correspondence courses for managers, administrators and engineers in the developing countries.

A. FIELD ACTIVITIES

AFRICA

1. Special Fund projects

- (a) Continuing projects - none
- (b) Projects under active consideration - none
- (c) Projects in early stages of examination

Ghana:

In-plant training centre for newly graduated engineers. The purpose of this project is to give intensive pre-employment training for engineers.

2. Technical Assistance projects (Regular programme and UNDP/TA)

- (a) Continuing projects - none
- (b) Forecast of new projects

	<u>Man/months</u>	<u>Cost</u>
Industrial training organization expert	1/12	\$23,100
Fellows	8/48	\$27,200

Group 10a. (continued)

THE AMERICAS

1. Special Fund projects

- (a) Continuing projects - none.
(b) Projects under active consideration:

Brazil

In-plant training programme for newly graduated university engineers. The purpose of the project is to give an intensive pre-employment training for newly graduated mechanical engineers in the metalworking industry in Sao Paulo.

- (c) Projects in early stages of examination - none.

2. Technical assistance projects (Regular programme and UNDP/TA)

- (a) Continuing projects - none.
(b) Forecast of new projects

	<u>Man/months</u>	<u>Cost</u>
In-plant training expert	1/12	\$23,100
In-plant training of executives and specialists in selected industries	1/18	34,650

ASIA AND FAR EAST

1. Special Fund projects

- (a) Continuing projects - none.
(b) Projects under active consideration

Philippines:

In-plant training programmes for newly graduated university engineers. The purpose of the programme is to give intensive practical pre-employment training, to be organized in selected industries.

- (c) Projects in early stages of examination

Indonesia:

In-plant training programme for newly graduated engineers, with the purpose to give an intensive practical pre-employment training, to be organized in mechanical engineering industries.

Group 10a. (continued)

2. Technical Assistance projects (Regular programme and UNDP/TA)

(a) Continuing projects - none.

(b) Forecast of new projects

	<u>Man/months</u>	<u>Cost</u>
Industrial training organiza- tion expert	1/12	\$23,100
In-plant training expert	6/72	138,600
Fellows	3/20	11,000

EUROPE AND MIDDLE EAST

1. Special Fund projects

(a) Continuing projects

Turkey - (TUR-29):

In-plant training centre for engineers, Kirikkale. The purpose of the project is to establish an in-plant training centre with the aim to give intensive practical pre-employment and upgrading training for engineers in the metalworking industries. The project was approved by the Governing Council of UNDP in January 1968 for a duration of five years. The full cost of the project is \$4,420,300 of which \$1,420,300 are Governing Council earmarkings and \$3,000,000 are provided by the Government.

Experts (man/months)	7/84	
Fellows (man/months)	16/72	
Equipment cost for 5 years		\$411,100

2. Technical Assistance projects (Regular programme and UNDP/TA)

(a) Continuing projects - none

(b) Forecast of new projects

	<u>Man/months</u>	<u>Cost</u>
In-plant training experts	1/12	\$23,100
Fellows	2/12	6,800
Fellows	2/4	<u>3,600</u>
Total new projects		\$33,500

Group 10a, (continued)

B. SUPPORTING ACTIVITIES

Programme I: In-plant Group Training

Expert group meetings, seminars, group training and workshops

147. Basic in-plant training programmes for newly graduated engineers in developing countries. In January 1968, the UNDP approved the first of these programmes as a five-year Special Fund project in Turkey. Two additional programmes are under discussion with governments and it is anticipated that by 1969 five Special Fund projects will be either officially submitted to UNDP and/or approved by the Governing Council. For details, see under Field Activities.

148. Middle level in-plant training programmes for engineers in selected industries to be organized in the developed countries. The following sixteen such courses are planned for 1969, subject to availability of funds and agreements with listed countries. The average estimated cost of each project in addition to contributions from listed countries is \$25,000 which will be sought from operational funds.

Proposed List

<u>Area of Training</u>	<u>Country</u>
Diesel Engineering	Czechoslovakia
Shoe Industry	Czechoslovakia
Feasibility and Factory Design ^{8/}	Czechoslovakia
Cement Industry	Denmark
Materials Handling	Japan
Textile Production	Poland
Electrical Engineering	Sweden
Pulp and Paper Production	Sweden
Electronics and Communication	Sweden
Iron and Steel Production	USSR
Machine Building (Machine tools and instruments)	USSR
Feasibility and Factory Design ^{3/}	USSR

The following four programmes are planned as Priority B programmes:

Foundry Techniques	Austria
Mechanical Engineering	Canada
Food Processing	U.K.
Fertilizers	U.S.

Continuing project	
Staff man-months	8

^{8/} New type of programme, to be carried out in co-operation with the Programming and Policies Division

Group 10a. (continued)

149. Development of continuing institutes for in-plant training. It is anticipated that these in-plant training programmes gradually will be transformed into permanent international training institutes, each specialized in a sector of industry. These institutes will then be financed with contributions from industrialized countries, UNDP/SF and participating developing countries. In order to have approximately five of these institutes established in 1970, initial work will start in 1969.

New project	
Staff man-months	4

150. Top-level group training programmes in the industrialized countries, with the aim of preparing engineers from the developing countries to assume general managerial responsibilities will be undertaken on a trial basis in 1969. Negotiations are under way with the Government of Czechoslovakia to conduct one such programme in this country in 1969. It is anticipated that three more programmes, in Western European countries, may be organized.

New project	
Staff man-months	3
Estimated cost (each programme)	\$20,000 (TA Interregional budget)

Studies and research

151. A series of studies on training needs and methods in the field of electronic machinery manufacturing and iron and steel production will be undertaken in 1969. These studies, including the experience from the middle level training programmes in this field, are required for the future development of the UNIDO integrated training programmes in the developing countries themselves.

Continuing project	
Staff man-months	2
Estimated cost	\$10,000 (Consultant funds)

Programme II: Group Training Courses for Industrial Administrators

Expert group meetings, seminars, group training and workshops

152. As a continuation of a project started in 1968, UNIDO plans to organize, in 1969, two group training programmes for industrial administrators on a regional basis, viz. one for Africa and one for Asia. The cost of these two training programmes will be requested under UNDP/TA programme. The possibility of transforming

Group 10a. (continued)

this group training programme into a permanent training institution, to be financed with contributions from UNDP/SF, will be explored in 1969.

Continuing project	
Staff man-months	2
Estimated cost	\$100,000 (TA funds)

Programme III: Individual Fellowships

153. Beginning January 1969, UNIDO will take over the full responsibility for evaluation, placement and follow-up of all fellowships in the field of industrial development from BTAO - Geneva. The number of fellowships (under Regular, UNDP/TA and Special Fund programmes) are:

1967	1968 (est.)	1969 (est.)
180	230	300

It is expected that a number of the trainees will be routed through Vienna after completion of their studies for personal interviews. A system of continuous follow-up of the work of the trainees will be organized to determine the usefulness of the programmes.

Continuing project	
Staff man-months	9

Programme IV: Industrial Training Organizations (ITO's)

154. The Athens International Symposium on Industrial Development in 1967 recommended that UNIDO, in co-operation with ILO, study the feasibility of setting up Industrial Training Organizations (ITO's) in developing countries. As a result of studies to be carried out in 1968, it is expected that in 1969 it will be possible to explore the possibilities of establishing such a training organization in one African and in one Asian country. The project will be financed under one of the Technical Assistance programmes.

New project

Group 10a. (continued)

Programme V: Correspondence Courses in Specialized
Areas of Industry

155. A number of governments and industrialists in the developing countries have requested UNIDO to establish correspondence courses on subjects falling within its competence. The role of UNIDO, in co-operation with ILO and UNESCO, will be to act as sponsor and a clearing house between the requests from the developing nations and existing correspondence schools.

New project	
Staff man-months	1

156. UNIDO will explore the advisability of the possible establishment of correspondence training programmes in the field of industrial development.

New project	
Staff man-months	1
Estimated cost	\$6,000 (Consultant funds)

Group 10b. Industrial Management and Consulting Services

General remarks

157. The aim of UNIDO in the field of industrial management is to assist existing and new industries in the developing countries to become competitive. In doing so, UNIDO also acts to co-ordinate the activities of interregional and regional United Nations organizations in this field, complying with the agreement with ILO that UNIDO will cover the technical and economical aspects of industrial management. UNIDO is giving increased attention to assisting developing country industries on a sectoral basis, e.g. management of textile plants, as distinguished from the general "business management" approach.

158. UNIDO will seek to assist the developing countries through three major programmes:

- (a) Practical assistance to the individual manufacturing industries through field experts or consulting firms to introduce selected management techniques;
- (b) Sending advisory and problem-solving high level teams of specialists, recruited from the industries and management organizations in the industrialized countries, on short-term missions to the developing countries with the aim of analysing the operations of their factories and discussing practical improvement steps with the top executives of these plants;
- (c) Mobilizing management and other consulting services in the industrialized and the developing countries with the aim of putting their services more effectively at the disposal of industrial enterprises in the developing countries.

159. In 1967 and 1968, a limited but systematic build-up of long-term programmes has been initiated in the field of industrial management and consulting services.

The following steps were taken:

- (a) Direct field expert assistance was provided to a limited number of manufacturing enterprises in the developing countries.
- (b) Advisory and problem-solving short-term teams were sent to selected developing countries;
- (c) The services of management and other consulting organizations are being explored in 1968 by organizing a system of task order contracts between UNIDO and consulting firms, also the first steps are being taken to establish a consulting consortium and a roster of consulting firms.

Group 10b. (continued)

- (d) In 1968, initial steps are also being taken to investigate the possibilities of utilizing the university resources in the industrialized countries to a greater extent than hitherto in assisting industrialization in the developing countries.

160. In 1969, UNIDO, will be using the preparations and experiences from 1967-1968 plans in particular in its programmes for the developing countries to:

- (a) Expand the direct assistance to individual manufacturing enterprises, in particular, on a sectoral basis;
- (b) Expand the number of advisory and problem-solving specialist teams;
- (c) Expand and develop arrangements to use the services of existing consulting firms and organizations in industrialized and developing countries.

161. In addition, UNIDO will continue to keep itself informed, by research, studies and ad hoc expert meetings, on the development of a limited number of advanced management techniques with the aim of adapting these to fit the various levels of industrialization of the developing countries.

A. FIELD ACTIVITIES

In efforts to assist the manufacturing firms in the developing countries, the UNIDO field experts will try in particular to advise on how to install management systems related to: preventive maintenance and fire protection, industrial cost accounting, product costing, standard costing, budgets, materials handling, layout and industrial design, production planning and control, inventory planning and control. In addition, assistance will be given on more recent techniques such as inter- and intra-company product development, industrial integration and corporate planning, value analysis, market research, market distribution channels, systems analysis within an industrial enterprise, systems analysis integrated with the use of electronic data computers, company application of operations research.

Group 10b, (continued)

AFRICA

1. Special Fund projects

- (a) Continuing projects - none
- (b) Projects under active consideration - none
- (c) Projects in early stages of examination

Ghana

Industrial Management and Consultation Service attached to Ghana Industrial Holding Corporation.

United Arab Republic

Industrial Management Consultation Service attached to textile sector in the United Arab Republic.

2. Technical Assistance projects (Regular programme and UNDP/TA)

- (a) Continuing projects

Ghana (P.S. No. 46-61)

Four OPEX experts to assist the Ghana Industrial Development Authority in the establishment of systematic methods of planning and implementation of production targets.

		<u>Man/months</u>	<u>Cost</u>
Experts	1969	4/44	\$84,700
Fellows	1969	5/60	\$29,000

Somalia (No. 168-67): Industrial Cost Accountant to assist selected industries in the introduction of modern cost accounting systems.

		<u>Man/months</u>	<u>Cost</u>
Experts	1969	1/12	\$23,100

- (b) Forecast of new projects

		<u>Man/Months</u>	<u>Cost</u>
Industrial Management Adviser			
Experts		3/36	\$69,300

3. Special Industrial Services

Forecast based on 1967/68 activity in the industrial sector.

No. of projects	18
Cost	\$270,000

Group 10b. (continued)

THE AMERICAS

1. Special Fund projects

- (a) Continuing projects - none
- (b) Projects under active consideration - none
- (c) Projects in early stages of examination

Peru

Industrial Management and Consulting Service attached to the textile industry in Peru.

2. Technical Assistance projects (Regular programme and UNDP/TA)

- (a) Continuing projects

Chile (130-57)

One expert to advise metalworking enterprises at managerial level on all matters related to production planning, inventory policy and quality control.

		<u>Man/months</u>	<u>Cost</u> \$
Experts	1969	1/4	7,700
Experts		1/6	11,550
(b) <u>Forecast of new projects</u>		<u>Man/months</u>	<u>Cost</u> \$
Industrial management experts		2/24	46,200
Production management experts (planning and quality control)		2/24	46,200
Industrial economy and accounting expert		1/12	23,100
		Total, new projects	115,500

3. Special Industrial Services

Forecast based on 1967/1968 activity in the industrial management and consulting services areas.

No. of projects	12
Cost	\$170,000

Group 10b. (continued)

ASIA AND FAR EAST

1. Special Fund projects

- (a) Continuing projects - none
- (b) Projects under active consideration - none
- (c) Projects in early stages of examination

Indonesia

Interindustry spare part inventory and maintenance pool.

Pakistan

Industrial management and consulting service attached to the jute industry sector in East Pakistan.

2. Technical Assistance projects (Regular programme and UNDP/TA)

- (a) Continuing projects

Indonesia (43-57)

Production Engineer, expert to assist the Government in the field of production engineering.

Experts (man/months)	1969	1/8 (12)
Cost	1969	\$15,400

Indonesia (43-57)

Maintenance and inventory systems expert to assist the Government in the organisation and management of a nation-wide maintenance and spare part inventory system.

Experts (man/months)	1969	1/4 (12)
Cost	1969	\$7,700

Malaysia (P.S. No. 19/66)

One expert to assist the semi-government development organisation in the provision of management and advisory services to industry and commerce.

Experts (man/months)	1969	1/12
Cost	1969	\$23,100

Group 10b. (continued)

Malaysia (P.S. No.19/66)

One expert to advise on industrial design of handicraft products and the establishment of a national design centre.

Experts (man/months)	1969	1/12
Cost	1969	\$23,100

(b) Forecast of new projects

	<u>Man/months</u>	<u>Cost</u>
		\$
Industrial management adviser	3/36	69,300
Production planning and programming expert	1/12	23,100
Research and consulting service expert	2/24	<u>46,200</u>
Total new projects		\$138,600

3. Special Industrial Services

Forecast based on 1967/68 activity in industrial management and consulting services.

No. of projects	15
Cost	\$215,000

EUROPE AND MIDDLE EAST

1. Special Fund projects

- (a) Continuing projects - none
- (b) Projects under active consideration

Yugoslavia

On 29 December 1967, the Socialist Federal Republic of Yugoslavia submitted a request to the United Nations Development Programme for assistance to the Yugoslav Centre for Industrial Organization and Development. The project involves a new approach of UNDP-SF assistance to a developing country by integrating on a national basis existing consulting resources to assist the industry in its future development. Total UNDP-SF contribution, during three years is estimated at \$1,080,000. Number of expert man-months anticipated in 1969 is 36.

2. Technical Assistance projects (Regular programme and UNDP/TA)

(a) Continuing projects

Turkey (P.S. No. 277/57)

One expert to provide management assistance in various industries.

