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United Nations Industrial Development Organization

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## Industrial Development Board

Second Session

Vien na, 17 April - 14 May 1968

### ANNOTATED PROVISIONAL AGENDA

Item 1. Opening of the session

Item 2. Election of officers

Rule 18 of the Rules of Procedure of the Industrial Development Board (ID/B/18) provides that the Board shall elect every year a President, three Vice-Presidents and a Rapporteur to hold office. It also provides that in electing its officers, the Board shall pay due regard to the principle of equitable geographical representation.

Under Rule 19 of the Rules of Procedure, "the offices of the President, the three Vice-Presidents and the Rapporteur shall be subject to rotation among the groups referred to in the annex to General Assembly Resolution 2152 (XXI)."

For the 1968 term, the President shall be elected from Group B (Western Group); the three Vice-Presidents from Groups C, D (respectively the Latin American and Socialist Groups), and the African Group in Group A; and the Rapporteur from the Asian Group, including Yugoslavia, in Group A.

Item 3. Adoption of the agenda

According to Rule 12 of the Rules of Procedure, the Board shall adopt its agenda for the session on the basis of the provisional agenda.

Item 4. Report on activities of the secretariat of UNIDO in 1967

This report is submitted to the Board as document ID/B/22. It contains a survey of the activities of UNIDO during 1967, as regards both operational activities in the field and supporting activities by the substantive divisions, classified by functional areas. The report contains as an addendum a progress report by the Executive Director on the Special Industrial Services Programme.

Item 5. Report of the International Symposium on Industrial Development

This report is submitted to the Board as document ID/B/21 in accordance with General Assembly Resolution 2178 (XXI) of 9 December 1966 in which the General Assembly "Considering that the Symposium, as the first world-wide forum on industrialization to be held under United Nations auspices is likely to play a significant role in focusing attention on policies and measures aimed at strengthening international co-operation in the field of industrial development and accelerating the industrial development of the developing countries," requested the Industrial Development Board "to study in due course the recommendations of the Symposium and to take appropriate follow-up action."

Item 6. Review of activities of the United Nations system of organizations in the field of industrial development

Under this item, and in response to requests contained in paragraphs 247 and 248 of the Report of the Industrial Development Board on its first session (document E/4385)<sup>1/</sup>, the following documents are submitted to the Board:

a) The report of 1967 activities of the United Nations system of organizations in the field of industrial development (document ID/B/23). This document is an updated expanded edition of the Consolidated Report for 1966 (ID/B/3 and Addenda 1-9), which was prepared following the recommendations of the Board at its first session;

b) A note by the Executive Director reviewing the future programmes of activities in the field of industrial development of the United Nations system of organizations (document ID/B/25);

c) A note on the implementation of the request by the Industrial Development Board to submit to its second session an analytical report on the activities of the United Nations system of organizations in the field of industrial development (document ID/B/24).

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<sup>1/</sup> Printed as General Assembly Official Records: Twenty-second session, Supplement No. 15 (A/6715/Rev.1)



Item 7. Programme of work of UNIDO for 1968 and 1969

In compliance with Resolution ID/B/RES/1 (I) on the future programme of work and activities of UNIDO, the Board will have before it the reports of the Executive Director on the programme of work of UNIDO in 1968 and 1969.

The programme for 1968 is contained in document ID/B/20/Rev.1 and Addendum 1. The programme for 1969 is contained in document ID/B/26. It contains as an addendum a report by the Executive Director on the implementation of Resolution 2299 (XXII) by the General Assembly whereby the responsibilities for the programming of the Technical Assistance Regular Programme in industry were transferred from the UNDP Governing Council to the Industrial Development Board.

Item 8. Co-ordination of activities of the United Nations system of organisations in the field of industrial development

According to the view expressed by the Board at its first session (E/4385, para.237), the Executive Director submits:

- a) A note on the central role of UNIDO in the co-ordination of activities of the United Nations system in the field of industrial development (document ID/B/27);
- b) A report on the promotion of field operations at regional, sub-regional and country levels (document ID/B/28).

Item 9. Draft estimates of expenditures for 1969 and other financial questions

a) In accordance with Rule 31, Paragraph 4, of the Rules of Procedure, document ID/B/29 containing the estimates of expenditure of UNIDO for 1969 is submitted to the Board.

b) The Executive Director also submits under this item, in accordance with a request of the Board at its first session (document E/4385, para.306) a note on "The procedures and guidelines for the utilisation of funds for operational activities to be derived from voluntary contributions to UNIDO under paragraph 23 of General Assembly Resolution 2152 (XXI)". (Document ID/B/30).

Item 10. Organizational matters

An outline and chart of the current organization of UNIDO (document ID/B/34) is submitted to the Board. This document contains the main features of administrative developments planned for 1968.

Item 11. Questions of non-governmental organizations

a) Consideration of procedures for UNIDO relationship with international non-governmental organizations: At its first session the Board decided to include in the agenda of its second session an item on procedures for admitting international non-governmental organizations as observers, based on the experience of United Nations organizations (E/4385, paragraph 316). It was proposed that in this connexion the secretariat prepare a note on this subject. Following this proposal a note is submitted to the Board as document ID/B/31.

b) Consideration of applications of international non-governmental organizations: Applications have been received from the following international non-governmental organizations:

- i) International Confederation of Christian Trade Unions
- ii) International Christian Union of Business Executives

Moreover, at the first session of the Board, the application of the European Centre of Industrial and Overseas Development (CEDIMOM) was examined and the decision deferred to the next session pending receipt of further information (document E/4385, paragraph 313).

The above applications are submitted to the Board as document ID/B/32, which also contains information received from CEDIMOM.

Item 12. Provisional agenda for the third session (Rule 9 of the Rules of Procedure)

Item 13. Date and place of the third session of the Industrial Development Board (Rule 7 of the Rules of Procedure).

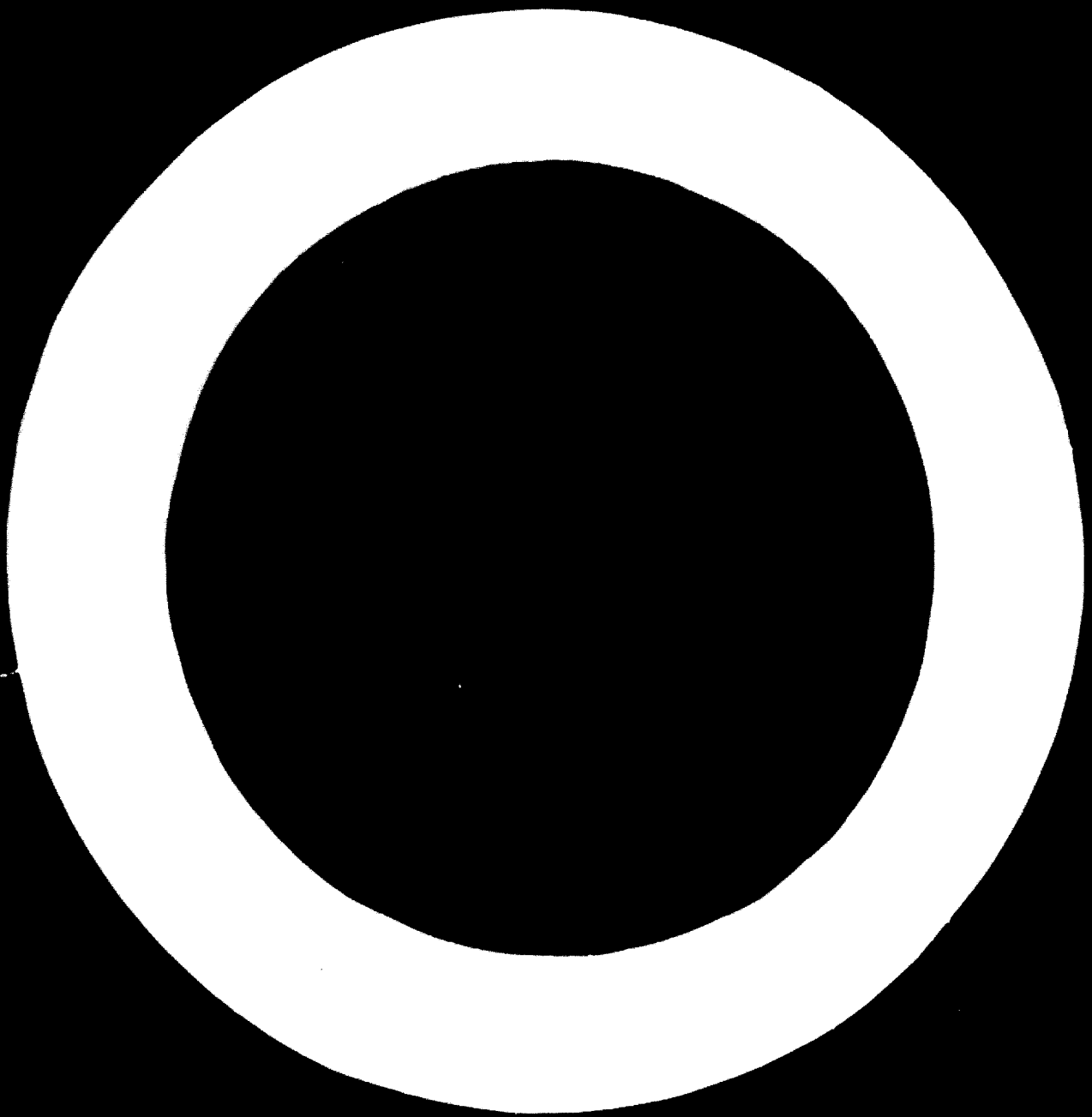
**Item 14. Other business**

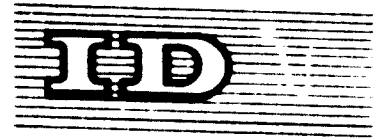
**Relations with inter-governmental organizations:** Since the first session of the Board, which adopted the provisional agenda for the second session, the secretariat has received requests from the following inter-governmental organizations to be associated with UNIDO activities:

- i) **Comité Permanent Consultatif du Maghreb** (Permanent Consultative Committee of the Maghreb)
- ii) **Commission Internationale des Industries Agricoles et Alimentaires** (International Agriculture and Food Industries Commission)

These applications are contained in document ID/B/33 submitted to the Board for its consideration in accordance with Rule 75 of the Rules of Procedure.

**Item 15. Adoption of the report to the twenty-third session of the General Assembly as required by General Assembly Resolution 2152 (XXI) of 17 November 1966.**





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## Industrial Development Board

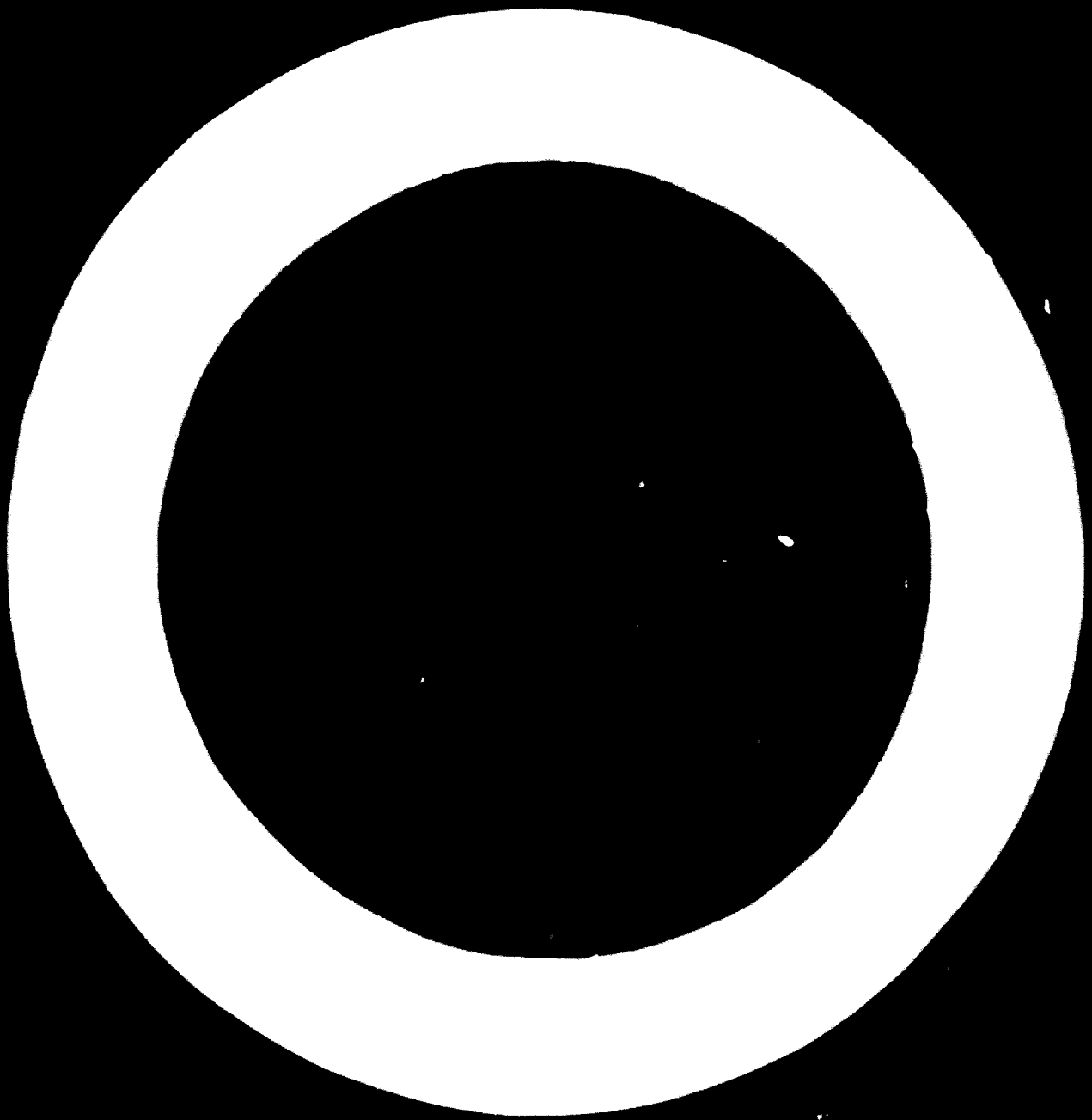
Second Session

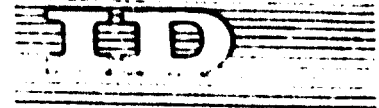
Vienna, 17 April - 14 May 1968

### ADDENDUM TO ANNOTATED PROVISIONAL AGENDA

With reference to the Annotated Provisional Agenda of the Second Session of the Industrial Development Board (ID/B/19) some material was prepared and issued as separate addenda to the documents enumerated in the Annotated Provisional Agenda, as follows:

- ID/B/21/Add.I
- ID/B/23/Add.I
- ID/B/26/Add.II
- ID/B/26/Add.III
- Participants and Staff of the Industrial Promotion Service
- Index to projects covered by the Consolidated Report
- UNIDO Regular Programme of Technical Assistance - Provisional 1969 Draft Programme
- Establishment of UNIDO International Industrial Institutions





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United Nations Industrial Development Organization

## Industrial Development Board

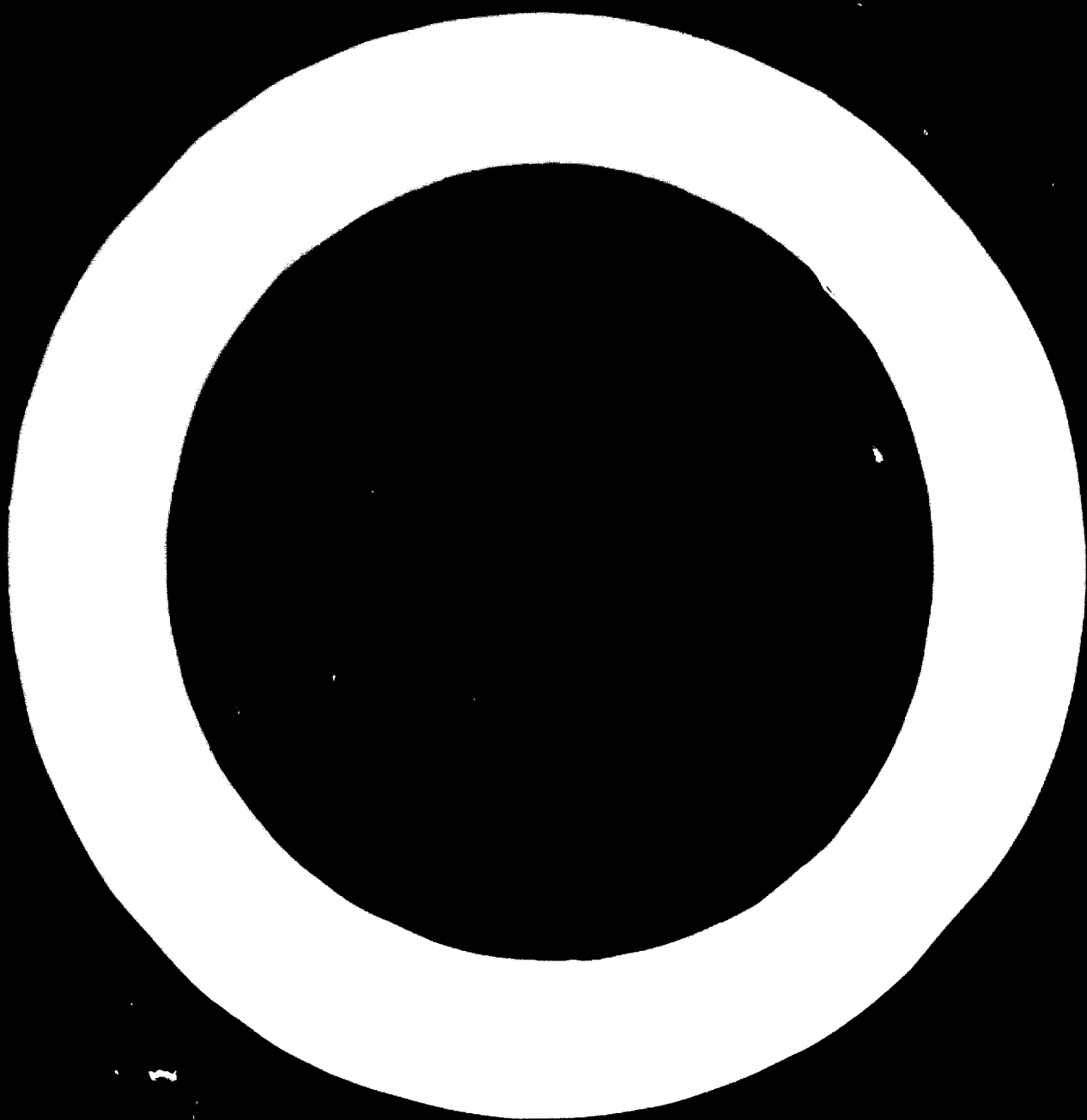
Second Session

Vienna, 17 April - 14 May 1963

### Agenda of the Session\*

1. Opening of the session
2. Election of officers
3. Adoption of the agenda
4. Report on activities of the Secretariat of UNIDO in 1962
5. Report of the International Symposium on Industrial Development
6. Review of activities of the United Nations system of organizations in the field of industrial development
7. Programme of work of UNIDO for 1963 and 1964
8. Co-ordination of activities of the United Nations system of organizations in the field of industrial development
9. Draft estimates of expenditures for 1964 and other financial questions
10. Organizational matters
11. Questions of non-governmental organizations
  - a) Procedures for UNIDO relationship with international non-governmental organizations
  - b) Consideration of applications
12. Provisional agenda for the third session (Rule 9 of the Rules of Procedure)
13. Date and place of the third session of the Industrial Development Board (Rule 7 of the Rules of Procedure)
14. Other business
  - Relations with inter-governmental organizations
15. Adoption of the report of the Second Session

\* Adopted at the 41st meeting of the Session, 13 April 1963







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INDUSTRIAL DEVELOPMENT BOARD  
Second session  
Vienna, 6 April-3 May 1968

PROGRAMME OF WORK OF UNIDO FOR 1968

UNIDO Work Programme for 1968  
Submitted by the Executive Director to the Industrial  
Development Board, Second Session

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## INTRODUCTION

1. The present work Programme is admitted in response to resolution ID/B/RES/1 (I) (see annex VI) approved by the Industrial Development Board at its first meeting in May, 1967.
2. The guidelines for the UNIDO work programme established by the Industrial Development Board put the emphasis on operational activities in the field and on the expediting of implementation of already approved projects; they recommended that the related activities in the form of expert meetings, seminars and workshops and supporting studies and research be action oriented and correspond to the needs of the field. It was further recommended that the Programme have a dynamic content fit corresponding to the operational function of UNIDO and its central coordinating role in the field of industrial development, in particular, that the field operations and supporting activities provide an impact and leverage effect on the implementation of industrial projects in the countries involving the least amount of direct resources. Finally, it was considered that information on the activities of UNIDO be given wide diffusion and brought to the attention of Governments and developing countries so as to induce them to make the widest use of the facilities offered by the UNIDO Programme.
3. It was further requested that the work Programme be presented in a form that should enable the Board to get an overall view in terms of budgetary implications, of the activities of UNIDO.
4. The functions entrusted to UNIDO involve substantially the following activities: (1) field assistance to Governments upon their request, in the form of expert services, fellowships and equipment; this assistance to be financed from the resources of the various United Nations technical assistance Programmes; the direct support of these activities is provided by the staff of the relevant departments and units of UNIDO headquarters; (2) experts meetings, seminars and workshops, designed to give further background support to field assistance through dissemination, analysis and dissemination of information and know-how; this to be financed either from the resources of the technical assistance Programme or from other United Nations or other UNIDO sources; and (3) research, surveys and studies to be financed from the technical assistance Programme and financial contributions from other sources.

5. The attention of the Board may be drawn to a certain number of factors that had to be taken into account in the preparation of this Programme. In 1967, the first year of the establishment of UNIDO, the new organization had to contend with a number of major organizational problems: first, the establishment of the new autonomous organization which implied the setting up of a new administrative and managerial machinery for services formerly provided by the United Nations Secretariat; second, the physical move of the UNIDO facilities to Vienna, which involved a certain degree of dislocation of its facilities, primarily because of loss of personnel that was unable, for a variety of reasons, to share in the move; and third, the additional claims on the Secretariat resources in connexion with the organization of the International Symposium on Industrial Development scheduled to be held in Athens at the end of the year.

6. As regards the operational Programmes, because of the programming procedures, a number of projects in the industrial field were taken over by UNIDO in an already committed form for implementation in 1967, and many of these projects will be carried over into 1968. This is particularly the case for field projects under the UNDP Technical Assistance Programme, formerly EPTA, which has been approved in 1966 for the biennium 1967-1968. The projects approved under the Regular Programme for implementation in 1968 were also already established by early 1967. Likewise at the time of the initiation of the activities of UNIDO in January 1967 there were in the pipeline of the former Centre for Industrial Development eighteen Special Fund projects in the field of industrial development, that were taken over by UNIDO as executing and participating agency. Under the circumstances the largest component of UNIDO technical co-operation activities to be implemented in 1968 results from Programmes in existence prior to the establishment of UNIDO. In addition to new projects that may be expected in 1968 under the contingency allocation and possibly the UNDP Special Fund Programme, only the Programme of Special Industrial Services is likely to be a major source of new projects for implementation in 1968. In the implementation of the field Programmes in 1968 as well as in the programming of operational activities for the succeeding years, full account will be taken of the recommendations of the Board.<sup>1/</sup>

<sup>1/</sup> It is expected that by the end of 1967 UNIDO will have taken over full responsibilities for implementation and programming of the technical assistance operations in industry from the United Nations Department of Economic and Social Affairs.

7. It is expected that 1968 will be another transitional year. Allowance will have to be made for a certain degree of adjustment involved in the transfer of the operations of UNIDO to its new headquarters; the considerable turnover in staff resulting from the transfer and the serious recruitment problems involved in the filling of vacancies in the professional staff category in a field where the market situation in personnel is extremely tight. As a result, the implementation of the Programme of work in 1968 will have to be built up gradually as new staff is being recruited and is getting familiarized with their work; as necessary contacts with Governments, industry and professional associations are being established and developed; and as the operational Programme is gaining momentum as a result of the promotional activities of the organization. The Programme presented in this document should be considered in this perspective.
8. The Programme of work presented in this document has been established on the basis of information available to the Secretariat at the time of its preparation in August 1967. The drafting of the present Programme reflects the preoccupation of providing it with a certain amount of flexibility so as to allow for necessary adjustments as the circumstances warrant. New operational projects, particularly under the Special Industrial Services Programme, will continue to come in during the year and it is also expected that a certain number of projects under the Special Fund now in the process of discussions with the Governments concerned will come up in the meantime. The Programmes of supporting activities are also likely to be affected by the recommendations of the International Symposium for Industrial Development.
9. A few remarks appear to be in order concerning the co-operation and co-ordination of the activities of UNIDO in the field of industrial development with those of the other bodies and organizations of the United Nations family.
10. There is close co-operation and consultation with the secretariats of the regional economic commissions as regards activities of UNIDO in the respective regions. A number of meetings and research projects are being implemented at the present time and planned for implementation in 1968 jointly with the Industrial Development units of the secretariats of the regional commissions and the United Nations Economic and Social Office in Beirut.
11. As regards the co-operation with and co-ordination of activities of the industrial sector, it should be pointed out that no industrial sector operates

as a self-sustained unit which is independent from the rest of the industrial economy. It is essential that proper linkages be established with both the preceding and succeeding stages of industrial activities since products of one sector represent in many cases inputs into another, and the proper operation of any industrial activity is conditioned by that of the other related sectors.

12. There is a certain number of areas in the field of industrial development in which some specialized agencies, in particular, FAO and ILO, have established activities in which they have engaged for some time; such as pulp and paper, forest and food processing industries, as regards FAO, and training and management, as regards the ILO and, to some extent, UNESCO. These agencies have acquired a certain amount of experience in the conduct and implementation of field projects and supporting studies in those areas. UNIDO recognizes the value of this experience and is ready to co-operate with these agencies in the fields of common interest. At the same time, UNIDO has definite responsibilities over the entire field of industrial development under its established terms of reference which provide it, in particular, with a central role in this field.

13. In operational terms, the central role function implies that even in those sectors in which some of the specialized agencies have been maintaining operational and related support activities, UNIDO must comply with its responsibility for assisting Governments in the over-all programming of their industrial activities, which involves in particular the proper integration of these sectors into the general industrial structure, referred to earlier.

14. In the field of co-operation with the specialized agencies there is also considerable room for complementary Programmes. As an example, in the case of fertilizers, it is envisaged to develop a co-ordinated work Programme of FAO and UNIDO, under which the first organization would deal with the agricultural aspects of the input of fertilizers, and UNIDO with the industrial aspects of promotion and establishment of fertilizer industries in the developing countries. The same applies in food processing where FAO would be involved in promotion of production of the agricultural raw materials, and UNIDO in the industrial and engineering aspects of their processing. The co-operation with UNCTAD in the field of export promotion of manufactured goods is based on similar complementary arrangements.

15. Consultations have been initiated with the specialized agencies concerned on the development of inter-agency arrangements, with the participation of the UNDP, for the periodic review and evaluation of the technical assistance Programmes in the field of industrial development on a region-by-region or country-by-country approach. The purpose of this mechanism would be to facilitate concerted action in the field and to harmonize in the long run, and in accordance with the countries' development plans, all the technical co-operation activities related to industrialization.

16. These consultations also cover the establishment of formal inter-agency arrangements for reviewing matters of mutual interest including further development of mutual exchange of information through existing procedures such as the Consolidated Report and the possibility of broadening the scope of these procedures so as to include information on future Programmes and the preparation of analytical reports on activities related to industrial development, as recommended by the Industrial Development Board.

17. Following the recommendation of the first session of the Industrial Development Board to strengthen the links of UNIDO with the field, a certain number of field advisers will be posted in 1968 in selected countries of the four regions, Africa, Asia and the Far East, Middle East and Latin America. These advisers will assist the Resident Representatives in the countries of the areas for which they are responsible in technical assistance matters, and facilitate the contacts of UNIDO with the government agencies or institutions responsible for industrial development and industrial establishments, both public and private. A document to be issued at a later date for information of the Board will provide the details of this operation.

18. The work Programme is presented in two parts. Part One contains a summary review of UNIDO activities programmed for 1968, in the form of synoptic tables accompanied by an explanatory text, and arranged by the various categories of industrial activities, namely, (i) Field projects, (ii) Meetings, (iii) Research and development.

Part Two contains the details of the Programme arranged by main groups of countries. The latter have been classified for that purpose into individual countries in the areas of responsibilities of the three substantive divisions



of UNIDO: the Industrial Technology Division, the Industrial Services and Institutions Division and the Industrial Policies and Programming Division (see annex V). The material under each group is preceded by a section entitled "General Remarks" which gives a general statement of the nature of the problems in the respective area and an outline of the corresponding activities of UNIDO. This is followed by a detailed description of the field projects, of the expert groups, seminars and other meetings; of the studies and other research projects; the co-operation with regional economic commissions where appropriate, and finally, a list of programmed publications.

20. Budgetary Implications of the Work Programme in terms of staff requirements are contained in annex I. Lists of Expert Group meetings; seminars; group training Programmes and workshops are given in annex II; study and research projects in annex III; and Publications in annex IV.

PART ONE: SUMMARY REVIEW OF UNIDO ACTIVITIES PROGRAMMED FOR 1968

A. Field Activities

(1) Breakdown by Programmes

21. The value of technical assistance operations in the field of industry, according to sources of funds, is shown in table 1. Differences in programming and operational patterns of the various United Nations technical co-operation Programmes prevent a precise global comparison so that the figures are presented by individual Programmes in sections A, B and C. Firm figures for 1968 could be provided only for assistance under the Regular and UNDP Technical Assistance projects which are programmed in advance. The figures for the other Programmes are estimates computed by extrapolation of past performance.

22. Total short- and medium-term assistance shown in section A, is financed under the Regular Programme, the UNDP Technical Assistance component (formerly EPTA) and Funds in Trust. This type of assistance increased from a yearly average of about \$2 million for the biennium 1963-64 to a yearly average of nearly \$4 million of approved projects for 1967-68. Within the latter biennium, the value of UNDP (TA) projects approved for 1968 is smaller than that for 1967. However, this decline is only apparent and results from the procedures used in programming of the individual years. While the Programme is approved for the biennium as a whole the funds are distributed over the two-year period in a way as to avoid unspent allocations which are not transferable so that the first year of the biennium is generally over-programmed.

