



TOGETHER
for a sustainable future

OCCASION

This publication has been made available to the public on the occasion of the 50th anniversary of the United Nations Industrial Development Organisation.



TOGETHER
for a sustainable future

DISCLAIMER

This document has been produced without formal United Nations editing. The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Industrial Development Organization (UNIDO) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries, or its economic system or degree of development. Designations such as “developed”, “industrialized” and “developing” are intended for statistical convenience and do not necessarily express a judgment about the stage reached by a particular country or area in the development process. Mention of firm names or commercial products does not constitute an endorsement by UNIDO.

FAIR USE POLICY

Any part of this publication may be quoted and referenced for educational and research purposes without additional permission from UNIDO. However, those who make use of quoting and referencing this publication are requested to follow the Fair Use Policy of giving due credit to UNIDO.

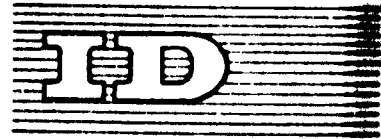
CONTACT

Please contact publications@unido.org for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at www.unido.org



DOO 925



Distr.
LIMITED
ID/WG.57/6
2 June 1970

United Nations Industrial Development Organization

ORIGINAL: ENGLISH

Working Party on Industry Profiles

Beirut, Lebanon, 4 - 7 May 1970

REPORT OF THE
WORKING PARTY ON INDUSTRY PROFILES ^{1/}
(DRAFT)

Prepared by the UNIDO secretariat
(in the capacity of the general rapporteur)

^{1/} This report is yet to be cleared by the Industrial Development Centre for Arab States which served jointly as the secretariat for the 4 - 7 May 1970 meeting. and shares the responsibility for the follow-up on the results of the meeting. This document has been reproduced without formal editing.

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

Table of contents

	Page
INTRODUCTION	3
GENERAL DESCRIPTION OF THE IDCAS PROPOSAL: THE PRODUCTIVITY PROFILES	5
GENERAL DESCRIPTION OF THE UNIDO PROPOSAL: THE ANALYTIC INDUSTRY PROFILES	8
GUIDELINES FOR THE DEVELOPMENT OF A PRODUCTIVITY-PROFILES PROGRAMME IN ARAB COUNTRIES	12
SUGGESTED PLAN OF IMPLEMENTATION	20
Annex I List of participants	22
Annex II List of working documents	25

INTRODUCTION

1. The Working Party on Industry Profiles was convened in Beirut for the period 4 - 7 May 1970 under the sponsorship of the United Nations Industrial Development Organization. The programme for the meeting was developed jointly by the Industrial Policies and Programming Division of UNIDO and the Industrial Development Centre for Arab States. The United Nations Economic and Social Office in Beirut (UNESOB) acted as host organization, providing the administrative and organizational support as required for the Working Party.
2. This Working Party was organized primarily as a technical preparatory committee for a "Productivity-Profiles" programme being proposed by IDCAS for Arab countries. The Party was thus expected to review the relevant techniques and experiences accumulated with IDCAS and UNIDO as well as with those various organizations from which the participants were drawn, and to suggest a plausible technical and organizational approach to the proposed programme.
3. The Working Party was composed of altogether 35 members: 24 experts/officials drawn from national industrial organizations, two officials from IDCAS, and nine from the United Nations family of organizations, including a consultant. All of the members of the Working Party were considered as acting in their personal capacities as experts on the issues under consideration and not as official representatives of their Governments or organizations. The names and institutional affiliations of the participants are listed in Annex I.
4. The first session was opened on 4 May 1970 by Mr. Jean-Pierre Martin, Director of UNESOB, who welcomed the participants and drew attention to the special characteristic of the meeting as an experiment in having a forum for technical co-operation between the United Nations and an international organization, like IDCAS, that brings together countries having a common cultural heritage and seeking economic and social progress in a co-operative fashion. Mr. M. Usui, representative of the UNIDO component of the Working Party, then indicated, with the support of Mr. H. Tarabishi, head of the IDCAS delegation, that IDCAS and UNIDO would function jointly as the secretariat for the meeting. The Party then elected four Chairmen,

who were to preside over the four-day sessions on a rotating basis, as follows:

- 4 May - Mr. N. Malas (Syria)
- 5 May - Mr. O. Tamam (Sudan)
- 6 May - Mr. M.F. Al-Azzawi (Iraq)
- 7 May - Dr. I.A.H. Ahmed (UAR)

5. A number of working documents was made available to the meeting, several of which were prepared as in-session working notes. A complete listing of these is given in Annex II, where they are classified into three groups referring to (a) the Productivity Profiles (IDCAS), (b) Analytic Profiles (UNIDO), and (c) general background documents, respectively.