Experts (man/months)	1969	1/2
Cost	1969	\$23,100

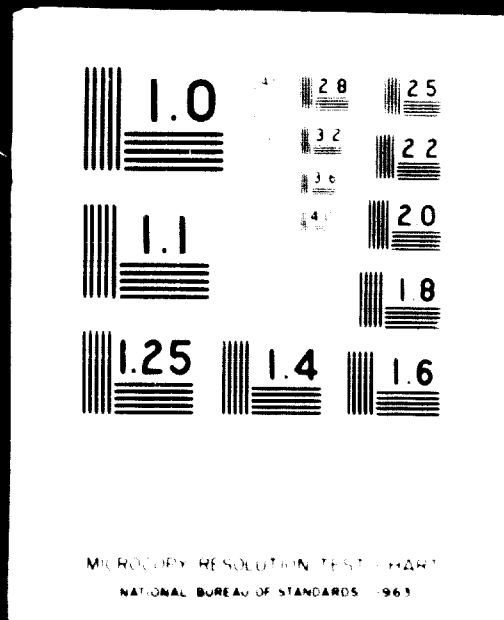


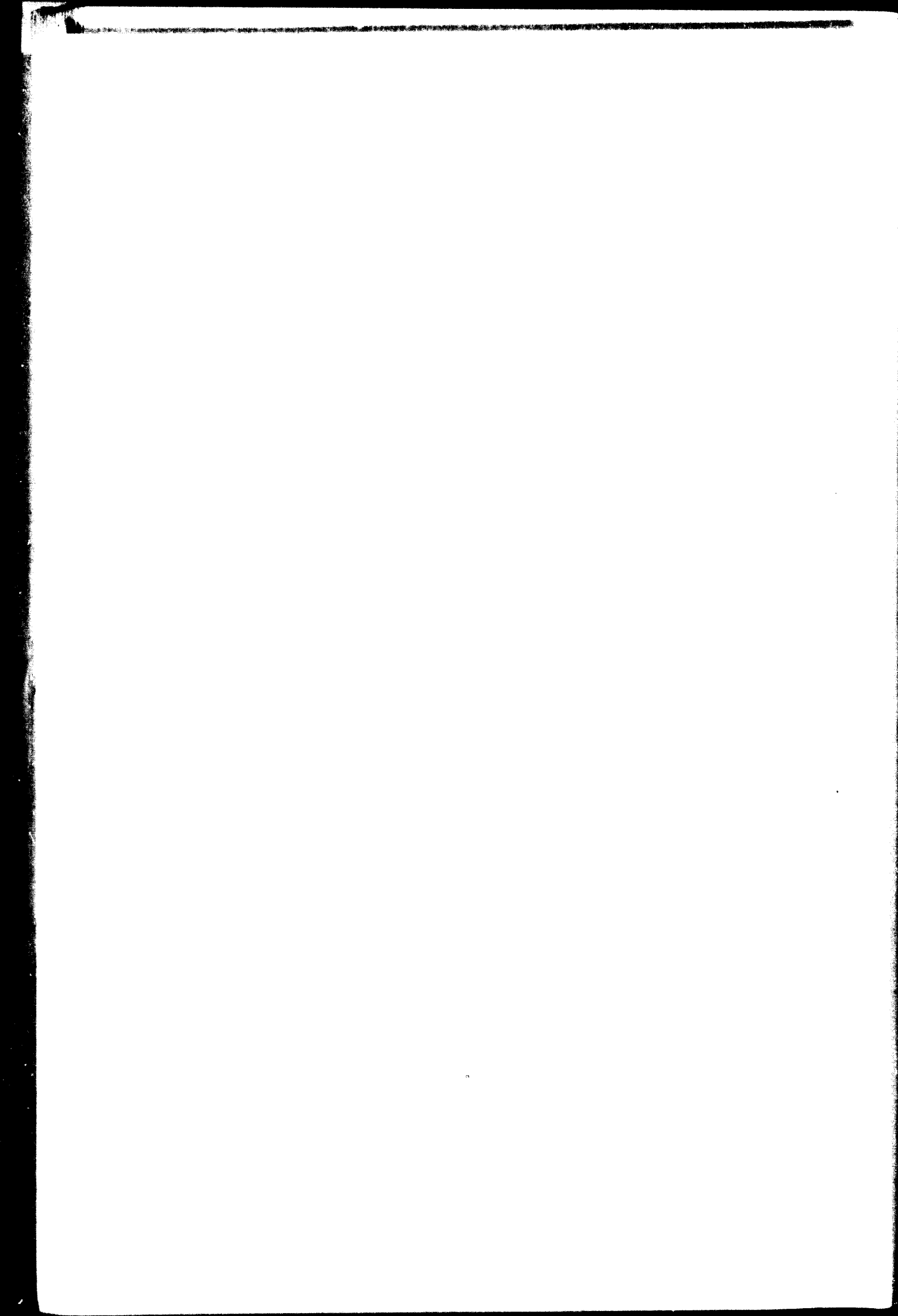
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Group 10b. (continued)

(b) <u>Forecast of new projects</u>	<u>Man/months</u>	<u>Cost</u>
Industrial management adviser	1/12	\$23,100

3. Special Industrial Services

Forecast based on 1967/68 activity in industrial management and consulting services.

No. of projects	12
Cost	\$170,000

B. SUPPORTING ACTIVITIES

Programme I: Advisory and Problem-solving Missions to the Developing Countries

162. Following the first project of this type in 1967, it was decided in 1968 that the effectiveness of such projects would be considerably enhanced by some changes in the format and emphasis. The present approach is to have top-level executives from manufacturing industries and management associations in the industrialized countries meet with directors of firms in the developing countries to visit their factories and for discussions on how to solve urgent management problems. Seven such projects were planned in 1968. Nine projects are planned for 1969 in the following countries: Bolivia, East Pakistan, El Salvador, Ghana, Indonesia, Jamaica, Peru and Yugoslavia. Financing of these projects will be requested under the SIS programme, alternatively under the UNDP/TA programme. Co-operation with the ILO will be undertaken on subjects falling within its competence.

Continuing projects	
Staff man-months	8
Estimated cost	\$60,000 (UNDP/TA funds)

Programme II: Mobilisation of Expert Resources

163. For several years it has been increasingly felt that additional expert resources have to be mobilised, both in the industrialized and in the developing nations themselves in order to assist the manufacturing industries in the developing nations. In 1967, UNIDO consequently began to investigate, on a limited scale, the possibilities of mobilising such additional resources.

Group 10b. (continued)

164. In 1969, the task order system of consulting firms will become operational on a pilot basis. The project will provide direct expert assistance to manufacturing industries in the developing countries. An estimated 100 man-months of these expert services will be financed under the different United Nations technical assistance programmes.

Continuing project
Staff man-months 2

165. The consulting consortium will become operational on a pilot basis. The project will provide direct expert assistance. Members in the consortium will be consulting firms from the industrialized countries as well as from several of the developing countries. An estimated 100 man-months of these expert services will be financed under the different United Nations technical assistance programmes.

Continuing project
Staff man-months 2

166. Promotion of the Establishment of Management Consulting Firms in the Developing Countries. As part of the integrated UNIDO mobilization programme, steps will be undertaken to encourage the establishment of management consulting firms in the developing countries themselves. It is anticipated that several governments will ask for UNDP/TA financial assistance for UNIDO experts to assist in the organization and management of domestic consulting firms. In addition, UNIDO plans to provide guidance by using temporarily hired consultants. To be financed under the UNIDO regular budget, subject to availability of funds.

New project
Staff man-months 2
Estimated cost \$24,000 (Regular UNIDO budget)

167. In 1969, UNIDO will begin to use, to an increased extent, the services of university professors from the industrialized countries for short-term field assignments. A roster of available professors will be established and the services of a number of them will be used.

New project
Staff man-months 1

Group 10b. (continued)

Expert group meetings, seminars, group training and workshops

168. As result of surveys undertaken in 1967, the results of which are being evaluated in 1968, an ad hoc expert meeting on "Current Trends in the Field of Industrial Management" will be held in Warsaw in 1969^{9/}. Local costs are expected to be covered by the Polish inconvertible contribution to UNIDO. Travel costs for the participants will be provided under the UNIDO regular budget. The recommendations of the ad hoc meeting and of the 1967 surveys will be published in 1970.

Continuing project	
Staff man-months	2
Estimated cost	\$4,500 (Travel funds)

169. A second project in 1969 will consist of an ad hoc expert meeting in Copenhagen in which the problems of Organization and Management of Inter- and Intra-Company Product Development Schemes in industrial enterprises in the developing countries will be reviewed. The background papers are being prepared in 1968. It is anticipated that the local costs will be covered by the Danish contributions to UNIDO. The recommendations of the ad hoc meeting and of the 1968 surveys will be published in 1970.

New project	
Staff man-months	2
Estimated cost	\$4,500 (Travel funds)

170. Subject to availability of funds, two additional ad hoc expert meetings will be undertaken in 1969. The first group of experts will review the Problems of Organization and Management of Distribution Channels in the Developing Countries. The second group of experts will review the Managerial Aspects of Using Electronic Data Computers in the Developing Countries. The background material for the two projects is being prepared in 1968.

New project	
Staff man-months	4
Estimated cost	\$6,000 (Regular UNIDO budget)

^{9/} See General Assembly resolution 2152 (XXI), also Document ID/B/4, para. 101.

Group 10b. (continued)

Studies and research

171. It is felt that the costs of various products, manufactured in the developing countries, could be considerably reduced and the competitive position of the firms increased, as a result of introduction and management of systematic value analysis schemes. Consequently, UNIDO is planning to undertake a number of specific studies on the Application of Value Analysis in the Manufacturing Industries in the Developing Countries.

New project	
Staff man-months	1
Estimated cost	\$16,000 (Consultant funds)

Publications

172. A publication on the Organisation and Management of Corporate Planning in the Developing Countries, based on the studies being carried out in 1968, will be issued in 1969.

Continuing project	
Estimated cost	\$5,000 (Publication funds)

Group 11 - Small-Scale Industry Including Industrial Estates and Industrial Extension Services

General remarks

173. UNIDO's activities in the field of small-scale industry are aimed at promoting and facilitating the establishment of efficient new small and medium-sized enterprises and the modernization of existing ones through development programmes including, among major measures, the stimulation of entrepreneurship, provision of industrial extension services, facilitation of financing, establishment of industrial estates, of training facilities and so on. Some of these activities are carried on in close co-operation with ILO.

174. Work in this field has been systematically carried out by the United Nations and UNIDO for more than ten years. In the early stages, much effort was directed to drawing up policy guidelines to orient the formulation of development programmes and the planning and implementation of major projects, in particular of industrial estates, a subject to which four regional seminars and six publications have already been devoted. In the course of time, emphasis was increasingly placed on operational and promotional activities, especially on provision of direct advisory services to governments by United Nations and UNIDO staff and technical advisers, formulation of technical co-operation projects including drafting of requests for assistance from UNDP (Special Fund), and organization of special promotion programmes.

175. The constant increase in the number of field activities which took place in the period 1964-1967 is expected to continue in 1968 and to accelerate sharply in 1969. In particular, a considerable expansion is expected to take place in 1969 in the number of UNDP (Special Fund) projects concerned, in part or as a whole, with small industry development programmes and the establishment of industrial estates. The number of these projects might rise from three in 1967 to five in 1968 and thirteen in 1969. Substantial increases are also expected to take place in field operations carried out under other technical co-operation programmes. The total number of projects would rise from 28 in 1967 to 48 in 1968 and 85 in 1969. Staff members and a technical adviser of UNIDO will participate in an increasing number of field operations.

Group 11 (continued)

176. The expansion of such operations will call for a corresponding increase in the supporting activities of the Secretariat, especially in substantive servicing and related administrative work. It will also aggravate a difficulty which has become a major problem in the implementation of technical co-operation projects relating to small-scale industry - the shortage of qualified experts. To remedy this, a special recruitment and training programme was initiated in France in 1967 for French-speaking experts and similar programmes for English-speaking and Spanish-speaking experts will be organized in 1968 and 1969. UNIDO is and will be participating in the organization of these programmes.

177. The establishment of industrial estates in the developing countries has received considerable encouragement from the United Nations and UNIDO through promotion of technical co-operation projects, seminars and publications. In recent years, the need has been felt for complementary action in the form of classroom training and observation tours with "in-project" training for officials from the developing countries engaged in planning, constructing and operating industrial estates. A first Group Training Programme for English-speaking participants will be organized early in 1969 in Hyderabad, India, as a joint project of the Government of India and UNIDO. Similar programmes for French-speaking and Spanish-speaking participants will eventually be organized.

178. In many developing countries, two major issues in the field of small-scale industry are the lack of indigenous entrepreneurship and the lack or inadequacy of industrial extension services. Promotional programmes in these two closely interrelated areas will be undertaken by UNIDO in 1968 and continued in 1969, in co-operation with ILO.

179. In 1969 as in previous years, UNIDO's research programme in the field of small-scale industry will be oriented mainly towards the preparation of discussion papers for symposia and seminars. The meetings are concerned with subjects on which guidance appears to be required by Governments, UNDP and UNIDO. In 1969, two meetings - and related research studies - will be concerned with two major issues: financing of small-scale industry, on the one hand, and interrelationships

Group 11 (continued)

between large and small industries with special reference to subcontracting on the other. Preparations will be made for an interregional symposium on rural industrialization to be held late in 1970 or in 1971.

180. Further research will be carried out in other series of studies undertaken in 1967 and 1968. These relate to specialized industrial estates, common service facilities, small-scale industries in centrally-planned economies and techno-economic aspects of small industry development. These studies, as well as those prepared for seminars, will eventually be published.

A. FIELD ACTIVITIES

AFRICA

1. Special Fund projects

(a) Continuing projects

Tunisia (TUN-15)

National Centre for Industrial Studies - Expert in industrial estates. The project of the National Centre for Industrial Studies (TUN-15) now being established with UNDP (SP) assistance provides for feasibility studies for the establishment of industrial estates. Consideration may be given to initiating operations in this field in 1969. 12 man/months at estimated cost of \$25,000. (This project is detailed under Group 12)

Uganda (UGA-7)

Small Industry Development Programme and Establishment of an Industrial Estate. The purpose of this project is to assist the Industrial Division of the Ministry of Industry and Commerce in establishing facilities for the services and development of small industries, as well as planning a demonstration industrial estate.

The project was approved by the Governing Council in January 1966 for a duration of five years. The full cost of the project is \$1,861,395, of which \$764,400 is the allocation by the Governing Council of UNDP and \$1,114,995 are provided by the assisted country. Plan of operation is being drafted.

	1969	1970	1971	1972	1973
Experts (man/months)	8/86	8/80	6/62	4/18	2/7
Equipment cost for 5 years	\$49,000				

Group 11 (continued)

United Arab Republic (UAR-66)

Institute of Small Industries, Giza (Phase II). This is an extension of Phase I of the project to provide training in technology, administrative control and management techniques; extension and consulting service to small-scale industries; product design; laboratory service; research and information service for the benefit of small industries. The project was approved in January 1968 for a duration of three years. Total cost of the project is \$2,432,500 of which UNDP earmarking is \$732,500 and Government counterpart contribution is \$1,700,000.

Experts
Fellows

Equipment cost \$732,500

ILO is the executing agency in association with UNIDO.

(b) Projects under active consideration

Liberia

Establishment of an Industrial Area, an Industrial Estate and an Industrial Free Zone near Monrovia. A request for assistance in this project has been drafted by a UNIDO Special Technical Adviser. The purpose of the project is to assist the Government in establishing an industrial area for industries of all sizes, an industrial estate for small-scale industries and an industrial free zone for export industries of all sizes near Monrovia.

The full cost of this project is estimated at \$3,357,579 of which \$1,128,450 would be Governing Council earmarkings and \$2,229,129 would be provided by the assisted country.

(c) Projects in early stages of examination

Malagasy

Establishment of an Industrial Estate. An expert will undertake in 1968 a pre-investment study for the establishment of a pilot industrial estate and draft a request which would then be presented by the Government to the UNDP (SF).

Niger

Establishment of an Industrial Estate. An expert will undertake in 1968 a pre-investment study for the establishment of a pilot industrial estate at Niamey and draft a request which would then be presented by the Government to the UNDP (SF).

Group 11 (continued)

2. Technical Assistance projects (Regular programme and UNDP/TA)

(a) Continuing projects

Burundi (UNDP/TA 304-67)

Expert to elaborate types of small-scale and medium-scale industries

	<u>Man/months</u>	<u>Cost</u>
Experts	1/8 (12)	\$15,400
Fellows	2/12	6,800

Cameroun (ID/RP-11-4)

Industrial economist to advise on the formulation and implementation of a programme for the development of small-scale industry.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/5	\$9,625

Liberia (ID/RP-11-18)

An industrial engineer to advise on small-scale industries beginning in 1968, will continue to serve in 1969.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/3	\$5,775

Kenya (ID/RP-11-16)

Continuation of the OPEX post, of General Manager, Nairobi Industrial Estate.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12	\$23,100

Nigeria (UNDP/TA P.S. No. 10-61)

Three Industrial Economists and Industrial Engineers who were to have assisted the former Regions beginning in 1967 are expected to take up the assignments in 1968 and to continue their service in 1969.

	<u>Man/months</u>	<u>Cost</u>
Experts	3/18	\$34,650
Fellows	10/120	58,000

Group 11 (continued)

Rwanda (P.S. No. 217-63)

Small-scale industry expert would continue to advise on the identification, evaluation and planning of such industries.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12	\$23,100
Fellows	2/12	6,800

Senegal (UNDP/TA P.S. No. 180-65)

An industrial economist to continue to advise on the development of small-scale industries; plus one fellowship in the field of industrial estates management.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12	\$23,100
Fellows	1/12	5,800

Swaziland (UNDP/TA P.S. No. 44-67)

A small-scale industry adviser may start his assignment in 1968 and continue to serve in 1969.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12	\$23,100

Uganda (44-65)

Continuation of post under TA (OPEX) of Senior Industrial Officer who is advising the Ministry of Commerce and Industry on Industrial development with particular emphasis on small-scale industries.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12	\$23,100
Fellows	2/12	6,800

Africa Region (ID/RP-11-44)

An industrial adviser will continue to assist the countries of the region, upon their request, in the field of small-scale industries.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12	\$23,600

Group 11 (continued)

(b) <u>Forecast of new projects</u>	<u>Man/months</u>	<u>Cost</u>
Development of small-scale industry	4/48	\$92,400
Planning of small-scale industry	3/36	69,300
Industrial estate expert	1/6	11,550
Industrial estate expert	1/6	11,550
Fellowships	12/70	<u>40,000</u>
	Total, new projects	\$224,800

3. Special Industrial Services

Forecast based on 1967/68 activity in field of small-scale industry.

No. of projects	10 (30 man/months)
Cost	\$57,600

4. Sub-Regional Projects

Special Fund projects under consideration

Sub-regional: West Africa

Establishment of a sub-regional centre for the development of small-scale industry in West Africa. Preliminary work for the establishment of a sub-regional centre in Niamey, Niger has been carried out by ECA and UNIDO. The Centre would extend technical assistance to Governments, provide training to Government and other officials and undertake research on the establishment of small-scale industries in the sub-region.

ASIA AND FAR EAST

1. Special Fund Projects

(a) Continuing projects

Iran (IRA-11)

Establishment of an Industrial Estate. The purpose of the project is to encourage and facilitate the development of small-scale and medium-scale industry by establishing an Industrial Estate Authority and by providing for the planning, construction and operation of a Demonstration Estate at Ahwaz, Iran.