23. In order to evaluate the magnitude of these Programmes in their proper perspective the value of technical assistance in industry under the Expanded and Regular Programmes should be related to the total value of assistance provided under these Programmes by the United Nations family as a whole, in all areas of assistance. Under the UNDP (TA) (formerly EPTA), the share of industry assistance for the biennium 1967-68 in the total Programme which amounted to \$172 million is approximately 10 per cent. Under the Regular Programme, which amounted in each of the years 1967 and 1968 to \$1.2 million, the share of UNIDO was approximately 1.5 per cent. In spite of the extremely small share in the volume of technical assistance provided in the past, the limited assistance resources still available to UNIDO in the industrial sector are being expanded in this field area.

24. The development of the Special Industrial Services - a Programme established in 1966 and devoted exclusively to assistance in industrial development - was the subject of a report to the first session of the Industrial Development Board.<sup>2/</sup> It was noted in that report that in addition to broadening considerably the scope of aid available for industrial development, the greater flexibility in programming and procedures of assistance offered by this Programme made it possible to comply with the special requirements of certain forms of assistance in industry. The requests for assistance approved under SIS in 1966 amounted to \$449,000. As the Programme became better known and was gaining momentum, the value of approved requests during the first seven months of 1967 reached the figure of \$1,607,175.<sup>3/</sup> On the basis of that seven-month period, the volume of approved projects for the entire year 1967 is estimated at \$1,870,000 and assuming the same rate of growth \$3,740,000 for 1968. (See section B of table 1.)

25. Under the UNDP/Special Fund component, 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 eighteen projects as participating and executing agency. The total cost of these eighteen projects amounts to \$36,163,100 which includes \$16,549,100 for the share of the United Nations and \$19,614,000 for the contributions by the assisted countries. This form of assistance is presented in section C of table 1 in terms of annual flows calculated as average annual values of the approved projects.<sup>4/</sup> On this basis the value of the projects under the Special Fund Programme was estimated at nearly \$7 million for each of the two years 1967 and 1968.<sup>5/</sup> For comparative purposes, reference is made to the United Nations expenditures actually made on the Special Fund projects under UNIDO's responsibility. Total cumulative expenditures since

<sup>2/</sup> IDB/7, Add.1-3.

<sup>3/</sup> The actual expenditures amounted to \$66,351 in 1966 and to \$403,648 in the first seven months of 1967.

<sup>4/</sup> For this purpose, the total project costs were divided by the number of years of the programmed operation from date of approval until completion of field operations.

<sup>5/</sup> Some of the projects approved in 1966 and 1967 are expected to become operational in 1967 and 1968 respectively. To the extent that the time lapse between approval and initiation of operations may be actually longer, the annual values of the projects in 1967 and 1968 are correspondingly over-estimated. At the same time, it was assumed that two projects (Algeria and Colombia) with field operations completed in 1967 will be extended in 1968 into a Phase II.

approval of the industrial projects for which CID was executing agency amounted to \$1,560,000 at the end of 1963. At the end of 1966, total cumulative expenditures had reached \$5,200,000. For 1966 they amounted to \$1,597,000. The Programme included seven projects in 1963 and nine projects in 1964, with the project in Bolivia that has subsequently been cancelled on government request and two projects which have been completed in the meantime. At the present time, UNIDO is the executing and participating agency for eighteen projects. Advanced negotiations are now in progress for the establishment of three new Special Fund projects, in Bolivia, Turkey and UAR, and the extension of two existing projects in Algeria and Colombia.

## 2. Breakdown by geographical areas

20. In view of the differences in programming procedures for the various Technical Assistance Programmes mentioned in paragraph 1 above, the review of field operations by geographical areas relates necessarily to different base years for the various Programmes. For the Regular and UNDP (TA) Programmes, the distribution by geographical areas applies to projects programmed for 1968 and for the UNDP/SF component the breakdown is based on the estimated 1968 value of the eighteen projects currently being executed. For BIS, where estimates for part of 1967 and 1968 were obtained by extrapolation of past performance, the geographical breakdown by areas was applied only to the projects on hand, that is to say projects programmed in 1966 and the first seven months of 1967. The figures of the distribution by geographical areas appear in table 2.

21. Under the Regular Programme, 35 per cent of the assistance is directed to the Americas, 20 per cent to Asia and the Far East, 15 per cent to Latin America, 10 per cent to Europe and the Middle East; 15 per cent of the Programme is unallocated. Under the UNDP (TA), formerly EPTA, 60 per cent of the assistance is directed to Asia and the Far East, 20 per cent to Latin America, 10 per cent to Europe and the Middle East, and 10 per cent is unallocated.

22. The geographical distribution of the assistance is related to the United Nations contribution to the Special Fund, which is directed to the developing countries which include the countries of the Regular Programme. In addition, the not readily

Area and 6 per cent for inter-regional projects. Under the SIS Programme, the geographical distribution of the projects approved in 1966 and the first seven months of 1967 is as follows: 53 per cent was directed to Africa, 20 per cent to Asia and the Far East, 11 per cent to Latin America and 15 per cent to Europe and the Middle East. Of the eighteen projects under the UNDP/Special Fund component, 37 per cent are in Africa, 26 per cent in Asia and the Far East, 12 per cent in Latin America and 25 per cent in Europe and the Middle East.

### 3. Breakdown by industrial activities

28. As indicated above the programmed activities of UNIDO have been classified into fourteen groups. A breakdown of the projects according to this classification is of necessity somewhat arbitrary since in a number of cases a given project may cover more than one area of activity. This applies in particular to some UNDP/Special Fund projects which cover more than one industrial sector or more than one activity (e.g., petro-chemicals and fertilizers; research and training).

29. As shown in Table 3, the funds under the SIS Programme are applied predominantly to assist individual industries. Two thirds of all projects approved from the date of initiation of this Programme through 31 July 1967, relate to this area. Because of the nature of the Programme, this may be expected to be the case also in 1968. Among individual industries, the heavy industries loom large, with nearly one third of the assistance in this area going to mechanical and electrical engineering and metallurgical industries. This is followed by chemicals and petro-chemicals (17 per cent), light industries (12.5 per cent), fertilizers (4.3 per cent) and building materials (2.6 per cent). The assistance in industrial institutions and services, including management and training, absorbs 20 per cent of the SIS funds, with nearly 14 per cent to management and training.

Fourteen per cent of SIS funds were programmed for projects in industrial planning and programming and related activities.

30. Under the earlier established Programmes (Regular, UNDP (TA) formerly EFTA, and Special Fund), the largest share is absorbed by Industrial Services and Institutions; namely, approximately 60 per cent, under the Regular Programme projects for 1968, 43 per cent under former EFTA, and 45 per cent under the UNDP/Special Fund component. This is followed by Industrial Policies and

Programming; the projects in this area absorb an almost equal share of the order of 31-32 per cent of the three Programmes (see table 3).

4. The size of the field Programmes in terms of experts and fellowships

(a) Experts

31. The number of experts and corresponding man/months under all technical assistance field projects programmed for 1968 under the various Programmes including the inter-regional projects, is as follows:

1. Regular Programme	64 experts, with a total of 502 man/months
2. UNDP (TA), including projects carried over from earlier approved Programmes and contingency allocations	160 experts, with a total of 1,200 man/months
3. UNDP/Special Fund projects	92 experts, with a total of 1,000 man/months

32. As regards SIS, it was mentioned earlier that because of the nature of this Programme, it was not possible to provide more than an extrapolated total volume of assistance for 1968. No estimate could be made of the expert component involved, particularly since the execution of the projects may require in some cases sub-contracting to consultants. By way of illustration, and as an indication of the order of magnitude, the figures below provide the information for 1966, and the first seven months of 1967:

1966	68 experts with a total of 160 man/months
1967	96 experts with a total of 265 man/months

(b) Fellowships

33. Training of nationals forms an important component of United Nations Programmes for technical assistance. It is provided by the experts in the field in the course of implementation of the projects, and by participation of nationals of the developing countries in meetings, seminars, workshops and other group activities. However, the technical assistance field projects generally contain also a provision for fellowships so as to provide the opportunity for training nationally 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:

Regular Programme	24
UNDP (TA)	155
UNDP (Special Fund)	51

34. 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, and by contingency allocations from the UNDP/Revolving Fund. The above figures also exclude regional and inter-regional projects which contain a large training component and the group training Programmes which are treated separately (see in particular Part Two, Group 10 (b)).

B. Expert group meetings, seminars, workshops and group training Programmes

35. As was mentioned above, in addition to direct field assistance provided by experts and fellowships, the Programme of UNIDO includes provision of background support to the field operations through the dissemination of information and technical know-how via expert group meetings, seminars, workshops and group training Programmes. Table 4 contains the list of these projects, the details of which are given in part II under section B under the relevant activity groups. The financial requirements for these planned activities under this heading amount to an estimated total of \$1,266,500. This amount includes \$270,000 for meetings organized in co-operation with other units of the United Nations Secretariat (e.g., UNCTAD, the United Nations Housing Centre, the Regional Economic Commissions). For details, see annex II. Against these planned requirements, an amount of \$172,000 is programmed under the UNDP (TA) and Regular Programmes as Category I projects, and an amount of \$99,500 has been programmed from the UNIDO regular budget to cover travel and subsistence of experts attending these meetings. There is thus a substantial gap between the planned requirements for Programme load and the available funds, even assuming that the funds under the Category II projects will materialize in the course of the year. It is hoped that additional sources of finance will be found to close or at least to reduce this gap.

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36. A distribution of the expert group meetings, seminars, group training programmes and workshops by industrial activity and sources of financing indicates that the Industrial Services and Institutions Division with \$656,000 amount to more than half of total projects (\$1,266,500). The share of the Industrial Services and Institutions Section is large because it includes the In-Plant Group training programmes at an estimated total cost of \$343,000, with \$125,000 for technical assistance funds, Cat. I, \$130,000 Cat. II and \$88,000 envisaged to be forthcoming from technical assistance funds not yet specified.

C. Research, surveys and studies and publications

37. 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 studies and research are undertaken by the regular staff, assisted in a number of cases by consultants, who are experts in their specific fields. The total amount of funds programmed for 1968 in the UNIDO budget to provide for consultants and experts under this category is estimated at \$290,000 (at the same level as in 1967). The amount programmed in 1968 for printed publications (sales items) is \$178,050. In addition, a number of published documents will be processed internally. Table 5 gives a summary of the 1968 budget of consultants and publications by activities. A detailed presentation is given in part II, under sections D and E of the relevant groups.



Table 1. Value of Technical Assistance in Industry under the various Programmes, 1963-1968  
(in 1,000 US dollars)

	1963	1964	1965	1966	1967	1968
	Expenditures				Approved projects	
<b>Section A.</b>						
Regular Programme	546	538	850	888	1,053	1,049
UNDP(TA) (formerly EPTA)	1,254	1,599	1,472	2,142	2,927	2,230
Funds in Trust	63	100	186	175	300 <sup>a/</sup>	300 <sup>a/</sup>
Total	1,863	2,237	2,508	3,205	4,280	3,579
Approved projects						
<b>Section B.</b>						
Special Industrial Services	-	-	-	449 <sup>b/</sup>	1,870 <sup>a/</sup>	3,740 <sup>a/</sup>
Average annual value of approved projects						
<b>Section C.</b>						
UNDP/Special Fund Projects	2,116	2,636	3,761	5,804	6,950	6,950

Sources and Notes:

Regular Programme; UNDP(TA); and Funds in Trust; Expenditures compiled from ID/B/3/Add.2 and DP/RP/3/Add.1; Approved projects compiled from DP/RP/3/Add.2; DP/TA/L.5, parts I and II and DP/TA/L.12.

Special Industrial Services: 1966 approved projects represent the projects established during the first year of the Programme (see ID/B/7). The value of approved projects for 1967 is estimated on the rate of growth observed during 1966 and the first seven months of 1967. It is assumed that in 1968 the value of approved SIS projects will be double that of 1967.

UNDP/SF: Total cost, comprising Governing Council earmarkings and contributions of the assisted countries, compiled from DP/SF reports, Series B, No. 4, divided by total number of years from date of approval until completion of field operations.

a/ Extrapolated.

b/ = \$60,351 actual expenditures.

Table 2. Value of Technical Assistance in Industry by Geographical Areas

Geographical area and type of projects	Regular Approved for 1968	UNDP (TA) Approved for 1968	SIS projects Approved 1966 and Jan.-July 1967	UNDP/SF Annual average value of 18 proj.
	1,000 \$ = (%)	1,000 \$ = (%)	1,000 \$ = (%)	1,000 \$ = (%)
<b>AFRICA</b>				
Countries	254.4 (24.2)	493.6 (22.1)	852.0 (53.1)	2,204 (31.8)
Regional	115.0 (11.0)	- (-)	- (-)	350 (5.0)
<b>ASIA AND THE FAR EAST</b>				
Countries	123.3 (11.7)	754.1 (33.8)	315.3 (19.6)	1,813 (26.1)
Regional	125.0 (11.9)	32.0 (1.4)	- (-)	- (-)
<b>LATIN AMERICA</b>				
Countries	60.7 (5.8)	405.4 (18.2)	181.6 (11.3)	343 (4.9)
Regional	99.9 (9.6)	37.2 (1.7)	- (-)	510 (7.3)
<b>EUROPE AND MIDDLE EAST</b>				
Countries	101.4 (9.6)	373.1 (16.7)	246.3 (15.3)	1,731 (24.9)
Regional	20.0 (1.9)	- (-)	- (-)	- (-)
<b>INTERREGIONAL</b>	150.0 (14.3)	135.0 (6.1)	12.0 (0.7)	- (-)
<b>Total</b>	1,049.7 (100.0)	2,230.4 (100.0)	1,607.2* (100.0)	6,951 (100.0)

Source: See table 1.

\* - The value of approved projects amounted to \$449,140 in 1966 and \$1,158,035 during 1 January to 31 July of 1967. For reasons explained in the text, the geographical breakdown is based on the projects actually approved, and not on the extrapolations.

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Table 3. Value of Technical Assistance in Industry (Country Projects) by Industrial Activities  
(in percentages)

Industrial activities	Regular approved for 1968	UNDP (TA) approved for 1968	SIS projects approved 1966 Jan.-July '67	UNDP/SP Annual average value of 18 projects
<b>Technological Division</b>				
1. Engineering	-	6.7	13.8	5.4
2. Metallurgical	1.1	6.1	15.2	-
3. Construction	-	1.2	2.6	-
4. Chemicals, Petro-chemicals, etc.	0.3	8.4	17.2	13.1
5. Fertilizer	-	-	4.3	6.7
6. Light industries	8.1	3.4	12.5	-
1 - 6	9.5	25.8	65.6	25.2
<b>Industrial Services and Institutions</b>				
7. Industrial legislation	-	1.1	-	-
8. Industrial research; standardization and quality control and industrial information	10.0	5.3	1.2	34.6
9. Industrial consulting services, industrial organization and administration	-	1.4	-	-
10. Ind. management and training	20.1	26.0	13.8	-
11. Small-scale industries and industrial estates	29.6	8.8	5.1	8.1
7 - 11	59.7	42.6	20.1	42.7
<b>Industrial Policies and Programming</b>				
12. Industrial planning and programming; project formulation; industrial location and regional development	27.2	17.6	7.2	32.1
13. Investment policies; industrial investment financing; financial planning	3.6	14.0	1.9	-
14. Export promotion; development of export oriented industries	-	-	5.2	-
12 - 14	30.8	31.6	14.3	32.1
TOTAL	100.0	100.0	100.0	100.0
In 1,000 \$	539.8	2,026.2	1,607.0	6,950.0

Sources: See table 1.

Note: The total values for Regular (\$539,800) and UNDP (TA) (\$2,026,200) relate to direct field assistance in country projects and therefore differ from the totals in tables 1 and 2 which include regional and interregional projects.

Table 1. Expert Group Meetings, Seminars, Group Training and Workshops  
 of Industrial Activities and Sources of Financing, 1968  
 (in US dollars)

Industrial activities	Allocations from			Subject to availability of funds:			Programme load totals (1) and (2)	
	UNIDO Regular Budget	Technical Assistance Funds, Cat. I	Total (1)	UNIDO Budget	Technical Assist. Cat. II	Assist. Envi-saged Total (2)		
<b>I. Technical Division:</b>								
1. Engineering	-	-	-	8,000	-	38,000	46,000	66,000
2. Mechanical	-	-	-	-	125,000	-	125,000	125,000
3. Construction	-	20,000	20,000	-	80,000	-	80,000	100,000
4. Chemicals	10,000	4,000	14,000	5,000	40,000	-	45,000	55,000
5. Fertilizer	10,000	-	10,000	10,000	-	-	20,000	30,000
6. Light industries	16,000	-	16,000	-	-	-	-	16,000
1 - 6	52,000	24,000	76,000	33,000	245,000	58,000	336,000	392,000
<b>II. Industrial Services and Institutions Division:</b>								
7. Int. cooperation	-	11,000	11,000	-	-	-	-	11,000
8. Industrial res. institutions, information	-	12,000	12,000	-	-	-	-	12,000
9. Industrial consulting, etc.	20,000	-	20,000	12,000	-	50,000	62,000	50,000
10. Industrial ext. and training:								
(i) Group in-plant training prog.	-	125,000	125,000	-	130,000	88,000	218,000	343,000
(ii) Other projects	15,000	-	15,000	91,000	-	50,000	141,000	156,000
11. Small-scale ind.	-	-	-	2,000	-	50,000	52,000	52,000
1 - 11	45,000	143,000	188,000	105,000	130,000	238,000	473,000	656,000
<b>III. Industrial Policies and Programming Division:</b>								
12. Int. planning	14,500	-	14,500	-	2,000	16,000	18,000	32,500
13. Investment policies	18,000	-	18,000	-	-	-	-	18,000
14. Export promotion	-	-	-	16,000	-	152,000	168,000	168,000
1 - 14	32,500	-	32,500	16,000	2,000	168,000	186,000	218,500
<b>GRAND TOTAL</b>	<b>139,500</b>	<b>177,000</b>	<b>271,500</b>	<b>154,000</b>	<b>377,000</b>	<b>464,000</b>	<b>995,000</b>	<b>1,266,500</b>

Table 5. Studies by Consultants and Printing Programme, 1966

Industrial activities	Consultant studies estimated cost	Printing Programme		
		Periodicals	Other	Total
<b>I. Technological Division</b>				
1. Engineering	5,000	a/	a/	a/
2. Metallurgical	7,000	-	-	-
3. Construction	9,000	-	10,400	10,400
4. Chemicals, etc.	15,000	-	18,000	18,000
5. Fertilizer	12,500	-	12,050	12,050
6. Light industries	16,000	-	-	-
1 - 6	64,500	-	40,450	40,450
<b>II. Industrial Services and Institutions Division</b>				
7. Industrial legislation	-	-	-	-
8. Industrial research, etc.	30,000	9,200	6,500	15,700
9. Industrial consulting, e.c.	-	-	-	-
10. Industrial management, training	37,000	-	25,250	25,250
11. Small-scale ind.	25,000	-	10,900	10,900
7 - 11	92,000	9,200	42,650	51,850
<b>III. Industrial Policies and Programming Division</b>				
12. Industrial planning	54,500	21,150	64,600	85,750
13. Investment policies	11,000	-	-	-
14. Export promotion	18,500	-	-	-
12 - 14	84,000	21,150	64,600	85,750
General studies	45,000	-	-	-
<b>TOTAL</b>	<b>285,500</b>	<b>30,350</b>	<b>147,700</b>	<b>178,050</b>

a/ The report of the interregional symposium on metal working industries is approved in the 1967 printing Programme for an estimated cost of \$10,000; the completion may be delayed into 1968.

## PART TWO: DESCRIPTION OF THE PROGRAMME BY GROUPS OF ACTIVITIES

### Preliminary remarks

38. As was mentioned in the Introduction, the programmed activities of UNIDO have been classified under fourteen main groups enumerated in annex V, and an additional group for general research projects established as continuing activities.

39. It should be noted that some of the activities described under the fourteen groups may be active in two or more groups; in such a case the main component of the activity has been taken as a criterion for classification. The description of each group is preceded by general remarks on the problems involved and the corresponding activities of UNIDO. This is followed by the presentation of the Field Projects in Section A; of Expert Group meetings in Section B; of Studies and Research in Section C; and Publications in Section E. In the case of some activities a special Section D has been devoted to the aspects of co-operation with regional economic commissions.

40. In addition, the Programme includes some research activities of continuing nature relating to across the board problems; these are being carried out by two special units: the Industry Reporting Section in the Technological Division, and the Survey Section in the Policies and Programming Division.

41. The list of field projects given in Section A includes country projects only.<sup>7/</sup> These projects are presented with a brief description of the purpose, an indication of the expert and fellowship component in man/months, and total cost of the project in 1968. The corresponding data for 1967 are indicated in all cases where the activities under project cover the biennium 1967 and 1968 and when these activities are spread over a number of years (this applies to the UNDP/Special Fund projects), or for projects which were approved in 1967 with their implementation carried into 1968. Projects programmed for 1967 whose implementation was likely to have been completed before 1 January 1968 are excluded.

42. The field projects are listed by sources of finance. Projects approved under the UNDP/Special Fund sector are followed by the projects approved under the 1968 Regular Programme, the UNDP (IA) formerly EITA, and projects approved under the UNDP/Rev. Inv. Fund. A third section contains the projects under the Special

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<sup>7/</sup> The regional and interregional projects are discussed in Section B dealing with Expert Group meetings.

Industrial Services Programme (SIS). As indicated in part 1, the programming procedures for SIS and the UNDP/Revolving Fund do not permit to indicate at this moment the complete list of 1968 projects. Instead, the SIS and UNDP/Revolving Fund projects discussed in part 2 relate only to projects that had been approved by the UNDP and UNIDC as of 31 July 1967, with implementation likely to be carried into 1968. The total value of these projects is considerably lower than the 1968 estimated Programme values indicated in part 1.

43. The implementation of field projects involves activities of direct support by UNIDO staff at Headquarters. These consist in the 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. This activity absorbs a substantial part of the staff resources of the relevant substantive units.

44. The activities described in Section B (Expert Group meetings, seminars, etc.) involve, in addition to the contribution of the regular staff of UNIDO to the preparation of the meetings, expenditures which are financed either from the budget of the technical assistance Programme under the category regional and interregional projects or from the Meetings Fund under the regular budget of UNIDO. When the preparation of the documentation for the meetings requires contributions by consultants, the cost of the latter is financed from the Consultant Fund of the UNIDO budget; this would then appear as an item under Section C dealing with Studies and Research.

45. The Studies and Research projects described under Section C are implemented by regular UNIDO staff, generally with assistance of consultants. The estimated cost of the consultant services is indicated in each particular case.

46. The Publications in the 1968 work Programme relate to projects approved by the United Nations Publications Board in June 1967. The approved printing consists of Part A: Translations where required for documents printed in original language in 1967; Part B: Established periodicals and series; and Part C: Manuals, Studies and Reports. The 1968 publications Programme also contains documents to be processed internally. No estimate can be given so far of the cost of these items, some of which may be processed later as sales items.

TECHNICAL DIVISION

Group 1. Mechanical and electrical engineering industries

General remarks

47. This group includes manufacturing industries engaged in the design and production of various fabricated metal products, such as: machinery and general industrial equipment; machine tools; electrical and electronic equipment and instruments; transportation equipment, agricultural and building machinery and other equipment.

48. The principal industries included in the work Programme are the automotive equipment industry, the electrical and electronic equipment industry, the machine tool industry and the agricultural machinery and equipment industry.

49. These industries play a highly dynamic role in the industrial structure of the developing countries. In the first place, by increasing the domestic supply of capital goods (e.g., industrial equipment and machinery, transport and communication and agricultural machinery), they contribute to reducing the pressure on the balance of payments of new investments. They also provide a training ground for new industrial skills and a nucleus for the development of a number of ancillary industries (repair shops, foundries, parts, etc.).

50. Some of these industries are being established by stages; by assembly of imported spare parts which is followed by gradual replacement of imported by domestically produced parts as the engineering industry develops an increasing degree of sophistication. This is notably the case for the automotive industry.

51. In the particular case of agricultural machinery and equipment the development of this industry, as well as that of other inputs in agriculture of industrial origin (e.g. fertilizers), is linked to the problem of increasing local agricultural production in the developing countries.<sup>8/</sup>

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<sup>8/</sup> See Group 5, Fertilizer Industries. General Remarks.



A. Field activities under the various Programmes of technical assistance

1. Special Fund Projects

United Arab Republic: Engineering and Industrial Design Development Centre, Nasser City (UAR 55). 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.

The project was approved by the UNDP Governing Council in January 1967 for a duration of five years. The full cost is \$2,259,000 of which \$1,035,100 are Governing Council earmarkings and \$1,224,000 are provided by the assisted country.

	EXPERTS		FELLOWS		EQUIPMENT for 5 years
	No. and man/months				
1967	1968	1967	1968		
3/12	5/60	2/12	2/24		\$186,000

2. Regular Programme; UNDP (TA) and UNDP/Revolving Fund

Asia and the Far East:

Indonesia. UNDP (TA); P.S. No. 43/57. Expert to assist the Government in the field of production engineering and maintenance of engineering plants.

	EXPERTS		FELLOWS		COST	
	No. and man/months					
1967	1968	1967	1968	1967	1968	
1/6	1/12	-	-	\$8,000	\$17,000	

Iran. UNDP (TA) P.S. No. 220/57: Expert on electronics to assist in over-all industrial development in the industrial research and development centre.

	EXPERTS		FELLOWS		COST	
	No. and man/months					
1967	1968	1967	1968	1967	1968	
-	1/6	-	-	-	\$14,000	

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Iran. UNDP (TA) P.S. No. 220/57. Mechanical engineering expert to select industries for development planning by the industrial development research centre.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/12	1/6	-	-	\$22,000	\$11,000

Korea. UNDP (TA) P.S. No. 60/57. Expert on metal forming and finishing for technical problem analysis and corrective action to improve various phases of metal production.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/12	-	-	-	\$12,000

Philippines. UNDP (TA) P.S. No. 79/57. Steel industry adviser for surveys on possibility of establishing subsidiary industries, based on the output of domestic steel plant.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/12	1/12	-	-	\$22,000	\$22,000

Singapore. UNDP (TA) P.S. No. 264/61. Industrial Economist to develop light engineering industries with special emphasis on establishment of bicycle-manufacturing factory.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/6	1/12	-	-	\$22,000	\$22,000

Singapore. UNDP (TA) P.S. No. 264/61. Expert to advise and assist in drawing up a development plan for the diversification of steel products industry.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/6	-	-	-	\$14,000

Singapore. UNDP/Revolving Fund 26/66. Extension of the Building Hardware Adviser, who has been in the field under the UNDP (TA) since March 1966.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
(1/9)	1/9	-	-	**	\$22,800

\*\* charged to previous programme

Latin America

Chile. UNDP (TA) P.S. No. 130-57. Machine tool expert for the local manufacture of equipment and spare parts to be used in the mining, chemical, steel and petrochemical industries.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/12	-	-	\$11,000	\$22,000

Chile. UNDP (TA) P.S. No. 130-57. Boiler plate specialist for local manufacturing of boiler equipment.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/6	11/12	-	-	\$11,000	\$22,000

Chile. UNDP (TA) P.S. No. 111-57. Expert to promote marketing of boiler plate products and machine tools as a follow-up of recommendations made by a 1966 technical assistance mission in the engineering industry.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/6	-	-	-	\$11,000

Mexico. UNDP (TA) P.S. No. 190-65. Expert to formulate specific projects to be submitted to potential investors in the field of electric generators.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/12	-	-	-	\$22,000

Peru. UNDP (TA) P.S. No. 195-57. Engineer to explore establishment of new industries in the automotive field, for local market and ALAIC possibilities.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/3	-	-	-	\$5,500

Europe and Middle East

Malta. UNDP (TA) P.S. No. 124-67. Engineer to assist manufacture of industrial components and identification of potential assembly industries.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/3	-	-	-	\$5,400

3. Special Industrial Services Programme (SIS)

Africa

Algeria. SIS 67/68. Hardware specialist to advise the management of the lock factory "Serrurerie Chaabia" on streamlining of the production process.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/6	-	-	-	\$14,000

Tunisia. SIS 67/74. Production Engineering expert to assist in the selection of equipment for the Société de Fonderie et de Mécanique (SOFOMECA) and to advise on production and industrial management.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/6	-	-	-	\$14,000	-

Asia and the Far East

Iran. SIS 67/58. Expert for the railroad workshops in Teheran to assist in reviewing the present operation of the workshop, ascertaining the existing unused capacities for repairing and maintaining existing rolling stock and building up of additional freights and passenger-car capacity.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/3	-	-	-	\$6,000

Europe and Middle East

Bulgaria. SIS 66/36. A team of six highly specialized experts for assistance to the Research Institute for Instruments Design.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	6/19.5	-	-	-	\$11,000

Israel. SIS 67/52. Team of experts in selected fields of specialization in the metal-working industries (ferrous casting, tool and die-making; conveying and hoisting equipment; automotive parts production and automation to assist the Government in solving problems arising out of the change in structure of these industries towards export-orientation.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
5/18	-	-	-	\$71,000	-

B. Expert group meetings; seminars; group training and workshops

52. The following meetings are planned for 1968:

1. A Group of Experts on the Design, Manufacture and Utilization of Dies and Jigs. This project is planned following the recommendations made at the Metalworking Symposium held in the USSR in 1966 and deals with a subject of considerable importance for the development of metalworking industries. The background documentation to be assembled for this meeting will be issued as a Manual to develop and support operational and training activities in this area.

Estimated cost of the meeting: \$10,000.

It is tentatively considered that this meeting will be financed from technical assistance Programme funds under the USSR contribution.

2. An Expert Group on the Status of Technology in the Electric and Electronic Industries with recommendations for applications to the developing countries.

Estimated cost of the meeting: \$8,000, to be financed, subject to availability of funds, under the UNIDO Budget.

3. A Seminar on the Automotive Industry in Developing Countries is planned in Latin America in co-operation with ECLA. In a number of developing countries in Latin America this industry is already well established beyond the assembly stage and includes production of parts. The purpose of the Seminar is to assist the developing countries of the area in identifying and solving the technological, economic and financing problems connected with the establishment and development of this industry.

Estimated cost of the meeting: \$48,000.

The Seminar is proposed for financing under technical assistance Programme funds as a regional project.

C. Studies and research

53. These consist in the preparation of the documentation for the meetings above as follows:

1. Design, Manufacture and Utilization of Dies and Jigs. The background documentation will be prepared in 1968 by consultants at an estimated cost of \$5,000.

2. Status of Technology in the Electric and Electronic Industries. The preparation of the background documentation which was started in 1967 will continue in 1968. No new consultant funds are required.

3. Seminar on the Automotive Industries in Developing Countries (in co-operation with ECLA). The documentation for this meeting will be prepared by ECLA secretariat in consultation with UNIDO. No consultant costs are involved for UNIDO.