6. The Working Party adopted the following agenda as a guide to the four-day sessions:^{2/}

- I. General description of the IDCAS Proposal.
- II. General description of the UNIDO Profiles Programme.
- III. Guidelines for the development of a Profiles-Productivity programme in Arab countries
- IV. Suggested plan of implementation.

On Thursday, 7 May, the Working Party met for its final session, reviewed the discussions which had taken place in the preceding three sessions and drew up a series of suggestions to guide the implementation of the programme proposed for the Arab countries.

7. In the following part of this report, the debates and conclusions of the Party are summarized. In the actual course of discussions, there was some shuttling from one issue to another, giving rise to re-interpretations and re-clarifications of debatable points as the over-all agenda unfolded new aspects. The following is written, not as the day-by-day minutes of the discussions, but rather by way of a recapitulation of the substance of the discussions corresponding to the agenda items aligned as above.

^{2/} The pre-meeting guidelines were available in ID/WG.57/1 "Objectives, background and agenda".

GENERAL DESCRIPTION OF THE IDCAS PROPOSAL: The Productivity Profiles

8. The representative of IDCAS began by indicating that there were three major areas in the field of industrial programming in which his organization was prepared to offer operational support. These included:

- Industrial surveys;
- Industrial co-ordination and/or integration; and
- Productivity, management, and technological studies.

It was indicated that the Working Party would direct its attention primarily to the third of these areas. The IDCAS project proposal related to the Profiles was introduced with reference to its working documents entitled: "Profile-Productivity Programme in Arab countries" and "Organization Measures for Productivity Studies", both of which had been distributed in advance to the members of the Working Party.^{3/}

9. Objectives of IDCAS Productivity Profiles Programme: The primary objective of the IDCAS profile-productivity studies is to advise industrial enterprises in Arab countries on improving their performance, reducing costs and increasing returns on capital. This objective is to be pursued with due attention to other closely related objectives, i.e.:

- Industrial policies: to identify those problems arising from national and governmental policies in trade, fiscal and monetary matters, wage structure, labour and their effects on production costs and profitability of industrial enterprises;
- Programming data: to compile data for inter-firm comparisons to help Arab industrial enterprises to compare their performance with that of similar, or nearly similar, firms. Such data could also be used for industrial projections and planning purposes;
- Training: to train specialists in Arab countries and enterprises in the methodology of diagnostic and remedial studies.

10. It was noted that the primary objective as mentioned above, i.e. provision of advisory services on firms' technical and managerial problems, was in fact the immediate goal of the "productivity, management and technology studies" which IDCAS had already conducted in some countries on

^{3/} See Annex II.

a pilot scale. It was the need for an improved basis for inter-firm comparisons and an approach co-ordinated with national industrial policies that motivated the proposed linkage of these studies with the "Profiles" approach

11. "Profiles" for industrial survey: It was recalled that the IDCAS "Industrial Survey" programme which was being carried out in parallel, involved two components: one dealing with the over-all evaluation of the conditions of each branch of industry, and the other collecting and organizing data on the enterprise or establishment level. For the latter, a "General Form" is utilized, which has been adapted from the "Standard Questionnaire" of UNIDO as developed in connexion with the earlier version of its Profiles project.

12. This General Form has been supplemented by the "Technical Questionnaires" which are tailored to deal with the techno-economic performance characteristics of enterprises in each specific type of industry. These technical questionnaires are in various degrees of refinement, depending on branches of industry. The examples made available to the Working Party, referring to textiles, vegetable oils and fats, leather products, sugar refineries, etc. were, however, mostly a partial, preliminary version of such questionnaires.