The Plan of Operation was signed on 24 May 1965 and the project became operational on 3 September 1965. The anticipated completion date is April 1970. The total cost of the project is \$1,760,500 of which UNDP earmarking is \$637,500 and Government contribution is \$1,123,000.

Experts (man/months)	1969	8/84
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Group 11 (continued)

(b) Projects under active consideration - none

(c) Projects in early stages of examination - none

2. FUNDWI Projects (Fund of the United Nations for the Development of West Irian)

West Irian

West Irian Small-scale Industries Programme. An Industrial Engineer attached to the Joint Development Commission will assist in the operation of an industrial extension service for small industrial enterprises and particularly in the evaluation of applications for financial assistance from the Industrial Development Corporation. In this connexion, he will train national personnel in the preparation of feasibility studies and in improvement of management techniques. Short-term consultants will assist in studies for the establishment of industrial zones, areas and estates, and in training programmes.

		<u>Man/months</u>	<u>Cost</u>
Experts	1969	2/24	\$46,200

3. Technical Assistance projects (Regular programme and UNDP/TA)

(a) Continuing projects

Laos (UNDP/TA P.S. 60-61)

The expert on Small- and Medium Scale Industries is to continue assisting the Government in creating and developing small scale industries by using local raw materials.

		<u>Man/months</u>	<u>Cost</u>
Experts	1969	1/12	\$23,100

Malaysia (UNDP/TA)

A planning adviser will assist in the development of small-scale industries and an industrial economist will advise on industrial site development.

		<u>Man/months</u>	<u>Cost</u>
Experts	1969	1/12	\$23,100
	1969	1/6	11,550

Group 11 (continued)

Viet-Nam, Republic of (UNDP/TA P.S. 236-67)

Industrial Zones. The expert is to continue assisting the Government and la Société Nationale pour le Développement des Zones Industrielles (SONADEZI) in the establishment and the promotion of a programme of development of industrial zones including small-scale industries.

		<u>Man/months</u>	<u>Cost</u>
Experts	1969	2/24	\$46,200
	1969	2/14	26,950

(b) Forecast of new projects

	<u>Man/months</u>	<u>Cost</u>
Industrial Estate Expert	1/6	\$11,550
Industrial Estate Expert	1/6	11,550
Expert for development of small-scale industries	2/24	46,200
Fellowships	5/26	<u>15,400</u>
Total, new projects		\$84,700

4. Special Industrial Services

Forecast based on 1967/1968 activity in the field of small-scale industry.

No. of projects	5 (15 man-months)
Cost	\$28,800

THE AMERICAS

1. Special Fund projects

(a) Continuing projects - none

(b) Projects under active consideration

Bolivia

Establishment of an industrial area and an industrial estate. A request for assistance in this project has been drafted by a UNIDO staff member. The purpose of the project is to set up an industrial zone near La Pas, which will incorporate an industrial area for industries of all sizes and an industrial estate for small-scale industries, with all necessary services. Industrial estates and industrial areas would also be planned in other locations.

(c) Projects in early stages of examination - none

Group 11 (continued)

2. Technical Assistance projects (Regular programme and UNDP/TA)

(a) Continuing projects

Brazil (UNDP/TA Sub.No. 27-59/Corr. 1 P.S. DP/TA/L.5)

An expert stationed in Recife, is helping SUDENE (Superintendency for Development of the Northeast) in the solution of problems related to the establishment of industrial estates. His assistance is expected to continue in 1969.

		<u>Man/months</u>	<u>Cost</u>
Experts	1969	1/12	\$23,100

Dominican Republic (UNDP/TA Sub.No. 194-60/Rev.1 P.S. No. 67-48)

One expert in small and medium-scale industries is expected to continue advising the Government.

		<u>Man/months</u>	<u>Cost</u>
Experts	1969	1/12	\$23,100

Netherland Antilles (UNDP/TA Sub.No. 100-65/Add.1 P.S. No. DP/TA/LS)

Expert advice to small and medium-scale industries.

		<u>Man/months</u>	<u>Cost</u>
Experts	1969	1/12	\$23,100

(b) Forecast of new projects

	<u>Man/months</u>	<u>Cost</u>
Small industry adviser	2/24	\$46,200
Industrial estate expert	1/6	11,550
Industrial estate expert	1/6	11,550
Fellows	1/3	2,200
Total, new projects		\$71,500

3. Special Industrial Services

Forecast based on 1967/1968 activity in the field of small-scale industry

No. of projects	7 (21 man-months)
Cost	\$40,320

4. Regional projects

Special Fund Projects under consideration

The Americas region. Centre for Small Industries. Establishment of a Centre for the development of small-scale industries in the Americas. Preliminary work for the establishment of the Centre has been carried out by ECLA and UNIDO. The Centre would extend technical assistance to Governments, provide training to Government and other officials and undertake research on the establishment of small-scale industries in the region.

Group 11 (continued)

EUROPE AND MIDDLE EAST

1. Special Fund projects

(a) Continuing projects

Turkey (TUR-25)

Small Industries Development Programme (Pilot Industrial Estate, Gaziantep)

The purpose of the project is to assist in the establishment of a small industries development centre in Ankara and a demonstration industrial estate in Gaziantep with a view to promoting the development of small-scale industries through training and demonstration.

The project was approved by the Governing Council in January 1968 for a duration of five years. Total cost of the project is \$2,202,800 of which Governing Council earmarkings is \$962,800 and Government's counterpart contribution is estimated at \$1,240,000.

		<u>Man/months</u>
Experts	1969	6/12

Saudi Arabia (SAU-14)

Industrial Studies and Development Centre. Expert in Industrial Estates.

One of the purposes of the project is to promote the development of small-scale industries in particular through the establishment of industrial estates. An industrial estate expert is included in the team (Experts 1/12 man/months, Fellows 1/6 man/months, total cost \$28,000). This project is detailed under Group 12.

(b) Projects under active consideration

Greece

Establishment of an industrial area, an industrial estate and an industrial free zone near Salonika. A request for assistance in this project has been drafted by a UNIDO staff member. The project is aimed at strengthening a national agency especially created for the development of industrial estates and at assisting it in planning construction for small-scale industries, and an industrial free zone for export industries.

(c) Projects in early stages of examination - none

Group 11 (continued)

2. Technical Assistance projects (Regular programme and UNDP/TA)

(a) Continuing projects - none

(b) Forecast of new projects

	<u>Man/months</u>	<u>Cost</u> \$
Small-scale industry adviser	1/6	11,550
Fellows	1/5	3,000
Small industry adviser	1/12	<u>23,100</u>
Total, new projects		\$37,650

3. Special Industrial Services

Forecast based on 1967/1968 activity in the field of small-scale industry.

No. of projects	3 (18 man-months)
Cost	\$34,620

4. Regional projects

Special Fund project under preliminary consideration

Middle East Region

Assistance in establishing a Centre for the development of small-scale industries in Arab countries which would extend technical assistance to Governments, provide training for Government and non-Government officials, and undertake research on the establishment of small-scale industries in the countries concerned. Preliminary work for the establishment of this project has been carried out by UNESOB and UNIDO.

B. SUPPORTING ACTIVITIES

181. Substantive servicing of field activities is expected to absorb 44 man-months of staff work in 1969 against 34 in 1968. In addition, a novel form of substantive support of field operations, which was started in 1967, involves special programmes for recruitment and training of small industry experts from the industrial countries (see ID/B/20/Add.I). It is hoped that, in 1969, three such programmes for, respectively, French-speaking, English-speaking and Spanish-speaking experts will be in operation. The programmes will be financed by the sponsoring Governments. UNIDO will contribute to the organization and conduct of these programmes but its financial contribution will be limited to travel and subsistence costs for two staff members for a total of three man-months (about \$3,000, travel funds). A briefing programme for small industry experts at UNIDO Headquarters will also be continued.

Group 11 (continued)

Programme I: Industrial Estates

Expert group meetings, seminars, group training and workshops

182. A group training programme on the planning, establishment and management of industrial estates for twenty English-speaking trainees from developing countries will be organized by UNIDO, in co-operation with the Government of India, at the Small Industry Extension Training Institute, Hyderabad, India, from 5 January 1969 to 29 March 1969 (see ID/B/20, paragraphs 171 and 172) (New Project Staff: six man-months). Estimated cost to be met from UNDP/TA and Fellowships Programme (\$46,600).

New project	
Staff man-months	6
Estimated UNIDO cost	\$3,500 (Travel funds)

Studies and research

183. Analysis of the ancillary industrial estate for small-scale industries engaged in subcontracting relationships, will be made in 1969.

New project	
Staff man-months	6

184. Subject to the availability of resources, two other studies will be prepared in 1969: a manual on the economic and physical planning of industrial estates and an analysis of the free zone industrial estate.

New project	
Staff man-months	4
Estimated cost	\$12,000 (Consultant funds)

Publications

185. A study completed in 1968 on the functional industrial estate will be published in 1969. It will be the first in a series of publications on specialized industrial estates.

New project	
Staff man-months	1
Estimated cost	\$6,000 (Publication funds)

Group 11 (continued)

Programme II: Industrial Extension Services

186. Certain activities in this field will be undertaken in close co-operation between UNIDO and ILO, in accordance with working arrangements adopted by officials of ILO and the then Centre for Industrial Development at inter-agency meetings held at Geneva in July 1965 and February 1966.

187. Demonstration plants. UNIDO will promote the establishment of some demonstration plants in a few developing countries. The plants, which would be selected on the basis of feasibility studies, would include machinery and equipment suitable for small enterprises. They would be operated first for demonstration purposes in order to induce the establishment of a number of enterprises in each line; thereafter, they would be turned over to local ownership and operation. The plants would be provided through contributions of donor and recipient Governments and of private manufacturers of industrial equipment. UNIDO's role will be mainly to assist in the organization of the project. Some foreign exchange cost components, including provision of experts, could be financed by UNDP (about \$8,000) and SIS (about \$10,000). Consideration will also be given to the formulation of requests to UNDP (Special Fund) for financing investment and expert costs of projects of this type.

New projects	
Staff man-months	2
Estimated cost	\$18,000 (UNDP/TA)

188. Exhibition of small industry equipment and products. It is hoped to organize in 1969 a first exhibition of small industry equipment and products, including demonstration plants, in an African country, as a means of stimulating local entrepreneurship.

New project	
Staff man-months	1
Estimated cost	\$1,000 (Travel funds) \$1,000 (UNDP/TA funds)

189. Campaigns for the modernization of equipment and production. Preparation will be made for organizing, in a few selected countries, intensive campaigns for the modernization of equipment and of production and management methods in small enterprises of certain types, located in a given area. These campaigns, which will be jointly organized and conducted by officials of industrial extension

Group 11 (continued)

centres, development banks and government agencies, are aimed at diagnosing shortcomings, proposing remedial action and, in particular, formulating credit applications, especially for the purchase of new machinery. Consideration will be given to the organization of similar campaigns for the stimulation of new entrepreneurship.

New project	
Staff man-months	1
Estimated cost	\$4,000 (UNDP/TA funds)
	\$2,000 (Regular UNIDO budget)

190. Industrial extension service organizations. Programmes for creating new industrial extension service organizations or strengthening existing ones in the developing countries will be drawn up as a joint effort of UNIDO and ILO.

New project	
Staff man-months	1

191. Enterprise fellowship programme. Subject to the availability of resources, UNIDO will seek to organize an enterprise fellowship programme for future entrepreneurs from the developing countries in factories in some advanced countries, along the lines of the programme carried on in the United States by the Council for International Progress in Management. This programme would be financed, to an appreciable extent, by governments and enterprises in the advanced countries with complementary assistance from UNDP/TA.

New project	
Staff man-months	1
Estimated cost	\$15,000 (UNDP/TA funds)

Studies and research

192. A study of the machine and tool lease shop as a common service facility for small-scale industries, will be undertaken as one in a series on this subject.

New project	
Staff man-months	6

Group 11 (continued)

Publications

193. A publication entitled: "Common Service Facilities for Small-scale Industries (1) Tool Room (2) Testing and Quality Control Laboratory" will be published as the first in a series.

New project	
Staff man-months	1
Estimated cost	\$6,000 (publication funds)

Programme III: Financing of Small-scale Industry

Expert group meetings, seminars, group training and workshops

194. An interregional symposium on financing of small-scale industry in the developing countries jointly sponsored by the Government of Denmark, the Government of India and UNIDO will be held in India during the second half of 1969. It is expected that the Symposium will bring together officials from financing institutions of 30 countries - 9 from Asia, 8 from Africa, 6 from the Americas, 3 from the Middle East and 4 from Europe. Officials and consultants of UNIDO, the Regional Economic Commissions, the IBRD, the African Development Bank will also participate in the symposium.

New project	
Staff man-months	4
Estimated cost	\$75,000 (Danish contributions) \$9,000 (Consultant funds)

195. Research studies for the above Symposium will be carried out in 1968 and 1969 by UNIDO staff and consultants (costs included in 1968 budget).

Programme IV: Techno-Economic Aspects of Small Industry Development

Studies and research

196. A study of the contribution of small-scale industries to the production of sewing machines will be undertaken in 1969. The study will focus on production under sub-contracting arrangements with large firms or under joint production programmes among small enterprises.

New project	
Staff man-months	4
Estimated cost	\$6,000 (Consultant funds)

Group 11 (continued)

Publications

197. A publication entitled "Technologies for Small-scale Industries: Bicycles" will be published as the first in a series.

New project	
Staff man-months	1
Estimated cost	\$6,000 (Publication funds)

Programme V: Subcontracting

198. An expert group meeting on inter-relationship between large and small industries with special reference to subcontracting will be organized by UNIDO during 1969, perhaps in Paris. About ten experts, from both developed and developing countries, representatives of the Organization for Economic Co-operation and Development, the Union for International Action for Small- and Medium-sized Enterprises, the Asian Productivity Organization, and staff members of UNIDO will participate in the meeting.

New project	
Staff man-months	3
Estimated cost	\$15,000 (UNDP/TA funds)

Programme VI: Surveys of Small-scale Industries

Studies and research

199. A study of small-scale industries in Yugoslavia will be undertaken as part of a series of research projects on small-scale industries in centrally-planned economies.

New project	
Staff man-months	2
Estimated cost	\$3,000 (Consultant funds)

Publications

200. A publication entitled "Small-scale Industries in the Arab Countries of the Middle East" will contain the report of the meeting on development of small-scale industries in that area (Beirut, 1968) and some of the documents prepared for the meeting.

Continuing project	
Staff man-months	1
Estimated cost	\$5,000 (Publication funds)

Group 11 (continued)

Programme VII: Rural Industrialization

201. Subject to the availability of resources, preparations will be made in 1969 for the organization, late in 1970 or in 1971, of an Interregional Symposium on Rural Industrialization. The Symposium would be jointly organized with the United Nations Bureau of Social Affairs, ILO, FAO and UNESCO.

New project	
Staff man-months	1
Estimated cost	\$9,000 (Consultant funds)

INDUSTRIAL POLICIES AND PROGRAMMING DIVISION

Group 12 Industrial Programming and Project Planning

General remarks

202. UNIDO's activities in this group deal with the formulation and implementation of industrial development programmes for individual industries and the manufacturing sector as a whole, industrial development programmes for regions and industrial location, all phases of project planning and industrial programming data required for these activities which have been repeatedly pointed out as being of practical importance with a high priority for an accelerated industrial development of developing countries. Technical assistance activities in this group have already acquired a substantial scale. These activities will be summarized under the following categories for the presentation of the work programme: industrial planning and programming; project preparation; project implementation; industrial programming data which serves the needs of all the aforementioned activities; and industrial location and regional development.

203. It is expected that the total of 168 staff man-months will be available for all the activities relating to industrial programming and project planning. Technical assistance activities will take up 101 staff man-months or nearly 60 per cent of the staff resources. The balance of 67 man-hours are accounted for with reference to specific projects outlined in the following pages.

204. The functions of UNIDO staff members in connexion with non-operational projects are to provide the framework for these projects; develop guidelines for the work of consultants and prepare outlines for all substantive portions of the relevant projects; assess the work already done; edit and prepare drafts for publications when necessary; participate with their own research work in the implementation of the project; develop the necessary field, industry and economic contacts to ensure that the material prepared is up to date, and meets the need of the developing countries; and relate the project in all its aspects to technical assistance activities and to service technical assistance experts and local personnel with required data, guidelines and other technical documentation.^{10/}

^{10/} These functions apply also to non-operational projects in the Groups 13, 14 and 15.

Group 12 (continued)A. FIELD ACTIVITIESAFRICA1. Special Fund projects(a) Continuing projectsAlgeria - (ALG-18):

Centre for Industrial and Technological Studies. This is a follow-up of Special Fund Project ALG-5 "Industrial and Marketing Surveys on Petroleum Derivatives and Natural Gas", expected to be completed in February 1968. The purpose is to establish an organization which can evaluate industrial feasibility studies and advise on projects to be carried out under the national industrial development programme. The work of the Centre will concentrate on studies expected to lead to early investment in plant and equipment.

This project was approved by the UNDP Governing Council in January 1968 for a duration of three years, UNDP earmarking \$820,700; Government contribution \$629,000, total cost \$1,449,700, number of experts 3/36 (1969).