D. Co-operation with the Regional Economic Commissions

54. The Regional Symposia on Industrial Development<sup>2/</sup> have recommended the following research projects in this area:

Africa A study on problems and possibilities for standardization, on a regional basis, for important aspects of the design and utilization of the rolling stock.

Asia Feasibility studies for investigation and implementation of engineering industry projects, with the assistance of various United Nations organizations.

<sup>2/</sup> Report of the Symposium on Industrial Development in Africa, January 1966, E/CN.14/347-E/CN.14/AS/VI/7, Report of the Asian Conference on Industrialization, December 1965, E/CN.11/719, and the Report of the Symposium on Industrial Development in Latin America, Santiago, Chile, March 1966.

Latin  
America

Studies of the metal-transforming sector with the purpose of identifying the various aspects of the obstacles to its development; the corrective measures that should be adopted and the prospects for its expansion as regards the opportunities afforded by the domestic market and those of an integrated regional market.

55. UNIDO is in contact with the secretariats of the Regional Economic Commissions, and its staff is available for consultation and comments in connexion with the preparation of these studies. As mentioned above, UNIDO is also co-operating with ECLA in the preparation of the Seminar on the Automotive Industry.

E. Publications

56. The publications Programme for 1968 relates to studies and reports already completed in preceding years, as well as to support activities undertaken in 1968.

57. The "Development of the Metalworking Industries in the Developing Countries", report by the participants of the United Nations Inter-regional Symposium on the Development of Metalworking Industries, held in Moscow in September/October 1966, is likely to be issued in 1968. The printing of the report as a sales item at an estimated cost of \$10,000 and approved in the 1967 publications programme, may be delayed into 1968. Likewise, the Report of the Group of Experts Meeting on Maintenance and Repair of Industrial Equipment scheduled to be issued in 1967, is expected to be delayed into 1968. This Report is to be processed internally.

58. Operational Manuals on Design, Manufacture and Utilization of Dies and Jigs and on Status of Technology in the Electric and Electronic Industries will be published in connexion with the Experts Groups scheduled to meet in 1968 on these subjects. Both manuals are to be processed internally.



Group 2. Metallurgical industries

General remarks

59. The work Programme in this area relates to development of iron and steel, non-ferrous metals and foundry industries in developing countries, in assisting the establishment of new facilities, expansion and modernization of existing plants; promotion of progressive methods of metal production, etc. The importance of this area lies in the fact that in many countries the development of metallurgical industries - both ferrous and non-ferrous - is linked to the commercialization of the deposits of metallic ores which have been so far exported in crude state for processing elsewhere. The development of industries of extraction and refining of metals at the point of production of the raw materials in the developing countries themselves represents an important element in the process of industrialization.

A. Field activities under the various Programmes of technical assistance

1. Regular Programme and UNDP (TA)

Asia and the Far East

Philippines. UNDP (TA); P.S. No. 79/57. Expert to investigate and test Philippine coal for use in blast furnaces and coke ovens.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/6	-	-	-	\$14,000

Singapore. UNDP (TA); P.S. No. 264/61. Foundry industry expert to advise and assist in the expansion and modernization of foundry industry in Singapore.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/12	1/3	-	-	\$22,000	\$5,500

Latin America

Uruguay. UNDP (TA); P.S. No. 483/57. Industrial Engineer to make an analysis of the non-ferrous metals and other important industries.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/6	-	-	-	\$10,800

Venezuela. Regular (ID-145). Expert to organize the in-plant training of specialists in the field of non-ferrous metallurgy.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/3	-	-	-	\$5,700

Venezuela. UNDP (TA); P.S. No. 201/57. Expert to assist in the technological development of the metals industry and to advise on technical and economic criteria for productivity investigations.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/6	1/6	-	-	\$12,600	\$12,600

2. Special Industrial Services (SIS)

Africa

Liberia. SIS 67/133. Iron and Steel Expert to be attached to a small unit in the Department of Planning and Economic Affairs to co-ordinate the work of the steel project carried out in Liberia.

In 1967, the Government was assisted under the SIS, in investigations and preparations concerning the establishment in Liberia of an integrated iron and steel industry.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/6	-	-	-	\$14,000

Middle East and Europe

Jordan. Assistance has been requested in providing the services of two experts in metallurgical engineering for a planned steel rolling mill (smelting and steel rolling). Jordan is taking initial steps in setting up facilities for the production of rolled steel products. A mill is currently being set up, which, as a first stage, will produce reinforcing bars. The steel rolling expert will be expected to supervise and direct the starting up and subsequently the routing production operations. The smelting expert will assist in setting up the smelting facilities and initiate their operation.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
2/12	1/6	-	-	\$35,000	\$12,000

B. Expert group meetings; seminars; group training workshops

60. The Second Iron and Steel Symposium is scheduled to be held during September-October 1968 in the USSR, under an agreement with the Government of the host country. The Symposium will be devoted to the techno-economic aspects of the development of iron and steel industries in the developing countries. It is envisaged that more than fifty developing countries which have expressed interest in this Symposium would attend. Approximately fifty papers will be submitted at the Symposium and the number of participants, experts and observers is expected to be about 200.

61. Funds for the Symposium in the amount of \$125,000 were approved in the UNDP (TA) Programme for 1967-68 under Category II. It is expected that this meeting will be financed under the USSR contribution.

C. Studies and research

62. Studies on the techno-economic aspects of development of iron and steel industries in developing countries. UNIDO staff will prepare some fifteen studies in this area for submission to the Symposium; this will be done in co-operation with consultants who are well-known specialists in the iron and steel industry. The cost of the studies, in the amount of \$7,000, is to be financed from UNIDO Consultant Fund.

D. Co-operation with regional economic commissions

63. The co-operation of the regional economic commissions has been enlisted in the preparation of documentation for the Second Iron and Steel Symposium; studies are to be prepared in co-operation with ECE, on "World production, market and prices of iron and steel", and "World Consumption and Resources for Steelmaking"; in co-operation with ECLA, on "The Present Status and Future of the Iron and Steel Industry of Latin American Countries"; and in co-operation with ECA, on "Present Status and Future of the Iron and Steel Industry in African Countries".

E. Publications

64. The publications Programme for 1968 relates to studies and reports of meetings completed in preceding years as well as the activities undertaken in 1968.

65. The following reports of two Expert Group meetings held in Vienna in September-October 1967 will be published in 1968: Alumina Production from Various Raw Materials, report of First Expert Consulting Group on Aluminium Industry; and Modernization and Expanding of Copper Plants, report of the First Expert Consulting Group on Copper Industry. Both reports to be processed internally.

Group 3. Construction and building materials industries

General remarks

66. Construction is one of the largest sectors of economic activity in the developing countries and represents a substantial part of investments; production of building materials and components is a closely associated activity. The activities of both industries are closely related to general economic development. In most developing countries the building materials and construction industries depend to a large extent on national Programmes of public investment in infra-structure, agriculture and industry, but there is also the problem of co-ordinating private and public construction activities. From a technical point of view a major problem in the construction industry of the developing countries is the replacement of traditional methods and processes by modern industrial methods in order to raise the productivity of the industry; in other words, by bringing about an industrialization of the construction activities.

67. The objective of the UNIDO work Programme for building materials and construction industries is to assist in the development of these sectors. This involves establishment of new facilities as well as revitalization of traditional industry; improvement of local materials and techniques; introduction of new building materials utilizing local raw materials to the maximum; standardization of products and dimensions; rationalization of building methods; typification of designs, and setting up of supporting facilities such as testing and research institutes.

A. Field activities under the various Programmes of technical assistance

1. Special Fund Project:

Bolivia. Negotiations are under way on the Government's request for assistance in the establishment of a Pilot Asbestos Processing Plant.

2. Regular Programme and INDP (TA)

Asia and Far East

Ceylon. P.S. No. 2057a. Ceramics expert to commission the ceramics factory at Piligondala. The United Nations expert provided under the 1965 EPTA has been unable to do so, due to delays in construction.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/12	1/12	-	-	\$19,000	\$19,000

Papua and New Guinea. Revolving Fund 216-67. The Government of Australia has requested the services of a building and construction materials' expert for the Territory of Papua and New Guinea.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/3	1/6	-	-	\$7,500	\$11,500

Europe

Romania. P.S. No. 134-64. Expert to advise on application of modern technology in the construction industry (mechanical and metallurgical) and the production of steel and aluminium control of laminated products, tubular material, etc.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/3	1/3	-	-	\$1,200	\$1,200

3. Special Industrial Services (SIS)

Africa

Algeria. In connexion with the reactivation of industries in SIS plants that were idle or working below capacity, the 67/88 Government requested the services of an expert to improve operation of glassware industry in Oran.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/6	-	-	-	\$14,000	-

Latin America

Dominican Republic. The Building Board project is described in Group 4 including Chemicals and Pulp and Paper.

Europe and Middle East

Malta. 67/1 67/100. Following the visit by a UNIDO inter-regional adviser, the Government requested an expert to advise on improvements in factory building methods and materials.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/2	-	-	-	\$1,800	-

B. Expert group meetings; seminars; group training and workshops

68. A Joint Programme with the United Nations Centre for Housing, Building and Planning was started in 1965. The following meetings are jointly planned for 1968, some of them in co-operation with the regional commissions.

1. An Inter-regional Seminar on the Development of Clay Building Materials Industries in Developing Countries will be held in Denmark in 1968. It will bring together thirty officials, on policy-making and technical levels, from developing countries, with experts from the clay industry to discuss the technical and economic aspects of manufacture in developing countries. The results of this meeting are also expected to provide a basis for the development of a Programme for technical assistance in this area. The expected cost is \$60,000. Provision for this Seminar, which will be financed by the Danish Government's special contribution, has been made under the UNDP (TA) Programme 1967-68, Category I.

2. Seminar on Prefabrication in the Building Industries for the Asia and Far East Region to be held, in co-operation with the United Nations Housing Centre and the ECAFE secretariat, in Denmark in 1968. The estimated cost of the meeting is \$20,000, to be financed under UNDP (TA) Programme 1967-68, Category I.

3. An Inter-regional Workshop on Administrative and Organizational Measures for Increasing Productivity in the Housing Construction and Building Materials Industries is planned to be held, in the USSR in 1968, in co-operation with the

United Nations Housing Centre and the regional commissions. The estimated cost of the meeting is \$80,000. The project is approved in the 1967-68 UNLP (TA) Programme under Category II. It is expected that it will be financed from the USSR contribution. At the two last-mentioned meetings some of the studies prepared under the joint UNIDO-United Nations Housing Centre Programme will be presented as background documents.

C. Studies and research

69. This consists of the documentation for the meetings above. Studies will also be prepared on the fabrication and use of selected building materials as follows:

1. Mineral wool, manufacture and uses: Mineral wool is an excellent thermo-insulating material and widely used in housing. It is produced from blast furnace slag or natural rock. In many countries blast furnace slag, produced as a by-product of their steel industry, is often wasted for lack of knowledge of its utilization.

2. Asbestos-cement and similar fibro-cement materials: Uses of substitutes for asbestos will be of special interest as well as the design and applications in building, in particular as roofing material.

3. Cement and gypsum: Gypsum is a raw material source for a process of cement production, where sulphuric acid is generated as a by-product. The economy of the process applies in a number of developed countries. It is particularly interesting for countries with large deposits of gypsum, lack of elemental sulphur and a large demand for sulphuric acid. Some of these countries, which have a considerable export trade in rock phosphate, should be able to upgrade their exports by converting the rock into superphosphates, for which large quantities of sulphuric acid is needed.

These documents will be prepared in 1968 by consultants in co-operation with UNIDO staff. Estimated cost = \$5,000.

D. Co-operation with the regional economic commissions

70. In addition to the joint activities above, a Survey on the Building Materials and Construction Industries will be prepared for the Seminar on Prefabrication in the Building Industries for the Asia and Far East region, in consultation with the ESCFE secretariat.



The Survey will be prepared by consultants in co-operation with UNIDO staff.  
Estimated cost = \$4,000.

E. Publications

71. Technology of Manufacturing Building Materials will be published in 1968  
(as a sales item in English, French and Spanish) at an estimated cost of \$10,400.

Group 4. Chemicals, petrochemicals and synthetics, insecticides and pesticides, pharmaceuticals and other related industries

General remarks

72. The development of these industries, which represent a highly dynamic sector in the industrial structure, is becoming a factor of increasing importance in the industrialisation of the developing countries. The coverage of this group is extremely wide and for the purpose of presentation the group is subdivided into the following subgroups:

- Basic chemicals
- Petrochemicals and synthetics
- Insecticides and pesticides
- Pharmaceuticals
- Other industries, including pulp and paper.

73. While the fertilizer industry is closely related to petrochemicals as regards production of ammonia fertilizers, it was considered more expedient to deal with that industry in a separate section, as Group 5.

74. As regards basic chemicals this area covers primarily inorganic acids, alkalis, some basic mineral salts such as sodium sulphate, sodium silicate, etc.

75. The petrochemical industry is essentially an industry of intermediates since most of its output goes into other producing sectors. In this respect it plays an important role in the industrial structure. Some of these industries are already established in many developing countries; most of them are of limited scope. Since the petrochemical industry generally requires large-scale operations it is highly cost-sensitive to scale; and as regards potential exports, it faces highly competitive international markets. It is also characterized by a rapidly changing technology resulting in a high rate of obsolescence. On the other hand, in certain cases the availability of cheap and abundant raw materials in the developing countries may be an important factor in favouring the location of these industries.

76. Thus, under favourable conditions, large units located close to the sources of oil and natural gas could produce competitively for export. Because of requirements of large-scale operation, regional co-operation in the establishment of petrochemical industry is also particularly indicated. There is, however, also some room for smaller-scale enterprises such as production of plastic products by

moulding, extrusion and other shaping processes in which imported petrochemical raw materials are used.

77. The industry of insecticides and pesticides is related in many aspects to the petrochemical industry, many of these products being based on the raw materials produced by the petrochemical industry.

78. As regards pharmaceuticals, considering the low levels of present-day production and consumption of pharmaceuticals in the developing countries, this industry represents a considerable potential for development. With the introduction of modern medical facilities, the demand for drugs is rising steeply and the pharmaceutical industry will account for a growing share in the chemical production of the developing countries. The pharmaceutical industry is for the time being mainly limited to formulating active materials imported in bulk. However, in a number of countries, there is also a backward integration of the industry into producing active material from imported intermediates.

79. In some countries advantage could be taken of the existence of traditional medicine by organizing production on modern lines and adopting proper standardization methods for use in areas where modern physical facilities have not yet been introduced. Proper screening methods might also bring to light useful preparations that could be adopted for use in modern medicine.

A. Field activities under the various Programmes of technical assistance

1. Special Fund Projects

Algeria. Industrial and Marketing Surveys on Petroleum Derivatives and Natural Gas ALG-5. The purpose of the project is to assist the Government in feasibility studies on local utilization of petroleum derivatives and natural gas, as well as the export of natural gas to ensure the fullest development of the country's agricultural mineral and industrial resources within the framework of the national economic development plan. The United Nations has supplied a team of experts and subcontracts have been awarded to consultants for the elaboration of specific aspects of the project (transportation and blueprints for the petrochemical complex).

The project was approved by the Special Fund Governing Council in June 1965 for a duration of two years. The full cost of the project is \$1,156,900, consisting of \$836,900 Governing Council earmarkings and \$320,000 contributions by the assisted country. The Plan of Operations was signed on 8 December 1965, the project became operational on 15 April 1966 and

will be completed in the first part of 1968. It is expected to be extended into Phase II.

EXPERTS		FELLOWS		EQUIPMENT
No. and man/months				
1967	1968	1967	1968	For 2 years
4/36	-	3/36	-	\$10,000

Rwanda. Pilot Plant for Industrialization and Pyrethrum Production, Mukingo RA-3. The purpose of this project is to assist the Government in the 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 preparation for its operational state, a market survey was made by a consultant and various specialized firms have been invited to submit data concerning costs of installations as well as plant size.

In conjunction with the proposed processing operations, the Government is undertaking a Programme for intensified production of pyrethrum flowers. Funds for a subcontract 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.

The project was approved by the Special Fund Governing Council in January 1966 for a duration of three years. The full cost is \$1,859,500, of which \$1,459,500 are Governing Council earmarkings and \$400,000 are provided by the assisted country.

EXPERTS		FELLOWS		EQUIPMENT
No. and man/months				
1967	1968	1967	1968	For 3 years
6/72	6/72	3/36	3/36	\$740,000

(a) Basic chemicals, petrochemicals and synthetics

1. Regular Programme and UNDP (TA)

Nigeria

Nigeria. P.S. No. 10-61. Chemical engineer to assist the Director of the Federal Institute of Industrial Research. (This expert post, which is OPEX, is described under group 2 (a).)

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
11/12	11/12	-	-	\$15,000	\$15,000

Asia

India. P.S. No. 37/57. Expert to assist in the development of polymers (including acrylics, polyimides, urethanes and systems); organic pigments and dyes.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/12	-	-	-	\$22,000

Iran. P.S. No. 220/57. Expert to develop dyestuffs industries under the current Development Plan and to prepare sectorial studies for this industry for the next Plan starting in 1968.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/3	1/3	-	-	\$5,400	\$5,400

Latin America

Bolivia. P.S. No. 114/57. Petroleum economist to establish the capacity of the national market and that of neighbouring countries, to absorb an increasing production of petroleum derivatives.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/12	1/6	-	-	\$22,000	\$11,000

Brazil. P.S. No. 27/59. Expert to assist in planning for the development of the chemical industry in the north-east region of Brazil.

Peru. P.S. No. 195/57. Expert in petrochemicals and fertilizers to prepare specific development programmes and projects for those industries that are given special consideration in the national development plan.

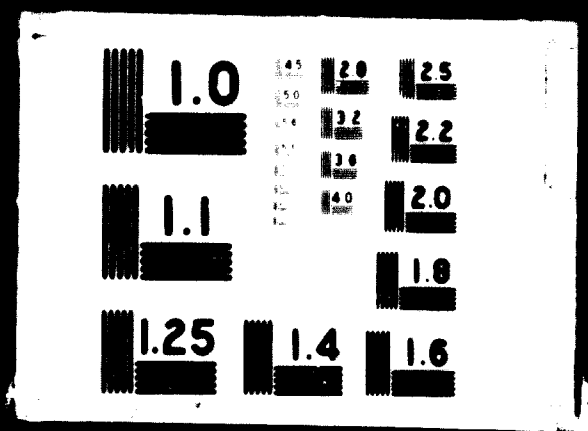
EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/4	2/8	-	-	\$7,000	\$14,600



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Middle East and Europe

Turkey. P.S. No. 277/57. Expert to assist in development of chemical and petrochemical engineering in connexion with the industrialization plans of Turkey.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/12	1/12	-	-	\$22,000	\$22,000

2. Special Industrial Services

Africa

United Arab Republic. 67/143. As a follow-up of a United Nations expert's mission to the United Arab Republic in February/March 1966 on utilization of excess chlorine, the Government requested assistance for the First Stage of Chlorine Consuming Pilot Unit, with possible development into a Special Fund project.

United Nations assistance to the Government under the SIS programme is subcontracted to an engineering firm.

	COST
Subcontract to Engineering firm	\$110,000

Asia

China. 67/120. Expert to assist the local man-made fibre industry on quality improvement and fibre-blending.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/6	-	-	-	\$15,000	-

China. 67/118. Expert to assist the Government's "Union Industrial Research Institute" (UIRI) in the improvement of production techniques and application of new technology in the field of plastics manufacture.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/4	-	-	-	\$8,000	-



Singapore. 67/130. Expert to advise the Government on the problem of industrial effluents and trade waste disposal, including air pollution. The expert will draft standards, code and enforcement of control on industrial effluents and trade waste discharges.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/6	-	-	-	\$15,000	-

(b) Insecticides and pesticides

See UNDP/Special Fund project: Pilot Plant for Industrialization and Pyrethrum Production at Mukingo in Rwanda. Described above.

(c) Pulp and paper

1. Regular Programme and UNDP (TA)

Europe and Middle East

Yugoslavia. P.S. No. 294/57. One expert in straw pulp production, a second in pulp technology (bleached and unbleached) and a third in paper coating and sizing to assist the increase in paper production by utilization of deciduous trees, maize husks, straws, reeds, sunflower stalks, etc.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
3/24	3/18	-	-	\$22,000	\$14,000
				14,000	11,000
				<u>11,000</u>	<u>14,000</u>
				\$47,000	\$39,000

2. Special Industrial Services

Africa

Nigeria. 66/11. The project, which relates to management of paper mills at Jebbar is detailed under Group 11, Industrial management and training.

United Arab Republic. 67/78. Under an earlier SIS project (SIS 66/24) a consultant firm studied the EDFU pulp and paper mill and recommended that a team of four experts be appointed to assist the Government in planning for the efficient running of the mill. The Government has requested this assistance and two fellowships under the SIS.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
4/36	-	2/9	-	\$71,200	-

Latin America

Dominican Republic. 67/146. As a follow-up to an exploratory mission undertaken by a UNIDO staff member for the evaluation of machinery and installations at the "Dominico-Suize S.A.", a Bagasse building boards factory, the Government has requested SIS assistance for a study to be undertaken by a specialized consulting engineering firm. The consultants are to prepare a complete inventory with cost estimates of required machinery and equipment; and a market study of products that can be manufactured economically in view of availability and cost of raw materials.

In the event that the study arrives at positive conclusions on the economic viability of the plant, the Government may request further assistance for a feasibility study to include additional investment requirements.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
Subcontract to consulting firm				\$20,000	-

(d) Pharmaceuticals

1. Regular Programme and UNDP (TA)

Asia

Iran. P.S. No. 220/57. Expert to advise on development of pharmaceuticals industry within the framework of current Third Development Plan, and to prepare studies on this industry in the next Plan period starting in 1968 with due consideration to Iran's commitments within the RCD (Regional Co-operation for Development) according to which Iran, Pakistan and Turkey are conducting country studies of selected industries.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/12	1/2	-	-	\$22,000	\$3,600

Middle East and Europe

Israel. P.S. No. 243/57. Experts to assist in pharmacological research, and another in the development of fermentation industry.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/12	1/12	-	-	\$22,000	\$22,000

Poland. P.S. No. 189/60. Experts to assist in development of pharmaceutical industry; there is a high priority for the development of this industry in the Polish plan for 1966-67.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/1	-	-	-	\$1,800

B. Expert group meetings; seminars, group training and workshops

Basic chemicals

80. It is expected to hold in 1968 an Expert Working Group on Modernization and Mechanization of the Salt Industries based on Seawater in the Developing Countries.

This meeting will deal with the various aspects of the manufacturing industries based on extraction of salts from seawater, including their requirements in energy and equipment, and the problem of appropriate materials of construction. The documentation submitted to and the report of the meeting will provide the developing countries concerned with the basic information on this industry, and serve for the support of technical assistance projects in this area. The cost of the meeting is estimated at \$6,000, to be financed from the UNIDO budget.

81. An Inter-regional Seminar is being planned, to be held in the USSR in the latter half of 1968, on The Manufacture and Use of Basic Chemicals in Developing Countries. Estimated cost of the meeting is \$40,000. This project is included in the UNDP (TA) 1968 Programme under Category II. It is expected that it will be financed from the USSR contribution.

Petrochemicals

82. As a sequence to the Inter-regional Petrochemical Conference held in Teheran in 1964, it is envisaged to hold a Second Petrochemical Conference on Petrochemical Industries in the Developing Countries in 1968 or 1969 to review the developments in this industry since 1964. Preparations for the meeting are in progress. The estimated cost of the meeting is \$60,000. Provision for financing of this project has been made in the UNDP (TA) Programme for 1968 under Category I. An estimated amount of \$4,000 may be spent in 1968 on preparation of the Conference.

83. An Expert Group meeting on the Development of Plastics (Polymer) Industries in the Developing Countries is planned for Vienna in 1968, subject to availability of funds. The estimated cost is \$5,000.

C. Studies and research

84. The studies to be submitted to the Working Group on Modernization and Mechanization of the Salt Industries are enumerated below. They are expected to be completed in 1967.

1. Manufacturing industries based on solar salt
2. Energy and fuel requirements and relationships
3. Machines used in the solar salt industry
4. Materials of construction in the solar salt industry
5. Regional and country studies on seawater industries.

85. In connexion with the Inter-regional Seminar on the Manufacture and Use of Basic Chemicals in the Developing Countries a series of country studies on basic chemicals is planned, on a regional basis, in co-operation with the regional commissions. Provision in the amount of \$4,000 for consultants has been made in the regular UNIDO budget.

86. A study on production, Consumption and Trade in Petrochemicals in the World is to be produced in 1968 with the assistance of consultants. The study is to be submitted to the Petrochemical Conference. The cost of the study is estimated at \$5,000 - to be provided from the regular UNIDO budget.

87. A number of studies are to be undertaken in 1968 in the area of the industries of plastics (polymers) so as to provide material for support of technical assistance activities in this field. Studies are being planned in plastics, rubbers, quality control and testing of polymers, pilot plants for the manufacture of monomers, intermediates and polymers, as well as processing of polymers. The estimated cost is \$6,000 to be financed from the regular UNIDO budget.

D. Co-operation with the regional economic commissions

88. Continuing contact is being maintained with the work of the secretariats of the regional economic commissions in this area and a certain number of studies,

some of which are to be submitted to the meetings above, are being carried out jointly with these secretariats as follows:

With ECA: Techno-Economic Studies on Rubber, Plastics and Insecticides Sector.

With ECAFE: Feasibility of Establishment of Petrochemical Complexes. Evaluation on Production and Use of Pesticides.

With ECLA: Survey on Plastics Consumption in the Region. Regional Co-operation in Pesticides Manufacture.

The regional commissions are co-operating fully in the preparation of the Second Petrochemical Conference.

#### E. Publications

89. Papers presented to the Experts Group on Modernization and Mechanization of the Salt Industries of Developing Countries based on Seawater. These documents will be processed internally.

90. Studies on the Establishment of the Plastic Industry in Developing Countries. These studies will be printed as a sales item.

## Group 5. Fertilizer Industries

### General remarks

91. The Fertilizer Industries occupy a special position in the process of industrialization in that, together with pesticides and agricultural machinery, they provide an industrial basis for modern agriculture of high productivity. Given the urgency of the problem of raising substantially the levels of agricultural output in the developing countries, in particular that of food, the availability of an adequate supply of such "industrial inputs" in agriculture is one of the most important present-day issues in the process of economic development. At the present time these needs are satisfied largely by imports; it is evident however that any substantial increase in demand arising from a drive for increased productivity in agriculture would put a considerable strain upon the balance of payments of the developing countries. The long-run solution would seem to lie in the development of such "agro-allied" industries in the developing countries themselves, at least in those countries that dispose of special advantages in this respect. Thus production of agricultural machinery would be integrated in the development plans for the countries' engineering industries, and large-scale production of fertilizers and pesticides would be undertaken by countries that dispose of cheap and abundant resources of appropriate raw materials (e.g. petroleum derivatives, phosphate deposits, etc.).

92. Together with other interested agencies, UNIDO participated in an inter-governmental meeting convened in 1967 in Rome, under the auspices of FAO, for the discussion of the Food Production Resources Programme, under which assistance would be provided to developing countries in the form of fertilizers, insecticides and agricultural machinery and other industrial inputs. Following the meeting, UNIDO contributed to the study of the proposed programme requested by the Inter-governmental Committee, as regards the industrial aspects of the programme. The study is to be submitted to the October 1967 meeting of the FAO Governing Board. UNIDO expects to continue its co-operation in 1968 in the full set-up of this programme.

93. As mentioned earlier, production of fertilizers is also related to the development of petrochemical industry. Thus, large-scale production of liquid fertilizers is related to petroleum derivatives and natural gas. It is also related

to the general problems of commercialization of mineral deposits that are abundantly available in some developing countries (e.g. phosphates), and which are now being exported in crude state. Production of fertilizers requires moreover a broadly-based basic chemical industry for the supply of these chemical inputs, in particular as regards the sulphuric and nitric acids. Thus, aside from their role in the development of agriculture, the fertilizer industries represent another dynamic element in the process of industrialization, being related on the one hand to the commercialization of domestic raw materials, and on the other hand to the parallel development of a number of complementary industries.

94. The proposed work programme is based in addition to Government requests for technical assistance in the fertilizer field, upon the recommendations of the Inter-regional Seminar on the Production of Fertilizers held in Kiev, Ukrainian SSR in 1965 (UN Publication Sales No. 66.II.B.7) and the report of the Ad Hoc Expert Group on Fertilizer Production in Countries with Natural Gas Resources, held in New York, 9 to 16 December 1966.

A. Field activities under the various programmes of technical assistance

Note: A substantial amount of exploratory and promotion work has been carried out in 1967 by UNIDO staff, which is expected to result in the establishment of projects under the various programmes and in particular the SLI in a number of countries, namely in Brazil, Cameroon, Chile, Cyprus, Ghana, Hungary, India, Iran, Israel, Jordan, Kenya, Liberia, Malagasy, Pakistan, Romania, Somalia, Sudan, Tunisia, Turkey, United Arab Republic, Uganda and Yugoslavia.

Some projects in the field of fertilizers are presented in other related sections of the programme (e.g. Group 4 - Chemicals, petrochemicals, 10/ etc; Group 13 - General planning of industries).

Pakistan. Special Fund Project PAK-26. Pre-Investment Studies for the Promotion of the Fertilizer and Petrochemical Industries.

This project aims to assist the Government in developing the fertilizer and petrochemical industries and to promote the use of fertilizer and petrochemical end products. The pre-investment studies are designed to assist the Government in their negotiations with financial institutions to obtain investments.

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10/ See, for instance, in Group 4, the UNIDO/Special Fund Project in Algeria on Industrial and Marketing Surveys on Petroleum Derivatives and Natural Gas.

The project was approved by the Special Fund Governing Council in June 1966 for a duration of three years. The full cost of the project is \$2,632,000 consisting of \$1,532,000 Governing Council earmarkings and \$830,000 contributions by the assisted country. The Plan of Operations was signed on 5 May 1967 and the project became operational on 7 June 1967.

EXPERTS		FELLOWS		EQUIPMENT
No. and man/months				
1967	1968	1967	1968	For 3 years
9/108	7/84	3/24	5/63	\$ 115,300

Israel. P.S. No. 243/57 (UNDP/TA). Fellowships for maintenance in fertilizer industry and for phosphate fertilizers.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	-	-	1/4	-	\$3,600
-	-	-	1/4	-	\$3,000

Turkey. SIS 67/51. Following an earlier exploratory mission to Turkey the Government will be provided with the services of a consulting firm to analyse tenders for two fertilizer projects designed to produce ammonia, urea, sulphuric acid, phosphoric and triple superphosphate.