13. "Profiles" for productivity-technology studies: For the productivity-management-technology study programme, these technical questionnaires have offered a point of departure. In fact, the programme has developed a set of special questionnaires for its own purposes. One part concentrates on data on enterprise management and administration,^{4/} such as ownership, top management authority, marketing policies, production planning, stock control, sales policies, personnel policies, etc. The other part represented the engineering approach to productivity analysis, covering such matters as: capacity, performance and utilization of machines, material wastes and their recovery, product rejects and defectives, labour incentives, etc. An example dealing with the cotton spinning and weaving

^{4/} This part was available in Arabic only and was not presented at the meeting.

industry was introduced to the Working Party at a later stage of the sessions.^{5/}

14. It was made clear that the IDCAS proposal along the lines of Productivity-Profiles was intended to establish a standardized methodology for analysing the productive facilities and performances of industrial enterprises, and that such a methodology should include, among others,

- Selection of co-efficients that can guide the reduction of descriptive data into performance ratios;
- Building up of standards for comparison in technology and production;
- Evaluation criteria capable of highlighting both the weak and strong points of each enterprise; and
- Formulation of the summary data and recommendations in a final report for the enterprise authority.

15. Thus, the report prepared by an expert team in the form of "Productivity Profile" is to be discussed with the management of the firm under study and the ways and means of executing the recommendations are to be examined at that time. IDCAS will be prepared to take part in this implementation phase should it be called upon to do so.

16. Along with this specific impact of the programme on individual firms, emphasis was laid on the training aspects of the programme. The IDCAS proposal aims to up-grade the skills of technical and managerial personnel not only at the regional level, but also at the levels of individual nations and enterprises. Each "Profiles" team to be instituted for a given group of enterprises will be participated in by local counterpart personnel who are to gain from the joint study an improved capability of executing similar studies. The Centre plans also to hold several working parties and study groups to exchange the experiences gained by many such teams in data collection and diagnosis.

17. At the same time it was hoped that such a programme would unfold the possibility for IDCAS to develop a "Profiles" library to augment the working basis for inter-firm and inter-country comparisons, which in turn could be instrumental in identifying the opportunities for industrial co-ordination and co-operation.

^{5/} "Questionnaire on the Technology and Productivity of Cotton Spinning and Weaving Enterprises" (IDCAS).

GENERAL DESCRIPTION OF THE UNIDO PROPOSAL: The Analytic Industry Profiles

18. Attention was called first to the document entitled: "Analytic Industry Profiles: a progress report on a new UNIDO Industrial Programming Data Project",^{6/} which described the changing orientations of the UNIDO activities in this field during the past several years.

19. Over-all objective: The UNIDO proposal under the Analytic Industry Profiles was introduced as a general plan of operation for assisting local agencies and technical personnel in carrying out diagnostic studies of individual industrial enterprises. The specific purposes for which it is anticipated that the need for such diagnostic Profiles study will arise in individual countries appear to coincide rather fully with those objectives to which the IDCAS proposal has been geared. Namely, the potential uses of the UNIDO Analytic Profiles, too, were classified into the following three general categories:

- Management and technical consulting: To provide a concrete basis for rendering advisory services for productivity and efficiency improvements and identification of development potentials at the plant, process (shop), and product levels.
- Policy evaluation: To develop a framework of analysis and feedback that will make it possible to evaluate the effects of government policies on the actual cost structures and performances of individual enterprises, and more generally of industrial branches.
- Reference programming data: The results of the various individual case studies can be further processed so as to add to the stock of reference programming data as currently available for the particular country's industrial planning purposes. Moreover, should it be agreeable to the participating Government, provision may also be made to "neutralize" the results and make them available as international reference programming data.

20. It was recalled that the earlier orientation of the UNIDO Profiles had been predominantly towards the provision of international reference programming data, or collection of the techno-economic parameters on the enterprise or establishment level that could be plugged, as additional

^{6/} ID/WG.57/5

raw materials, to various analytical and planning needs envisaged by individual users.^{7/} The contents of the Profiles under this earlier approach were designed so as to accommodate a rather loosely defined set of objectives for which knowledge of inter-industry/inter-country comparative characteristics of enterprises would prove useful.^{8/} However, the new orientation referred to as "Analytic Profiles" represents an attempt at freeing the programme from such a publication-bound, self-constraining approach and at introducing a far stronger element of field-bound operation.