Africa region - (REG-72):

The Maghreb Countries (Algeria, Libya, Morocco and Tunisia) - Centre of Industrial Studies for the Maghreb. Assistance in the establishment and operation of a Centre of Industrial Studies whose main functions will be: to prepare, at the request of the four countries concerned, general industrialization surveys and specific feasibility studies, including market and location studies. The Centre is also to render industrial advisory services to the Maghreb countries and engage in training activities in the region. The project was approved by the Governing Council in January 1966 for a duration of five years.

Cost: \$2,099,900 (UNDP: \$1,454,900; Countries contr.: \$645,000)
Equipment: \$50,000.

	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>
Experts (man/months)	5/60	5/60	5/60	3/36
Fellows (man/months)	2/24	2/24	2/24	2/24

Tunisia - (TUN-15):

National Centre for Industrial Studies, Tunis. Assistance in the establishment and initial operation of a Centre for Industrial Studies, whose functions will be to advise the Government on industrial programmes and policies, to undertake technical and economic studies of specific industrial projects and to prepare feasibility studies. The project

Group 12 (continued)

was approved by the Governing Council in June 1966 for a duration of five years at a total cost of \$1,796,700 (UNDP: \$771,700; Country contr.: \$1,025,000).

Equipment cost: \$30,000

	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>
Experts $\frac{11/}{11/}$	6/72	6/56	3/28	2/13
Fellows $\frac{11/}{11/}$	3/36	4/48	3/36	

United Republic of Tanzania - (TAN-10):

Industrial Studies and Development Centre, Dar es Salaam. The purpose of the project is to advise the Ministry of Industry, Mineral Resources and Power on industrial policy and organization, to assist in investigation for better utilization of the country's resources; to prepare industrial feasibility studies and advise on the implementation of projects, to provide advisory extension services to private industrial concerns; and advise on regional aspects of industrial projects, taking into account the possibility of complementary development in the economies of neighbouring East African countries.

The project was approved by the Governing Council in January 1965 for a duration of three years. The plan of operation was signed 18 February 1966. The full cost of the project is \$696,300 of which \$526,300 is the UNDP allocation and \$170,000 are provided by the assisted country.

The project is to be extended and the services of an additional industrial economist and industrial engineer will be provided.

	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>
Experts (months of service)	96	96	96	96
Fellows (man/months)	2/12	2/12		

(b) Projects under active consideration

Ivory Coast

Government has requested assistance in establishing a centre for industrial promotion to undertake sectoral studies, feasibility studies, project evaluation and implementation with a view to promoting industrial investment in the country.

11/ The figures are tentative pending the signature of the Plan of Operation by the Government.

Group 12 (continued)

(c) New projects in early stages of examination

Indication of government interest in industrial surveys and project evaluation, on a permanent basis. A proposed development centre would, inter alia, identify products that could be produced on a basis of indigenous resources and structure of demand, including also import-substituting industries, carry out detailed feasibility studies, select location for new industries taking into account measures for decentralisation (e.g. infrastructure, incentives) project implementation etc.

2. Technical Assistance projects (Regular programme and UNDP/TA)

(a) Continuing projects

Algeria - (ID/RP-12-1):

An industrial economist under the Regular Programme, who advised the "Direction Générale du Plan" and the "Ministère de l'Industrialisation et de l'Energie", is expected to continue into 1969.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/6	\$11,550

Dehoney - (UNDP/TA 177-65):

Industrial economist and industrial engineer for programming.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12	\$23,100
Fellows	2/12	6,800

Liberia - (UNDP/TA 249-61):

Industrial economist or industrial engineer. The expert is attached to the Department of Planning and Economic Affairs. He is advising the Secretary of the Department, on the technical and economic aspects of industrial development and, in particular, elaborating branch studies for the creation of national industries within targets set for industry by the National Development Plan and advise on matters of industrial policy and follow-up on government policies.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/6 (12)	\$11,550

Madagascar - (UNDP/TA 1-64):

An industrial economist will continue to be engaged in the following tasks:

- (1) Examining industrial projects which are in the process of being carried out or proposed in the light of a global programme for industrialization, taking into account the relationship between industry and the other sectors of the economy, notably agriculture.

Group 12 (continued)

- (ii) Evaluating programmes in order to propose new industrial projects, investigating the viability of proposed projects, the financial needs for industry development and determining the pre-investment requirements of the country.
- (iii) Co-ordinating the investigations and research studies being made by Madagascar organizations concerned with economic development of the country.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12	\$23,100

Niger (ID/RP-12-27):

One industrial economist for industrial planning, identifying and evaluating of industrial development projects is expected to continue.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/6	\$11,550

Rwanda (UNDP/TA 217-63):

The industrial promotion expert is participating in the establishment of industrial projects, within the development plan of the country.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/6 (12)	\$11,550
Fellows	2/12	6,800

Somalia (UNDP/RF/TA 168-67):

An industrial adviser is continuing his services in the field of industrial development with the Ministry of Industry and Commerce. The expert is assisting in the elaboration, evaluation and development of industrial plans and projects provided for in the five-year plan.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12	\$23,100

Sudan (UNDP/TA 225-61):

Adviser on industrial development (planning). The expert is required to assist the Government in the preparation of its programme for the industrial sector for the five-year plan. Two fellowships will be granted in the field of industrial programming.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/8 (12)	\$15,400
Fellows	2/12	6,800

Group 12 (continued)

Togo (UNDP/TA 67-7, 67-49):

Industrial economist will continue to assist in industrial programming and project evaluation. One fellowship will be granted for twelve months in the field of industrial programming.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/8 (12)	\$ 15,400
Fellows	1/12	5,800

Zambia (UNDP/TA 139-65):

A senior industrial adviser will continue to assist the government in the following matters; advise, in co-operation with the Planning Authority, on industrial planning and programmes; selection of projects; advise on the need for and commissioning of feasibility studies, sources of finance, both public and private, industrial law, including an investment law; the development of African entrepreneurship; the setting up of industrial estates; standards and standardization problems; marketing and expert production. Two fellowships will be provided for training in industrial planning and programmes.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12	\$ 23,100
Fellows	2/24	11,600

Group 12 (continued)

(b) Forecast of new projects

	<u>Experts</u> <u>Man/months</u>	<u>Fellows</u> <u>Man/months</u>	<u>Cost</u> <u>\$</u>
Industrial economist to assist in preparing industrial development programmes	4/43		92,400
Senior industrial adviser to follow up work of previous expert in industrial planning and project evaluation	1/12		23,100
Industrial engineer to undertake feasibility studies for new industries	1/12		23,100
Industrial economist to advise Ministry of Development and Planning	1/12		23,100
Experts to assist in establishing industrial preparation, evaluation and implementation unit within Ministry of Industry	2/24	2/18	55,400
Experts to assist in setting up a planning and co-ordination unit in Ministry of Industry (to compile data on industrial sector of development plan)	2/24	2/12	53,000
Expert to assist government in establishing unit for implementation and follow-up of industrial projects	1/6		11,550
Fellowships	8/48		<u>27,200</u>
Total, new projects			\$308,850

These projects are to be discussed with the following countries: Ethiopia, Congo (Brassaville), Ghana, Kenya, Somalia, Sudan, and the United Republic of Tanzania.

3. Special Industrial Services

Forecast based on 1967/1968 activity in the industrial sector.

Estimated number of projects	20	\$200,000
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Group 12 (continued)

ASIA AND FAR EAST

1. Special Fund projects

(a) Continuing projects

Iran (IRA-16):

Research Centre for Industrial and Trade Development. The purpose of this project is to assist the Centre, which was established in 1964 by the Ministry of Economy. The functions of the Centre are:

- (i) to formulate, in co-ordination with the Plan Organization, industrial and mining programmes which will form an integral part of the over-all development plan for the country;
- (ii) to prepare and evaluate industrial and mining projects; and
- (iii) to prepare studies with the aim of formulating policy measures in the field of industry, mining and trade.

The project was approved in January 1967 for a duration of five years at a total cost of \$2,618,900 (UNDP earmarking \$1,058,900 and Government contribution \$1,560,000).

	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>
Experts (Man/months)	33	78	93	72	48
Fellows (Man/months)	-	72	72	36	-
Equipment (SF)	\$50,000				

(b) Projects under active consideration - none

(c) Projects in early stage of examination - none

ASIA AND FAR EAST

2. Technical Assistance Projects (Regular and UNDP/TA)

(a) Continuing projects

Afghanistan (ID/RP-12-47) (OPEX):

A Director of the Planning and Project Department is attached to the Ministry of Mines and Industries. He conducts feasibility studies for the establishment of suitable industries; advises on the formulation of technical specification in contracts of suppliers of plan and machinery; evaluates proposals and bids; and provides advice to established industries. The expert also trains counterpart personnel.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12	\$23,100

Group 12 (continued)

Cambodia (UNDP/TA-PS 4-60):

In co-operation with local authorities in charge of economic development, the expert in industrial planning makes inventories of available natural resources. He studies the present utilization of existing production facilities and proposes measures for activating unutilized production facilities. He recommends measures for the successful implementation of industrial projects, including measures for financing, contracting and supervision.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12	\$23,100

Ceylon (UNDP/TA-PS 20-57):

The industrial economist will assist in the formulation of an industrial investment programme for both public and private sectors. He will also assist in formulating and evaluating projects and improving project evaluation techniques.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12	\$23,100

Fiji (UNDP/TA 150-67):

An expert will assist in setting up the Industrial Department of the Development Bank. He will also survey the existing industries and investigate opportunities for establishing new manufacturing industries and expanding existing ones.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12	23,100
Fellows	1/3 (12)	2,200

Indonesia (UNDP/TA-PS 43-57):

The expert will be part of a team of UNIDO experts, and will assist in the preparation of pre-investment studies and appraise capital expenditure programme for industry. He will also recommend concrete policy measures for better utilization of capacity and advise on specific price policies for state enterprises.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12	23,100
Fellows	1/6 (12)	3,400

Group 12 (continued)

Korea, Republic of (UNDP/TA 60/57):

Physical planner (location of industry) expert will study the distribution of industry with the aim of developing methods for planning locational patterns, and advise on the preparation of locational investment plans. He will also study implementation policies to guide location of industries and advise on the elaboration of pilot projects for organized industrial zones (Industrial Parks).

	<u>Man/months</u>	<u>Cost</u>
Experts	1/16 (12)	\$11,550

Malaysia (UNDP/TA/RF):

An OPEX expert to be attached to the Federal Industrial Development Authority (FIDA), will organize and manage the Division of Industrial Planning and Identification of Industries. The Government has asked for the extension of this post over 1969.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12	\$23,100

Malaysia (UNDP/TA/RF):

An OPEX expert to be attached to the Federal Industrial Development Authority (FIDA), will run a division responsible for industrial research surveys, marketing studies and feasibility studies. The Government has asked for the extension of this post over 1969.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12	\$23,100

Pakistan (UNDP/TA-PS 73-57):

Three industrial economists will continue to assist the Government of Pakistan in surveying the manufacturing sector with a view to advising on development of new lines of production, or extension of existing industries. They also assist in evaluating the economic feasibility of proposed industrial projects, in conducting pre-investment studies, and in drafting industrial development plans.

	<u>Man/months</u>	<u>Cost</u>
Experts	3/36	\$69,300
Fellows	3/7 (36)	5,800

Group 12 (continued)

(b) Forecast of new projects

	<u>Man/months</u>	<u>Cost</u>
Fellows	1/6	\$3,400
Follow-up of a 1968 SIS request to assist government in preparation of industrial plan	1/12	23,100
An adviser to assist government in organizing, preparing and rationalizing industrial data and statistics	1/12	23,100
Project implementation adviser to study problems impending industrial implementation with a view to improving the planning and implementing machinery of the Ministry of Industry.	4/48	92,400
An expert to assist in establishing an industrial classification system in the country	1/3	5,775
Training programme for electronic data processing and industrial development	1/12	23,100
Investment proposals, feasibility studies and organization of machinery for storage and retrieval of technological data	1/12	23,100
		\$193,975

These projects are to be discussed with the following countries: China, Malaysia, Pakistan, Philippines, Singapore, Thailand.

3. Special Industrial Services

Forecast based on 1967/68 activity in the industrial sector.

Estimated number of projects 15 \$150,000

4. Regional projects

Financed from either Regular, UNDP/TA or SIS Funds.

THE AMERICAS

1. Special Fund projects

(a) Continuing projects - none

(b) Projects under active consideration - none

Group 12 (continued)

(c) Projects in early stages of examination

As a follow-up of a 1968 SIS Mission feasibility study of establishing specific industries (especially petrochemical, seed-oil derivatives and non-ferrous metals) obstacles to implementation; development financing and fiscal incentives; also study of possible permanent organization to deal with industrial programming; project evaluation, implementation, technological problems, industrial location, financing, training, etc.

2. Technical Assistance projects (Regular programme and UNDP/TA)

(a) Continuing projects

Argentina (UNDP/TA 111-57):

Assistance to the northwest region must be conceived on a long-term basis. It is anticipated that the industrial economist presently in the field will recommend continuing assistance, possibly in the form of return assignments and/or short-term missions.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/6	\$11,550
Fellows	1/12	\$5,800

Colombia (UNDP/TA):

Industrial economist/engineer (Industrial Development Consultant)
Sub. No. 135/57/Rev. 2E.

One expert will assist in the review, evaluation, selection and implementation of industrial projects of the Instituto de Fomento Industrial (IFI).

	<u>Man/months</u>	<u>Cost</u>
Experts	1/8 (12)	\$15,400

Colombia (UNDP/TA):

Industrial Programmer (Consultant on Industrial Development)
Sub. No. 135/57/Rev. 2F.

One expert is assisting the "Instituto de Fomento Industrial" (IFI), the Government's industrial development agency, on the evaluation, selection and execution of industrial projects, including industries concerned with food processing, chemicals, minerals, metallurgy and metalworking.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/10 (12)	\$19,250

Group 12 (continued)

Ecuador (UNDP/TA):

Industrial Programmer
Sub. No. 51-60/Rev. 2 P.S. 67-14

In collaboration with the Economic Planning Adviser, the expert is assisting the National Planning Board in the preparation of an industrial development plan, and in general, advising the Government on industrial problems.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12	\$23,100

Honduras (UNDP/TA):

Sub. No. 24-61 P.S. No. DP/TA/L.5

An industrial economist is assisting the Government in industrial planning and project evaluations. He is expected to continue in 1969 under UNDP/TA. Fellowships will be granted in the same field.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12	\$23,100
Fellows	2/24	11,600

Mexico (UNDP/TA 190-65):

It is expected that two fellowships will be granted in 1969 in the fields of industrial development and industrial programming.

	<u>Man/months</u>	<u>Cost</u>
Fellows	2/12	\$6,800

Nicaragua (UNDP/TA 181-57):

An Industrial Economist is participating in elaborating a work programme which will enable the Industrial Bureau of the Ministry of Economy to co-operate more actively with the private sector in the planning of new activities as, for instance, in the metalworking and chemical (especially petrochemical) industries. He is also studying the fiscal problems encountered by industry and outlining efficient methods for their solution.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/10 (12)	\$19,250

Group 12 (continued)

(b) Forecast of new projects

	<u>Man/months</u>	<u>Cost</u> \$
Advisers on industrial programming and project evaluation	2/24	46,200
Expert to prepare feasibility studies for the establishment of new industries.	1/12	23,100
Fellowships	1/3	2,200

Project preparation: An advisory mission of four experts for a period of four to six weeks to assist governments of developing countries in establishment of project planning units, formulation of procedures of project preparation and in evaluation of major industrial projects.

Total Cost \$25,000

Project implementation: An advisory mission of four experts for a period of three to four weeks to assist in establishing and operating project implementation units, working out programming and control techniques of project implementation and programming implementation of a major industrial project.

Total Cost \$17,000

These projects are to be discussed with the following countries: Argentina, Ecuador, Guyana, Honduras, Mexico and Uruguay.

3. Special Industrial Services

Forecast based on 1967/1968 activity in the industrial sector

Estimated number of projects 4 \$80,000

4. Regional projects

Regular Programme Sub.No. ID/RP-12/111

An industrial economist is assigned to ECLA (Mexico) to provide assistance to the Central American Governments in the formulation of industrial policies and programmes.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12	\$23,600

UNDP/TA No. 3-68 P.S. 67-46

Two experts are stationed in Guatemala to assist the five countries of Central America in industrial policies and programmes related to the economic integration.

	<u>Man/months</u>	<u>Cost</u>
Expert	2/24	\$47,200

Group 12 (continued)

UNDP/TA 322-67 P.S. 67-47

One expert is assisting the Economic Co-operation Committee of Central America on the preparation and implementation of an integrated industrial development programme for the area.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12	\$23,600

EUROPE

1. Special Fund projects

(a) Continuing projects - none

(b) Projects under active consideration - none

2. Technical Assistance projects (Regular programme and UNDP/TA)

(a) Continuing projects

Turkey (UNDP/TA 277-57)

The Industrial Project Adviser will continue to assist the Ministry of Industry in setting up an Industrial Project Office within that Ministry.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12	\$23,100

(b) Forecast of new projects

	<u>Man/months</u>	<u>Cost</u>
Fellowships in field of industrial development and planning	9/38	\$24,200
Industrial Economist to participate in feasibility study for industrial complex and develop time-phased implementation plan	1/6	<u>11,550</u>
Total, new projects		\$35,750

These projects are to be discussed with the following countries: Greece, Hungary, Poland and Yugoslavia.

Group 12 (continued)

3. Special Industrial Services

Forecast based on 1967/1968 activity in this industrial sector.