Further, on the basis of these tenders, a firm is to be selected and negotiations and preparation of contract terms will be initiated.

EXPERTS		FELLOWS		COST	
no. and man/months					
1967	1968	1967	1968	1967	1968
(Sub-contract to Consultants				\$40,000)	

B. Expert group meetings; seminars; group training and workshops

a. The following meetings are planned for 1968:

1. An Ad Hoc Expert Group meeting from Fertilizer Deficit Countries.

The estimated cost is \$10,000, to be financed from the regular UNIDO budget.



4. Ad Hoc consultative panels of experts and financiers from developed and developing countries. These panels are organized with a view to promoting an interest in the development of fertilizer industries in the developing countries, and are intended to bring together the interested parties from both areas. They will be organized by regions, one each for Asia, Africa and Latin America.

The estimated cost is \$10,000 - to be financed from the regular UNIDO budget, subject to availability of funds.

5. A preparatory meeting to plan the organization of the World Fertilizer Congress, the convening of which was recommended by the Kiev Fertilizer Seminar of 1965.<sup>11/</sup> The meeting is to be held in Vienna.

The estimated cost is \$10,000. The implementation of this project is subject to availability of funds.

#### C. Studies and research

6. Preparation of a World Directory of Fertilizer Production Facilities. The preparation of this Directory is to provide information on fertilizer projects in terms of capacity, types of products, location, processes employed, etc. recommended by the Kiev Seminar.

The estimated cost of the project, to be prepared by consultants is \$5,000 - to be financed under UNIDO Budget.

#### D. Co-operation with the Regional Economic Commissions

7. The Regional Symposia on Industrial Development have recommended the following studies in the field of fertilizers:

##### In Africa

- (i) Comparative study on production of phosphatic fertilizers, using various processes
- (ii) Examination of the economic feasibility of ammonia production in countries of Africa either on a sub-regional or a regional basis compared to import of ammonia

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<sup>11/</sup> See the Report of the Kiev Seminar, United Nations Publication Sales No. 66.II.B.7.

- (iii) Studies on production of high analysis fertilizers for internal consumption and exports; on utilization of gypsum for sulphuric acid and ammonium sulphate production and on utilization of hydrochloric acid for acidulation of phosphate rock.

Middle East

- (i) Studies in potash extraction from the Dead Sea  
(ii) Feasibility studies for the manufacture and marketing of multi-nutrient fertilizers

In Latin America

Studies on the supply and demand position of fertilizers in the region and on regional planning to put the industry on an equal footing with those of the industrialized countries.

98. UNIDO will co-operate with the Regional Economic Commissions and UNESCO in the preparation of the above-mentioned studies in 1968 and the following years. An amount of \$7,500 is provided in the regular Budget of UNIDO for 1968 to assist in the cost of consultants to be employed in these projects.
99. UNIDO will also take part in the Symposium on raw materials for the fertilizer industry proposed to be organized by ECAFE in December 1967.

E. Publications

100. In 1967 the Fertilizer Manual was submitted for printing as a sales item at an estimated cost of \$19,800. It is programmed to issue in 1968 Fertilizer Technology, Production and Use at an estimated cost of \$12,050. These are the edited papers presented to the Seminar on Fertilizers held in Kiev, Ukrainian SSR, in August 1966.

101. Following the recommendation of the Kiev Seminar, endorsed by ECOSOC resolution E/RES/1179 (XLI) of 8 August 1966, a number of techno-economic studies are intended to be published. Likewise, the publication of a "World Fertilizer Report" twice a year, with information for developing countries on trends, availability of fertilizer material, prices and technology, recommended by the Kiev Seminar, has not yet been included in the 1968 publishing programme. The cost of the latter is estimated as \$12,000.

Group 6. Light industries

General remarks

102. This group covers a wide range of "light" industries producing largely consumer goods. For purposes of organization this group is subdivided into the following sub-groups:

1. textiles and clothing
2. food processing
3. tanning and leather
4. Wood-working industries.

103. The established textile industries in the developing countries face a number of problems in the areas of production, technology, management, including, in particular, cost and marketing. Since the textile factories are generally among the first industries to be established in these countries, the rehabilitation of the industry involves modernization of the existing plants, increase in scale of operations, raising operational efficiency, etc. This is particularly important to those textile industries of the developing countries that are producing or intend to produce for foreign markets, where they are exposed to international competition as regards both the quality and prices of their exports.

104. In addition to rehabilitation of the existing industries there is also the establishment of new textile industries in developing countries on the basis of domestic resources in fibres of vegetable and animal origin as well as synthetic fibres, either imported or domestically produced.

105. The textile industries in the developing countries have also to contend with technological changes in the textile industries during recent years, in particular as regards the increasing use of mixed fibre fabrics and the technological advances in the development of modern textile equipment and machinery, which tends to make modern textile industries increasingly capital intensive, where the effect of the labour component of costs is correspondingly reduced as an element of comparative advantage.

106. Industrial food processing consists of preservation of food, extraction, purification and production of food preparations; and processing low value food materials and liquids to high nutrition value products with market acceptability. Because of the nature of the manufacturing operations, the food processing industry

is closely related to the chemical process industry, the so-called unit operation involved being essentially the same. This industry has undergone in the last twenty years a vigorous development as regards engineering methods and equipment, the size of plant, efficiency and level of automation, research and use of special skills. In addition to the impact of industrial food processing on food distribution and marketing, experience has shown that it exerts a powerful stimulating effect towards increasing production of food crops and animal feeds in agriculture.

107. The activities of UNIDO in food processing covers various aspects of modernization of existing installations and establishment of new facilities in the industry. The responsibilities of UNIDO in the food processing area relate in particular to the engineering, equipment and technological aspects. They also cover over-all planning of the industry so as to achieve a proper integration of the food processing industry with and linkages to other related industrial sectors. The latter may be either suppliers of the intermediate products and other industrial inputs in this industry (e.g. chemicals) or involve supplementary activities (e.g. the development of a "cold chain" of storage and distribution). As pointed out above, UNIDO's activities in this area are in many cases complementary to those of FAO and close co-operation with FAO is envisaged.

108. As regards tanning and leather and wood products industries, UNIDO is continuing the activities of assistance to Governments in which its predecessor bodies in the United Nations have engaged for some time. Both industries involve commercialization of raw materials of animal and vegetable origin which are abundantly available in a number of developing countries and are to a large extent being exported in crude state (e.g. crude hides, forest resources). The development of domestic processing is an important contributing element to their process of industrialization of these countries. As in the case of textiles, traditional and often obsolete methods of production still prevail in these industries in a number of developing countries, and their rehabilitation through introduction of up-to-date technological and management methods is anticipated.

A. Field activities under the various programmes of technical assistance

1. Textiles and Clothing

Africa:

Morocco. UNDP (TA) P.S. No. 421/5. Textile industry expert to make an extensive survey of the technological and economic aspects of this industry and to draft the main lines for the development policy suitable for this industry.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/8	1/4	-	-	\$14,600	\$7,400

Asia:

Ceylon. UNDP (TA); P.S. No. ID-482. Textile expert attached to the Chairman of the National Textile Corporation in Colombo, will advise that Corporation on planning, erection of machinery, commissioning, achievement of production targets, production programmes, training and other technical matters.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/6	-	-	-	-	\$10,000

Ceylon. UNDP/Revolving Fund, EO-482/Rev.3. One year's extension for the services of the textile expert whose contract under the Regular Programme had expired on 30 June 1967.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/6	1/6	-	-	\$7,500	\$7,500

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Papua and New Guinea. UNDP/Revolving Fund 216/67. The Government of Australia has asked for the services of an expert in the clothing and textile industries for the industrial development in Papua and New Guinea.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/3	1/6	-	-	\$7,500	\$11,500

Latin America:

Argentina. UNDP (TA); P.S. No. 111/57. Wool technology expert to advise on research conducted by "Instituto Nacional de Tecnologia Industrial" (National Institute for Industrial Technology) for the development of national industry.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/3	-	-	-	\$5,400

Peru. UNDP (TA); P.S. 195-5. Textile industry expert for preparation of development programme and projects for this industry, which is given special consideration in the national development plan.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/3	-	-	-	\$5,500

Middle East and Europe

Spain. UNDP (TA), P.S. No. ID-506. Industrial economist to assist in the development of footwear and textile industries.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/3	-	-	-	\$5,400

Asia and the Far East:

Malaysia. SIS 67/113. Expert to study the textile industry's present and future domestic and export markets, for various types of cloth. The analysis of present and future trends of **consumption** will be used for the evaluation of prospects for the establishment of integrated textile plants.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/6	-	-	-	\$15,000	-

Mauritius. SIS 67/138. One textile technologist for jute and one marketing specialist to advise on organization, management and product range of the Government sail factory.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/6	-	-	-	\$14,000	-
1/2	-	-	-	\$ 5,000	-

2. Food processing

Africa

Sudan. UNDP (TA); P.S. No. ID-235. Vegetable Oil processing specialist to assist the Ministry of Commerce, Industry, Supply and Co-operation in the formulation of a uniform system of grading and in the standardization of oil-seeds in the Sudan.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
	1/11		-		\$70,000

Algeria. SIS 67/85; SIS 67/86

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/3	-	-	-	\$15,000	-
1/6	-	-	-	\$10,000	-

Congo-Brazzaville. SIS 67/151. Expert to advise the Government on three projects; modernization of palm oil extraction plants; establishment of palm oil refining plant; and establishment of palmetto oil extraction plant.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/4	-	-	-	\$9,000	-

Tunisia. SIS 67/73. Vegetable oil technologist to assist the Société Industrielle de Hokinine to bring the plant into high efficiency operation. He will also investigate the feasibility of processing other oil bearing fruit in order to operate the factory on a year-round basis.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/6	-	-	-	\$14,000	-

3. Tanning and leather

Africa:

Kwanda. UNDP (TA); P.S. No. 217/63. Expert to advise on development of skin production for quantitative improvement of this industry and to promote processing of skins into leather and leather products.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/12	1/12	-	-	\$22,000	\$22,000

Asia:

India. SIS 67/17. Footwear specialist to advise on the establishment of a footwear plant, operating within the scope of the State Trading Corporation of India, and primarily export-oriented, specific guidance will be provided for the preparation of a project report, including market study, choice of designs, raw material, machinery, plant location, and training of personnel and quality control.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/12	-	-	-	\$32,000	-



4. Wood-working industries

Jamaica. UNDP P.S. No. 951. Furniture production engineer to advise on modern production methods and techniques, factory layout and quality control.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/1	-	-	-	\$1,900

Bulgaria. UNDP (TA); P.S. No. 269/65. Furniture industry expert to improve production in this basic industry.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/1	-	-	-	\$1,800

B. Expert group meetings; seminars; group training and workshops

1. Textile industries

109. In implementation of resolution 1183 (XLI) of the Economic and Social Council, UNIDO plans to convene a series of expert group meetings composed of representatives of both the suppliers and users of industrial equipment from private and public sectors in various industries. These groups would engage in a systematic collection, evaluation and analysis of relevant material, with a view to establishing an advisory service in UNIDO to advise Governments of developing countries in matters relating to procurement cost and quality of industrial equipment. Two meetings in this area are planned for 1968:

(a) A meeting on problems of machinery selection in the cotton industry in developing countries to be held in Vienna. This meeting has been recommended by the Workshop on Textiles Industry held in Lodz, Poland in 1966. The estimated cost of the meeting is \$3,000 - to be financed under the regular UNIDO budget.

(b) A similar meeting on machinery selection in the wool industry. The estimated cost of the meeting is \$3,000 - to be financed under the regular UNIDO budget.

B. Food processing industries

(a) A meeting of an expert group on refrigeration techniques and equipment. The objective of the meeting is to discuss the problems relating to the engineering and technology of refrigeration from the point of view of the requirements in the developing countries. It is planned to hold this meeting in the Netherlands. The estimated cost of the meeting is \$10,000 - to be financed under the regular UNIDO budget.

C. Studies and research

110. This consists of documentation to be prepared for the three meetings above by consultants in co-operation with UNIDO staff:

1. For the meeting on selection of equipment in the cotton industry: estimated cost of consultant services - \$4,000.
2. For the meeting on selection of equipment in the wool industry: estimated cost of consultant services - \$5,000.
3. For the meeting on the technology of refrigeration: estimated cost of consultant services - \$4,000.

111. In addition, it is planned to conduct one or two studies on the planning and engineering aspects of selected food industries. Estimated cost of these studies to be carried out by consultants in co-operation with UNIDO staff - \$5,000. The estimated cost for consultants services for these studies is to be financed from the UNIDO regular budget.

D. Co-operation with the Regional Economic Commissions

112. As regards textiles, it is envisaged to co-operate, within the available resources, in the preparation by the regional secretariats of a certain number of research projects recommended by the regional symposia:

1. Feasibility studies on manufacture of readymade clothing (ECA)
2. Establishment of a Regional Textile Research Centre (ECA)
3. Guidelines for production of man-made fibres (ECA and ECAFE)
4. Feasibility study on the establishment of garment and hosiery industries (ECAF)
5. Modernization of the textile industry in Latin America (ECLA)
6. Technical aid in the textile industry (ECLA).

113. As regards food processing it is envisaged to engage within the available resources and in co-operation with FAO in the preparation of joint UNIDO-ECLA techno-economic surveys on food processing industries in Latin America; and in a study of production of fish protein concentrates in Chile and Peru; the latter, in collaboration with the respective fish research institutes at Santiago and Callao.
114. Co-operation is also envisaged with ECAFE in a study to investigate the possibility of improving the yield in rice processing through extraction-milling and production of protein-rich rice bran for human diet, with a view to developing a regional project in this area; and with ECA in organizing a joint project in cassava, millet and meat processing.

E. Publications

115. The following publications are planned for 1968:
1. Guidelines for the selection of machinery in the cotton and wool worsted industry. These guidelines are intended to be processed internally.
  2. The Manual for Engineers in the textile industry is expected to be published as No. 4 in the Training for Industrialization series, at an estimated cost of \$1,700, and it is to be issued as a sales item.

Industrial Services and Institutions Division

Group 7. Industrial legislation, patents and licensing

General remarks

116. Legislation on taxation, investment, industrial property and patents, industrial standards, licensing of technological information and know-how can stimulate industrial development and technological advancement in the developing countries.

117. General Assembly resolution 2151 (XXI) states that in the area of industrial property UNIDO undertakes "measures for the improvement of the international system of industrial property, with a view to accelerating the transfer of technical know-how to developing countries and to strengthening the role of patents consistent with national interests as an incentive to industrial innovations." In addition, resolution ID/B/RES 1 (I), para. 2 (f) sections (xiii) and (xiv) directed UNIDO to "assist in the dissemination of information on technological innovations originating in various countries and for the developing countries" and to "inform and advise on the systems of patents, industrial property and know-how". Appropriate activities in this area are planned by UNIDO under its 1968 Programme.

A. Field activities under the various Programmes of technical assistance

Africa

Lesotho. UNDP/Revolving Fund 7-05 -252. As a follow-up to a programming mission undertaken in 1966, the Government has requested the services of an industrial mining and legislation expert. (See also request for industrial adviser, under Industrial Planning and Programming.)

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/6	1/6	-	-	\$12,500	\$12,500

Asia

Singapore (P.S. No. 264-61). Taxation treaties expert to advise and assist in the preparation of agreements on avoidance of double taxation with various countries as part of Government's fiscal policy for encouraging overseas investments.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/12	1/12	-	-	\$22,000	\$22,000

B. Expert group meetings; seminars; group training and workshops

118. An advisory meeting of Experts in Industrial Patents for Developing Countries is planned for 1968. The objective of this meeting is to formulate policies of assistance to developing countries in the field of patents and licensing of industrial processes and equipment, including training of technical personnel from developing countries. Co-operation and participation of the Fiscal and Financial Branch of the United Nations Department of Economic and Social Affairs, of BIRPI and other interested agencies will be sought. It is expected that the results of this meeting will provide guidance for the shaping of the future Programme of action and technical assistance of UNIDO in this field. The estimated cost of the meeting is \$11,000. Provision for financing was made under the Regular Programme as a Category I project, (IDS-19).

C. Studies and research

119. As a continuation of previous activities, it is proposed to compile and publish information on laws and regulations affecting industry in an Industrial Legislative Series. It is not to be limited exclusively to legislation, but also to include pertinent administrative directions, executive orders and other regulations affecting the various subject categories. Co-operation and participation of other interested agencies will be sought in the preparation of material for publication.

D. -

E. Publications

120. Two issues of the Industrial Legislative Series are planned for publication in 1968.

Group 8. Industrial research, standardization and quality-control  
industrial information

General remarks

121. The promotion of industrial activities in developing countries involves the need for establishing and strengthening a certain number of essential industrial services which together provide an institutional infra-structure of the industrialization process. The activities of UNIDO in assistance in the establishment and promotion of the various services are presented under Groups 8 and 9. Group 8 covers (a) Industrial Research, (b) Standardization and Quality Control and (c) Industrial Information. Group 9 covers (a) Industrial Consulting Services and (b) Organizational and Administrative Machinery for Industrial Development.

(a) Industrial Research

122. The availability of local basic investigation and research facilities and certain technical services is an essential element in the industrialization of the developing countries. Such technical services may include development of ideas and products; adaptation of foreign technology to local conditions, exploitation and use of local materials, diagnosis of problems and solving them on the spot, pilot-plants whereby results of laboratory research are carried through to the stage of commercialization; feasibility studies, and industrial design. The base for such services is normally an industrial or technological research institute operating as a local organization and serving as a focal point to stimulate and promote technical development and respond to the requirements of the national industry. Such institutes have an element of permanence that is lacking in ad hoc research schemes and investigations and provide an appropriate framework within which foreign experts and imported know-how could be put to best use.

(b) Standardization and Quality Control

123. In the field of standardization, UNIDO is concerned with assistance to developing countries in the setting up and supporting of their national or

regional machinery for standardization activities, in co-operation with the existing international agencies in this field, namely the International Standards Organization, and the International Electro-technical Commission.

124. Closely related to standardization is the problem of quality control which is one of the major problems in the operation of industrial enterprises in the developing countries. The existing industries generally suffer from lack of uniformity in the finished products, failure to meet modern standards of quality and industrial specifications. This represents a major source of weakness particularly as regards production of manufactured goods intended for foreign markets where it is essential to meet the rigorous standards and specifications of international competition.

(c) Industrial Information

125. Industrial growth in developing countries is also dependent on access to industrial data and experiences from advanced and other developing countries. UNIDO activities in this field will be directed towards accelerating the flow of expertise and industrial information to developing areas, drawing on both the resources of industrial know-how of advanced countries, as well as on the experience of developing countries. As part of these efforts to collect, analyse and disseminate industrial knowledge and experience, attention will be paid to marshalling and disseminating the fund of knowledge in the field of industry available in the United Nations system.

126. It is planned to assign the contribution made by the Austrian Government of 5 million shillings (approximately \$200,000) towards the cost of establishing in Vienna, under the auspices of UNIDO, of a Central Industrial Information Service. This Service is intended to develop into a focal point of information on industrial processes and equipment, existing industries and new initiatives and projects in the industrial field, both in the developed and developing countries, and on industrial opportunities in the developing countries. In addition to putting at the disposal of all interested parties its facilities as a central depository of information in these areas, it will engage in various publications on ad hoc and continuing basis to disseminate essential information in the form of directories, brochures, pamphlets, newsletters, etc.

A. Field activities under the various programmes of technical assistance

Group 8 (a) Industrial Research

1. Special Fund Projects:

Africa

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		FELLOWS		EQUIPMENT
No. and man/months				For 5 years
1967	1968	1967	1968	
8/96	5/60	1/6	-	\$150,000

Asia and Far East

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 \$3,013,300, of which \$846,300 are Governing Council earmarkings and \$2,167,000 are provided by the country.

EXPERTS		FELLOWS		EQUIPMENT
No. and man/months				For 5 years
1967	1968	1967	1968	
6/72	5/50	4/24	8/72	\$260,000



Latin America

Colombia-Institute for Technological Research (COL-19). The purpose of this project is to expand the facilities of Colombia's Institute for Technological Research at Bogotá, for more effective assistance to the country's industries. The Institute provides assistance in the development of operating techniques for improved utilization of raw materials and equipment and provision of technical advice through consultation, seminars and publications. Industries covered are food, processing of agricultural products, metallurgical, mechanical and chemical.

The project was approved by the Governing Council in December 1960 for a duration of four years. The full cost of the project is \$1,071,700 of which \$558,700 are Governing Council earmarkings and \$513,000 provided by the assisted country. It is requested to extend the project upon completion of the present series of operations into a second phase.

EXPERTS		FELLOWS		EQUIPMENT
No. and man/months				For 4 years
1967	1968	1967	1968	
6/72	-	3/32	-	\$150,000

Regional: American Research Institute for Industry (ICAITI) Phase II (REG-68). The project aims at Central American regional economic integration with techno-economic studies to identify and promote industries of region-wide interest. The Institute has assisted private and public industries in the five countries (Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua) with evaluations of industrial projects involving plant expansion, processes and installations, product quality and standards, and market studies. The Institute has also established a programme in scientific and technological research for the training of young Central American professionals in specified techniques by means of practical work in industrial fields of interest for the region.

The second phase of the project was approved by the Governing Council in June 1965 for a duration of three years. The full cost of the project is \$1,539,000 of which \$832,500 are Governing Council earmarkings and \$706,500 are provided by the assisted countries.

EXPERTS		FELLOWS		EQUIPMENT
No. and man/months				For 3 years
1967	1968	1967	1968	
2/24	2/24	6/72	6/72	\$325,400

Middle East and Europe

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.

EXPERTS		FELLOWS		EQUIPMENT
No. and man/months				For 5 years
1967	1968	1967	1968	
16/192	12/144	10/60	10/120	\$400,000

2. Regular Programme and UNDP (TA)

Africa

Libya (P.S. 282-63). Senior research chemist to advise and assist the Ministry of Industry in the planning and organization of its applied chemical research programme. The programme was originally started by an expert appointed under Funds in Trust.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/12	1/12	-	-	\$2,000	\$22,000

Nigeria (P.S. 10-61). Director, Federal Institute of Industrial Research (OPEX) Post. Subject to the approval of the Governing Body of the Institute and the National Ministry of Industry, the officer 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.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/12	1/12	-	-	\$15,000	\$15,000

Asia and Far East

Iran (ID-272). Expert to strengthen the operations of the Industrial Research Institute and Standards Organization.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/12	-	-	-	\$25,000

Singapore (26-66). One year extension of the Industrial Research Adviser who has been attached to the Singapore Economic Development Board (EDB) since March 1966 to advise the Industrial Research Unit of the EDB, in particular its chemical section.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/8	1/4	-	-	\$15,200	\$7,600

Middle East and Europe

Israel (P.S. 243-57). Three experts to develop administrative and manufacturing techniques, and to accelerate the acceptability by industry of applied research and development policies.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
3/3	3/3	-	-	\$5,500	\$5,500

Group 8 (b) Standardization and Quality Control

1. Special Fund Projects

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).

Furthermore, the work of the Institute has been expanded with a view to its functioning as a national bureau of standards. It is organized around four laboratories specializing in testing of construction materials, especially wood; foodstuffs, with emphasis on bacteriology, vegetable and essential oils, and fibres, textiles, hides and skins.

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		FELLOWS		EQUIPMENT
No. and man/months				For 5 years
1967	1968	1967	1968	
2/24	2/24	6/72	6/72	\$90,000

2. Regular Programme and UNDP (TA)

Africa

Ethiopia (P.S. 97/63). Industrial standardization expert for the establishment of a national standard institution for the preparation, publication and implementation of national standards and the centralization of standardization methods within Ethiopia; the work will be done in co-operation with national standards institutions of other African countries, especially those of East African sub-regions.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/12	-	-	-	\$22,000

Asia and Far East

Afghanistan (P.S. 155/63). Metric system expert to assist the Ministry of Commerce in the introduction and implementation of the metric system.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/12	1/12	-	-	\$22,000	\$22,000

Singapore (ID-291). Expert on industrial standards.

EXPERTS		FELLOWS		COST	
No. and man/months					
1968		1968		1968	
1/3		-		\$5,700	

Singapore (ID-291). Expert on export products inspection and specification.

EXPERTS		FELLOWS		COST	
No. and man/months					
1968		1968		1968	
1/6		-		\$15,000	

Thailand (P.S. 82). Industrial standardization expert to set standards for locally manufactured products, improve facilities for testing, controlling and certification, and institute a laboratory for repairing, building and calibrating of testing instruments and scientific apparatus.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/12	-	-	-	\$22,000	-

Latin America

Argentina (P.S. 111/57). Engineer for components testing to assist the "Instituto Nacional de Tecnologia Industrial" (INTI) in technological research to promote and support development of national industry.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/3	-	-	-	\$5,400

Barbados (Implementation delayed into 1967-68). Industrial Standards Adviser to assist the authorities of Barbados in the administration of an efficient industrial standards system, required in connexion with import substitution. The expert is to assist in the development of systems and procedures for the elaboration, application, review and dissemination of standards, specifications and testing methods for industrial products.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/11	1/11	-	-	\$20,200	\$18,000

Group 8 (c) Industrial Information

Algeria (P.S. 94-6) UNDP (TA). Planning expert to organize a national service of orientation and documentation for industry, through contacts with management and technical staff of industry. The expert will organize a permanent inventory and reference service for industrial, technical and legal problems.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/6	1/12	-	-	\$14,000	\$19,000

Morocco (ID-82) Regular Programme. Expert to advise on the organization of an industrial information service.

EXPERTS		FELLOWS	COST
No. and man/months			
1968		1968	1968
1/3		-	\$5,700

B. Expert Group meetings; seminars; group training and workshops

127. The following meetings are planned for 1968:

1. An interregional meeting on Industrial Research Institutes in Developing Countries; estimated cost: \$12,000 (UNDP (TA) P.S. 155/67).

2. Subject to availability of Technical Assistance funds, a seminar on Industrial Quality Control is envisaged to be held in Denmark in the second part of 1968. The estimated cost is \$50,000, to be financed from the Danish contribution.

C. Studies and research<sup>12/</sup>

1.8. No research studies are planned in the areas of Industrial Research and Standardization and Quality Control.

<sup>12/</sup> See also under Group 6 (Light Industries), Section C, page 64, referring to selection of industrial equipment in the cotton and wool textile industries.

129. As regards the area of Industrial Information the following studies are planned which are related to the establishment of the Central Industrial Information Service in Vienna:

1. A study on Advisory Services on Industrial Equipment: This study is undertaken in response to ECOSOC resolution 1183 (XLI) on provision of advice to Governments of developing countries in matters of selection and procurement of industrial equipment. The study is to be carried out by UNIDO staff with the assistance of consultants in connexion with the expert group meetings of November 1967 in New York. In addition, it is planned to conduct a series of field investigations in a number of selected countries in 1968. The estimated cost of the project is \$20,000, to be financed under the regular UNIDO budget.
2. Development of an Industrial Opportunities Matrix. It is planned to undertake the elaboration of a matrix providing up-to-date information on potential industrial development opportunities in each developing country. This project should become instrumental in directing local and foreign investors towards new industrial ventures in developing areas. In particular the data compiled for the Directory of Industrial Agencies (see below) will be used in the preparation of the Matrix. The project will be carried out by UNIDO staff with the assistance of consultants. Estimated cost of the project, financed under the regular UNIDO budget is \$10,000 in consultant services.
3. Work on the Directory of Industrial Agencies (continuing activity). As a follow-up to the report presented to the Committee for Industrial Development at its sixth session on the need for a world-wide directory of industrial agencies, as a reference tool for authorities and local foreign investors, UNIDO will continue the compilation of data on industrial agencies in various parts of the world with a view to publishing a Directory some time in 1969. The publication will include information on the organization and functioning of industrial agencies as well as on the administrative procedures established by the different national authorities for the setting up of new industries.
4. Research is also carried out in connexion with the preparation of the publications below.

E. Publications

130. The following publications are scheduled for 1968:

1. "Industrial Research and Development News" (IRDN). Volume III, Nos. 1 and 2.

2. UNIDO Newsletter (a bi-monthly leaflet of 4-8 pages).

This publication is used as a vehicle for current dissemination of information on UNIDO activities; it is addressed to industrial administrators and managers and provides information on current and forthcoming technical assistance projects, meetings and publications. Six yearly issues are planned to appear in English, French and Spanish. The pilot issues will first be processed internally; they are scheduled to appear later on in printed form.

3. The Manual on the Training of Managers of Research Institutes, is programmed to be published in 1968 at an estimated cost of \$6,200.



Group 9. Industrial consulting services and the organizational and administrative machinery for industrial development

General remarks

1. Industrial consulting services

131. Developing countries are making increasing use of Consulting and Engineering services for the preparation of pre-investment and feasibility studies, preparation of industrial projects and their implementation including construction, procurement and installation of equipment, etc. These services are generally provided by firms and institutions from developed countries. The developing countries face problems of selection and procurement so as to obtain fair and objective advice and servicing under most economic conditions. In the longer run the problem is one of training national cadres so that the developing countries should be in a position to satisfy their requirements in consulting and engineering services from local sources of talent and skills.

132. The work Programme of UNIDO in this area aims at increasing and improving the availability of consulting services to developing countries; assisting these countries in the selection and procurement of industrial consultants; and encouraging the development of local consulting organizations.

133. Following an expert group meeting held in New York in October 1966 on the subject of industrial consultants, a Manual has been prepared which explores and discusses items such as the role of consultants, organization of the consulting profession, the criteria and procedure for selecting consultants, contracting practices, financial arrangements, relationship between client and consultant, and development of local consulting services.

134. In 1968 it is planned to explore possibilities for the development of new institutional arrangements for making consulting services from industrialized countries available to developing countries. Among the possibilities to be explored are: organizations such as the Executive Service Corps which has been operating for several years in the United States; formation of a Consultants Pool under which consulting organizations from all developed countries would make some part of their services flexibly available to developing countries under UNIDO auspices at a cost substantially less than their normal commercial fees; technical assistance co-operation projects, etc.

2. Organizational and administrative machinery for industrial development

135. For the provision of the industrial services referred to in the preceding sections and of other services that are part of industry's normal "service infra-structure", it is necessary to have established in the countries a certain number of agencies and institutions with appropriate functions. Collectively, these agencies and institutions which provide the administrative framework and the source of a variety of industrial services, represent the organizational and administrative machinery for industrial development. They may be of public, private or mixed public-private character.

136. Examples of such agencies and institutions are ministries and departments of industry, industrial development corporations, industrial development banks, other industrial financial institutions, productivity institutes, bureaux of standards. Those in the private sector would include industrial co-operatives, manufacturers' associations, labour organizations and professional associations.