21. The declared policy is thus to render assistance directly to those development agencies in developing countries in establishing systematic and co-ordinated approaches to a certain range of industrial enquiry activities. The prototype questionnaires, guidelines for technical enquiry, evaluation methods, etc., will be elaborated with due attention to the technical and organizational flexibility required in applying this programme to individual cases. The potential use of the results of each country project in terms of international reference programming data will thus be regarded to be only of a "residual" significance.^{9/}

22. Scope of the Analytic Profiles: The forms in which Analytic Profiles will be compiled will contain at least two parts. The first part will involve elements similar to those contained in the earlier Profiles in the published form.^{10/} Similarly to those designed by IPCAS, the second part

^{7/} See UNIDO publications: ID/SER.E/4 and 5 - PROFILES OF MANUFACTURING ESTABLISHMENTS, Vol. I and Vol. II (UN Sales Nos. E 67.II.B 17 and E.68.II.B.13).

^{8/} See ID/WG.57/2 "Profiles of Manufacturing Establishments: Selected Cases from Volume III".

^{9/} The actual preparation of the case studies for both the national and international reference programming uses can be handled in a variety of ways. It might, for example, take the form of publication along the lines of the original UNIDO Profiles of Manufacturing Establishments; or published performance guidelines, benchmarks, or indices at establishment or shop levels; or as raw material to be plugged into a data bank if an appropriate facility exists. This aspect of the programme will be handled on an optional basis, taking into account the particular circumstances under which a given country has decided to participate in the programme.

^{10/} The published Profiles themselves have been subject to changes in three steps, every new step being oriented for providing more "detailed" data. This is illustrated in ID/WG.57/5, Annex B. See also ID/WG.57/2.

will have to be tailored for each specific branch of industry to be considered. This part will thus be concerned with the structural and performance characteristics of individual major "process departments", "shops" or "unit operations" within an enterprise, as well as analytical data on the costing of individual major products or product lines. An example dealing with the metal-working industry, though still in a form of preliminary working material, was made available to the Working Party.^{11/}

23. While the elaboration of the first part dealing with the performance characteristics of an enterprise taken as a whole would be a fairly straightforward undertaking, the second part of the Analytic Profiles would be susceptible to various treatments, depending on the specific objectives of the enquiry. If productivity advisory services to individual firms are the primary task, as in the case of the proposed IDCAS programme, the Analytic Profiles will have to be properly linked to the engineering approach to detailed technical performance analysis. In case a given project should be geared more strongly to policy and planning issues on a sectoral level, less detailed engineering analysis may do the job. In any event, however, the Analytic Profiles should pay due attention to the kind of diagnostic summary data which serves to bridge the gap between the financial and other general statistics on the enterprise level and the detailed engineering information on the efficiency of production and capacity utilization.

24. A clear-cut "economic" interpretation of various technological ratios within the framework of enterprise management would, therefore, be an important facet of the Analytic Profiles. This may be facilitated by adaptations from the techniques of cost centre accounting and product costing. In this connexion, a working document reviewing the normal principles and procedures of cost analysis was brought to the attention of the Working Party.^{12/}

25. The role of UNIDO: It was pointed out that, as in the case of the IDCAS programme, the Analytic Profiles programme is intended, on the whole,

^{11/} ID/WG.57/3 "The Analytic Profiles: Draft Questionnaire Oriented to the Metalworking Industries".

^{12/} ID/WG.57/4

to be not so much a self-contained field study programme as a special package of technical co-operation. It aims primarily at strengthening the ability of national cadres to evaluate the problems and potentials of the industry in their own countries.

26. In order to fulfil such a catalytic function, the UNIDO programme is to be carried out, vis-à-vis each participating country or group of countries, in the following three phases:

- (a) Development of methodology and basic materials: UNIDO makes continual efforts to develop the basic prototype materials and methodological guidelines in order to promote and support the activities on the national level. Also, UNIDO will serve as a clearing house for new ideas and developments so that the basic approach and supporting materials can be progressively improved and expanded;
- (b) Training and consultation: When requested, the materials and techniques accumulated with UNIDO will be put at the disposal of local experts, and assistance will be rendered in adapting these materials for the conditions prevailing in each country considered. Workshops will then be organized to train the local personnel participating in the field work to be undertaken in each country or group of countries.
- (c) Evaluation and follow-up: Finally, UNIDO will participate in post-project review meetings of local experts to evaluate the results, to examine various possible uses to be made of them and to identify areas that may require additional UNIDO assistance.