	<u>Cost</u>
Estimated number of projects 2	\$8,000

MIDDLE EAST

1. Special Fund projects

(a) Continuing projects

Jordan (JOR-13)

Centre for Industrial Development, Amman. Assistance to the Government in establishing a Centre for Industrial Development, which will advise and participate in the drawing-up and the implementation of the country's industrial development programme, in developing management skills and in improving productivity in industry. The project was approved by the Governing Council in January 1967 for a duration of four years at a total cost of \$1,688,026 (UNDP \$1,023,500; Country contribution \$664,526).

Experts (Man/months)	1969	10/120
Cost of equipment		\$70,000

Saudi Arabia (SAU-14)

Industrial Studies and Development Centre, Riyadh. Assistance to the Government in the establishment and initial operation of the Centre whose functions are to advise the responsible authorities on industrial policies and programming; to assist in the carrying out or commissioning of industrial feasibility studies; to advise on the establishment of new industries as well as on the financing and the implementation of such industries; to assist in the planning and establishment of industrial estates and their management and operation; to provide for the establishment and initial operation of a model industrial estate. The project was approved by the Governing Council in June 1965 for a duration of three years at a total cost of \$2,624,800 (UNDP \$557,700; Country contribution \$2,067,100).

Experts (Man/months)	1969	4/8
Cost of equipment		\$60,000

(b) Projects under consideration - none

Group 12 (continued)

2. Technical Assistance projects (Regular programme and UNDP/TA)

(a) Continuing projects

Iraq (UNDP/TA 168-59) Continuation of an expert to assist and advise the Government on the preparation of feasibility studies for different industries.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12	\$23,100

Middle East Region (ID/RP-12-134)

Regular Programme - Regional Industrial Development Adviser.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12	\$23,600

(b) Forecast of new projects

	<u>Man/months</u>	<u>Cost</u>
Expert in industrial project evaluation to follow up recommendations of SIS team	1/12	\$23,100
Assist in identifying and studying problems encountered in implementing industrial projects and make recommendations for organizational structure of government bodies working in this field (discussed International Symposium)	1/6	11,550
Fellowships	1/6	<u>3,400</u>
Total, new projects		\$38,050

These projects are to be discussed with the following countries: Iraq and Kuwait.

3. Special Industrial Services

Forecast based on 1967/1968 activity in this industrial sector.

		<u>Cost</u>
Estimated number of projects	2	\$10,000

4. Regional projects

Interregional (ID/RP-12-135)

Five interregional advisers, stationed in the UNIDO Headquarters, will continue to advise the member countries upon their requests, on the major problems of industrial planning and programming and industrial policies.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12	\$124,800

Group 12 (continued)

B. SUPPORTING ACTIVITIES

Programme I: Industrial Planning and Programming

205. Work in this area includes ascertaining natural resources and their efficient utilization, estimation of domestic and foreign demand, planning for the individual industries and the manufacturing sector as a whole, including choice of priority sectors, requirements of skilled manpower and choice of technology. Additionally this area includes linking of the industrial sector with agriculture and other sectors of the economy.

Studies and research

206. Survey of industrial plans and programmes. A survey has been initiated to examine and evaluate industrial plans and programmes of developing countries (see document ID/B/20, pp. 116-117). This compilation of comparative case studies will enable UNIDO to measure achievements and identify problems encountered by developing countries and will thus assist UNIDO in the determination of the priorities and proper direction of future operational activities (see (d) (i) and (d) (ii) of document No. 15/A 6715/Rev. 1, p. 70 and document ID/CONF.1/59/Annex A/11 (part 2), p.6). The project will be carried out in two stages. The first stage scheduled to be completed in 1968 is confined to a small sample of five to six countries selected on the basis of accessibility to information, contacts with the local authorities and the experts in the field as well as relevance of the country's experience. Contacts with the ECLA sub-office in Mexico have been established for the realization of the survey in Mexico. In the second stage to be initiated in 1969, the sample will be expanded to include 20 to 25 countries.

Continuing project	
Staff man-months	5
Consultant funds	\$6,000
Travel funds	\$1,200

207. Industrial Programming Manual. Work on the industrial programming manual was initiated in 1967 (see document ID/B/4, p. 76 and ID/B/20, pp. 120-121). On the basis of preliminary contacts it is expected that the manual will be prepared in co-operation with the secretariats of ECAFE and ECLA, the Asian Institute for Economic Development and Planning in Bangkok and the Latin American Institute for Economic and Social Planning in Santiago. Due to the budgetary constraint progress

Group 12 (continued)

has been slower than previously anticipated. It is now expected that the first drafts will be circulated for comments and evaluation to international experts in this field and to United Nations technical assistance experts late in 1969. The final draft will be ready for publication late in 1970 or early in 1971. The purpose of the manual is to provide a basic reference source for briefing and substantive support of technical assistance experts and local personnel in the developing countries engaged in industrial programming.

Continuing project	
Staff man-months	5
Consultant funds	\$6,000
Travel funds	\$1,200

208. The role of advanced skills and technology in industrial development. The main activities in this project were concerned with the ad hoc meeting of experts on 22-29 May 1967. (See document ID/B/4, p. 77.) The proceedings of this meeting are scheduled to be published in 1968 in the Industrial Planning and Programming Series No. 3. This document is expected to meet the need for reference works for technical assistance and local planners. No further activities are planned at this time.

Completed project

209. Sectoral planning and programming studies. Sectoral planning and programming studies are designed to bridge the gap between the over-all economic plan and the development of feasible projects in industrial sectors and specific industries. This continuing work is designed to gradually cover certain key industrial sectors. Studies on programming data and preinvestment data for the chemical industry, the petroleum industry and the aluminium industry were published in 1966 and 1967. The sectoral planning study on iron and steel industry is scheduled to be published in 1968 or 1969 subject to availability of funds (see document ID/B/4, p. 76 and ID/B/20, p. 120). Additional sectoral planning studies are planned for 1969.

Continuing project	
Staff man-months	4
Consultant funds	\$5,000
Travel funds	\$600

Group 12 (continued)

Programme II: Industrial Project Preparation

210. Industrial project preparation comprises identification of investment opportunities, feasibility studies, bankable projects, project reports and the integration of projects with industrial programming; industrial project evaluation including checking on the project data and the assessment of commercial and national economic feasibility.

Expert group meetings, seminars, group training and workshops

211. Training workshops on industrial project formulation and evaluation. UNIDO, in co-operation with the Governments of Mexico, Ceylon and India, has organized three national training workshops for technicians and one orientation seminar for policy makers on industrial project formulation and evaluation (see document ID/B/4, pp. 61-62). In the case of each workshop an evaluation of an important project selected by the requesting country was carried out as a prototype and practical exercise. The experience gained in this programme was reviewed in co-operation with technical assistance and local experts and led to the suggestion that the usefulness of this programme can be increased significantly by transforming its nature into one of advisory missions of experts for discussion and examination of procedures for the preparation of industrial projects, with special reference to one or more major projects which are of strategic importance for industrial development of a country or sub-region. This will have advantages in the form of direct operational services for the preparation of specific projects and improvement in procedure of project preparation as well as learning by doing. This suggestion has been accepted by UNIDO. The programme of these advisory missions of experts for industrial project preparation will be carried out in co-operation with ECAFE and other regional commissions and will be dealt with under the section dealing with technical assistance activities.

212. Expert working group on industrial project preparation. Two-fifths of the technical assistance activities in the field of industrial programming and project planning fall into the category of project identification, formulation and evaluation. Several training workshops on this subject and economic evaluation of some projects have already been carried out by UNIDO. Considerable body of technical

Group 12 (continued)

documentation has been prepared to support these activities. These activities will be continued and expanded. The proposed meeting of experts will evaluate critically these technical assistance activities and advise on the direction and nature of future technical assistance activities and improvement in documentation.

Continuing project	
Staff man-months	4
Cost of meeting	\$10,000 (Regular UNIDO budget)
Consultant funds	\$6,000
Travel funds	\$600

Studies and research

213. Guidelines for industrial project preparation and portfolio of related case studies. The work on this project has been initiated during 1968. The project encompasses four interrelated aspects of pre-investment project planning, viz. (i) project identification; (ii) project formulation; (iii) project evaluation and (iv) related model case studies. The work in the field of project identification has evolved out of a continued demand from technical assistance experts and local personnel, especially entrepreneurs from small developing countries where there is an acute shortage of sound projects to be financed by domestic and foreign capital on account of difficulties encountered in identifying investment opportunities. Repeated inquiries have been made by public as well as private agencies seeking financial assistance from national or international financial institutions or agencies, for practical guidelines on the formulation and evaluation of industrial projects involving sizeable investments. The project is drawing heavily upon the experience acquired by UNIDO in technical assistance activities in the field of industrial project identification, formulation and evaluation (see document No. A/6715/Rev.1, pp. 70-71). Several supporting studies, including basic concepts in industrial project preparation, economics of project preparation, introduction to the mathematics used and three case studies have been completed during 1967 and the first quarter of 1968 and are scheduled to be published towards the end of 1968. Some additional supporting studies dealing with identification, formulation and evaluation of projects will be completed in 1968. It is expected that the remaining studies and the first full text of the guidelines will be completed during 1969.

Continuing project	
Staff man-months	10
Consultant funds	\$17,000
Travel funds	\$2,400

Group 12 (continued)

Programme III: Industrial Project Implementation

214. Work in this area includes identification of problems impeding implementation and measures for alleviating them, preparation of integrated time-phased project implementation plans, resource allocation; bidding and contracting; progress reports and institutional structure for implementation.

Expert group meetings, seminars, group training and workshops

215. Training workshops on industrial project implementation. A programme of training local personnel in Turkey in methods and procedures of implementing industrial projects is scheduled for 1968. The training will use actual cases of implementation and will focus on practical methods of programming and control of implementation. This programme will develop into advisory missions for assisting developing countries in establishing and operating project implementation units, and preparing programming and control techniques for implementation of specific industrial projects.

Studies and research

216. Evaluation and dissemination of information gained in the implementation of industrial projects. The objective is to provide developing countries with a flow of up-to-date information on programming and control of industrial project implementation. The relevant information will be collected from actual cases. This will help developing countries in the implementation of projects by avoiding delays and overrun costs, checking the performance of projects and providing corrective measures when necessary. It will include evaluation of the various elements of the cost arising from delays in project implementation. (See the recommendation by the Athens Symposium ID/CONF.1/59/Annex 12 and c.ID/CONF.1/59/Annex 11 (part 2).) Close co-operation with regional economic commissions is envisaged. The project will be initiated in 1969.

New project	
Staff man-months	6
Consultant funds	\$10,000
Travel funds	\$1,200

Group 12 (continued)

217. Manual on implementation and follow-up of industrial projects. This manual will deal with problems encountered by developing countries in industrial project implementation and provide information on effective procedures for programming and control of project implementation. It will contain an annotated bibliography. A preliminary draft has been prepared by UNIDO staff and consultants. This project, which was initiated in 1967, will be completed in 1969.

Continuing projects	
Staff man-months	3
Consultant funds	\$4,000

Programme IV: Industrial Programming Data

218. Work in this area refers to the synthesis of economic and engineering data used as a basis for the formulation and evaluation of industrial plans, the identification of new investment opportunities, the preparation and evaluation of pre-project feasibility studies, the preparation and evaluation of project implementation plans, the appraisal of post-project conditions, etc.

Expert group meetings, seminars, group training and workshops

219. Data-bank for industrial programming and project planning. It is intended to develop a permanent machinery for promoting and controlling "data-banking" operations aimed at systematic centralization and exchange of information at national, regional and interregional levels. An International Working Party on Industrial Programming Data was scheduled to be organized in 1968. This Working Party is expected to meet from time to time as may be required. (See ID/B/4, paras. 43-46 and ID/B/20, para. 177). UNIDO, in co-operation with Regional Economic Commissions and UNESOB, will serve as the secretariat to the International Working Party on Industrial Programming Data. In 1968 efforts are being made to complete the organizational layout and detailed technical standards necessary to put in operation a system of advisory services in this field on a continuing basis, with explicit linkage to technical assistance programmes under which specific country projects will be dealt with as requested.

220. During 1968 and 1969, the Working Party's meetings on the regional or sub-regional levels will be held with increasing frequency. These are designed to render advisory services in solving data problems encountered in individual countries or regions at their request. Towards the end of 1969 an inter-regional meeting is to be held to review the outcome of the regional working

Group 12 (continued)

sessions and related field operations and to chart an improved and expanded data-banking scheme.

Continuing project	
Staff man-months	12
Meeting funds	\$12,000 (Regular UNIDO budget)
Consultant funds	
from UNIDO budget	\$9,000
from the Swedish grant	\$11,000
UNDP/TA funds	\$10,000
Travel funds	\$1,400

Studies and research

221. Data-Bank for Industrial Programming and Project Planning. This is a continuing project, initiated in the latter half of 1965 which is to be developed in connexion with the activities mentioned in Group 12, B.11 (see document ID/B/4, paras. 43-46 and Table 7, and ID/B/20, paras. 183-184). Until 1967 the inputs in the data-bank relied solely on ad hoc sources (special consultant groups organized in selected countries) and the outputs were channelled to United Nations technical assistance experts in the field engaging in industrial programming as well as to the public through sales publications. For the latter form of dissemination, "Profiles of Manufacturing Establishments," Vol. I (ID/SER.E/4) and "International Comparisons of Interindustry Data" (ID/SER.E/2) were completed before the middle of 1967. In 1968 the same approach is being continued with added emphasis on information relating to industries and enterprises in the developing countries. Arrangements have been made in this connexion for the ECLA Office in Mexico to secure necessary sources of primary data. Similar arrangements are being made to enable active participation of other regional economic commissions. Profiles, Vol. II (ID/SER.E/7) and Vol. III will be compiled within the year. Also, "Structure of Material Inputs in Manufacturing Industries and Interindustry Relations" (ID/SER.F/6) will conclude, for the moment, research effort in the field of interindustry data.

222. By 1969 the activities of the International Working Party on Industrial Programming Data will continue to form a sustained source of inputs for the dissemination of reference programming data. Thus, two series of Profiles - Profiles of Industrial Establishments (an expanded version of the Profiles of Manufacturing Establishments) and Profiles of Pre-investment Industrial

Group 12 (continued)

Project Reports (a new series relating to the project preparation phase) - will be compiled as a by-product of these activities - supplemented by data from additional ad hoc sources - for publication purposes. The regional economic commissions serving jointly as Secretariat to the Working Party, will co-operate with UNIDO in this project.

Continuing project	
Staff man-months	8
Consultant funds	\$19,000 (including computer costs)
Travel funds	\$1,200

Programme V: Industrial Location and Regional Development

223. This work area deals with the location of industrial projects, regional development planning within a country and interdependence of such projects within such planning. It also includes regional co-operation among countries and comprises a spectrum of services from planning joint industrial ventures to the co-ordination and integration of industrial plans of several countries.

Expert group meetings, seminars, group training and workshops

No projects.

Studies and research

224. Documentation on Industrial Location. The interregional seminar on location of industries and regional development is being scheduled to be held in August 1968 in Minsk, USSR. The seminar is designed to focus on four basic issues, viz. (i) objectives of industrial location policies; (ii) factors determining the geographic distribution of industrial activity; (iii) methods for programming the location of industry; and (iv) measures to promote the realization of industrial location policy objectives. Fifteen papers have been prepared by staff members and consultants and about 25 additional papers are expected from individual countries, consultant firms and other institutions chiefly relating to their experience in this field of activity. The papers from this comprehensive documentation will be selected, edited and published in 1969.

Continuing project	
Staff man-months	2

Group 12 (continued)

225. Operational Guide to Regional Industrial Planning and Supporting Studies on Industrial Location. This guide carries forward the work of the Interregional Seminar on Industrial Location and Regional Development to be held in Winesk in 1968. In executing this project due consideration will be given to the recommendation of the Athens Symposium on Industrial Development (ID/CONF.1/59/Annex A/19 Recommendation para. 1) in connexion with the co-operation with the regional economic commissions and other non-governmental organizations. It will provide technical assistance experts and regional planners with basic reference information relating to the planning of industrial projects on a regional basis. It will contain an annotated bibliography on location of industries and regional development. It is expected that the guide will be ready for publication in 1970.

Continuing project	
Staff man-months	8
Consultant funds	\$5,000
Travel funds	\$1,200

Group 13 Industrial Policies and Industrial Financing

General remarks

226. UNIDO's work under this Group relates to two broad programme areas:

Industrial policies: UNIDO's activities in this field consist primarily in promoting industrial policy measures specially designed to encourage the establishment, development and expansion of the industrial activities in the developing countries.

Industrial financing, including investment promotion: In this broad programme area UNIDO's research and technical assistance activities have been focused on promoting the establishment of financial institutions and organizations aimed at stimulating a greater inflow of capital, both domestic and foreign, into existing and new industries, and utilizing effectively the financial resources available. Likewise it has been actively assisting developing countries to locate partners and sources of finance for specific industrial projects.

In carrying out these operations, more than seventy per cent of the total 144-man-months staff resources are utilized in operational field activities and nearly 30 per cent in the preparation of technical materials and promotional services.

A. FIELD ACTIVITIES

AFRICA

1. Special Fund Projects

None.

2. Technical Assistance (Regular programme and UNDP)

(a) Continuing projects

Mali - (UNDP/TA 6 - 66)

An industrial economist (OPEX) is undertaking feasibility studies on various projects, and is advising on the measures for stimulating investments.