137. The activities of UNIDO in this area aim at promoting and strengthening the institutional framework above. Institution building in the field of industry in the developing countries is considered to be an essential task of UNIDO. As an example, it is believed that in provision of technical assistance, much more lasting effects can be achieved if technical assistance is provided through the channels of an existing institution or is given in institutionalized form.

A. Field projects under technical assistance Programmes

138. This being a new area of activities, only one technical assistance project is programmed in the field under the SIS Programme. A number of projects in related areas (e.g. see Group 10 in Management and Training) deals with some of the aspects covered in this Group.

China - SIS. 67/104. One expert to assist the China Productivity and Trade Centre (CPTC) in setting up consulting services for medium and large enterprises.

The expert is to conduct a pilot project for a group of industries or a set of industrial problems in the form of a model consulting service.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/6	-	-	-	\$15,000	-

B. Expert group meetings; seminars; group training and workshops

1. Regional workshop for employers of consultants (including the staff of local Consulting establishments)

139. It is planned to conduct in 1968 a regional workshop for a number of developing countries with the participation of managers of industrial development corporations, industrialists and other employers of consultants and of managing staff of local Consulting firms, for an exchange of views on techniques and methods of selecting consultants; contractual and financial arrangements; client-consultant relationships; and implementation of consultant recommendations. The workshop will also examine the problems of the Consultant's functions and responsibilities and the ways and means of providing more effective help to industry. The workshop would thus help to train the participants in the use and provision of consulting services; fields of activity of consultants; contractual and financial aspects; assistance from and the relationship with consulting firms in other countries, etc.

140. Forty participants from Africa, the Middle East, Asia and the Far East or Latin America, would attend the workshop. The experience gained in this workshop would be used in setting up similar Programmes in other regions in the future.

141. The meeting is scheduled to be held for a period of two weeks. The estimated cost is \$20,000 - to be financed under the Regular UNIDO budget, subject to availability of funds.

2. Regional workshop on the organization and administration of industrial services in Asia and the Far East

142. This project is a continuation of UNIDO's activities in this field. A similar workshop was organized in Africa in 1967. Surveys have been completed by UNIDO staff on industrial services and institutions in a number of countries in Asia and the Far East.

C. Studies and research

143. In addition to the preparatory work for the preparation of the meetings above, it is planned, as a continuing activity, to establish, in co-operation with the interested agencies, a roster of consulting organizations as well as other information on relevant organizational matters and practices.

D. -

E. Publications

144. The following publications are scheduled for 1968:

1. A Manual on the use of Consultants in Industrial Development. Printing of the Manual at an estimated cost of \$7,300 was approved for the 1967 publications Programme.

2. Institutional Framework for Industrial Development - \$6,500.

Group 10. Industrial management and industrial training

1. Industrial management

145. The relatively slow rate of implementation of industrial projects in many developing countries and problems of low productivity and failure to achieve the set production targets have focused the attention of Governments on the need for executive and managerial skills and adoption of advanced managerial techniques.

146. The work of UNIDO in the field of industrial management will be concerned with provision of assistance in the following areas:

- (i) maintenance and plant engineering
- (ii) industrial design and product development
- (iii) material management and inventory planning
- (iv) production planning and control
- (v) financing planning and control
- (vi) quality control
- (vii) marketing
- (viii) corporate planning

A. Field activities under the various programmes of technical assistance

1. Regular Programme and UNDP (TA)

Africa

Ghana. P.S. No. 46-61. Four OPEX experts in industrial production marketing development, industrial management planning and financial control and planning respectively, to assist the State Enterprises Secretariat in the establishment of systematic methods of planning and implementation of production targets.

EXPERTS		FELLOWS		COST	
No. and man/months		1967	1968	1967	1968
1967	1968	1967	1968	1967	1968
4/48	4/48	-	-	\$60,000	\$60,000

Asia and the Far East

Burma. P.S. No. 1-57. Commercial accounting expert to advise on the training of senior staff of the Directorate of Commerce, Audit and other boards and corporations in modern management accounting techniques.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/12	1/12	-	-	\$22,000	\$22,000

China. Regular ID. No. 599. Expert in Management Research to conduct consulting services to local enterprises for solving management problems related, but not limited to manufacturing process and plant utilization and quality control.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/6	-	-	-	\$15,000

Malaysia. P.S. No. 19/66. Two experts to assist the recently established Semi-Government development organization in the provision of management and advisory services to industry and commerce.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/12	1/12	-	-	\$22,000	\$22,000

Middle East and Europe

Syria. Regular ID. No. 513. Expert to advise on management of national industries.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/6	-	-	-	\$15,000

Turkey. P.S. No. 277/57. Two industrial economists to provide management assistance for training in the fields of engineering, chemical and petrochemical engineering, gear manufacturing, forging and management.

	EXPERTS		FELLOWS		COST	
	No. and man/months					
	1967	1968	1967	1968	1967	1968
	2/24	2/24	-	-	\$44,000	\$44,000

2. Special industrial services

Africa

Ghana. 66/2. A three-expert team as OPEX personnel is managing the Government-owned Fibre Bay Manufacturing Corporation in Kumasi, which is producing jute bags from imported raw materials.

	EXPERTS		FELLOWS		COST	
	No. and man/months					
	1967	1968	1967	1968	1967	1968
	3/36	-	1/3	-	\$71,000	-

Nigeria. 66/11. A paper industry expert undertook in 1966 a survey of the problems connected with the running of the Nigerian Paper Mills at Jebba. As experience in modern processing at marketing techniques is not locally available, the Government as a follow-up of the recommendations of the expert, wishes to sub-contract the management of the mills to a group of consultants. The contacting of consulting firms is undertaken by UNIDO under the SIS Programme as a second phase of the earlier project.

	EXPERTS		FELLOWS		COST	
	No. and man/months					
	1967	1968	1967	1968	1967	1968
Sub-contract to consulting firms					\$10,000	-

Asia and the Far East

China. 67/11. A five-expert team to assist the China Productivity and Trade Centre (CPTC) in conducting advanced industrial executive development Programmes through seminars and training courses, plant visits and demonstration diagnosis of selected plants. The assistance includes formulation of a long-range top executive development plan to meet the needs of the industrial firms and the provision of consulting services to selected enterprises.

EXPERTS		FELLOWS		CCST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/6	-	-	-		
1/3	-	-	-		
1/3	-	-	-	\$40,000	-
1/3	-	-	-		
1/3	-	-	-		

B. Expert group meetings, seminars, group training and workshops

1. Industrial consultation workshops

147. UNIDO has given particular attention to promoting direct contacts with the manufacturing industries and professional organizations in the developing countries, as well as the industrialized countries. In co-operation with industry and management associations in the industrialized countries, a Programme was developed of Industrial Consultation Workshops, with the participation of executive and technical personnel of industrialized countries, with their counterparts in the developing countries to discuss problems of management of organization and production in their plants.

148. Training Programmes in management have been planned for 1968 in response to the requests, either formulated or about to be formulated by Governments as follows: Indonesia (industrial costing and market promotion); United Arab Republic (systems analysis, including the application of electronic computers); Peru (corporate planning and organization in the textile industry); Ghana (operating state-owned enterprises); Yugoslavia (decentralization of industry and market promotion); Turkey (industrial design and product development); and Bolivia (managerial problems in the mining industry). The objective of these training programmes is to identify management problems, to discuss their nature and to determine the course of action to be taken. They provide a forum for the executives in the developing countries to review their problems with executive personnel from the industrialized countries.

149. The cost of these training programmes is \$13,000 for each country. Total \$65,000 to be financed under UNDP (TA), subject to availability of funds.



2. Seminar on Quantitative Techniques of Management in the USSR

150. It is felt that the problem should be explored of adapting current management techniques to conditions in developing countries, taking into account their limited human and material resources. The estimated cost of this meeting is \$50,000. It is envisaged that it would be financed from the USSR contribution.

C. Studies and research

151. The objective of these studies is to evaluate current experience with a view to adapting it to the conditions and needs of the developing countries. The resulting material will also be used in the industrial consultation workshops described above which are planned as a continuing activity of UNIDO in the field of management. The following studies are planned for 1968:

1. Corporate planning. Six studies in specific industries are planned in 1968. The estimated cost in consultant services is \$6,000, to be financed under the regular UNIDO Budget.

2. Quantitative techniques in management. The coverage of the studies, which were initiated in 1967, will be extended in 1968. The material will be reviewed for publication in 1969. The estimated cost in consultant services is \$4,000, to be financed under the regular UNIDO Budget.

3. Organization and management of the distribution channels for consumer goods in the developing countries. The organization and management of the distribution channels for consumer goods is an essential complementary element to manufacturing. The establishment of a proper balance between capacity to produce and marketing and distribution is a major concern of management in the developing countries. Six studies are planned in 1968, which will be used as material for a meeting planned for 1969. The estimated cost is \$6,000, to be financed under the regular UNIDO Budget.

4. Organization and management of product development within the individual enterprise. This problem is becoming increasingly important in a number of countries. A series of six studies is planned in 1968, two of which will be concerned with the relevant experience and practices in industrialized countries. The studies will be used as material for UNIDO training Programmes in management in 1969. The estimated cost in consultant services is \$6,000, to be financed under the regular UNIDO Budget.

5. Maintenance planning and training. An expert group on maintenance and repair met in New York in 1966. Following the recommendations of this Group,<sup>13/</sup> four studies in specific sectors of industry are planned in 1968. They will be published in 1968 in the form of a manual to be used for training purposes. The estimated cost in consultant services is \$3,000, to be financed under the regular UNIDO Budget.

D. -

E. Publications

152. The following publication in the field of industrial management is planned for 1968: Problems of Industrial Maintenance in the Developing Countries. This will be processed internally.

2. Industrial training

General remarks

153. One of the major bottlenecks in the process of industrialization in the developing countries is the shortage of adequately trained personnel so that promotion of training in industry constitutes a major field of activity of UNIDO. This activity is designed to assist Governments of the developing countries in formulating training policies, evolving programmes and methods of action, and developing an institutional framework to implement the training programmes. UNIDO has initiated, as a part of its long-range Programmes in this field, activities in depth for training of engineers and technicians, management personnel, and Government officials dealing with industrial development. New approaches to institutional arrangements for promotion of industrial training are continuing to be explored. These activities are being carried out either in direct co-operation or are co-ordinated with those of the interested United Nations specialized agencies, in particular, the ILO and UNESCO.

154. The assistance provided by UNIDO in the field of training falls into two main areas: (1) Individual Fellowship Training Programmes that come under the general

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<sup>13/</sup> See the report of the Group, document ID/1-1967.

Programme of technical assistance and are described in section A. Field Projects, below; and (2) Group in-plant Training Programmes that are described under section 3. Expert Group meetings, seminars, group training and workshops.

155. UNIDO is engaged in substantive servicing of approximately 300 group and individual training fellowships annually in the field of industrialization, that are financed under the various United Nations Programmes of technical assistance.

1. Individual fellowship training programmes

156. Fellowships granted upon request of Governments are not generally awarded for the pursuit of academic studies leading to degrees or diplomas. They are intended to give persons engaged in industrial activities the opportunity to broaden their professional knowledge and experience by becoming acquainted with advanced methods and techniques. A particular training Programme may include academic studies but the main purpose of a fellowship is to enable the holder to derive from his training an increased ability to solve operational and professional problems upon his return to his country. The fellowship candidates generally fall into the following occupational groups: (i) engineering and managerial personnel of public and private industrial enterprises; (ii) officials of industrial training, extension and research institutions; and (iii) officials of Government administrations and industrial development and planning agencies.

157. The available industrial training opportunities include such fields as industrial development planning and programming, industrial technology and practice; technological research, development of new industries, special problems of small-scale industries and industrial management. The three main types of fellowship Programmes include study tours, training in universities and educational centres, and training in industry. In each case, UNIDO is involved in the selection of the candidates, their placement and in the evaluation of the results achieved during the candidate's training period. In order to improve the effectiveness of the training Programmes, UNIDO plans to devote increasing attention to the problems of placement as well as to the organization, supervision and evaluation of the Programmes. As a first step, UNIDO plans to initiate in 1968 a research and documentation programme, including the building up of an adequately documented reference library on the subject.

## 2. Group in-plant training Programmes

158. Under these Programmes the industrialized countries are providing financial support to the trainees within the host country during the period of training thus sharing the training cost with the United Nations, and are making available their experience, physical facilities and staff. The participating developing countries are contributing by paying the local salaries of their own trainees during the training period and the United Nations is providing round-trip transportation. Each Programme is being tailor-made according to the facilities available in the host country and the particular needs of recipient countries. In 1968, UNIDO plans to organize nine in-plant group training programmes in co-operation with the following Governments of industrialized countries: Czechoslovakia, Denmark, Federal Republic of Germany, Italy, Japan, Poland, Sweden, USSR. In addition, negotiations are under way for the establishment of additional Programmes in 1969: the United Kingdom, in food processing equipment; Netherlands, in electronics and consumer electrical appliances; and Japan, in material management and inventory control, and shipbuilding. It is expected that approximately twenty engineers and technicians from the developing countries will participate in each of these training Programmes.

159. Training within the developing countries. As a follow-up to the in-plant training in the industrialized countries, a few selected developing countries have been approached with a view to organizing similar in-plant training Programmes with the assistance of UNIDO. It is expected that it will be possible to establish a certain number of such training Programmes for which the training directors who are now active in the industrialized countries would be used, and in co-operation with nationals who have participated in the in-plant training Programmes in the industrialized countries. The teaching materials and training manuals developed for the latter Programmes would also be used in these programmes.

### A. Field activities under the various Programmes of technical assistance

Note: (1) Individual fellowships are listed under the industrial activity to which they relate, section A.

(2) Group activities fellowships are presented in Industrial Training, section E. Expert meetings, seminars, group training and other activities.

Asia and the Far East

Iran. Regular. No. ID-272. Two in-plant training experts - one to organize in-plant training for specialists in iron and steel, and one to organize in-plant training for electrical specialists.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	2/6	-	-	-	\$11,400

Singapore. Regular. No. 291. Two in-plant training experts to organize in-plant training Programmes for specialists in a field which will be known at a later date.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	-	-	2/12	-	\$2,400

Latin America

Peru. Regular. No. 837. Expert to work on in-plant training of executives in selected industries. UNIDO will, as a first step, assist in this field in 1967 by experts financed from SIS. Continuation of this project in 1968, under Regular Programme.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/6	-	-	-	\$11,400

B. Expert group meetings, seminars, group training and workshops

160. Nine group in-plant training Programmes in six developed countries are planned for 1968 as follows.

	<u>Area of training</u>	<u>Country</u>	<u>Estimated Cost</u>
1.	Cement industry	Denmark	\$ 75,000 UNDP (TA) CAT.I. P.S. 119-65 to be financed from the Danish contribution
2.	Diesel oil engines	Czechoslovakia	\$ 28,000 UNDP (TA) CAT.I. P.S. 172-67
3.	Electrical industries	Sweden	\$ 22,000 UNDP (TA) CAT.I. P.S. 293-67
4.	Iron and steel	USSR	\$130,000 UNDP (TA) CAT.II. P.S. 172-67
5.	Metallurgical industries	Italy	\$ 10,000 Subject to availa- bility of funds
6.	Machine building	Italy	\$ 10,000 " " "
7.	Textile industry	Poland	\$ 23,000 " " "
8.	Maintenance	Japan	\$ 20,000 " " "
9.	Machine tool industry	Germany, F.R.	\$ 25,000 " " "

161. As regards in-plant training in developing countries, UNIDO is co-operating with UNESCO in implementing a training project in India which involves the establishment of a National Institute of Foundry and Forge Technology in Ranchi, Bihar, as a Special Fund project, for the training of engineers and technicians. Similar co-operation with the ILO is being explored for other Special Fund projects. Projects for the establishment of training centres under the UNDP (Special Fund) Programme, as permanent organizations to provide in-plant training to a wide range of industrial personnel, such as recently graduated engineers, are being actively pursued. Requests for such projects prepared with the assistance of UNIDO staff and for which UNIDO is expected to act as executing agency have been submitted by Turkey and Singapore.

162. Subject to availability of funds in the UNIDO Consultant Budget, it is also planned to hold in 1968 the following meetings:

163. An Ad Hoc Expert Meeting on Estimation of Managerial and Technical Personnel Requirements in Selected Industrial Branches. UNIDO has undertaken research in this area, particularly to determine training requirements at the level of industrial enterprises in developing countries. Six studies on "Estimating of Managerial and Technical Personnel Requirements" for specific industries have been

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completed and are being published in 1967. The purpose in convening the meeting is to analyse and evaluate the research work already completed and to provide guidelines for further research. Preliminary discussions have been held with the ILO and it is expected that the ILO will present papers and participate in the meeting. The meeting is tentatively scheduled to take place in Vienna, at an estimated cost of \$15,000, to be financed from the regular UNIDO Budget.

164. Meeting on training of economic administrators in industrial development. The Inter-regional Working Party on Training of Economic Administrators in Industrial Development held in Paris in 1965, in co-operation with the OECD, recommended that UNIDO should: (i) sponsor, at the most appropriate levels, short seminars or meetings for top-level administrators in the developing countries in development strategy and administration with due emphasis on problems of industrial development; (ii) promote and undertake training Programmes for the mid-career general administrator on a national and regional basis; and (iii) initiate and organize training Programmes for technical administrators in specific or specialized subjects or industrialization.

165. It was felt that the most effective approach in implementing the recommendations would be to strengthen and expand the facilities of existing national economic training and research institutes, located in the developing countries. In this connexion, UNIDO is discussing the possibilities of co-operation with the United Nations Asian Institute of Planning, Bangkok, and the Government of the Netherlands, in organizing a training course in industrial administration for Asian Government officials in 1968. This course will be based on a similar training Programme for African Government officials organized, in 1965, by the United Nations African Institute for Economic Development and Planning, Dakar, in co-operation with the Economic Commission for Africa and the United Nations Centre for Industrial Development.

### C. Studies and research

166. A series of country studies on Manpower Development for Industrialization has been undertaken to serve as a source of information and guideline to developing countries in connexion with their industrial training Programmes and policies. It is planned to expand in 1968 the country coverage of these studies by including several of the less developed countries in the African and Asian regions.

167. It is further planned to initiate in 1968 detailed country or regional studies concerned with the training and manpower problems of specific industry branches, such as fertilizers, cement, food processing, etc. The cost of these studies is estimated at \$10,000, to be financed from the regular **UNIDO** Budget.

D. -

E. Publications

168. The following publications in the field of industrial training are planned for 1968 at an estimated cost of \$4,700: Training Manual for Engineers and Technicians in the Textile Industry and Policies and Problems of Industrial Training in the Developing Countries. The Training Manual in Textiles will be the first publication in a series of training manuals by industrial branches being undertaken by UNIDO. The aim of such manuals is to facilitate organizing in-plant training Programmes for engineers and technicians in the developing countries themselves. The Textile Training Manual is being prepared and will be evaluated and revised as a result of the experiences gained from the in-plant training Programme in textiles being organized by UNIDO in Poland in 1967.



Group 11. Special problems and institutions for small-scale industry including industrial estates

General remarks

169. The activities of UNIDO in this field cover development Programmes policies and measures of promotion of small-scale industries, industrial surveys and feasibility studies for industrial estates; technical and managerial assistance and training; marketing and export promotion; and assistance in establishing and operating common servicing facilities.

170. The development of small-scale industries and the establishment of industrial estates has received considerable encouragement from the United Nations through advisory services, technical assistance operations, seminars and publications. In the future it is expected to devote increasing attention to projects of assistance in obtaining external financing for specific projects through guidance in the preparation of requests; in organization of sub-contracting; in export promotional products of small-scale industries; in problems of rural industrialization and the setting up of common service facilities for small industries whose scale of operation makes provision of such facilities uneconomic on an individual basis. For stimulation of entrepreneurship in this area it is envisaged to promote enterprise fellowship Programmes for training future entrepreneurs in factories in the advanced countries.

A. Field activities under the various Programmes of technical assistance

1. Special Fund projects

Iran. The establishment of an industrial estate IRA-11. The purpose of the project is to encourage and facilitate the development of small and medium-scale industry in Iran by assisting the Government in establishing an Industrial Estate Authority and by providing for the planning, construction and operation of a demonstration estate at Ashwas, Iran.

The project was approved by the Governing Council in June 1963 for a duration of five years; the project became operational in September 1965. The full cost of the project is \$1,760,500 of which \$637,500 are Governing Council earmarkings and \$1,123,000 are provided by the assisted country.

EXPERTS		FELLOWS		EQUIPMENT
No. and man/months				
1967	1968	1967	1968	For 5 years
4/48	3/36	3/18	-	\$110,000

Uganda. Small Industry Development Programme and Establishment of an Industrial Estate UGA-7. The purpose of this project is to assist the Industrial Division of the Ministry of Industry and Commerce in establishing facilities for the servicing and development of small industries, as well as in 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 \$1,875,400 of which \$746,400 are Governing Council earmarkings and \$1,129,000 are provided by the assisted country.

EXPERTS		FELLOWS		EQUIPMENT
No. and man/months				
1967	1968	1967	1968	For 5 years
-	8/96	-	-	\$49,000

## 2. Regular Programme

### Africa

Central African Republic. ID-999. Expert to elaborate the types of small and medium-scale industries which could be created, taking account of the local market.

EXPERT	FELLOWS		COST	
No. and man/months				
1967	1968	1967	1968	1967 1968
-	1/7	-	-	- \$13,300

Congo (Brazzaville). ID-955. Expert to assist in the development of small-scale industries.

EXPERT	FELLOWS	COST
No. and man/months		
1968	1968	1968
1/6	-	\$11,400

Congo - Kinshasa. Industrial economist to advise on development of small-scale industries and industrial estates. Prototype planning will be started for specific industries that are to be encouraged, including financial requirements, equipment, raw materials, manpower and markets.

Industrial economist to advise on development of small-scale industries and industrial estates. Prototype planning will be started for specific industries that are to be encouraged, financial requirements, equipment, raw materials, manpower and markets.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/6	1/6	-	-	\$11,000	\$11,000

Congo (Democratic Republic). ID-1064. Industrial Economist will advise on the elaboration and execution of a general Programme of development for small-scale industries.

EXPERTS		FELLOWS		COST	
No. and man/months					
1968		1968		1968	
1/12		-		\$22,000	

Gabon. ID-834. Expert to elaborate, within the framework of the objectives of the development plan, the type of small and medium-scale industries which could be created taking account of local markets (wood transformation, current consumer goods, etc.).

EXPERTS		FELLOWS		COST	
No. and man/months					
1968		1968		1968	
1/8		-		\$15,200	

Kenya. ID-536. Expert to serve, under the OPEX arrangement, as General Manager of the Nairobi Industrial Estate. Also to draw up the functions and training Programmes of a Common Technical Service Centre and advise on personnel to man the Centre.

EXPERTS		FELLOWS		COST	
No. and man/months					
1968		1968		1968	
1/12		-		\$15,000	

Lebanon. No. 217. Expert to advise on industrial estates; this project developed as follow-up to consultative Group on Industrial Estates in Beirut, meeting on Industrial Estates.

EXPERTS	FELLOWS	COST
No. and man/months		
1968	1968	1968
1/6	-	\$11,400

Madagascar. ID-541. Expert to assist the Office of Development and Industrial Promotion on the establishment and implementation of policies, Programmes and projects in the field of small-scale industries.

EXPERTS	FELLOWS	COST
No. and man/months		
1968	1968	1968
1/6	-	\$11,400

Morocco. ID-82. Specialist in industrial estates to study the possibility of creating a pilot industrial estate and to examine the possibility of placing a request to the Special Fund for this purpose.

EXPERTS	FELLOWS	COST
No. and man/months		
1968	1968	1968
1/3	-	\$5,700

Nigeria. ID-548. This Western Region project is similar to other industrial engineering projects in Nigeria under the EPTA, viz., feasibility of industrial estate.

EXPERTS	FELLOWS	COST
No. and man/months		
1968	1968	1968
1/6	-	\$11,400

Nigeria. ID-548. Expert to advise on matters related to industrial estates in Eastern Nigeria.

EXPERTS	FELLOWS	COST
No. and man/months		
1968	1968	1968
1/3	-	\$5,700

Senegal. ID-866. Continuation of 1967 project in small-scale industries.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/6		-		\$11,400	

3. UNDP (TA) Programme

Africa

Nigeria. P.S. No. 10-61. One industrial economist on mission to the Northern Region, another to the Eastern Region to advise on the development of small-scale industry.

EXPERTS		FELLOWS		COST	
1967	1968	1967	1968	1967	1968
1/6	1/6	-	-	\$11,000	\$11,000
1/6	1/6	-	-	\$11,000	\$11,000

Senegal. P.S. No. 180-65. Industrial economist to advise Directorate of Industry and Handicrafts, the Ministry of the Plan, the National Development Bank of Senegal and other services concerned, on the formulation and implementation of a development policy and Programme for small industries.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/12	1/12	-	-	\$22,000	\$22,000

Rwanda. P.S. No. 217-63. Industrial economist to advise the Government on measures to be taken, in the financial field as well as in the commercial organization (co-operation) and the extension field, to promote the development and expansion of small-scale industries.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/12	1/12	-	-	\$22,000	\$22,000

Uganda. P.S. No. 44-65. Industrial economist to advise Ministry of Commerce and Industry on industrial development with particular emphasis on small-scale industries. Inter alia, the expert will compile a permanent index of industrial investment.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/12	1/7	-	-	\$17,000	\$22,000

Asia and the Far East

Laos. P.S. No. 60-61. One expert to continue the work of the expert assigned since October 1961 to the Ministry of Economic Affairs. The purpose of the project is to advise on matters related to the creation and development of small-scale industries.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/6	-	-	-	\$11,000

Solomon Islands. P.S. No. 132-67. Industrial economist to advise on development of small-scale industry, with special reference to identification of industries, production and marketing organizations.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/12	-	-	-	\$22,000

Viet-Nam, Rep. of. Revolving Fund 232-67. An expert in industrial zones to advise the State Company for the Development of Industrial Zones (SONADEZI) of the Ministry of the National Economy on the development of industrial estates for the small-scale industries, including technical and marketing aid, and credit facilities.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/3	1/12	-	-	\$14,664	\$22,000

Latin America

Brazil. P.S. No. 27-59. Industrial engineer for the planning and development of industrial estates.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/6	1/6	-	-	\$11,000	\$11,000

Dominican Republic. P.S. No. 194-60. Industrial adviser assigned to the Industrial Development Corporation, for promotion of general industrial development and all matters pertaining to the development of small and medium-scale industries.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/12	1/12	-	-	\$22,000	\$22,000

Netherlands Antilles. P.S. No. 100-65. Industrial economist to advise on the development of small-scale industries with emphasis on investigation of technical and economic possibilities.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/3	-	-	-	\$5,400

Trinidad and Tobago. Adviser to assist in the formulation of a comprehensive Programme for the development of small-scale industries, including management consulting, supervised credit marketing assistance, industrial estates etc., with special emphasis on the stimulation of indigenous entrepreneurship. He will assist the Industrial Development Corporation.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/6	-	-	-	\$15,000

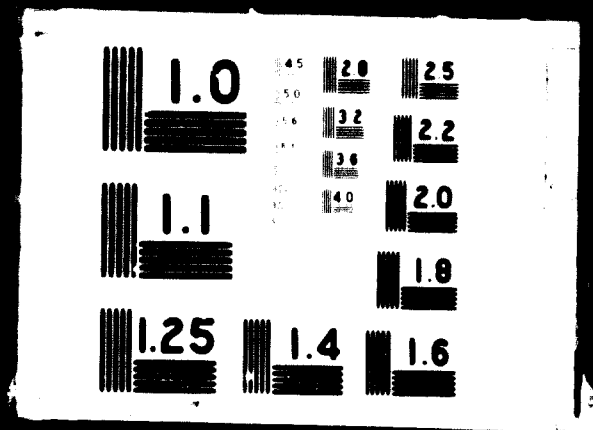


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Uruguay. P.S. No. 483-57. Small and medium industry expert to advise on possibilities for development of these industries.

	EXPERTS		FELLOWS		COST	
	No. and man/months					
	1967	1968	1967	1968	1967	1968
	-	1/6	-	-	-	\$10,800

4. Special Industrial Services (SIS) Programme

Africa

Kenya. 67/123. Mechanical engineer to assist in the setting up of a workshop within the Common Facility Centre in the Industrial Estate of Nairobi. This includes setting up a tool room, design office, testing room and selection of staff, machinery, equipment, tools and assistance in the design and production of various tools and fixtures.

	EXPERTS		FELLOWS		COST	
	No. and man/months					
	1967	1968	1967	1968	1967	1968
	1/12	-	-	-	\$24,000	-

Asia and the Far East

Thailand. 66/35. An industrial economist and an engineer to study the feasibility and to provide cost estimates for the establishment of an industrial estate for small-scale industries in the Bangkok and Thonburi areas.

	EXPERTS		FELLOWS		COST	
	No. and man/months					
	1967	1968	1967	1968	1967	1968
	2/12	-	-	-	\$30,000	-

Latin America

Ecuador. 67/101. Expert to advise on small-scale industries and industrial estate.

	EXPERTS		FELLOWS		COST	
	No. and man/months					
	1967	1968	1967	1968	1967	1968
	-	-	-	-	\$14,000	-

B. Expert group meetings, seminars, group training and workshops

171. It is planned to organize a group training Programme on Industrial Estates at the Small Industries Extension Training Institute (SIET) of Hyderabad, India, in co-operation with the Government of India. The Programme, organized for twenty English-speaking participants, would consist of classroom instruction, a study tour of industrial estates in India and of visits of industrial estates in Singapore, West Pakistan or Italy, depending on the direction of travel of the participants. It will include the preparation by the participants of project reports on industrial estates corresponding to requirements in their own countries. The estimated cost of the project is \$50,000. The holding of this meeting in 1968 is conditioned by availability of funds in that year.

172. Plans are also made for the organization in 1969 of similar Programmes for French-speaking participants, probably in Italy, and for Spanish-speaking participants in Puerto Rico.

173. Consultations are under way for the organization of an Expert Group on Financing of Small-scale Industries in Latin America as a joint project of ECLA and UNIDO. The Group would bring together experts from some of the countries which participated in the Seminar on Small-scale Industry in Latin America, in Quito in 1966, and would be concerned with measures for facilitating credit to small industrial enterprises, and technical co-operation in this field. UNIDO would provide documentation for the meeting.

C. Studies and research

174. The following studies are scheduled for 1968:

1. Financing of small-scale industries. Studies of financing begun in 1967 will be pursued and new studies will be undertaken in 1968. The studies will be submitted to an Inter-regional Seminar on Financing of Small-scale Industries, to be held in 1969, perhaps in India. Preparations for this Seminar will be made in 1968.