Group 13 (continued)

	<u>Man/months</u>	<u>Cost</u>
Expert	1/12	\$ 23,100

Africa Region - (ID/RP - 13 - 43)

A regional adviser, stationed in the Headquarters of the United Nations Economic Commission for Africa will continue to assist the countries of the region in the field of industrial promotion, project evaluation and industrial financing.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/12	\$ 23,600

(b) Forecast of new projects

	<u>Man/months</u>	<u>Cost</u>
Management accounting expert to assist Investment Corp.	1/12	\$ 23,100
Senior accountant to assist Ministry of Industry	1/12	23,100
Adviser on investment promotion to assist Ministry of Industry	1/12	23,100
Adviser on fiscal incentives	1/6	11,550
Adviser on industrial financing	1/12	23,100
Adviser on industrial policy re industry in private sectors	1/12	23,100
Regional workshop on financial planning	3/3	16,200

Financial planning of industrial projects

UNIDO, in 1969, will offer assistance in the form of staff services and expert advice in the field of financial planning of industrial projects, comprising identification of capital requirements of industrial projects, sources and management of industrial finance, preparation and interpretation of financial reports.

Cost of the project: \$ 7,000

Group 13 (continued)

Application of joint venture requirements

UNIDO will provide, in 1969, staff assistance and technical counselling regarding specific cases where the applications of joint venture agreements are involved and where possibilities are opened for expanding industrial investment through their utilization.

Cost of the project: \$ 6,000

Financial aspects of manufacturing enterprises in the Public Sector

UNIDO will offer assistance to developing countries in determining desirable scopes of public sector in the manufacturing field to identify programmes relating to the financial structure in the public sector pricing, and provide policies, accounting and budgetary procedures and other financial aspects of public manufacturing enterprises.

Cost of the project: \$ 7,000

These projects are to be discussed with the following countries: Ethiopia, Kenya, Libya, Nigeria, Sierra-Leone, Tunisia, Uganda and Zambia.

3. Special Industrial Services

Forecast based on 1967/1968 activity in this industrial sector.

Estimated number of projects	3
Cost	\$ 60,000

ASIA AND FAR EAST

1. Special Fund projects

None.

2. Technical Assistance projects (Regular programme and UNDP/TA)

Ceylon - (UNDP/TA 20-57)

Senior industrial adviser. The expert is attached to the Development Division, Ministry of Industries and Fisheries. He is making recommendations on the revision of customs tariffs to industrial machinery and raw materials; on tax concessions to promote industrial development; and on a scheme of priorities in relation to the short-term industrial development programmes.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/9 (12)	\$ 17,325

Group 13 (continued)

Malaysia - (UNDP/TA/RF)

An OPEX expert will be attached to the Federal Industries Development Authority (FIDA) to organise and manage a division of industrial investment promotion. The Government has asked for the extension over 1969 of this post.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/12	\$ 23,100

UNDP/TA/RF

An OPEX expert will be attached to the Federal Industrial Development Authority (FIDA) to prepare financial analysis, evaluate financial statements, recommend joint ventures and other consorcial matters. The Government has asked to extend this post over 1969.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/12	\$ 23,100

Singapore - (UNDP/TA - 203-67) (OPEX)

A senior industrial economist is to continue assistance to the Economic Development Board in conducting economics and statistical studies required for policy making.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/12	\$ 16,500

(b) Forecast of new projects

	<u>Man/months</u>	<u>Cost</u>
Fellows	3/16	\$ 9,400

Financial planning of industrial projects

UNIDO, in 1969, will offer assistance in the form of staff services and expert advice in the field of financial planning of industrial projects, comprising identification of capital requirements of industrial projects, sources and management of industrial finance, preparation and interpretation of financial reports.

Cost of project: \$ 7,000

Group 13 (continued)

Application of joint venture requirements

UNIDO will provide, in 1969, staff assistance and technical counselling regarding specific cases where the applications of joint venture agreements are involved and where possibilities are opened for expanding industrial investment through their utilization.

Cost of project: \$ 6,000

Financial aspects of manufacturing enterprises in the public sector

UNIDO will offer assistance to developing countries in determining desirable scopes of public sector in the manufacturing field to identify programmes relating to the financial structure in the public sector pricing, and provide policies, accounting and budgeting procedures and other financial aspects of public manufacturing enterprises.

Cost of project: \$ 7,000

These projects are to be discussed with the following countries: Iran, Malaysia, Pakistan.

3. Special Industrial Services

Forecast based on 1967/1968 activity in this industrial sector.

Estimated number of projects 10
Cost \$ 50,000

THE AMERICAS

1. Special Fund projects

None.

2. Technical Assistance projects (Regular programme and UNDP/TA)

(a) Continuing projects

Paraguay - (UNDP/TA 189 - 57)

The services of the industrial adviser presently in the field will probably be requested throughout 1969.

	<u>Man/months</u>	<u>Cost</u>
Experts	1/12 1/3 (12)	\$ 5,775
Fellows	1/12	5,800

Group 13 (continued)

(b) Forecast of new projects

None.

3. Special Industrial Services

Forecast based on 1967/1968 activity in this industrial sector.

Estimated number of projects 2

Cost \$ 40,000

EUROPE

1. Special Fund projects

None.

2. Technical Assistance projects (Regular programme and UNDP/TA)

(a) Continuing projects

None.

(b) Forecast of new projects

	<u>Man/months</u>	<u>Cost</u>
Fellowships	1/6	\$ 3,400

3. Special Industrial Services

Forecast based on 1967/1968 activity in this industrial sector.

Estimated number of projects 2

Cost \$ 10,000

MIDDLE EAST

1. Special Fund projects

None.

Group 13 (continued)

2. Technical Assistance projects (Regular programme and UNDP/TA)

(a) Continuing projects

South Yemen - (UNDP/Revolving Fund DP/R/TA-67/18)

Continuation of an expert to advise on the formulation of industrial development policy, necessary legislation and measures to implement the Government's industrial programme.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/5 (6)	\$ 9,625

3. Special Industrial Services

Forecast based on 1967/1968 activity in this industrial sector.

Estimated number of projects 4

Cost \$ 25,000

B. SUPPORTING ACTIVITIES

Programme I: Industrial Policies

Studies and Research

227. Fiscal Incentives: UNIDO in 1967 undertook and completed in co-operation with the Fiscal and Financial branch of the Department of ESA and the IMF, a comparative study of the fiscal and financial incentives. The study was published in 1968 and disseminated among developing countries. In the International Symposium on Industrial Development in Athens there was general support for continuing UNIDO's activities in this field. It was recommended that UNIDO's work should be geared towards formulating a pattern of incentives appropriate for general application by developing countries. (ID/CONF.I/59/Annex A/II (Part 2), p.6). Accumulated information in this field is geared to support United Nations technical assistance activities with the view of improving design and the revision or expansion of the scope of current incentive programmes in developing countries.

Staff man-months 18

Consultant funds \$ 3,500

Group 13 (continued)

Programme II: Industrial Financing

Financial Aspects of Manufacturing

Enterprises in the Public Sector

228. Among the policies that can influence the pattern and rate of industrial development is the promotion of manufacturing enterprises in the public sector. In 1967 country studies were initiated to determine the extent of public sector involvement in the manufacturing field and secondly, to identify specific problems relating to financial structure pricing and profit policies, accounting and budgetary practices and other financial aspects of public manufacturing enterprises in developing countries. On the basis of the information collected from the country studies a report will be prepared in 1968 and published as a guide and supporting material for technical assistance experts and government officials as well as responsible officials of public manufacturing enterprises. Further work is expected to continue in this field in 1969.

Staff man-months 12

Consultant funds \$ 5,000

229. Application of joint venture arrangements: In support of UNIDO's investment promotion services, a special study was undertaken in 1967 by Columbia University in co-operation with UNIDO and financial contribution from the Ford Foundation to investigate the various fields of industry in which joint ventures have been launched and to examine the partnership arrangements for each type of industry. This study which is expected to be completed in 1968, review the types of joint venture arrangements with respect to financing, patents, technical and managerial know-how, the training of local personnel, profit-sharing arrangements, provisions for principal and profit repatriation, arrangements for procuring capital equipment and the marketing of manufactured products. UNIDO is undertaking to provide in 1968 and 1969 staff assistance and technical counselling as requested, with regard to specific cases where the application of joint venture agreements are involved. This project will be carried out under technical assistance operations.

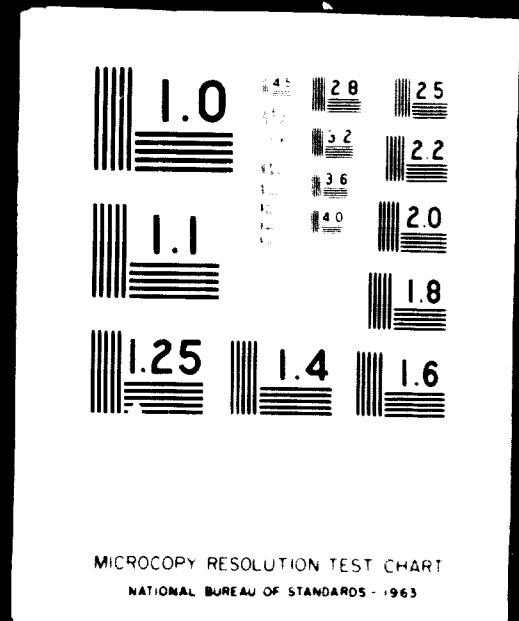
Staff man-months 6

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Group 13 (continued)

Expert group meetings; seminars; group training and workshops

230. Meeting of Investments Banks and Investment Promotion Centres: In order to assist developing countries in making contacts with interested investors, an international meeting of industrial financial institutions and industrial promotion centres will be held in Europe in 1969. The meeting will offer an opportunity for the participants to make arrangements for the financing of specific projects in developing countries.

231. In advance preparation for this meeting, UNIDO is convening in 1968 a working group of top executives from Industrial Financial Institutions and Investment Promotion Centres.

Staff man-months	24
Consultant funds	\$ 5,000
Travel funds	\$ 3,500
Meeting funds	\$ 10,100 (regular UNIDO budget)

232. Financial Planning of Industrial Projects: The failure of many industrial projects because of inadequate financial planning at the project level is a serious deterrent to industrial development. In 1967 studies on financial planning of industrial projects were carried out in order to identify the financial problems in this field. This encompasses such problems as capital requirements of new industrial projects, sources and management of industrial finance and the preparation and interpretation of financial reports. In addition to the dissemination of these materials among developing countries, workshops are scheduled for 1968.

233. UNIDO will, in 1969, offer assistance in the form of staff services and expert advice in response to technical assistance requests. Case studies of selected countries will be prepared in 1969 as additional supporting material to meet the technical assistance needs. This project will be carried out under technical assistance operation.

Staff man-months	24
Consultant funds	\$ 5,000

ANNEX 2

Study and Research Projects^{2/}

1. Engineering Industries
 - (1) Development of Product Design and Development Capability
 - (2) Maintenance and Repair of Industrial Plant, Transportation and Agricultural Machinery and Equipment
 4. Chemicals, Pharmaceuticals and Other Related Industries
 - (1) Manufacture of Liquid Fuels and Chemicals from Coal
 5. Fertilizers, Pesticides and Petrochemical Industries
 - (1) World Directory of Fertilizer Production Facilities
 - (2) World Fertilizer Balance Sheet
 - (3) Study of World Supply and Demand and Price Trends of Sulphur
 6. Light Industries
 - (1) Preparation for the Second United Nations Interregional Workshop on Textile Industries in Developing Countries
 - (2) Studies on the Normalization of Food Processing Equipment
 - (3) Collection and Systematization of Pre-Investment Data for Food Equipment and Complete Food Factories
 7. Industrial Legislation Patents, Licensing and Standardization
 - (1) Study on Problems of Standardization, Presentation and Packaging of Products
 8. Industrial Research and Other Supporting Institutions
 - (1) Directory of Industrial and Technological Research Institutes (to be prepared in co-operation with the Regional Commissions of Africa, Asia and the Far East, Latin America and the Economic and Social Office in Beirut)
 - (2) A Comparative Study of Administrative Machinery
 9. Industrial Information and Promotion
 - (1) Study on the Setting-up of an Integrated Data and Documentation System which will readily adapt to Computerization
 - (2) Survey of the approximately 10,000 Addresses on UNIDO's Mailing List in order to determine their Industrial Information Priorities
- ^{2/} Study projects connected with expert group meetings are listed under Annex 1.

Group 14 Promotion of Export-oriented Industries

General remarks

236. The objective of the work in this area is to assist developing countries in formulating their industrial policies and programmes as related to the establishment of export-oriented industries, promotion of industrial products for export and utilization of idle industrial capacity, for production of exports.

237. The UNIDO programme of work is integrated with the Combined United Nations Programme for Promotion of Exports that has been established following the decision of the Executive Secretaries' meetings of 1966 and 1967 and involves the participation of UNIDO, UNCTAD, GATT and the Regional Economic Commission.

238. The programme has also had the endorsement and guidance of the Athens Symposium. It falls into the following three categories:

- (a) Identification of viable export industries:
- (b) Evaluation of the export potential of existing industries, identification of measures designed to expand this export potential:
- (c) Work programmes undertaken in co-operation with the other agencies of the United Nations family.

A. FIELD ACTIVITIES

AFRICA

1. Special Fund projects

None.

2. Technical Assistance (Regular Programme and UNDP)

(a) Continuing projects

Togo - (UNDP/TA 199-67)

Consultant in marketing studies. The expert is advising the Government on the marketing projects for consumer goods in order to develop new enterprises (food products, textiles, agricultural instruments, household goods, building materials). Two fellowships will be granted in the export promotion field.

	<u>Man/months</u>	<u>Cost</u>
Expert	1/12	\$ 23,100
Fellows	2/12	\$ 6,800

Group 14 (continued)

3. Special Industrial Services

Forecast based on 1967/1968 activity in this industrial sector.

Estimated number of projects 2
Cost \$ 40,000

ASIA AND FAR EAST

1. Special Fund projects

None.

2. Technical Assistance projects (Regular programme and UNDP/TA)

(a) Continuing projects

None.

(b) Forecast of new projects

Adviser on industrial marketing and design.

	<u>Man/months</u>	<u>Cost</u>
Expert	4/42	\$ 80,850
Fellows	1/5	3,000

3. Special Industrial Services

Forecast based on 1967/1968 activity in this industrial sector.

Estimated number of projects 6
Cost \$ 15,000

THE AMERICAS

1. Special Fund projects

None.

2. Technical Assistance projects (Regular programme and UNDP/TA)

(a) Continuing projects

None.

Group 14 (continued)

(b) Forecast of new projects

Adviser on promotion of export-oriented industries (follow-up of 1966 mission).

	<u>Man/months</u>	<u>Cost</u>
Expert	6/21	\$40,425

3. Special Industrial Services

Forecast based on 1967/1968 activity in this industrial sector.

Estimated number of projects	2
Cost	\$ 100,000

EUROPE

1. Special Fund projects

None.

2. Technical Assistance projects (Regular programme and UNDP/TA)

(a) Continuing projects

Cyprus - (ID/RP-14-114)

Two fellowships will be granted in this field, for a total of twelve months.

	<u>Man/months</u>	<u>Cost</u>
Fellows	2/12	\$ 6,800

(b) Forecast of new projects

	<u>Man/months</u>	<u>Cost</u>
Fellows	2/12	\$ 6,800

3. Special Industrial Services

Forecast based on 1967/1968 activity in this industrial sector.

Estimated number of projects	1
Cost	\$ 5,000

Group 14 (continued)

MIDDLE EAST

1. Special Fund projects

None.

2. Technical Assistance projects (Regular programme and UNDP/TA)

(a) Continuing projects

None.

(b) Forecast of new projects

A new project reflecting the discussion in Athens and the contacts with the UNESCO in Beirut. Requests for technical assistance are expected, to enable some Middle East countries to expand their industrialization programmes based on local raw materials. Consultants will be used to carry out several market studies with respect also to the import pattern of the countries concerned.

Estimated cost \$ 2,000

3. Special Industrial Services

Forecast based on 1967/1968 activity in this industrial sector.

Estimated number of projects 4

Cost \$ 25,000

4. Regional projects

The total of 156 man/months will be available for all the activities in this field, about 50 per cent of which will be engaged in operational field activities.

B. SUPPORTING ACTIVITIES

Programme I: Identification of Viable Export Industries

239. While the first stage of this programme was characterized by the collection of basic data, the work in 1968 and 1969 is geared to expanding field technical assistance activities. In addition, use will be made of a supporting study on the choice of techniques for export-oriented manufacturing industries which is under way in 1967 and 1968 in Puerto Rico, carried out by CODECA, and of the recommendations of the meeting on promotion of export marketing organizations and the studies connected therewith.

Group 14 (continued)

Expert group meetings, seminars, group training and workshops

240. Joint UNIDO-UNCTAD-UNDP exploratory missions. Following the pattern of missions to Latin America and Asia envisaged in 1968 (ID/B/20, page 127, para. 210) a similar mission will be organized for Africa in 1969 jointly by UNIDO, UNCTAD and UNDP to advise on the formulation of integrated industrial development programmes, with particular reference to promoting exports of manufactures.

Continuing project

Staff man-months 4

Travel funds \$ 1,500

Studies and Research

241. Metalworking industries as potential export industries. During 1966-1968 activities in this field include two empirical studies and one SIS project in addition to a meeting of experts. (See document ID/B/20, para. 211, item 2 and para. 212, item 1). In 1969, use will be made of the studies made so far, the report and recommendations of the Expert Group scheduled for 1968 on this subject will be published, and technical assistance programmes will be expanded.