2. Techno-economic studies in subcontracting. The analysis of subcontracting carried out in 1967 is to be followed by research on the types of industrial activities lending themselves to the establishment of subcontracting relationships. A series of techno-economic studies will be carried out on the contribution of

small-scale industries to the production of selected producer and consumer goods as subcontractors to large firms or under joint production programmes among small producers.

3. Small-scale industries in centrally-planned economies. A study of small-scale industries in Poland will be the first in a series of projects in this area.

4. Common service facilities on industrial estates. The study of the tool room undertaken in 1967 will be completed and a study of the testing and quality control laboratory will be carried out, as part of a series of projects on common service facilities on industrial estates. This will be followed by studies of machine and tool lease shops and workshops for specialized industrial estates.

5. Specialized industrial estates. A study of the functional industrial estate will be undertaken as the first in a series of projects on specialized industrial estates. It will be followed by studies of the ancillary industrial estate for small industries engaged in subcontracting relationships, port and airport industrial estates, privately sponsored industrial estates, and industrial estates and industrial areas for export industries, including those set up in free trade zones.

The total estimated cost of these studies in consultant services is \$25,000, to be financed under UNIDO Regular Budget.

D. Co-operation with the regional economic commissions

E. Publications

175. The following publications are included in the 1968 Programme:

Small-scale Industries in Latin America. The publication will include the Report on the Seminar on Small-scale Industry in Latin America held in Quito in 1967 and some of the papers prepared for the Seminar.

Inter-relationships between Small and Large Industries. A study of subcontracting. A survey of subcontracting in France, India, Japan, the United States and Puerto Rico and a general analysis focused on subcontracting as a means of promoting small-scale industries in the developing countries.

Technical Services and Facilities for Small-scale Industries. The publication will include the report of the International Symposium on this subject held in 1967 in Denmark and some of the papers prepared for the Symposium.

The Role of Small-scale Industry in Industrialization Policies and Programmes. A statistical analysis of the place of small-scale industry in the industrial framework of selected industrial and developing countries.

The total cost (English, French and Spanish) is \$25,250.

POLICIES AND PROGRAMMING DIVISION

Group 12. Industrial Programming and Projects

General remarks

176. This group covers Industrial Planning and Programming Project Formulation and Evaluation Industrial Location and Regional Development. The Programme of work of UNIDO in these areas includes essentially the following activities: formulation of development plans and programmes; determination of priorities in industrial development strategy; identification of investment opportunities; preparation of feasibility studies; preparation of bankable reports for submission to the international financing agencies; evaluation of projects; training programmes in project formulation and evaluation; establishment of institutions for project formulation and evaluation, of implementation and follow-up of industrial projects.

A. Field activities under the various programmes of technical assistance

1. Special Fund Projects

Africa:

United Republic of Tanzania - Industrial Studies and Development Centre, Dar es Salaam (TAN-10). The purpose of the project is to advise the Ministry of Industry, Mineral Resources and Power on industrial policy and organization; to assist in the investigation necessary for better utilization of the country's natural resources; to prepare industrial feasibility studies and advise on the implementation of projects; to provide advisory extension services to private industrial concerns; and lastly to 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 Special Fund Governing Council in January 1965 for a duration of three years. The Plan of Operation was signed on 4 February 1966, and the project became operational on 18 February 1966. The full cost of the project is \$653,400 of which \$483,400 are Governing Council earmarkings and \$170,000 are provided by the assisted country.

EXPERTS		FELLOWS		EQUIPMENT
No. and man/months				
1967	1968	1966	1968	For 3 years
10	5/0	2/10	2/1	\$25,500

The Maghreb Countries (Libya, Algeria, Tunisia and Morocco) (REC-70). The purpose of the project is to assist in the establishment and setting in operation of a Centre for Industrial Studies for the Maghreb countries whose main function will be: to prepare, at the request of the four countries concerned, general industrialization surveys and specific feasibility studies, including market and location surveys. Preference is given to studies affecting two or more countries. The Centre is also to render industrial advisory services to the Maghreb countries as well as training of persons in the region. The project was approved by the Governing Council in January 1966 for a duration of five years. The full cost of the project is \$2,099,900, of which \$1,454,900 are Governing Council earmarkings and \$645,000 are provided by the assisted countries.

EXPERTS*		FELLOWS		EQUIPMENT
No. and man/months				
1967	1968	1967	1968	For 5 years
-	1/12	-	-	\$50,000

\* The figures are tentative, pending the signature of the Plan of Operation by the Governments of the Maghreb countries.

Tunisia - National Centre for Industrial Studies (TUN-15). The purpose of the project is to assist in the establishment and initial operation of a Centre for Industrial Development for Tunisia, 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 was approved by the Governing Council in June 1966 for a duration of five years. The full cost of the project is \$1,796,700, of which \$771,700 are Governing Council earmarkings and \$1,025,000 are provided by the assisted country.

EXPERTS		FELLOWS		EQUIPMENT
No. and man/months				
1967	1968	1967	1968	For 5 years
2/24	6/72	2/24	2/24	\$30,000

Iran - Research Centre for Industrial and Trade Development (IRA-16). The purpose of the project is to strengthen the Government's Research Centre for Industrial and Trade Development, which has been established by the Ministry of Economy for the formulation of industrial plans: preparation of investment priorities: preparation and evaluation of industrial projects; preparation and evaluation of feasibility studies; and the formulation of industrial and trade policies.

The project was approved by the Governing Council in January 1967 for a duration of five years. The full cost of the project is \$2,618,900, of which \$1,058,900 are Governing Council earmarkings and \$1,560,000 are provided by the assisted country.

EXPERTS		FELLOWS		EQUIPMENT
No. and man/months				
1967	1968	1967	1968	For 5 years
7/84	6/72	5/24	2/6	\$115,000

Saudi Arabia - Industrial Studies and Development Centre, Riyadh (SAA-14). The purpose of the project is to assist in the establishment and initial operation of an Industrial Studies and Development Centre whose functions are: to advise the responsible authorities on industrial policy and programming; to assist in carrying out or commissioning industrial feasibility studies; to advise on the establishment of new industries as well as on the financing and 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. The Plan of Operation was signed on 14 February 1966 and the project became operational on 3 March 1966. The full cost of the project is \$2,582,900, of which \$580,900 are Governing Council earmarkings, and \$2,000,000 are provided by the assisted country.

EXPERTS		FELLOWS		EQUIPMENT
No. and man/months				
1967	1968	1967	1968	For 3 years
5/50	5/60	5/36	2.12	\$60,000

Jordan - Centre for Industrial Development (JOR-13). The purpose of the project is to assist the Government of Jordan in establishing a Centre for Industrial Development whose functions are: to prepare surveys of the industrial structure; to advise and assist the Jordan Development Board in the formulation of industrial plans; to conduct feasibility studies; to formulate and evaluate industrial projects; and to establish standards and quality control of products. A portion of the project is sub-contracted to ILO.

The project was approved by the Governing Council in January 1967 for a duration of four years. The full cost of the project is \$1,685,100, of which \$1,135,100 are Governing Council earmarkings and \$540,000 are provided by the assisted country.

EXPERTS		FELLOWS		EQUIPMENT
No. and man/months				
1967	1968	1967	1968	For 4 years
5/12	4/12	3/3	6/35	\$70,000



2. Regular Programme and UNDP (TA)

Africa:

(a) Regular Programme

Algeria (ID-582). Industrial economist to advise "Direction Générale des Plans" and the "Ministère de l'Industrialisation et de l'Energie" on project evaluation in connexion with economic development plans for 1965-1966 and later years.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/12	-	-	-	\$21,400

Cameroon (ID-340). Industrial engineer attached to Ministère des Affaires Economiques des Plans to prepare feasibility studies on projects considered for the Second 5-Year Development Plan, 1966-1971.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/7	-	-	-	\$13,300

Dahomey (ID-868). Industrial economist to advise Direction des Affaires Economiques du Ministère des Finances on industrial policy, project evaluation, feasibility studies and consulting services to industrial enterprises.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/12	-	-	-	\$21,400

Liberia (ID-971). Industrial engineer attached to Department of Planning and Economic Affairs to elaborate branch studies for creation of industries, including project evaluation and establishment of institutional mechanism.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/6	-	-	-	\$15,000

Niger (ID-362). Industrial economist to assist in industrial development programming and project evaluation.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/7	-	-	-	\$13,300

Somalia (ID-777). Expert to assist Government in industrial project formulation, evaluation and implementation, and setting up of industrial development corporation (Industrial Adviser).

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/6	-	-	-	\$11,400

(b) UNDP (TA)

Cameroon (P.S. No. 259-63). Industrial economist to participate in the evaluation of projects proposed by the "Société Nationale d'Investissements".

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/12	-	-	-	\$2,000

Lesotho - UNDP/Revolving Fund 7-050-252. Industrial planning and programming adviser requested as follow-up to a programming mission undertaken in 1966.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/6	1/6	-	-	\$12,500	\$12,500

Mali - UNDP (TA). Implementation delayed into 1967-68. An industrial economist under an OPEX appointment in the Ministry of Public Works, Communications and Energy for the development of iron and steel, aluminium and cement industries from the resources surveyed in the West, North-West and South-east of the country.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/6	1/6	-	-	\$11,000	\$11,000

Mali - UNDP (TA) P.S. No. 6-66. An industrial economist to evaluate the key industrial projects envisaged under the National Development Plan 1960-65.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/12	1/12	-	-	\$15,000	\$15,000

Morocco - UNDP (TA) P.S. No. 421-57. An industrial planning expert to study the feasibility of economic development and to set up industrial development projects within the framework of the present and future plans.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/8	1/4	-	-	\$14,600	\$7,400

Nigeria - UNDP (TA) P.S. No. 10-61. An industrial economist for industrial development planning in the Western region on the basis of local resources.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/6	1/6	-	-	\$11,000	\$11,000

Togo - UNDP/Revolving Fund DP/RP/TA 67-7;67-49. Two experts to assist in industrial development programming with industrial project evaluations and market studies.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
2/18	-	-	-	\$38,000	-

Asia and the Far East:

(a) Regular Programme

Afghanistan (IX-33). An industrial economist, OPEX post, attached to President of Industry, Ministry of Mines and Industries, to direct feasibility studies, prepare evaluations of proposals and bids submitted, and advise on contract formulation.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/12	-	-	-	\$18,000

Ceylon (ID-842). An expert attached to Industrial Programming branch of the Development Division of Ministry of Industries and Fisheries, to assist in preparation of demand projections and detailed investment programme.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/6	-	-	-	\$10,000

(b) UNDP (TA)

Afghanistan. Implementation delayed into 1967-68. Two industrial engineers, to assist the Planning and Projects Departments of the Ministry of Mines and Industries on planning and co-ordination of industrial projects. The experts will advise on feasibility studies for specific industries, including factory planning; specifications and evaluation of tenders; and follow-up of project implementation.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/6	1/6	-	-	\$11,000	\$11,000
1/6	1/6	-	-	\$11,000	\$11,000

Cambodia. P.S. No. 4-60. Industrial planning expert to advise Ministry of Industries in all matters related to industrial planning and assist the Ministry in a study of development of existing and new industries.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/12	1/6	-	-	\$22,000	\$11,000

Fiji - P.S. No. 150-67. An industrial economist to formulate industrial projects after a survey and take steps for their implementation.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/6	1/12	-	-	\$11,000	\$22,000

Iran - P.S. No. 220-57. An industrial adviser to assist the Ministry of Economy with the implementation of the current Third Development Plan and to assist in the preparation of the Fourth Development Plan.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/12	1/12	-	-	\$22,000	\$22,000

Malaysia - P.S. No. 19-66. A planning and evaluation expert to carry out feasibility studies of industrial projects and to assess effectiveness of measures for industrial promotion.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/12	1/12	-	-	\$22,000	\$22,000

Malaysia - P.S. No. 264-61. A Deputy Director of the Economic Development Board to advise and assist in the operation of the Board.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/12	1/12	-	-	\$15,000	\$15,000

Singapore - P.S. No. 264-61. An industrial planning expert to improve the techniques of industrial planning and programming and follow-up of implementation.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/12	1/6	-	-	\$22,000	\$11,000

Latin America:

Argentina - P.S. No. 111-57. Two experts in Industrial Complexes location to advise on co-ordinated development based on decentralization and optimum use of available provincial resources for a regional development plan.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	2/6	-	1/6	-	\$14,400

Argentina - P.S. No. 111-57. An industrial economist to assist the Consejo Federal de Inversiones - Federal Investment Council - in advising on co-ordinated development based on decentralization and optimum use of available provincial resources.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/9	1/3	-	-	\$17,500	\$5,400

Colombia - P.S. No. 135-57. An industrial programmer to advise Government on industrial development goals in the national development plan, and on questions of industrial development policy.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/6	1/12	-	-	\$11,000	\$22,000

Ecuador - P.S. No. 51-60. An industrial programmer to assist the national organizations working toward industrial development, consistent with the Industrial Development Plan.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/12	1/10	-	-	\$22,000	\$20,800

Guyana - P.S. No. 230-65. One industrial engineer to prepare feasibility studies for the Guyana Industrial Development Corporation.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/12	-	-	-	\$22,000

Paraguay - P.S. No. 189-57. A general industrial adviser to Ministry of Industry and Commerce to orient industrial development policy in order to take advantage of negotiations with member nations of LAFTA.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/12	1/1	-	-	\$22,000	\$22,000

Middle East and Europe:

Cyprus - Regular ID-503. An expert to advise Ministry of Commerce and Industry on industrial development; initiate studies for identification of industrial projects; evaluate projects and advise on measures to promote industrial investment.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/6	-	-	-	\$11,000

Kuwait - UNDP/Revolving Fund XBO-215. Extension of the services of the industrial economist appointed under the Funds in Trust for the period 16 October 1967 to 15 October 1968.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/2	1/10	-	-	\$3,500	\$19,500

Lebanon - P.S. No. 26-58. Industrial development expert to study the development of industry in a balanced economy, and to promote and encourage industrialization in the private sector.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	1/12	-	-	-	\$22,000

South Arabia - UNDP/Revolving Fund, DP/RP/TA-67/18. One expert to advise on formulation of industrial development policy; necessary legislation and measures to implement the Government's industrial programme.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/6	-	-	-	\$11,000	-

### 3. Special Industrial Services Programme

#### Africa:

Liberia - SIS 67/79. In connexion with the SIS steel project a fellowship award has been granted for an Industrial Economist. The economist has been assigned as a counterpart to an UNTA expert to be attached to a special co-ordinating unit established within the country's Department of Planning and Economic Affairs for the steel project.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	-	1/8	-	\$3,600	-

Ethiopia - SIS 67/70. Two experts in connexion with the third Five-Year Plan, to provide an over-all survey of the manufacturing industry in the country, setting up capacity targets, review existing feasibility studies, and formulate specific industrial projects.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
2/6	-	-	-	-	\$32,000

#### Latin America:

Costa Rica - SIS 67/59. An adviser to the Banco de Costa Rica to assist in formulation and evaluation of industrial projects.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/6	-	-	-	\$21,500	-

Guatemala - SIS 67/150. An expert to assist the Guatemala Institute for Production Development (INFOP) in its reorganization. The expert is expected to assist in adapting the structure of the Institute in all its divisions to make it able to work efficiently in industrial promotion; formulation and evaluation of industrial projects; evaluation of industrial loan requests, etc. In general terms, to reorient it towards industrialization.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/6	-	-	-	\$5,700	-



B. Expert group meetings; seminars; group training and workshops

177. International Working Party on Industrial Programming Data. This Working Party is intended to provide the link between various United Nations offices concerned with "data-bank" services for industrial programming. It was felt that there was need to establish a link between industry-level statistics and project-level programming data, as well as a reasonable degree of inter-country comparability at the level of compilation of primary data. The Working Party will meet from time to time at various places, in connexion with field operations for which its services may be required. In 1968 it is envisaged to hold this meeting in Vienna. The estimated cost is \$10,000, to be financed under the UNIDO Regular Budget.

178. Workshops on Industrial Project Formulation and Evaluation. This project aims at training local personnel in formulation and evaluation of industrial projects. It is planned to organize in 1968 subject to availability of funds: three workshops for technical personnel and orientation seminars for policy-makers to train local personnel.

179. It is planned to organize in 1968 in Turkey a Workshop for Training in Implementation of Industrial Projects. The workshop will deal with the responsibilities of programmers and project executives in implementation and follow-up. Training will concentrate on procedures for implementation, objectives, step-by-step implementation, and attainment of development targets. The objective is to develop a group of programmers in developing countries who would be able to train in turn local personnel, in addition to carrying out programming of implementation. The estimated cost of this project is \$10,000 - and its financing is subject to availability of funds.

180. An Inter-regional Seminar on Industrial Location and Regional Development is planned to be held in 1968 in Minsk (USSR), subject to availability of funds under the UNDP(TA) Programme. The Seminar will review methods and criteria for regional location of industries especially suitable to developing countries, attention being given to the relationship between alternative patterns of regional location of industry and the growth objectives of developing countries; the programming methodology and the appropriate Government policies. The Seminar will discuss the objectives, the various programming methods and data requirements, and the impact of several policy instruments. Throughout the discussions reference will be made to actual country experiences and to the existing institutional framework.

181. Comprehensive documentation is being prepared which will consist of discussion papers prepared by UNIDO staff; analytical studies prepared by independent experts and institutions, and country cost studies. It is expected that the Seminar will be attended by thirty-five participants from developing countries and under United Nations fellowships a number of observers. It is scheduled as Category II project under the UN.P(TA) Programme P.S. No. 169/67. The estimated cost is \$80,000.

182. Training courses in Industrial Development in Collaboration with the United Nations Development Planning Institutes. UNIDO is collaborating with the United Nations African Institute for Economic Development and Planning in carrying out a training course in Industrial Development for African officials. The training course in 1968 is planned to be held in Lusaka. It is envisaged that about twenty-five-thirty officials from various African countries will attend the course which is planned to last for four to six weeks. The cost of this project is \$4,500 in meeting funds, to be financed under the UNIDO Regular Budget.

### C. Studies and Research

#### 1. International Planning and Programming Series

183. (a) Profiles of Manufacturing Establishments. This is a continuing activity which is being carried out as part of the supporting services for technical assistance activities. New additions to the sample of enterprises that are being analysed draw upon new factories and enterprises in the developing countries. The data edited into summary tables are published as Programming Series, Volumes I and II. The cost of the project is \$20,000 in consultant funds, for collection and evaluation of primary data from selected manufacturing establishments in various countries. The cost is to be financed under the UNIDO Regular Budget.

184. (i) Comparative analysis of the "Profiles" data and of other industry statistics. This is a continuing activity in the form of supporting research of the UNIDO "Profiles" series. It consists of an appraisal of the data of the "Profiles" and of reference programming data in the context of feasibility studies and diagnosis of projects. The analysis is intended at the same time to provide additional information on such factors as economies of scale, flexibility of factor proportions, and utilization, etc. The results are published in the Industrial Planning and Programming Series, Volume III. The cost of the project in 1968 is estimated at \$7,000 in consultant services and \$7,000 in computer services, to be financed under the UNIDO Regular Budget.

## 2. Survey of Industrial Plans and Programmes

185. A survey has been initiated to examine industrial plans and programmes in developing countries from the point of view of methodology and performance. This will be conducted in two phases. The initial phase will be limited to a sample of five or six countries selected on the basis of availability of data, contacts with experts in the field and local authorities, relevance of the country's experience, type of economic organization, etc. In a second stage the study will be expanded to include twenty to twenty-five countries; in addition, country study groups will be established along the recommendations of an ad hoc expert group meeting to organize the flow of data and other information from the field. The survey is to be prepared by UNIDO staff assisted by outside consultants. Outlines and preliminary results of the study will be circulated in mimeographed form among experts during 1968. The cost is estimated at \$17,000 in consultant funds, to be financed under the UNIDO Regular Budget.

## 3. Regional Planning and Location

186. It is planned to engage in 1968 in preliminary work for the preparation of an Operational Guide to Regional Industrial Planning and supporting Studies on Industrial Location. The Guide will provide technical assistance experts and regional planners with basic reference information relating to the planning of industrial projects on a regional basis, as well as providing guidance on the carrying out of regional analysis. It will provide a description and explanation of the criteria of industrial location, to be used as basic references, and an outline of technical assistance on organization of location planning offices and regional industrial studies. It will also contain an annotated bibliography on location of industry and regional development. The Guide could also be used later as teaching material for training courses in this field.

187. After a preliminary exploration of the areas to be covered, an Ad Hoc Meeting of Experts to be held in 1969 will assist in the mapping of the general approach and planning of the programme. The Guide will be prepared by UNIDO staff assisted by consultants.

188. As preparatory work to be carried out in 1968, a series of empirical studies is envisaged on the dominant locational orientation of individual industries; the role of the major factors influencing the regional distribution of industrial activity

(such as natural resources, markets, urbanization economies, scale economies, etc), the relevance of transport costs on different inputs and products; the industrial potential of regions within developing countries; and the requirements in data and methodology for programming industrial location on a regional basis.

189. A number of papers have already been commissioned, and others are being prepared by UNIDO staff, in connexion with the Seminar on Industrial Location and Regional Development, scheduled to be held in Minsk (see above). A selection of these papers will be edited, published and circulated to Governments and Technical Assistance Experts. The cost of this project is estimated at \$9,000 in consultant funds, to be financed under UNIDO Regular Budget.

#### 4. Sectoral Planning and Programming Studies

190. To bridge the gap between the over-all economic plan and the developing of feasible projects involves programming of industrial branches or sectors, and that of specific industries. In this connexion, UNIDO is engaged in a series of studies on sectoral planning programming, with the aim of providing information on programming data and techniques used in planning and programming on the sectoral or industry level. This is a continuing activity designed to cover gradually a certain number of key industry sectors.<sup>14/</sup> The studies, in printed form, will be made available to United Nations technical assistance experts in the field as well as to planning offices or government agencies engaged in industrial programming in developing countries.

191. Subject to availability of funds under the UNIDO Regular Budget, it is planned to study in 1968 the Programming of the metal-working and basic metals industries.

#### D. Co-operation with the Regional Economic Commissions

192. Industrial Programming Manual. The purpose of the manual is to provide a basic reference source for training courses, workshops and seminars, as well as for briefing and substantive support of technical assistance experts in the field.

<sup>14/</sup> Two studies - "Programming Data Summary for the Chemical Industry" and "Programming Data for the Petroleum Refining Industry" - were recently published in the Bulletin on Industrialization and Productivity No. 10; No. 2 of the series Studies in Economics of Industry is a study on "Pre-Investment Data for the Aluminum Industry"; No. 1 of the new publication Industrial Planning and Programming Series is devoted to a study of "Techniques of Sectoral Economic Planning: The Chemical Industries".



Preparation of the Manual is planned to be carried out in 1968 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. First drafts will be circulated also for comments and evaluations to experts in the field of programming, including United Nations technical assistance personnel. The cost of the project is estimated at \$5,500 in consultant funds, to be financed under UNIDO Regular Budget.

**E. Publications**

193. The following publications have been approved for printing in 1968:

<u>1. Industrial Planning and Programming Series</u>	<u>Estimated Cost</u>
No. 2 - International Companions of Interindustry Data	\$ 9,200
No. 3 - Planning for Advanced Skills and Technologies	\$ 5,650
No. 4 - Profiles of Manufacturing Establishments in Selected Countries (Vol. I)	\$ 7,500
No. 5 - Industrial Project Formulation and Evaluation, Vol. I	\$ 9,450
No. 6 - Structure of Material Inputs in Manufacturing Industries and Inter-Industry Relations	\$12,100
No. 7 - Profiles of Manufacturing Establishments in Selected Countries (Vol. II)	\$11,000
<u>2. Bulletin on Industrialization and Productivity</u>	
No. 12 . . . . .	\$ 5,100
No. 13 . . . . .	\$11,450
No. 14 . . . . .	\$ 4,600
<u>3. Manual on the Role of Industrial Co-operation in Industrial Development</u>	\$ 4,300
<u>4. Studies in Economics of Industry</u>	
No. 3 - Iron and Steel Metalworking Industries	\$ 5,400

Group 13. Industrial Policies and Industrial Financing

General remarks

(a) Industrial Policies

194. While there can be no generally applicable set of policies to stimulate and guide the process of industrialization, it is useful to study and analyse the experience gained in this field by various countries including those of different phases of industrialization. On the basis of this information each country will develop the particular set of policies appropriate to its problems, conditions and institutions. The studies in the area of industrial policies under the 1968 Programme of UNIDO are designed with this objective in mind.

(b) Industrial Financing

195. There is a considerable body of experience and information available in the development banks of many developing countries in the field of financing of industrial projects and exchange of information and experience among industrial development banks is highly desirable. Another important area of activities is promotion of financing of industrial projects by prospective investors. These activities have been given considerable emphasis by the Industrial Development Board at its first session.

196. Assistance to developing countries in this particular field will be in the form of: (i) advice on investment promotion facilities, and assistance in their establishment, (ii) strengthening and improvement of operation of promotion agencies; (iii) advice on appropriate sources of financing in capital-exporting countries for specific projects and establishment of contacts between prospective investors and promoters of industrial projects; (iv) in the case of countries that cannot afford the cost of operating their own investment promotion centres, bringing industrial investment opportunities to the attention of prospective foreign investors.

(c) Financial Planning

197. Industrial projects that are sound from technical and economic viewpoints may fail because of poor financial planning, such as inadequate provisions of working capital, unrealistic capital structure or unrealistic schedules of repayment

of debts. These weaknesses may exist in public as well as private enterprise. Training programmes, expert advice and data on financial planning will be made available in 1968 to developing countries through a series of field workshops and seminars and technical assistance to be provided upon request by the countries concerned.

A. Field activities under the various programmes of technical assistance

1. Regular Programme and UNDP (TA)

Africa

Malawi - P.S. No. 268-65. Industrial adviser to guide the Malawi Development Corporation during its formative years to stimulate investment in the private sector.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/12	1/12	-	-	\$16,000	\$16,000

Nigeria - P.S. No. 10-61. Industrial adviser for a mission to the Mid-Western Region to advise industrial investment policies.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/6	1/6	-	-	\$11,000	\$11,000

Sudan - P.S. No. 225-61. Four experts to conduct a general survey of industrial investment opportunities in the Sudan with a broad feasibility study of a few major priority projects as revealed by the survey.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
-	4/48	-	-	-	\$88,000

Zambia - P.S. No. 139-65. Industrial adviser to assist the industrial Development Corporation of Zambia on large and small-scale industries for development.

EXPERTS		FELLOWS		COST	
No. and man/months					
1967	1968	1967	1968	1967	1968
1/12	1/12	-	-	\$22,000	\$22,000

Asia and the Far East

India - P.S. No. 37-57. Five experts to undertake an industry investment survey.

EXPERTS			FELLOWS		COST	
No. and man/months						
1967	1968	1967	1968	1967	1968	
5/36	5/36	-	-	\$67,200	\$67,200	

Pakistan - P.S. No. 73-57. Four experts to assist the Investment Corporation of Pakistan in their organization of Investment Advisory Services. The main functions of the experts are: one expert to give professional counsel on underwriting techniques; second to advise on loan utilization, with visits to industrial projects; third to appraise loans made to chemical and allied industries; fourth to appraise projects and advise on contractual arrangements.

EXPERTS			FELLOWS		COST	
No. and man/months						
1967	1968	1967	1968	1967	1968	
4/48	4/24	-	-	\$88,000	\$44,000	

Singapore - UNDP/Revolving Fund DP/RP/TA 67-49. One expert to review the development policy of the Government and to advise on the industrial investment promotion programme.

EXPERTS			FELLOWS		COST	
No. and man/months						
1967	1968	1967	1968	1967	1968	
1/0.75	-	-	-	\$4,000	-	

Latin America

Honduras - P.S. No. 24-61. Industrial adviser to the General Secretariat of the National Economic Council for the formulation, evaluation and co-ordination of the national industrial programme, and investment policies.

EXPERTS			FELLOWS		COST	
No. and man/months						
1967	1968	1967	1968	1967	1968	
1/1	1/1	-	-	\$22,000	\$22,000	

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Nicaragua - P.S. No. 181-57. Industrial economist to advise Ministry of Economy on fiscal incentives and industrial development policies.

EXPERTS			FELLOWS		COST	
No. and man/months						
1967	1968	1967	1968	1967	1968	
1/9	1/3	-	-	\$16,500	\$5,500	

Uruguay - P.S. No. 483-57. Industrial economist to identify potential co-operation with the industrialized countries on the basis of transferring industries from those countries to Uruguay.

EXPERTS			FELLOWS		COST	
No. and man/months						
1967	1968	1967	1968	1967	1968	
-	1/6	-	-	-	\$10,800	

B. Expert, Groups, Seminars and Other Meetings

1. Meeting of Experts on Specific Industrial Fiscal Incentives

198. As a continuation of the work by UNIDO in compilation and analysis of individual country incentive laws, it is proposed to hold in June 1968 a meeting of experts on evaluation of the design, operation and effectiveness of industrial fiscal incentives with a view to making recommendations to Governments on their fiscal incentive policies; in addition the meeting would suggest guidelines for a work programme. The estimated cost of the project is \$7,000, to be financed from the UNIDO Regular Budget.

2. Expert Meeting on assistance in Investment Promotion

199. Within the programme of investment promotion outlined above, it is planned to hold in 1968 a meeting to follow up the 1967 meeting in New York. The 1968 meeting will be devoted to the problems faced by developing countries in their investment promotion efforts and the assistance that UNIDO could provide in this field. The meeting is to be held in Vienna. The estimated cost is \$11,000 to be financed from the UNIDO Regular Budget.

C. Studies and Research

200. Studies will be carried out by UNIDO staff assisted by consultants for the preparations of the 1968 meetings described in the previous section. The research work will deal also with the preparation of meetings and seminars in the following years and provide the necessary support of technical assistance. UNIDO has initiated a project in the latter part of 1966 to promote co-operation among industrial development finance institutions in exchanging information and experience in training of industrial projects and promoting joint projects such as research and training programmes and joint ventures. Work will continue in this area in 1968. Information circulars will be published from time to time containing information on selected projects promoted or financed by development banks to serve as reference material for the interested agencies. This material is to be prepared by UNIDO staff with the assistance of consultants. The cost of consultants in the amount of \$9,000 is provided in the Regular Budget of UNIDO.

201. As a follow-up of this work it is expected to hold at some future date a series of regional meetings of representatives of industrial development banks.

D. -

E. Publications

202. The report of the Experts' Group meeting on Fiscal Incentives for industrial development is expected to be processed internally.