Continuing project

Staff man-months 9

Consultant funds

242. Petrochemical products as potential export industries. UNIDO, in co-operation with the Regional Economic Commission and UNESOB, will initiate a study on the export potentials of certain petrochemical products with the view of ascertaining the possibilities of establishing competitive export industries in oil producing countries.

243. Strong interest was expressed at the Athens Symposium by a number of developing countries in this project.

New Project

Staff man-months 10

Group 14 (continued)

244. Supply-demand position of export-promising manufactures and semi-manufactures.

Consistent with UNIDO's role in the evaluation of export industry data (ID/B/20, page 129, para. C/212/8), certain pertinent data will be collected and evaluated on the supply-demand position of selected export-promising manufactures and semi-manufactures.

New project

Staff man-months 18

Consultant funds \$ 2,000

Programme II: Evaluation of the Export Potential of Existing Developing Country Industries; Identification of Measures designed to expand this Export Potential

245. Work under this programme consists in rendering assistance to developing countries in two areas: (i) utilization of excess manufacturing capacities for export production, and (ii) product improvement. The proceedings of the Expert Group on utilization of excess capacity and the relevant studies (see ID/B/20, page 128, para. 211/1 and page 129, para. 212/5) will be published in 1969. Work will continue on the ways and means of promoting production of export goods in existing industries.

Expert group meetings, seminars, group training and workshops

246. Promotion of exports of manufactures from developing countries through industrial co-operation between developed and developing countries. On the basis of studies carried out in 1968 (ID/B/20, page 128, para. 212/2) and after consultations with selected countries, a meeting will be held in 1969 to formulate recommendations for increasing exports of manufactures and semi-manufactures from developing countries and for improving the efficiency of their existing export industries. The meeting may provide the participants with an opportunity to initiate bilateral discussions on the subject. The studies on export-propelled industrial growth and on foreign aid in industrialization, which are being carried out by McGill University and the summary of which will be published

Group 14 (continued)

(see ID/B/4, page 89, table 10, and Item 7), will be utilized as supporting background material for the meeting. UNCTAD has already indicated its interest in co-operation in this project. As a follow-up of the above recommendations and studies, technical assistance projects are envisaged.

Continuing project

Staff man-months	12
Consultant funds	\$ 5,000
Meeting funds	\$10,000 (Regular UNIDO budget)

Studies and research

247. Repayment of foreign investment loans by export of local manufacturers. A study was undertaken in 1968 to examine the problems involved regarding the practical application of such repayment arrangements (see ID/B/20, para. 212, item 6). Repayment of investment loans in kind is desirable not only from the point of view of the developing countries balance of payments, but also from the view point of achieving expanded exports. The project will concentrate on an identification of feasible forms of such arrangements and will include the gathering of empirical data to permit an identification of possible solutions. Close co-operation has been agreed upon with UNCTAD.

Continuing project

Staff man-months	12
Consultant funds	\$ 2,000

Programme III: Work undertaken in co-operation with Agencies of the United Nations Family and other International Agencies

248. UNIDO will participate, in pursuance of the Combined United Nations Programme in Export Promotion, in such projects carried out by UNCTAD, GATT and the regional and economic commissions relating to the development of export industries, as well as in advisory services by the Joint UNCTAD-GATT Trade Centre, when requested. The relevant findings and recommendations of the Second UNCTAD will be taken into account. To this end, the impact of negotiations on tariffs and preferences will be followed and evaluated, in-so-far as they offer an opportunity to promote the

Group 14 (continued)

development of export-oriented industries. Surveys will be carried out regarding the existing potential of export industries and action will be initiated along these lines with the institutions mentioned. These activities are to be on a continuing basis.

New project	
Staff man-months	21
Consultant funds	
Travel funds	\$500

Group 15 General Research Projects Established as Continuous Activities

General remarks

249. In addition to direct operational field activities as described in previous groups, UNIDO's work under this group relates to the following three main programme areas:

- (a) Industrial development surveys: are intended to review periodically the major trends and the over-all progress in manufacturing and contribute to the identification of industrial problems requiring international and/or UNIDO's attention. These surveys also examine critical development issues in connexion with the industrialization of developing countries.
- (b) Collaboration with developing countries in the preparation of national surveys: National industrial surveys are considered an important means of identifying development potential and locating obstacles to industrial growth and many developing countries seek assistance of international staff in this field. UNIDO will provide such assistance in co-operation with the regional economic commissions and UNESOB. This activity will also result in a development of a consistent framework under which international comparability would be achieved.
- (c) Techno-economic data relating to industrial sectors are intended to make data available for use by those concerned with industrial development and planning in developing countries.

Of the total of 108 man-months available for the above activities, about 15 per cent will be devoted to technical assistance activities. (In addition one UNIDO staff member will be seconded to the Statistical Office in New York to work on industrial statistics.)

B. SUPPORTING ACTIVITIES

Programme I: Industrial Development Surveys (SR)

Studies and research

250. Industrial Development Survey 1969: The first issue of the survey was published in 1967 and submitted to the International Symposium on Industrial Development in Athens. It reviewed the over-all progress of industrialisation achieved by the developing countries. In 1968 a brief issue of the Survey covering recent trends in industrial output, employment, trade and finance is being prepared to facilitate an appraisal of current progress and problems in industrialisation.

Group 15 (continued)

251. A review of recent trends and developments in industry will be prepared in 1969. Special attention will be given to the relationship between industrial growth and population growth, size of market, availability of skilled manpower, utilization of natural resource endowments, and the potential sources of investment. These subjects were suggested at the International Symposium in Athens (ID/CONF.1/59/Section II). It is planned to carry out this project in co-operation with the United Nations Statistical Office, Centre for Development Planning, Projections and Policies (ESA), UNCTAD, FAO, ILO, the regional economic commissions and UNESOB.

252. In addition, it is planned that work undertaken in 1968 in connexion with the next development decade will be continued.

Continuing project

Staff man-months	58
Consultant funds	\$ 20,000
Travel funds	\$ 1,800

253. Study on relationship of export industries to industrialization: The objective of this analysis is to examine the influence of the export industries on the process of industrialization, their role in building a broader industrial base, and their effectiveness in introducing new technologies and skills. As a part of this project, case studies will be undertaken to obtain a cross section of developments in a number of countries. This study is intended to provide a background analysis to operational work of UNIDO and other United Nations bodies. It will be carried out in close co-operation with UNCTAD, regional economic commissions and UNESOB.

New project

Staff man-months	21
Consultant funds	\$ 10,000
Travel funds	\$ 1,800

254. Country studies: Three country studies are envisaged to be commenced in 1968. These country studies are intended to examine the common experience of selected developing countries regarding industrialisation. Detailed analysis of the

Group 15 (continued)

industrial sector and its relation to the economies of these countries will be dealt with in an attempt to provide a prototype for similar analyses by other countries.

255. This project will be continued in 1969 and a number of additional countries will be selected for further studies.

Continuing project
Staff man-months 10
Travel funds \$ 1,200

Programme II: Collaboration with Developing Countries
in the Preparation of National Surveys

Studies and research

256. Collaboration with developing countries: Under this programme UNIDO will assist the developing countries in carrying out industrial surveys. These surveys will make it possible to compile internationally comparable reference data for use by technical assistance experts. It is envisaged that this activity will be carried out in co-operation with regional economic commissions and UNESOB.

This project is a part of technical assistance activities.

New project
Staff man-months 9
Consultant funds \$ 5,000
Travel funds It is expected that SIS or UNDP/TA funds will
be requested when needed.

Programme III: Techno-Economic Data Relating to Industrial Sectors

257. The Industrial Technology Division systematically collects, analyses and publishes economic and technological data on key industrial sectors and product groups with special reference to developing countries. At the Athens Symposium nine sectoral surveys were presented, prepared in co-operation with other international organizations, and the regional economic commissions. In 1969 the preparation of similar surveys will be continued.

Group 15 (continued)

Estimated cost \$ 10,000 (Consultant funds)

Additional costs are expected to be financed from
USSR voluntary contribution.

Programme IV: Liaison with Statistical Office and Statistical
Commission (SR)

258. Although industrial censuses of manufacturing activities and other statistical investigations are now covering a greater number of developing countries, there is still a considerable lack of adequate and comparable data on the situation of manufacturing industries in these countries. It is envisaged that the requirements of industry and governments for expanded statistical information regarding manufacturing activities will be presented to the Statistical Commission for implementation by the Statistical Office.

New project

Staff man-months 3 (one staff member is also on secondment
to the Statistical Office)

Travel funds \$ 1,200

ANNEX 1

Experts Group Meetings, Seminars, Group Training and Workshops planned for 1969

	<u>Date</u>	<u>Place</u>
1. <u>Mechanical and Electrical Engineering Industries</u>		
(1) Expert Group Meeting on Agricultural Machinery Industry	3rd quarter 1969	Vienna
(2) Seminar on the Automobile Industry	2nd quarter 1969	São Paulo
2. <u>Metallurgical Industries</u>		
(1) Expert Group Meeting on Lead, Tin and Zinc Industries	September 1969	Bangkok
(2) Expert Group Meeting on Utilization of Scrap Metal in Foundries in Developing Countries	November 1969	Vienna
3. <u>Construction and Building Materials</u>		
(1) Expert Group on Fibro-Cement Composites	August 1969	Belgrade
(2) Regional Seminar on Prefabrication in the Building Industries for Africa	May 1969	Nairobi
4. <u>Chemicals, Pharmaceuticals</u>		
(1) Consultative Panel on the Manufacture of Chemicals by Fermentation Processes	March 1969	Manila
(2) Expert Group on Establishment of Pharmaceutical Industries in Developing Countries	May 1969	Budapest
5. <u>Fertilisers, Pesticides and Petrochemical Industries</u>		
(1) Meeting on Promotion of Fertilizer Industries in Asia	August 1969	Bangkok Vienna
(2) Interregional Seminar on the Petrochemical and Plastics Industries in the Developing Countries	October/ November 1969	New York Kiev Copenhagen
6. <u>Light Industries</u>		
(1) Expert Group Meeting on Testing and Manufacturing Controls in the Textile Industry	April 1969	Cairo
(2) Expert Meeting on Fish Protein Concentrate Production	undecided	Agadir

	<u>Date</u>	<u>Place</u>
6. <u>Light Industries</u> (continued)		
(3) Expert Meeting on Soybean Protein Processing and Soybean Protein Use and Marketing	undecided	Peoria, Ill. USA
(4) Expert Group Meeting to Evaluate the Role of Wood-based Products as Building Material under Conditions prevailing in Developing Countries	undecided	Europe
7. <u>Industrial Legislation, Patents, Licensing and Standardization</u>		
(1) Expert Group Meeting on Controlling Costs of Proprietary Technology transferred to Developing Countries	1969	Vienna
(2) Workshop Courses for Prospective Licensees in Developing Countries (six courses)	1969	Not yet determined
8. <u>Industrial Research and other Supporting Institutions</u>		
(1) Experts Group Meeting with regard to setting up an "International Association of Industrial Research Institutes"	early 1969	Vienna
(2) Interregional Study and Training Programme for Senior Personnel of Industrial Research Institutes	middle 1969	Denmark
(3) Regional Workshop on the organization and administration of Industrial Services in Latin America (in collaboration with ECLA)	November 1969	Latin America
9. <u>Industrial Information and Promotion</u>		
(1) An Expert Group Meeting to Review the Functioning of UNIDO's Advisory Service for the Supply of Industrial Equipment	November 1969	Vienna
(2) An Interregional Seminar on Industrial Information	April/May 1969	Copenhagen
(3) A Training Workshop for 15-20 Industrial Information and Extension Officers	September 1969	Kiev or Moscow

<u>10a. Industrial Training</u>	<u>Date</u>	<u>Place</u>
(1) Group in-plant Training Programmes:		
(i) Middle Level		
(a) Foundry Techniques	1969	Austria
(b) Mechanical Engineering	1969	Canada
(c) Diesel Engineering	1969	Czechoslovakia
(d) Shoe Industry	1969	
(e) Feasibility and Factory Design	1969	
(f) Cement Industry	1969	
(g) Materials Handling	1969	Denmark
(h) Textile Production	1969	Japan
(i) Electrical Engineering	1969	Poland
(j) Pulp and Paper Production	1969	Sweden
(k) Electronics and Communication	1969	Sweden
(l) Iron and Steel Production	1969	Sweden
(m) Machine Building (Machine Tools and Instruments)	1969	USSR
(n) Feasibility and Factory Design	1969	USSR
(o) Food Processing	1969	UK
(p) Fertilizers	1969	USA
(ii) Top Level		
(a) Top Level Management Subjects	1969	Czechosl.
(b) - do -	1969	Netherlands ^{1/}
(c) - do -	1969	Norway ^{1/}
(d) - do -	1969	UK ^{1/}
(2) Group Training Programmes for Industrial Administrators		
(i) Industrial administrators' Training Programme	1969	Bankok ^{1/}
(ii) - do -	1969	Dakar ^{1/}
<u>10b. Industrial Management and Consulting Services</u>		
(1) <u>Ad hoc</u> expert meeting on current trends in the field of Industrial Management	1969	Poland
(2) <u>Ad hoc</u> expert meeting on organization and management of inter- and intra-company Development Schemes	1969	Denmark
(3) <u>Ad hoc</u> expert meeting on organization and management of Distribution Channels in the Developing Countries	1969	Not yet determined
(4) <u>Ad hoc</u> expert meeting on use of Electronic Computers for Management Decisions in Developing Countries	1969	Not yet determined

^{1/} Tentative

<u>11. Small-scale Industry including Industrial Estates and Industrial Extension Services</u>	<u>Date</u>	<u>Place</u>
(1) Group Training Programme on industrial estates at the Small Industries Extension Institute (SIET) of Hyderabad, India	Jan-March 1969	Hydrabad, India
(2) Expert Group on Interrelations between Large and Small Industries with Special Reference to Sub-contracting	Mid 1969	Paris
(3) Interregional Symposium on Financing of Small-scale Industry in the Developing Countries	November 1969	New Delhi
<u>12. Industrial Programming and Project Planning</u>		
(1) Data Bank for Industrial Programming and Project Planning	1969	Not yet determined
(2) Expert Working Group on Industrial Project Preparation	1969	Not yet determined
<u>13. Industrial Policies and Industrial Financing</u>		
(1) Meeting of Investment Banks and Industrial Promotion Centres	1969	Europe
(2) Development Finance Institutions for Industrial Development	1969	Not yet determined
<u>14. Promotion of Export-oriented Industries</u>		
(1) Promotion of Exports of Manufactures from Developing Countries through Industrial Co-operation between Developed and Developing Countries	1969	Not yet determined

Group 13 (continued)

234. World Food Program: In addition to the activities outlined above UNIDO participates in the World Food Program. New commitments by some western countries, as defined in the "Kennedy Round", will greatly increase the international food programmes in 1969. UNIDO in co-operation with WFP, ILO and certain financial institutions will work out the procedures required for utilizing financial resources derived from food assistance in industrial investment and participate in the selection and evaluation of industrial projects for WFP assistance. This project is part of Technical Assistance activities.

Staff man-months	12
Travel funds	\$ 3,000

235. Development Finance Institutions for Industrial Development: The promotion of domestic financial institutions in developing countries has been one of the operational activities of UNIDO. UNIDO is encouraging co-operation among these institutions on a regional and interregional basis to facilitate a flow of information and experience and promotion of joint projects in the field of research and training. Acting as a clearing house for these institutions UNIDO has so far published three bulletins containing information on products and capacities of manufacturing projects promoted or financed by industrial development finance institutions. In 1968 UNIDO and the African Development Bank are scheduled to organize jointly a scheme of co-operation among industrial development institutions in the region. Subject to availability of funds UNIDO will organize in 1969 a meeting of international finance institutions and development finance organizations in developing countries in an effort to promote greater and closer co-operation amongst them by establishing a procedure for exchange of information on specific projects.