Group 14. Promotion of exports of manufactures and semi-manufactures

General remarks

203. At the United Nations Conference on Trade and Development in 1964 the various aspects of the problem of diversification and expansion of exports of manufactures and semi-manufactures of developing countries were examined in detail. It was shown that in order to widen the base for accelerated industrial growth and improve the balance of payments, industrial development of the developing countries should be given a new orientation with emphasis on export-oriented industries. The resolution passed at the first session of the Industrial Development Board in April 1967 stipulated that UNIDO should render assistance to developing countries:

(a) "in developing and improving marketing and distribution techniques and in providing solutions for marketing and distribution problems of specific industrial products";

(b) "in the development of export-oriented industry and in the solution of its particular problems";

(c) "in establishing or strengthening national and multi-national institutions to deal with various aspects and problems of industrial development" in such fields as (among others) marketing and export promotion.

204. The problem of exports of manufactures and semi-manufactures was also considered at the meetings of the Executive Secretaries of the United Nations regional economic commissions held in January and June 1967, with the participation of officials of UNIDO, UNCTAD and other interested agencies. The January meeting established a combined United Nations Programme in Export Promotion, with the participation of UNIDO, UNCTAD, the regional commissions and other interested agencies (e.g., GATT).

205. The areas of activities of UNIDO in export promotion are to assist Governments in (i) formulation of integrated policies in promotion of exports of manufactures; (ii) identification and programming of industrial sectors with an export potential; (iii) development of competitive export-oriented industries; (iv) promoting co-operation among developing countries on Programmes and projects in the field of export industries; (v) establishing or strengthening national and multi-national institutions to deal with various aspects and problems of industrial exports. As mentioned above, some of these activities are to be carried out in co-operation with other interested agencies; in particular, a certain number of projects are either

carried out or planned for implementation in 1968 under the United Nations Combined Programme for Export Promotion referred to above.

206. Within the framework of co-operation with UNCTAD, two joint UNIDO/UNCTAD advisory expert groups were convened, respectively, in October 1966 and June 1967, with a view to advising the heads of the two organizations on formulation of a Programme of technical assistance to Governments in promotion of exports. The recommendations of these groups are being taken into account in the shaping of the UNIDO Programme of work in this field.

207. Promotion of exports of manufactures is a relatively new field to which Governments of many developing countries did not have the opportunity of devoting sufficient attention. There has been consequently little activity under the United Nations Technical Assistance Programme. In order to inform Governments of the activities that are now being undertaken by the United Nations in this area and of the possibilities of assistance offered under the operational Programmes it is planned to organize in 1968 under the Combined United Nations Programme in Export Promotion, a series of regional exploratory missions, jointly sponsored by UNIDO, UNCTAD/UNEP and the respective regional commissions, to selected countries in Asia, Africa and Latin America. The objective of these missions, which will be composed of three experts designated by the participating parties, is to discuss with the Governments concerned the setting up of an integrated Programme of technical assistance for promotion of exports of manufactured goods and strengthening of the export potential of the industries of the respective countries.

A. Field activities under the various Programmes of technical assistance

1. UNDP (TA) Programme

Argentina (in co-operation with UNCTAD). P.S. No. 111-57. A five-man team consisting of one co-ordinator and four experts in machine tools, agricultural machinery, processing of hides, and leather goods, sponsored by the Ministry of Foreign Trade and the National Development Council (CONADE).

The objective of the project is to promote exports of manufactured goods produced in the four industries enumerated above. The experts will first make a detailed investigation in Argentina of the economic and technological conditions in the industries, with a view to ascertaining its competitive position as regards cost, quality, terms of delivery and so on. They will then engage in an on-the-spot investigation of the marketing possibilities

in a number of countries that are likely to be potential outlets for these goods. The findings of this project should provide guidance to the Argentine Government in promoting an export drive of the products of these industries.

The project was originally scheduled for 1967; because of the delay in implementation it is likely to be carried out in 1968.

EXPERTS		FELLOWS		COST	
Number and man/months					
1967	1968	1967	1968	1967	1968
5/30	-	-	-	\$75,000	-

## 2. Special Industrial Services Programme

Mexico. SIS 67/132. An expert will be assigned to Nacional Financiera S.A., for one year to assist in the evaluation of manufacturing projects with regard to their impact on other sectors of the economy. He will be expected to:

- (a) Study productivity in the manufacturing sector;
- (b) Prepare methodology for the evaluation of investment projects for consideration in the public and private sectors;
- (c) Establish central parameters for these methodologies, including accounting procedures in manufacturing, and examine their effects on the national economy;
- (d) Formulate guidelines for economic policy measures for the implementation of the economic development objectives.

The Government of Mexico requested contingency financing for this post. Since no savings are available in the Mexico technical assistance Programme, the UNDP authorities suggested that this project could be initially financed under SIS (the request asks for a two-year assistance of which six months will be financed by the Government).

EXPERTS		FELLOWS		COST	
Number and man/months					
1967	1968	1967	1968	1967	1968
-	1/12	-	-	-	\$21,000

## B. Expert group meetings; seminars; group training and workshops

208. A training course for export promotion personnel of the developing countries is planned for 1968. It is to be held with the co-operation of UNCTAD in Zagreb

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and arrangements for the organization of the course have been discussed with the Yugoslav Government. Teaching material for this course is being prepared by UNIDO. The cost of the project is estimated at \$80,000. The provision of the necessary funds is being discussed with UNDP.

209. Preliminary work is also carried out for preparation of two other meetings to be held in 1968, subject to availability of funds under the UNDP (TA) Programme: (a) a seminar on institutional aspects of export promotion and (b) an expert group meeting on promotion of export marketing organizations. The cost of these meetings is estimated at \$60,000 and \$12,000 respectively.

210. Joint UNIDO/UNCTAD/UNDP exploratory missions of expert teams are to be sent to selected countries in three regions, Asia or the Far East, Africa and Latin America, to advise Governments on formulation of integrated Programmes of assistance in promotion of exports of manufactured goods. The estimated cost is \$5,000 for each team. The total cost of \$15,000 is to be shared in equal parts by UNIDO, UNCTAD and UNDP.

211. Subject to availability of funds the following two meetings are planned for 1968 to be financed under UNIDO regular budget:

1. Expert group on utilization of excess capacity on manufacturing for exports, to be held in 1968 in Latin America. Fifteen participants. Estimated cost, \$8,000.

2. Expert group on metal working as a potential export industry of the developing countries to be held in 1968 at a place and time to be determined. Estimated cost, \$8,000.

### C. Studies and research

212. The following studies, some of which are intended to provide documentation for the meetings listed under the previous section, are planned for 1968. The cost in consultant services is to be financed under the UNIDO regular budget.

1. Development of the metal working industries as potential export industries: This is a continuing project the objective of which is to develop a methodology for the upgrading of metal working industries with a view to potential exports in the near future at the same time as they are supplying domestic demand in their own countries. An empirical study initiated in 1967 is under way in Yugoslavia in connection with a UNIDO project which is being implemented there in the

same area. It is planned to carry out in 1968 another country study in Hungary. Both studies are produced by consultants. The estimated cost of consultant services in 1968 is \$10,000.

2. Industrial co-operation in promotion of industrial exports between developing and industrialized countries: The first study in this area to be carried out in 1968 will relate to co-operation with the socialist countries. Estimated cost in consultant services, \$3,000.

3. Optimization of policy measures for the promotion of export-oriented industries.

4. Inter-regional co-operation between developing countries.

5. Utilization of manufacturing excess capacity for exports; studies 3, 4 and 5 to be carried out by consultants at a total estimated cost of \$5,500.

6. Feasibility of repayment of credits and interests in the form of industrial exports from developing countries to creditor countries.

7. Methodological aspects of inclusion of exports of manufactures in industrial planning. Studies 6 and 7 to be carried out by UNIDO staff and no outlay in consultant fees is involved.

8. Furthermore, as a continuing activity, UNIDO staff is engaged in collection analysis of data and material on export possibilities and existing market opportunities for specific products of industries of the developing countries, with a view to providing upon request information to interested parties. This work is to be carried out in conjunction with the activities of UNCTAD and GATT in this area, particularly with those of the joint UNIDO/GATT International Trade Centre in Geneva.

#### D. Co-operation with the regional commissions

213. As indicated in the preceding sections, a number of projects in this group involves co-operation with the regional commissions.

#### E. Publications

214. The following studies are planned for publication in 1968:

1. Teaching material for training of export promotion personnel.

2. Methodological aspects of the inclusion of exports of manufactures in planning procedures.

3. Report of the expert group meeting on export marketing organizations.

These papers are to be processed internally, and do not involve printing costs.

Group 15. General research projects established as continuing activities

215. In addition to the study and research projects programmed under the groups of activities described above, the following general research activities are carried out as a continuing activity by special units of UNIDO secretariat.

216. The first is the preparation of an annual World Industrial Survey by the Survey Section in the Programming and Policies Division. The first issue of the Survey was published in 1967 and submitted to the International Symposium on Industrial Development.

217. The second volume of the Survey for 1968 will review the main trends and developments in the developing countries in industry and related fields; the general demand and supply influences; the developments in manpower, natural resources and technology; the use and availability of finance; and other problems affecting industry growth. In addition, during 1968, attention will be given to the following issues affecting the process of industrialization of the developing countries: (a) the impact of the Kennedy Round of tariff negotiations and import duty reductions on the establishment and expansion of export industries in the developing countries; and (b) problems in financing of industrial projects.

218. The same section will engage in the preparation of a number of country studies. These will deal with a detailed analysis of the industrial sector of the selected countries and of its relation to the general economic situation of these countries. These studies will be useful for policy guidance of Governments and as background information in connexion with the technical assistance programmes in industry in the countries concerned.

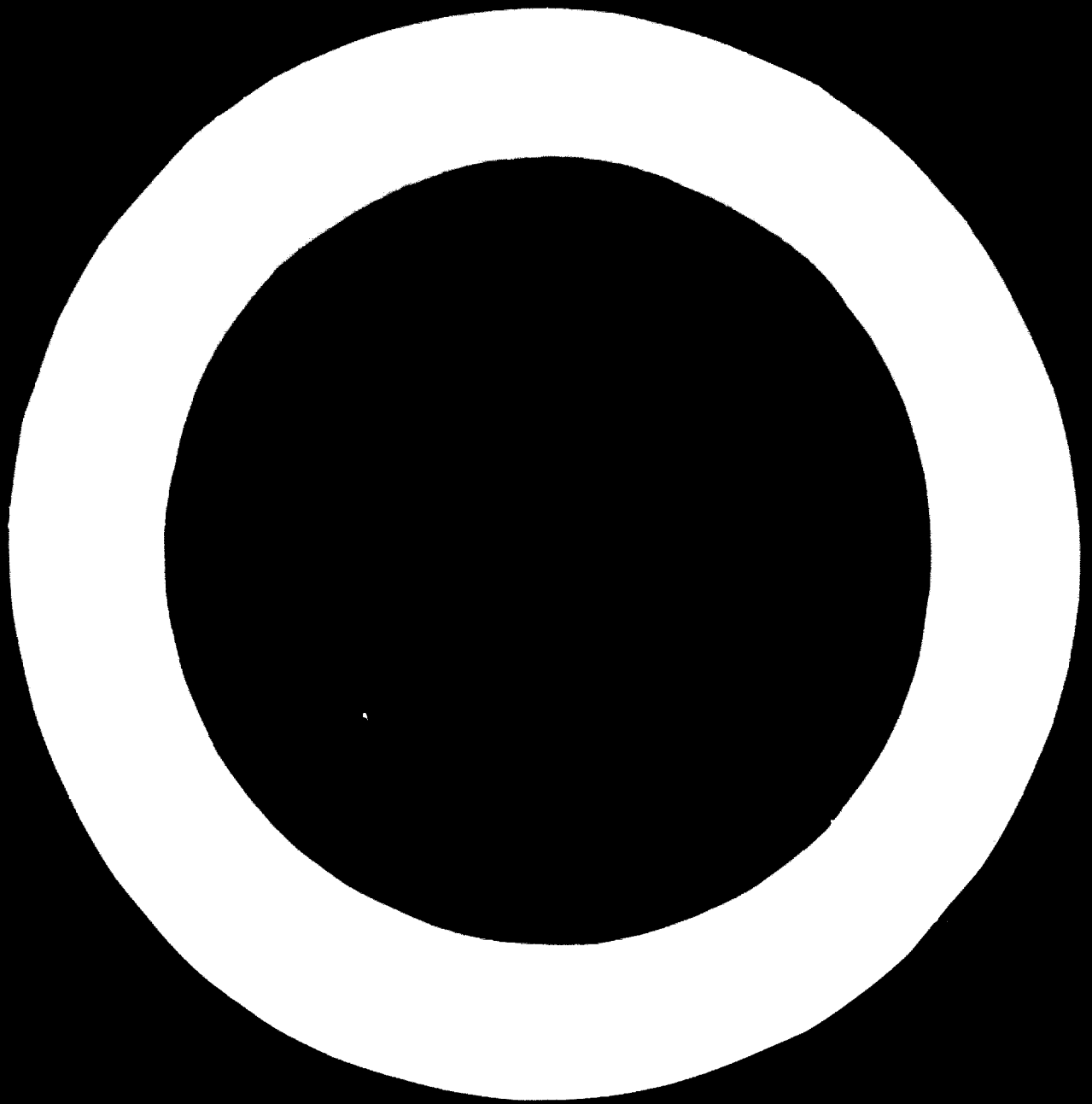
219. These studies are to be carried out by UNIDO staff with assistance of consultants. The estimated requirements in consultant funds are \$25,000 for the Survey and \$10,000 for the country studies; to be financed under UNIDO's regular budget.

220. The second project consists in collection, analysis and periodic publication, on a continuous basis, of basic industrial data relating to the branches covered in Groups 1 through 6, such as economic and financial structure of the industry, its



capacity, state of technology, productivity, market conditions. The information will also include statistical data on investment, production, consumption and trade in the products of the industry.

221. This activity is under the responsibility of a special Industry Reporting Unit in the Technological Division, in co-operation with the technical staff of the industry units concerned. The work is to be carried out by UNIDO staff assisted by consultants as required. The estimated costs in consulting services is \$10,000, to be financed under UNIDO's regular budget.



ANNEX I

Budgetary Implications of the Work Programme  
in terms of Staff Requirements

1. The total budget of UNIDO for 1968 is estimated as \$9,202,000 in section 20 of the Budget Estimates for the financial year 1968.<sup>a/</sup> Budgetary implications of the work programme outlined in this report relate only to particular chapters and items of the total budget. These are: Chapter III - Summary of established posts totalling 670 (Professional and General Service); Chapter III - item (iii) individual experts and consultants (\$290,000); Chapter II - Meetings of experts and advisory bodies (\$96,000); and Chapter X - item (1) Printing (\$180,000).
2. The budget estimate for 1968 provides for a total of 313 established posts of Professional and Director levels, consisting of 18 posts for the office of the Director; 10 posts for Industrial Field advisers; 108 posts for the Division of Administration, including Conference Service, languages, reproduction and document sections; 31 posts for the Technical Co-operation Division; 146 posts are provided for the three substantive divisions: Industrial Technology, Policies and Programming, and Services and Institutions, of which 136 are professional posts.
3. The last three units are directly involved in the activities described in the present Work Programme, being responsible for (i) direct support of operational field activities (Section A of Part II of the Work Programme); and (ii) other supporting activities (Sections B to E). The following table indicates the availabilities of our requirements in professional staff for these three divisions. In order to take account of the staggered recruitment and other factors, staff availabilities have been calculated in terms of effective man-months according to a formula indicated in the table, as different from nominal man-months corresponding to the 1968 manning table figures. The requirements have been indicated in terms of the two categories of activities indicated above.

<sup>a/</sup> A/6705.

Staff Availabilities and Requirements for 1968 Work Programme, Part II

Staff		Substantive Divisions			TOTAL	
		Technology	Industrial Services & Institutions	Industrial Policies & Programming		
1.	Personnel on Board on 31 December 1967	Numbers	14	18	27	59
2.	Recruitment during 1968	"	32	26	19	77
3.	Personnel on Board on 31 December 1968	"	46	44	46	136
4.	Available effective man-months in 1968 <sup>a/</sup>	Man/ Months	264	294	381	939
	(i) Direct support to Field Operational Activities (Section A)	"	172	118	133	423
	(ii) Supporting Activities (Section B)	"	92	176	248	516

<sup>a/</sup> 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 over 1968, and the loss involved in the adjustment of new staff to their duties. The effective man-months in 1968 have been obtained as a sum of the man-months on Board as of 31 December 1967 and 25 per cent of the man-months of personnel recruited during 1968.

ANNEX II

Experts Group Meetings; Seminars; Group Training and Workshops  
planned for 1968 a/

<u>Industry Group</u>	<u>Project</u>	<u>Date</u>	<u>Place</u>
1. Engineering Industries			
(1)	Experts Meetings on the Design Manufacture and Utilization of Dies and Jigs	Mid 1968	USSR
(2)	Experts Group on Status of Technology in Electric and Electronic Industries	Mid 1968	Vienna
(3)	In co-operation with ECLA: Seminar on Automotive Industry in Developing Countries	Late 1968	Latin America
2. Metallurgical Industries			
	Second Iron and Steel Symposium	September October 1968	USSR
3. Construction and Building Materials Industries			
(1)	In Co-operation with United Nations Housing Centre: Inter-regional Seminar on the Development of Clay Building Materials in Developing Countries	1968	Denmark
(2)	In Co-operation with ECAFE: Seminar on Prefabrication in the Building Industries for the Asia and the Far East Region	1968	Denmark
(3)	In Co-operation with United Nations Housing Centre and Regional Economic Commissions: Inter-regional workshop on Administration and Organizational Measures for increasing productivity in the housing, construction and building materials industry	1968	USSR
4. Chemicals, etc.			
(a) <u>Basic Chemicals</u>			
(1)	Experts Working Group on modernization and mechanization of the salt industries, based on sea-water in the developing countries	1968	Vienna

a/ As referred to in the text, the implementation of some of these projects is subject to availability of funds.

<u>Industry Group</u>	<u>Project</u>	<u>Date</u>	<u>Place</u>
	(2) Inter-regional Seminar on Manufacture and Use of Basic Chemicals in Developing Countries	2nd half 1968	USSR
(b)	<u>Petrochemicals and Synthetics</u>		
	(1) Second Inter-regional Conference on Petrochemical Industries in Developing Countries	1968 or 1969	
	(2) Experts Group Meeting for Development of Plastics (Polymer) Industries in Developing Countries	1968	Vienna
5.	Fertilizers		
	(1) Ad Hoc Expert Group Meeting from Fertilizer Deficit Countries	1968	
	(2) Consultative Panels on development of fertilizer industries	1968	Africa, Asia, Latin America
	(3) Preparatory meeting for 1969 World Fertilizer Congress	1968	Vienna
6.	Light Industries		
(a)	<u>Textile Industries</u>		
	(1) Experts Group Meeting on Machinery Selection for textile industry in developing countries:		
	(i) Cotton	1968	Vienna
	(ii) Wool	1968	Vienna
(i)	<u>Food Processing</u>		
	(1) Refrigeration techniques and equipment	1968	
(i)	<u>Industrial Patents</u>		
	Advisory Meeting of Experts in Patents for Developing Countries	1968	New York
	Industrial Research, Standardization and Quality Control		
	Co-operation in the Field of Industrial Research and Quality Control (1)	1968	Denmark

<u>Industry Group</u>	<u>Project</u>	<u>Date</u>	<u>Place</u>
9.	Industrial Consultancy Services Industrial Organization and Administration		
	(1) Regional Workshop for Employers of Consultants	1968	
	(2) Regional Workshops on the Organization and Administration of Industrial Services in Asia and the Far East		
10.	Industrial Management and Training		
(a)	<u>Industrial Management</u>		
	(1) Industrial Consultation Workshops:		
	(i) Industrial Costing and Market Promotion	1968	Indonesia
	(ii) Systems Analysis, including application of Electronic Computers	1968	USSR
	(iii) Corporate Planning and Organization in the Textile Industry	1968	Peru
	(iv) Operating State-owned Enterprises in Ghana	1968	Ghana
	(v) Decentralization of Industries and Market Promotion	1968	Yugoslavia
	(vi) Industrial Design and Product Development	1968	Turkey
	(vii) Economic and Technical Managerial Problems in the Mining Industry	1968	Bolivia
	(2) Seminar on Quantitative Techniques of Management in the USSR	1968	USSR
(b)	<u>Industrial Training</u>		
	(1) Group in Plant Training Programmes:		
	(i) Cement Industry	1968	Denmark
	(ii) Diesel Oil Engines	1968	Czecho-slovakia
	(iii) Electrical Industries	1968	Sweden
	(iv) Iron and Steel Industry	1968	USSR
	(v) Metallurgical Industries	1968	Italy

<u>Industry Group</u>	<u>Project</u>	<u>Date</u>	<u>Place</u>
	(vi) Machine Manufacturing	1968	Italy
	(vii) Textile Industry	1968	Poland
	(viii) Maintenance	1968	Japan
	(ix) Machine Tool Industry	1968	Germany
	(2) <u>Ad Hoc</u> Experts Meeting on Estimation of Managerial and Technical Personnel Requirements in selected Industrial Branches		
11.	Special Problems and Institutions for Small-scale Industry including Industrial Estates		
	(1) Group Training Programme on Industrial Estates at the Small Industries Extension Institute (SIET) of Hyderabad (India)	End 1968 or early 1968	India
	(2) <u>In Co-operation with ECLA:</u> Experts Group on financing of small-scale industries in Latin America	1968 or 1969	Santiago
12.	Planning and Programming; Project Formulation; Industrial Location and Regional Development		
	(1) International Working Party on Industrial Programming Data	1968	Vienna
	(2) Workshops on Industrial Project Formulation and Evaluation (three workshops for technical personnel and orientation seminars for policy makers to train local personnel)	1968	Africa, Asia, Latin America
	(3) Workshop Training for Implementation of Industrial Projects	1968	Turkey
	(4) Industrial Location and Regional Development Planning	1968	Minsk
	(5) Co-operation in Industrial Development Training Course of four to six weeks, in collaboration with the United Nations Development Planning Institute of Dakar	1968	Lusaka

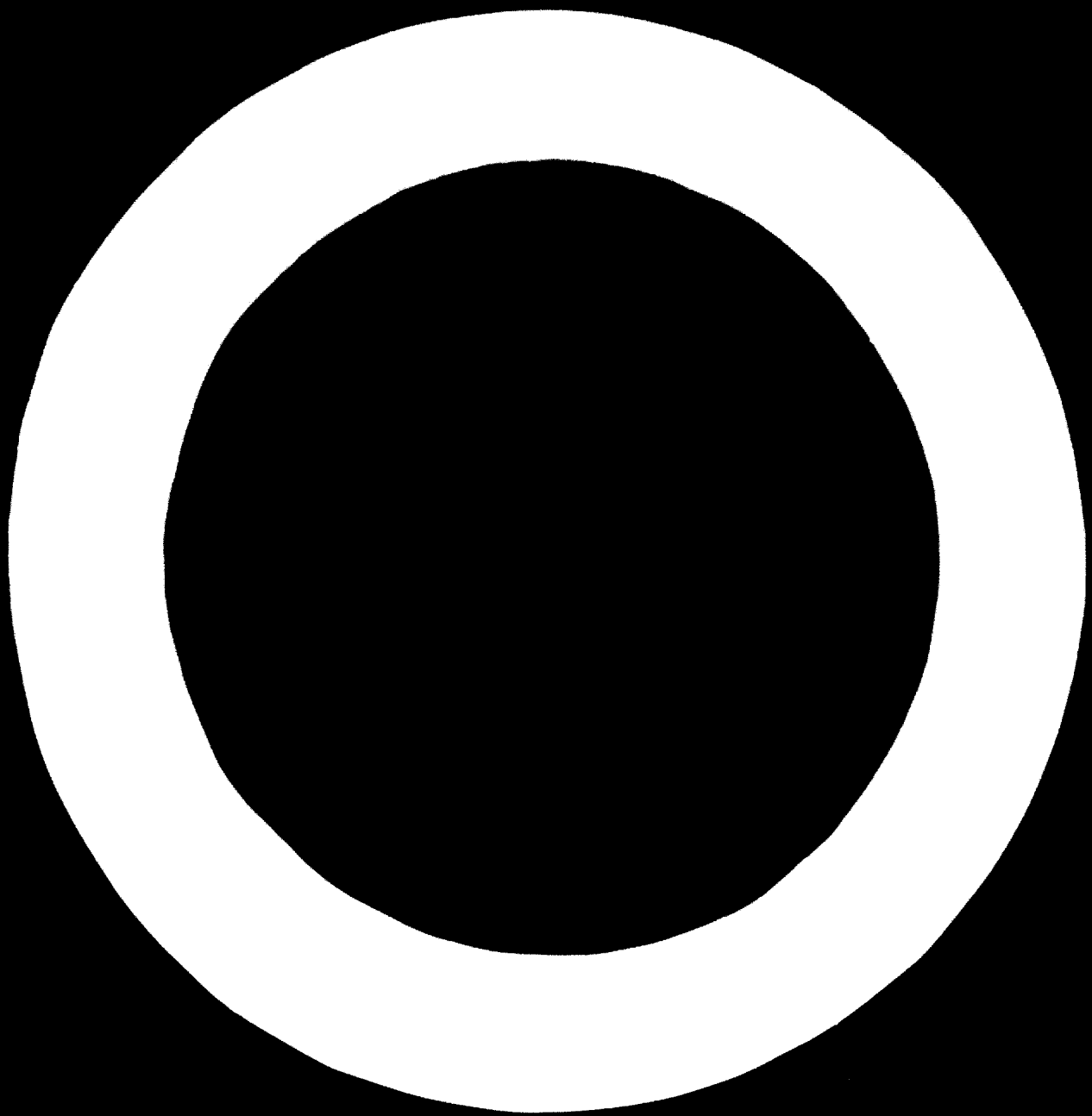




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<u>Industry Group</u>	<u>Project</u>	<u>Date</u>	<u>Place</u>
13.	Investment Policies; Industrial Investment Financing; Financial Planning		
	(1) Meeting of Experts on Specific Industrial Fiscal Incentives	June 1968	
	(2) Experts Meeting on Assistance in Investment Promotion	1968	
14.	Export Promotion; Development of Export-oriented Industries Jointly with UNCTAD:		
	(1) Training Course for Export Promotion Personnel of Developing Countries	1968	
	(2) Seminar on Institutional Aspects of Export Promotion	1968	
	(3) Experts Group Meeting on Promotion of Export Marketing Organizations	1968	
	(4) Experts Group on Utilization of excess capacity in manufacturing for Export	1968	Latin America
	(5) Experts Group on Metal-working as a potential export industry of the Developing Countries	1968	

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## ANNEX III

### Study and Research Projects

#### Industrial Activity Group - Projects

##### I. Engineering Industries

1. Design, Manufacture and Utilization of Dies and Jigs.
2. Status of Technology in the Electric and Electronic Industries.
3. Survey of the Automotive Industry: to be prepared by ECLA in consultation with UNIDO.
4. In co-operation with Regional Economic Commissions:
  - (i) with ECA - Rolling Stock Standardization Aspects
  - (ii) with ECAFE - Feasibility studies and other programmes for the Investigation and Implementation of Engineering Industry Projects.
  - (iii) with ECLA - Studies on Metal Transforming Sector.

##### II. Metallurgical Industries

1. Studies on the Techno-economic aspects of the Development of Iron and Steel Industries in the Developing Countries.
2. In co-operation with Regional Economic Commissions:
  - (i) with ECE - World production, Market and Prices of Iron and Steel, World Consumption and Resources for Steel-Making.
  - (ii) with ECLA - Present Status and Future of the Iron and Steel Industry of Latin American Countries.
  - (iii) with ECA - Present Status and Future of the Iron and Steel Industry of African Countries.

##### III. Construction and Building Materials Industries

1. Studies of selected products: Mineral wool, Manufacture and Uses.
2. Asbestos Cement and similar Fibro-Cement Materials.
3. Cement from Gypsum.
4. In co-operation with ECLA - Surveys on the building materials and construction industries in Latin America.

IV. Chemicals, Petrochemicals and Synthetics, Insecticides and Pesticides, Pharmaceuticals and other related Industries

(a) Basic chemicals

1. Studies on modernization and mechanization of the salt industries based on sea-water:
  - (i) Manufacturing industries in solar salt;
  - (ii) Energy and fuel requirements and relationships;
  - (iii) Machines used in the solar salt industry;
  - (iv) Materials of construction in the solar salt industry;
  - (v) Regional and country studies on sea-water industries.
2. Manufacture and use of basic chemicals in the developing countries.

(b) Petrochemicals and Synthetics

1. Production, Consumption and Trade in Petrochemicals in the World.
2. A series of studies in plastics, rubbers; quality control and testing of polymers; pilot plants for the manufacture of monomers, intermediate and polymers; processing of polymers.
3. In co-operation with Regional Economic Commissions:
  - (i) with ECA - Techno-economic studies on rubber, plastics and insecticides sector.
  - (ii) with ECAFE - Feasibility of establishment of petrochemical complexes.
  - (iii) with ECLA - Survey on Plastics consumption in the Region. Regional co-operation in Pesticides Manufacture.

V. Fertilizer Industries

1. World Directory of Fertilizer Production Facilities.
2. In co-operation with Regional Economic Commissions:
  - (i) with ECA - (a) Comparative study on production of phosphatic fertilizers, using various processes. (b) Examination of the economic feasibility of ammonia production in countries of Africa either on a sub-regional basis or a regional basis compared to import of ammonia. (c) Studies on production of high analysis fertilizers for internal consumption and exports; on utilization of gypsum for sulphuric acid and ammonium sulphate production; and on utilization of hydrochloric acid for acidulation of phosphate rock.

- (ii) Middle East - (a) Studies in potash extraction from the Dead Sea.  
(b) Feasibility studies for the manufacture and marketing of multi-nutrient fertilizers.
- (iii) with ECLA - Studies on the supply and demand position of fertilizers in the region and on regional planning to put the industry on an equal footing with those of the industrialized countries.

## VI. Light Industries

### (a) Textiles

- (i) Selection of Equipment in the Cotton Industry.
- (ii) Selection of Equipment in woollen industry.
- (iii) Technology of Refrigeration.
- (iv) Engineering aspects of selected food industries.

In co-operation with Regional Economic Commissions:

- (i) with ECA - (a) Feasibility study on ready-made clothing; (b) Feasibility study on the establishment of a textile research centre; (c) with ECA and ECAFE Guidelines for production of man-made fibres.
- (ii) with ECAFE - (d) Feasibility study on the establishment of hosiery and garment industries.
- (iii) with ECLA - Reorganisation of textile industry.

Maintenance in the textile industry.

### (b) Food Processing

1. with ECLA - (a) Techno-economic surveys of the food processing industry in Latin America. (b) With ECLA and Fish Research Institutes at Santiago and Callao; Fish Protein concentrates in Chile and Peru.
2. with ECAFE - Study to improve the yield of rice.
3. with ECA - Study in processing of cassava, millet, meat.

## VII. Industrial Legislation, Patents and Licensing

Compilation of an Industrial Legislative Series for Information on Laws, administrative directives and regulations affecting industry.

VIII. (a) Industrial Research; (b) Standardization and Quality Control;  
(c) Industrial Information

(a) Industrial Research - No studies.

(b) Standardization and Quality Control - No studies.

(c) Industrial Information:

1. Study on Advisory Services and Industrial Equipment.
2. Industrial Opportunities Matrix.
3. Directory of Industrial Agencies.
4. Research in connexion with publications: (i) Industrial Research and Development News; (ii) UNIDO Newsletter.

IX. Industrial Consultancy Services, Industrial Organization and Administration

Roster of Consulting Organizations.

X. Industrial Management and Training

(a) Industrial Management

1. Corporate planning (studies in specific industries).
2. Quantitative Techniques in Management.
3. Organization and Management of the Distribution Channels for Consumer Goods in the Developing Countries.
4. Organization and Management of Product Development within Individual Enterprises (Studies).
5. Flexibility of Use of Electronic Computer and Systems. Analysis on the Developing Countries.
6. Maintenance Planning and Training.

(b) Industrial Training

Manpower Development for Industrialization.

XI. Special Problems & Institutions for Small-scale Industry including Industrial Estates

1. Financing of Small-scale Industries.
2. Techno-Economic Studies in Sub-Contracting.
3. Small-scale Industries in Centrally Planned Economies.
4. Common Service Facilities on Industrial Estates.
5. Specialized Industrial Estates.

XII. Planning and Programming; Project Formulation; Industrial Location and Regional Development

1. Industrial Planning and Programming Series:
  - (i) Profiles of Manufacturing Establishments (Summary of tables to be published Vols. I and II)
  - (ii) Comparative Analysis of the Profiles data and other Industry Statistics, Vol. III.
2. Survey of Industrial Plans and Programmes.
3. Operational Guide to Regional Industrial Planning.
4. Sectoral Planning and Programming Studies - (i) Metal Working industries.
5. Co-operation with Regional Economic Commission: Industrial Programming Manual.

XIII. Investment Policies; Industrial Investment Financing; Financial Planning.

Documentation for Experts Meetings on:

- (i) Specific Industrial Fiscal Incentives.
- (ii) Investment Promotion.

XIV. Export Promotion, Development of Export-oriented Industries

1. Optimization of Policy Measures for the Promotion of Export-oriented Industries.
2. Interregional Co-operation between Developing Countries.
3. Utilization of Manufacturing Excess Capacity for Exports.

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4. Development of the Metal Working Industries as Potential Export Industries.
5. Industrial Co-operation between Developing Countries and Socialist Countries  
(Combine with above Studies)
6. Study of the Feasibility of Repayment of Credits and Interests in the form  
of Commodities.
7. Methodological Aspects of the Inclusion of Exports of Manufactures in  
Industrial Planning.

GENERAL STUDIES:

1. World Industrial Survey.
2. Country Studies.
3. Industry Studies.





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ANNEX IV

Publications

Note: This list is prepared in accordance with the publications Programme submitted to the United Nations Publications Board in paper 67/15/6, Rev.1. The list includes sales items to be printed at total cost of \$178,050 and internally processed documents that are proposed as sales items.

Industrial Activity

Project

I. Technological Division

1. Engineering -

- (a) "The Development of the Metal Working Industries in the Developing Countries". Report by participants of United Nations Inter-regional Symposium on the Development of Metal Working Industries; Moscow, USSR, September/October 1966.
- (b) Report of the Group of Experts on Maintenance and Repair of Industrial Equipment in Developing Countries.
- (c) Operational Manual on Design, Manufacture and Maintenance of Dies and Jigs.
- (d) Operational Manual on Status of Technology of Manufacturing, Electrical and Electronic Industries.

2. Metallurgical -

- (a) Alumina Production from Various Raw Materials (50 pp)
- (b) Modernization and Expansion of Copper Plants (50 pp)

3. Construction - The Technology of Manufacturing Building Materials.

4. Chemicals, etc. -

- (a) Papers presented to the Expert Group on Modernization and Mechanization of the Salt Industries of Developing Countries, based on Sea-Water
- (b) The Establishment of the Plastic Industry in Developing Countries.

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5. Fertilizer -

- (a) Fertilizer Production Technology and Usage.
- (b) World Fertilizer Report.

6. Light Industries -

- (a) Guidelines on the Selection of Machinery in the Cotton Industry and Wool-Worsted Industry.
- (b) Manual for Engineers in the Textile Industry (to be published as No. 4 of the Training for Industrialization Series; see Group 10).

II. Industrial Services and Institutions

7. Industrial Legislation - Industrial Legislative Series, two issues

8. Industrial Research -

- (a) Industrial Research and Development News (IRDN) Vol. III, Nos. 1 and 2.
- (b) UNIDO Newsletter.
- (c) Manual on the Training of Managers of Research Institutions.

9. Industrial Consultancy -

Institutional Framework for Industrial Development.

10. Industrial Management and Training -

- (a) Industrial Management:
  - (i) Problems of Industrial Maintenance in the Developing Countries.
- (b) Industrial Training:
  - (i) Training for Industrialization Series:
    - No. 4: Manual for Engineers in the Textile Industry.
    - No. 5: Policies and Problems of Industrial Training in Developing Countries.
  - (ii) Management of Industrial Enterprises in Developing Countries.

11. Small-scale Industries -

- (a) Small-scale Industries in Latin America.
- (b) Interrelations between Small and Large Industries.
- (c) Technical Services and Facilities for Small-scale Industries.
- (d) The Role of Small-scale Industries in Industrialization Programmes and Policies.

III. Industrial Policies and Programming

12. Planning and Programming.

(a) Industrial Planning and Programming Series:

- No. 2. International Comparisons of Inter-industry Data.
- No. 3. Planning for Advanced Skills and Technologies.
- No. 4. Profiles of Manufacturing Establishments in Selected Countries (Vol. I).
- No. 6. Structure of Material Inputs in Manufacturing Industries and Inter-industry Relations.
- No. 7. Profiles of Manufacturing Establishments in Selected Countries (Vol. II).

(b) Bulletin on Industrialization and Productivity:

- No. 12.
- No. 13.
- No. 14.

(c) Manual on the Role of Industrial Co-operation in Industrial Development.

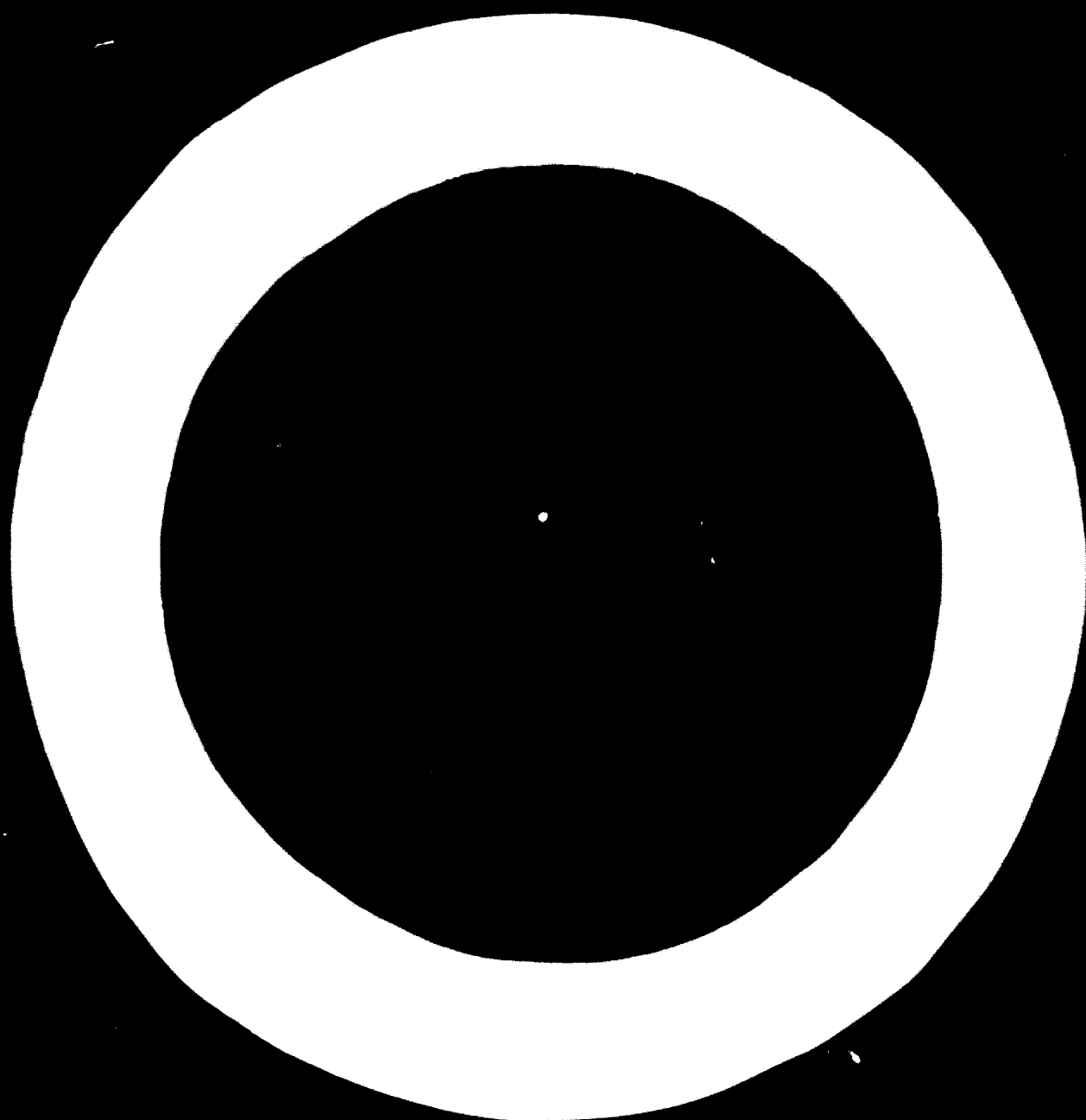
(d) Studies in Economics of Industry:

- No. 3. Iron and Steel Metalworking.

13. Investment Policies - Report of Expert Group Meeting on Fiscal Incentives for Industrial Development.

14. Export Promotion -

- (a) Teaching material for training of Export Promotion Personnel.
- (b) Methodological Aspects of the Inclusion of Exports of Manufactures in Planning Procedures.
- (c) Report on Expert Group Meeting on Export Marketing Organization.



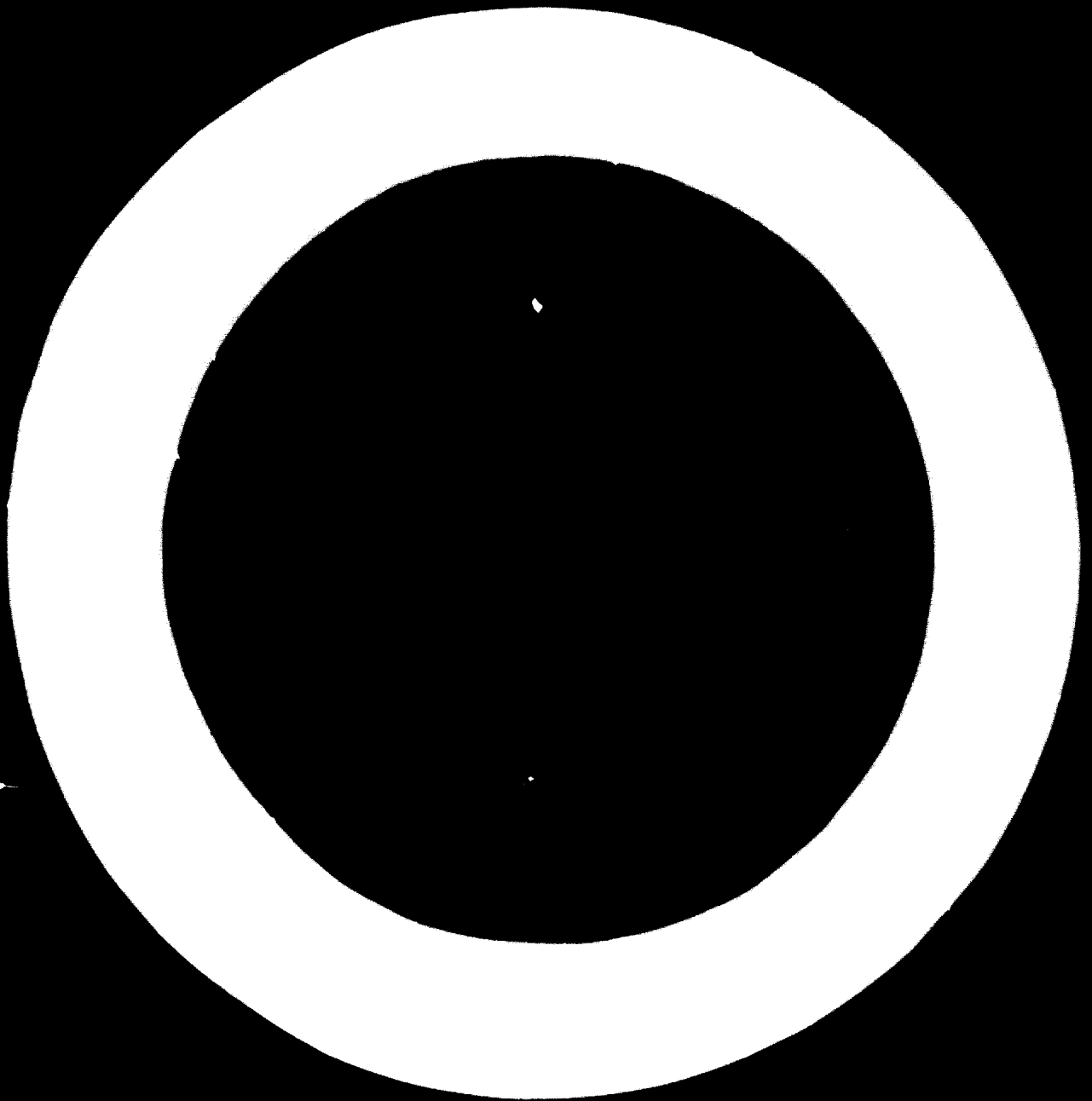


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ANNEX V

Groups of Activity

Group Number	Activity
<u>Groups 1-6</u>	<u>Technological Division</u>
1.	Engineering Industries
2.	Metallurgical Industries
3.	Construction and Building Materials Industries
4.	Chemicals, Petrochemicals and Synthetics, Insecticides and Pesticides, Pharmaceuticals and Other Related Industries
5.	Fertilizer Industries
6.	Light Industries
<u>Groups 7-11</u>	<u>Industrial Services and Institutions Division</u>
7.	Industrial Legislation, Patents and Licensing
8.	Industrial Research; Standardization and Quality Control; Industrial Information
9.	Industrial Consulting Services; Industrial Organization and Administration
10.	Industrial Management and Training
11.	Special Problems and Institutions for Small-scale Industry including Industrial Estates.
<u>Groups 12-14</u>	<u>Industrial Policies and Programming</u>
12.	Planning and Programming; Project Formulation; Industrial Location and Regional Development
13.	Investment Policies; Industrial Investment Financing; Financial Planning
14.	Export Promotion; Development of Export oriented Industries.
<u>Group 15</u>	<u>General Research Projects established as continuing activities</u>



ANNEX VI

Resolution Adopted by the Industrial Development Board

1 (I). Future programme of work and activities of the United Nations Industrial Development Organization

The Industrial Development Board,

Recalling the provisions of General Assembly resolution 2152 (XXI) of 17 November 1966,

Recognizing that the work programme of the United Nations Industrial Organization has to be geared to the fulfilment of its purpose and the best possible implementation of its functions as set forth in Assembly resolution 2152 (XXI),

1. Decides that the United Nations Industrial Development Organization shall carry out its functions essentially on the basis of meeting the urgent needs of the developing countries in accelerating their industrial development through promotional and operational activities supported by relevant research;

2. Requests the Executive Director to exercise his responsibilities in accordance with the following guidelines:

(a) Operational activities of the United Nations Industrial Development Organization whether financed from contributions made directly to it, or undertaken through participation in the United Nations Development Programme or by the utilization of the appropriate resources of the United Nations regular programme of technical assistance or under the programme of Special Industrial Services, should be undertaken only at the request of Governments;

(b) Measures should be undertaken to expedite the implementation of projects already approved under the United Nations Development Programme, the regular programme of technical assistance and the programme of Special Industrial Services, and also such requests which may be forthcoming during 1967 and 1968;

(d) Research activities of the United Nations Industrial Development Organization as provided for in paragraph 2 (b) of General Assembly resolution 2152 (XXI) should be based on the following considerations.

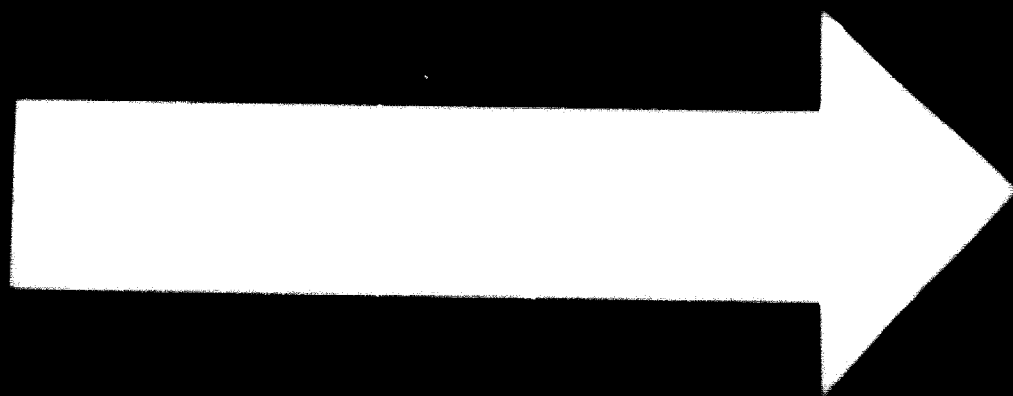
- (i) Action-oriented studies and research programmes of the United Nations Industrial Development Organization should be designed especially to facilitate the undertaking of operational activities which result from requests from the developing countries in the framework of the functions of that Organization. Research activities undertaken by the United Nations Industrial Development Organization should also be directed to achieving improved effectiveness of operational activities. It is, furthermore, recognized that certain types of studies and surveys have an important role both in the analysis and the evaluation of the experience gained in the field and in the determination of the proper direction of future operational assistance activities;
- (ii) Research activities of the United Nations Industrial Development Organization which do not necessarily have an immediate and direct supporting role in relation to operational activities can, nevertheless, serve useful longer-range development needs such as the formulation of alternative industrial development strategies. In such cases the United Nations Industrial Development Organization should, wherever possible, draw on appropriate work of other institutions, and, as necessary, encourage them to undertake such research in areas which the experience of the Organization's operational activities would indicate to be fruitful. The United Nations Industrial Organization may also undertake useful compilations and indexing of relevant information, classifications of conclusions derived from comparative studies of actual cases, and the periodic evaluation of industrial trends, especially in the developing world, to measure achievements and identify important industrial development problems;
- (iii) Seminars and workshops should be undertaken in response to clear needs and after adequate preparation. Documentation preparatory to, and resulting from, such seminars and workshops should consist of short and clear papers which can be used to guide similar discussions and study groups in developing countries. Such documentation should be as up-to-date as possible and made available promptly in order to be of maximum value;



(e) A more dynamic approach should be increasingly built into the programme of the United Nations Industrial Development Organization in such a way that the field activities may provide a leverage for much larger undertakings within the promotional role of the Organization. Promotional activities in turn should lead to the expansion and greater effectiveness of studies and field operations;

(f) The operational activities of the United Nations Industrial Development Organization as hereunder elaborated should be widely publicized and brought specifically to the attention of Governments of developing countries in order to assist them in formulating their requests under the operational programme of the Organization, in the immediate future;

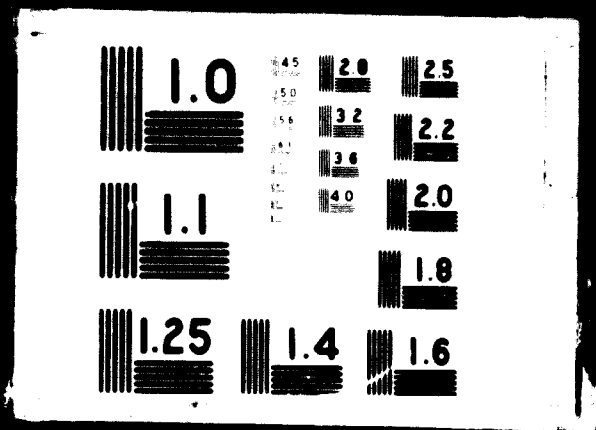
- (i) Assistance in carrying out comprehensive general surveys of industrial development possibilities in individual countries or in groups of countries, e.g., in regions or sub-regions;
- (ii) Assistance in the formulation of industrial development plans and programmes and the determination of priorities and the formulation of appropriate policies, incentives and other measures in individual countries or in groups of countries;
- (iii) Assistance in identifying those branches of industries which should be developed in order to ensure accelerated industrialization and better standards of living;
- (iv) Assistance in conducting pre-investment studies of specific industrial possibilities and the evaluation of specific projects;
- (v) Assistance in executing necessary detailed technical and economic feasibility studies to elaborate specific bankable projects and in the economic and financial planning and evaluation of specific projects including the identification of possible domestic resources;
- (vi) Assistance in obtaining external financing for specific industrial projects, including additional financing for expansion and improvement to existing industrial plants, by the giving of guidance in the preparation of specific requests, including information on the terms and conditions of the various financing agencies, and by advice to financing agencies on the technical and economic soundness of the projects submitted for financing;



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- (vii) Advising at the various stages of implementation and follow-up of industrial projects, including the preparation of detailed project reports or their evaluation, selection of processes, technologies and machinery and equipment, preparation of invitations for tenders, evaluation of tenders, supervision of construction work, and commissioning and testing of industrial plants;
- (viii) Assistance in achieving the efficient utilization of new and existing industrial capacity in developing countries; in particular, help in all phases of production, including the solution of technical and technological problems, improvement and control of quality, the recruitment of competent management and its surveillance to ensure high performance;
- (ix) Assistance in developing and improving marketing and distribution techniques and in providing solutions for marketing and distribution problems with specific industrial products;
- (x) Assistance in the development of export-oriented industry and in the solution of its particular problems;
- (xi) Assistance in the training of technical and other appropriate categories of personnel, specifically in relation to particular existing or planned industries, including such forms of training as management workshops, in-plant training, etc., using the services of specialists of both the developed and developing countries;
- (xii) Assistance in promoting co-operation among developing countries on programmes and projects of industrial development and in developing export potential;
- (xiii) Assistance in the dissemination, for the developing countries, of information technological innovations originating in various countries, assistance in the implementation of practical measures for the application of such information, the adaptation of existing technology and the development of new technology especially suited to the particular physical, social and economic conditions of developing countries through the establishment and improvement, inter alia, of technological research centres in these countries;

- (xiv) Information and advice on the systems of patents, industrial property and know-how;
- (xv) Assistance in establishing or strengthening national and multi-national institutions to deal with various aspects and problems of industrial development in such fields as:
  - (a) Planning and programming;
  - (b) Project formulation and evaluation;
  - (c) Engineering and design;
  - (d) Training, management and productivity;
  - (e) Technological applied research;
  - (f) Standardization, quality control, weights and measures administration;
  - (g) Marketing and export promotion;
  - (h) Services to small-scale industry, including industrial estates;
  - (i) Investment promotion;
- (xvi) Assistance on experimental projects designed:
  - (a) To adapt existing technology to the very different factor endowments in the developing countries;
  - (b) To investigate alternative possible new uses for local raw materials;
  - (c) To devise, wherever possible, linkages between various products and stages of processing which may form the base for a viable industrial complex.
- (xvii) Assistance in establishing pilot plants and experimental factories and in obtaining the supply of industrial inputs otherwise unavailable, to initiate industries which are likely to mature quickly;
- (xviii) Organization, as appropriate, of seminars and workshops on specific aspects and problems of industrial development;
  - (g) Assistance may be provided to Governments at their request in the preparation of their projects through appropriate means, including the sending of field missions or experts. To this end, the secretariat should urgently develop the requisite technical capacity;

(h) The United Nations Industrial Development Organization shall co-operate with the United Nations regional economic commissions and the United Nations Economic and Social Office in Beirut, assist the regional and sub-regional economic grouping and co-operate with them at the request of the Governments concerned in the elaboration and/or implementation of national or multi-national programmes and projects in the developing countries;

(i) As appropriate, assistance should be provided pursuant to the provisions for co-ordination and co-operation contained in General Assembly resolution 2152 (XXI);

3. Requests the Executive Director to present future work programmes of the United Nations Industrial Development Organization on the basis of the following considerations, taking into account the need to develop gradually the central co-ordinating role of the Organization in the field of industrial development;

(a) The work programmes should be in a form which will enable the Industrial Development Board to have an over-all view, in budgetary terms, of the operational and headquarters activities of the United Nations Industrial Development Organization and hence to consider their budgetary implications;

(b) The same framework should be used for presenting summary reports on earlier activities of the United Nations Industrial Development Organization and future trends, in order to enable the Industrial Development Board to follow, year by year, the over-all evolution of these activities;

(c) The framework for presenting the work programme should, in particular indicate clearly the breakdown;

(i) Among the fields of activities in broad categories in the recipient countries;

(ii) Among the various types of activities, comprising on the one hand operational activities (technical assistance measures in man-months or in scholarships and fellowships, studies and services or other operations measured in monetary units) and on the other hand headquarters activities, which are considered as supporting the operational activities (management and control of operational projects, dissemination of information, general studies and research and general administration);

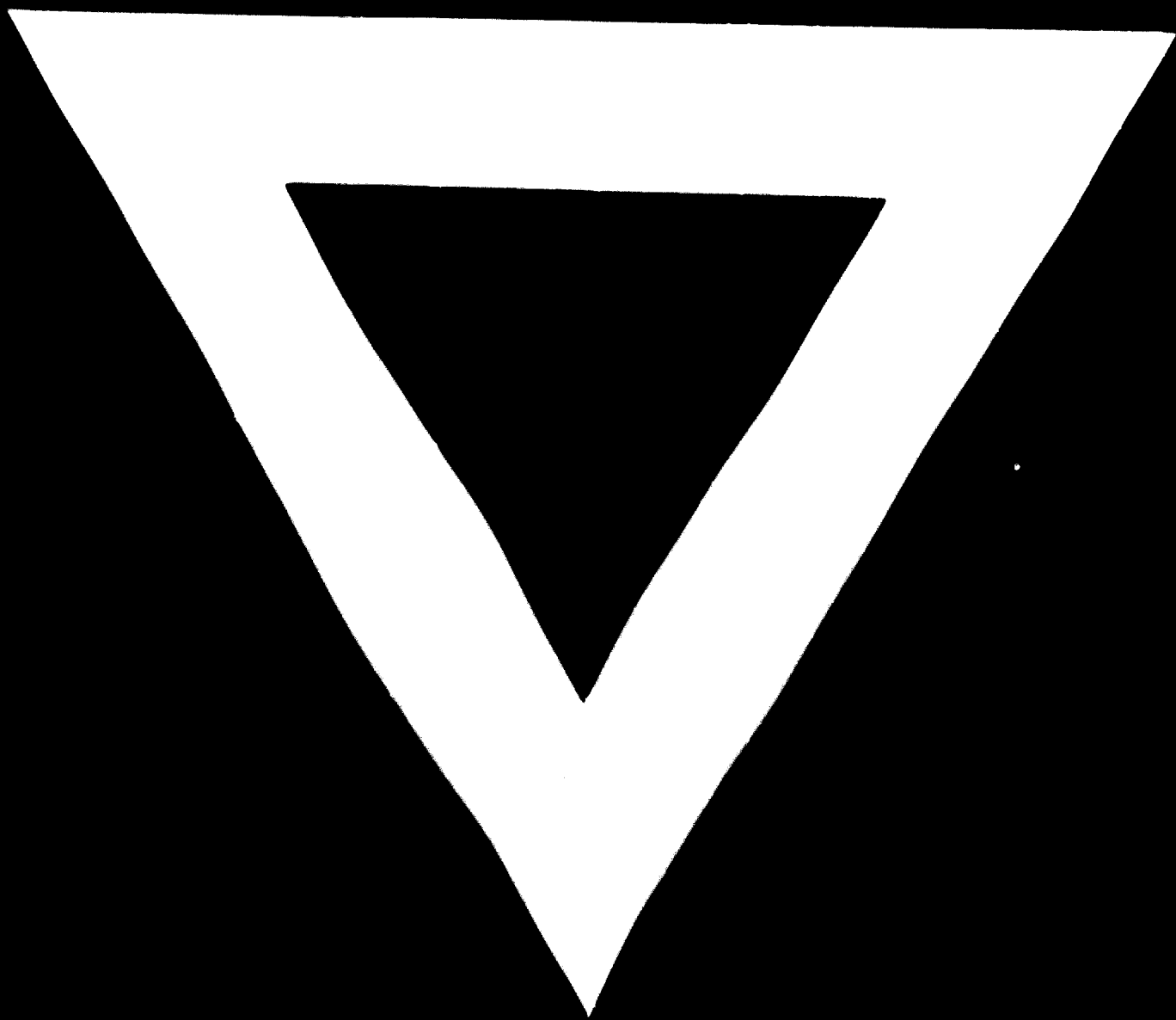
(iii) Among sources of finance, distinguishing between the United Nations Industrial Development Organization's own resources and other funds and programmes of the United Nations system;

(d) This presentation should enable the Industrial Development Board in particular to:

- (i) Obtain a clear view of the relationship between the field or activities, the type of activities and financial resources;
- (ii) See the relationship between the total amount of the operational budget and that of the administrative budget;
- (iii) See to what extent the headquarters activities are serving more or less directly to support the operational activities;
- (iv) Gain a clear picture of the level achieved in the co-ordination of all industrial development activities within the United Nations system;

4. Approves the programme of work contained in the report submitted by the Executive Director (ID/E/4), subject to such changes as may be deemed appropriate by him in the light of the guidelines indicated in paragraph 2 above.

35th plenary meeting.  
4 May 1977.



**27.3.74**