Meeting funds	\$ 10,000 (regular UNIDO budget)
Consultants fund	\$ 5,000
Travel funds	\$ 2,000

10a. Industrial Training

- (1) Study on Training Needs and Methods in Electronic Machinery Manufacturing
- (2) Study on Training Needs and Methods in Iron and Steel Production
- (3) Study on Formulation of New Industrial Correspondence Training Programmes

10b. Industrial Management and Consulting Services

- (1) Study on Application of Value Analysis in the Manufacturing Industries in the Developing Countries

11. Small-scale Industry Including Industrial Estates and Industrial Extension Services

- (1) The Ancillary Industrial Estate
- (2) Manual on the Economic and Physical Planning of Industrial Estate
- (3) The Free Zone Industrial Estate
- (4) Study of the Machine and Tool Lease Shop as a Common Service Facility
- (5) The Contribution of Small-scale Industries to the Production of Sewing Machines

12. Industrial Programming and Project Planning

- (1) Survey of Industrial Plans and Programmes
- (2) Industrial Programming Manual
- (3) Sectoral Planning and Programming Studies
- (4) Guidelines for Industrial Project Preparation and Portfolio on Related Case Studies
- (5) Evaluation and Dissemination of Information gained in the Implementation of Industrial Projects
- (6) Manual on Implementation and Follow-up of Industrial Projects
- (7) Data-Bank for Industrial Programming and Project Planning
- (8) Operational Guide to Regional Industrial Planning and Supporting Studies on Industrial Location

13. Industrial Policies and Industrial Financing

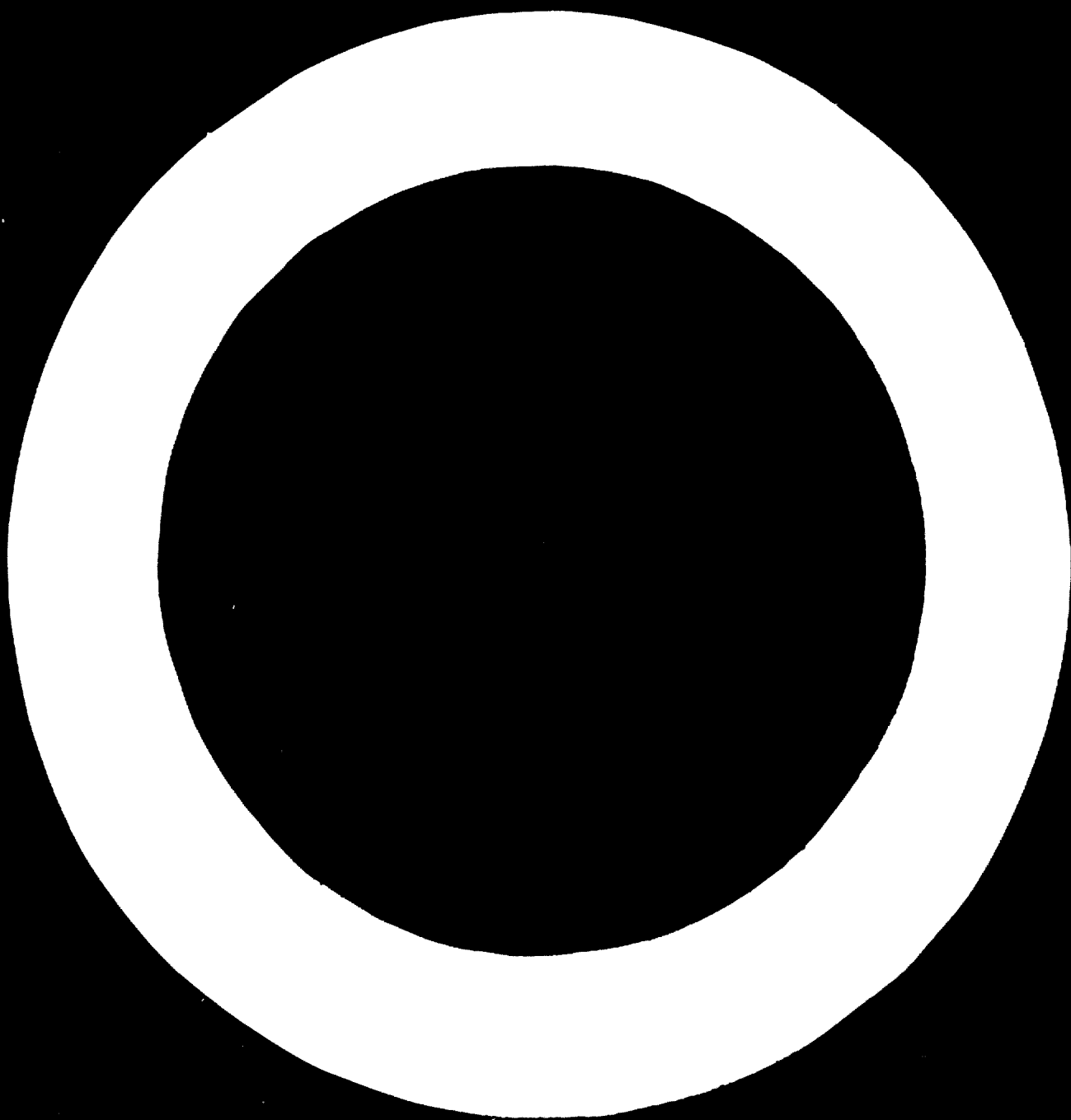
- (1) Industrial Expansion through the Application of Fiscal Incentives
- (2) Financial Aspects of Manufacturing Enterprises in Public Sector
- (3) Application of Joint Venture Arrangements (Technical Assistance)
- (4) Financial Planning of Industrial Projects

14. Promotion of Export-oriented Industries

- (1) Metal-working Industries as Potential Export Industries
- (2) Investigation of Sales Possibilities of Petrochemical Products
- (3) Supply-Demand Position of Export-promising Manufactures and Semi-manufactures
- (4) The Repayment of Foreign Investment Loans by Export of Local Manufactures
- (5) Promotion of Export Industries

15. General Research Projects Established as Continuous Activities

- (1) Industrial Development Survey
- (2) Study on Relationship of Export Industries to Industrialization
- (3) Country Studies



ANNEX 3

Publications

I. INDUSTRIAL TECHNOLOGY DIVISION

1. Mechanical and Electrical Engineering Industries

- (a) International Classification Systems for Metalworking Machinery
- (b) Acceptance Tests for New Machine Tools
- (c) Agricultural Equipment and Machinery Manufacturing Industries
- (d) Electrical Engineering Industries in Developing Countries
- (e) Development of Automotive Industries

2. Metallurgical Industries

- (a) The Techno-economic Principles of the Development of the Iron and Steel Industry in Developing Countries

3. Construction and Building Materials

- (a) Cement from Gypsum

5. Fertilizers, Pesticides and Petrochemical Industries

- (a) World Directory of Fertilizer Production Facilities, Part 1
- (b) Production, Consumption and Trade in Petrochemicals in the World
- (c) Studies of New Technologies in Petrochemicals

6. Food and Light Industries

- (a) Report of Expert Group Meeting on the Selection of Textile Machinery in the Worsted Industry
- (b) Report of Expert Group Meeting on Testing and Manufacturing Controls in the Textile Industry
- (c) Information Papers on Technological Developments in Food-Processing Equipment
- (d) Studies on Food Processing in Developing Countries

II. INDUSTRIAL SERVICES AND INSTITUTIONS DIVISION

7. Industrial Legislation, Patents, Licensing and Standardisation

- (a) Industrial Legislative Series
- (b) Manual for Industrial Licensees in Developing Countries

8. Industrial Research and other Supporting Institutions
 - (a) Manual for the Evaluation of Industrial Research Institutes
9. Industrial Information and Promotion
 - (a) UNIDO Newsletter, monthly
 - (b) Industrial Research and Development News, quarterly
 - (c) Industrial Development Abstracts, quarterly
 - (d) Directory of Industrial Agencies, 5 instalments
 - (e) Information Pamphlets on Summaries of Answers to Technical Questions, Industrial Promotion Service etc.: 4 pamphlets proposed in 1969
- 10b. Industrial Management and Consulting Services
 - (a) Organisation and Management of Corporate Planning in the Developing Countries
11. Small-scale Industry Including Industrial Estates and Industrial Extension Services
 - (a) The Functional Industrial Estate
 - (b) Common Service Facilities for Small-scale Industries:
 - (i) Tool Room
 - (ii) Testing and Quality Control Laboratory
 - (c) Technologies for Small-scale Industries: Bicycles
 - (d) Small-scale Industries in the Arab Countries of the Middle East

III. INDUSTRIAL POLICIES AND PROGRAMMING DIVISION

12. Industrial Programming and Project Planning
Industrial Planning and Programming Series
 - (a) Industrial Project Formulation and Evaluation, Vol. II - Lecture Notes on Project Formulation and Evaluation (No.8)
 - (b) Industrial Location and Regional Development (proceedings of the Interregional Seminar, Minsk, 1968) (No.9)
 - (c) Industrial Project Formulation and Evaluation, Vol. III - A Portfolio of Case Studies (No.10)
 - (d) Profiles of Manufacturing Establishments in Selected Countries, Vol. III (No.11)
 - (e) Profiles of Manufacturing Establishments in Selected Countries, Vol. IV (No.12)
 - (f) Industrial Plans and Programmes - Experiences in Selected Countries (No.13)
 - (g) Profiles of Pre-investment Industrial Project Reports, Vol. I (No.14)

Industrial Programming and Project Planning (continued)

Operational Guidelines

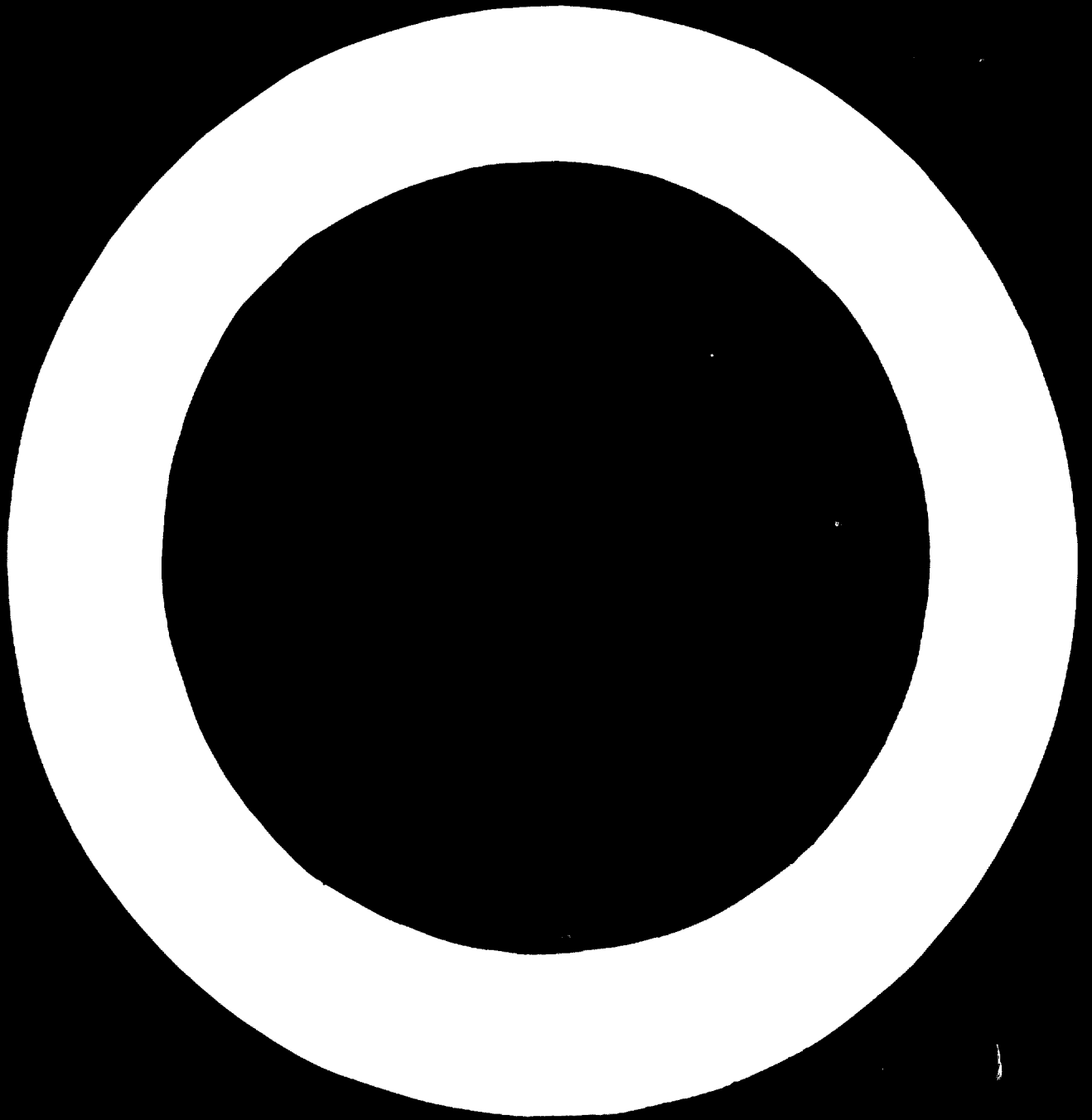
- (a) Guidelines on Industrial Project Identification, Formulation and Evaluation, Vol. I (No.1)
- (b) Guidelines on Industrial Project Identification, Formulation and Evaluation, Vol. II (No.2)
- (c) Manual on Implementation and Follow-up of Industrial Projects in Developing Countries, with list of relevant consulting institutions (No.3)
- (d) Industrialization and Productivity (No.4)

14. Promotion of Export-oriented Industries

- (a) Metalworking Industries as Potential Export Industries

15. General Research Projects established as Continuous Activities

- (a) Industrial Development Survey

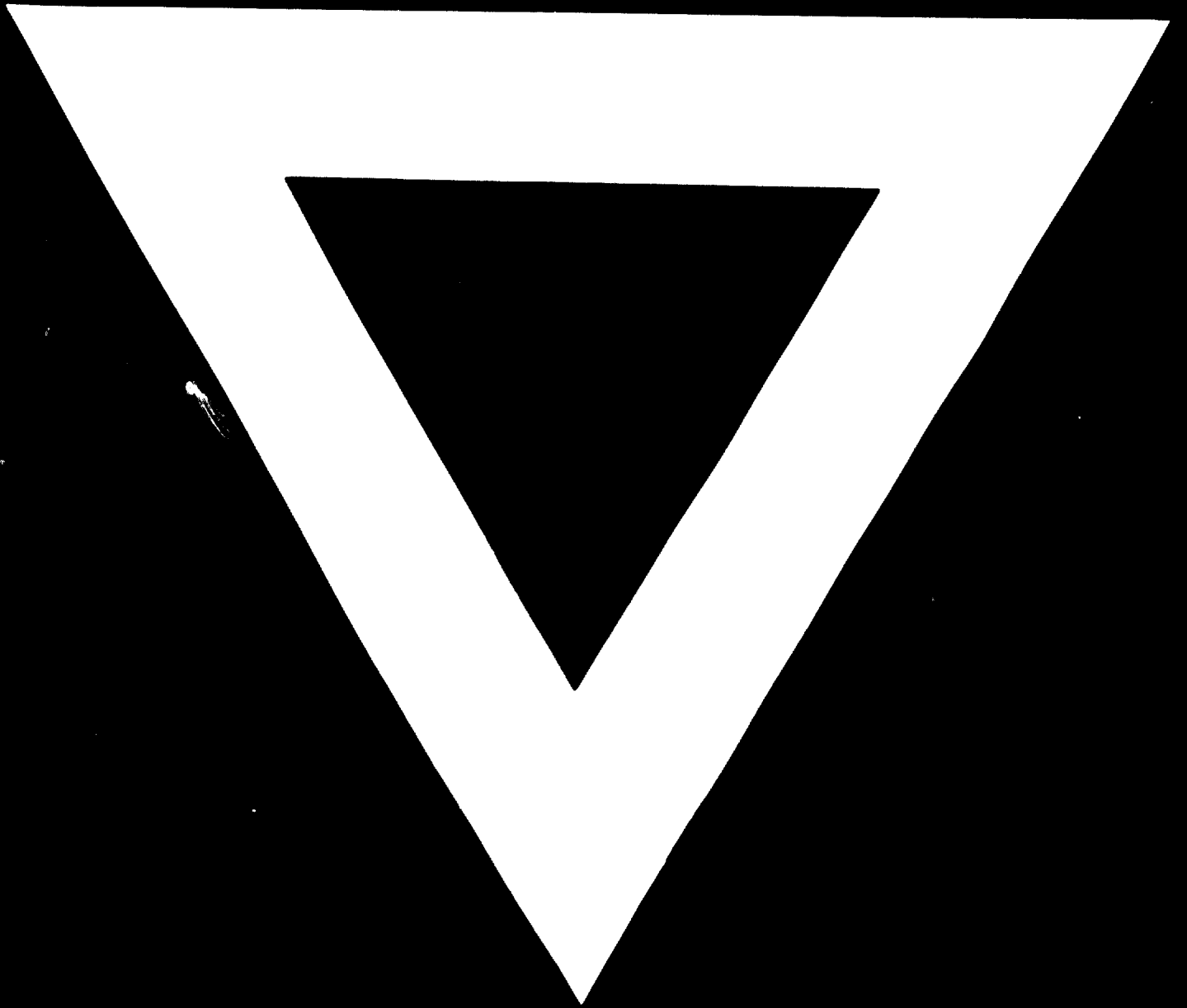


ANNEX 4

Groups of Activity

<u>Group Number</u>	<u>Activity</u>
<u>Groups 1 - 6</u>	<u>INDUSTRIAL TECHNOLOGY DIVISION</u>
1.	Mechanical and Electrical Engineering Industries
2.	Metallurgical Industries
3.	Construction and Building Materials Industries
4.	Chemicals, Pharmaceuticals and Other Related Industries
5.	Fertilisers, Pesticides and Petrochemical Industries
6.	Light Industries
<u>Groups 7 - 11</u>	<u>INDUSTRIAL SERVICES AND INSTITUTIONS DIVISION</u>
7.	Industrial Legislation, Patents, Licensing and Standardisation
8.	Industrial Research and Other Supporting Institutions
9.	Industrial Information and Promotion
10a.	Industrial Training
10b.	Industrial Management and Consulting Services
11.	Small-scale Industry Including Industrial Estates and Industrial Extension Services
<u>Groups 12 - 15</u>	<u>INDUSTRIAL POLICIES AND PROGRAMMING DIVISION</u>
12.	Industrial Programming and Project Planning
13.	Industrial Policies and Industrial Financing
14.	Promotion of Export-oriented Industries
15.	General Research Projects Established as Continuous Activities.





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