GUIDELINES FOR THE DEVELOPMENT OF A PRODUCTIVITY-PROFILES PROGRAMME
IN ARAB COUNTRIES

27. Relationship between the IDCAS and the UNIDO proposals: The Working Party noted that the two proposals as outlined by the representatives of the two organizations were well fitted to each other, and that there existed a great deal of scope for technical co-operation between them.

28. The observation was registered that the IDCAS Productivity Profiles and the UNIDO Analytic Profiles differed somewhat in their history of development. The IDCAS proposal has been conceived as an additional tool for the productivity advisory services at the individual enterprise level, which it already was carrying on. This approach has been initiated to counter the fact that the conventional way of organizing extension services for productivity improvement tends to depend heavily on a rather personalized approach, which often lacks appropriate standards or yardsticks as are required to ensure a high quality of work on the part of every individual expert involved in the service. The "Profiles" component of the programme is thus intended to offer: (a) a set of techno-economic guidelines according to which the observations on factory performances are to be filtered for analytical evaluation; (b) yardsticks for the comparison of technological and economic efficiency between different firms; and (c) an evaluation scheme to pinpoint strong and weak points in each firm.

29. By contrast, the UNIDO Profiles were originally developed as an "economist's" way of grasping the behaviour of industrial production, or an attempt to let the planning economist look into the performance patterns of productive factors at the plant level. Under the new policy towards field-bound assistance, to keep abreast with the planning and policy problems of over-all national and regional industrial development will continue to be an important aspect of the general objectives of the programme. However, the programme allows flexibility in defining specific objectives and techniques to be adopted in each of its actual sub-programmes. It is generally anticipated that closer attention will be paid to the benefits to be gained immediately on the part of the individual enterprises participating in the field study. With regard to methodology, a closer coalition of "economists" and "engineers" will be effected in the course

of the development of desired profiling techniques. In fact, it was acknowledged that the IDCAS-UNIDO co-operation along the proposed lines was offering an important opportunity for testing and strengthening such coalition in terms of analytical tools.

30. A comparison with other inter-firm productivity studies: The attention of the Working Party was drawn to the approaches taken in the series of OECD productivity studies during the past decade. As an example, Mr. René Cresson, an officer of a national technical consulting institute in France, who had once participated in these studies, presented a summary description of a study on the French shoe industry.

31. He indicated that although this particular study had been carried out some years ago, there were important areas of overlap with the approach being considered under the IDCAS-UNIDO programme. In both cases, the sectoral study is carried out not only by means of an examination of aggregate data, but also on the strength of a number of case studies of individual manufacturing establishments. In this respect, it was pointed out that whereas the French studies relied on data provided directly by the management of the various firms, the new Profiles approach was to lean more heavily on diagnostic data to be collected directly within the plant. A second important difference in this regard was mentioned, namely that the Profiles approach would make fuller use of cost-accounting and related analytic techniques which would be applied at the level of the shop and product as well as the over-all establishment.

32. Mr. Cresson noted that the results of this particular French study had a notable effect of sparking performance improvements on the level of the sector, as well as on the level of the individual enterprises which had participated in the study. It was pointed out in this connexion that such effect would not be warranted unless full attention were paid to the market aspects, as well as the productivity aspects, of the enterprises to be considered.

33. Objectives of the proposed programme: The Party felt that the proposed IDCAS programme should be developed with a proper assessment of the relative priorities to be attached to the three different basic objectives or three different levels of interests: namely, identification and diagnosis of problems (a) on the level of the individual industrial

enterprises, (b) on the level of national planning and policy-making authorities, and (c) on the multi-national level.

34. Attention was repeatedly drawn to the problem of how to interest enterprises, especially those in the private sector, in participating in such a programme. It was mentioned that the necessity for incentives will vary considerably, depending on whether the enterprise is in the public or private sector. It was therefore suggested to emphasize, particularly for the private entrepreneurs, the advantages that they themselves were to gain from participating in the programme.

35. The usefulness of the studies for (i) productivity and (ii) policy purposes at the national level was not contested. However, for reasons of confidentiality, it was argued that the results of the individual profiles studies should not be communicated outside of the country, either as reference programming data or as information on individual plants to be passed on to any given international organization. Thus, the Party agreed on not including in its agenda the issues relating to non-national uses of the results of any enterprise studies. Towards the concluding session, however, several participants voiced the view that one ought not to rule out the practicability of various reference uses on an international level and recommended that in the future an effort be made to introduce some appropriate means of exchanging the experience gained with the programme between various participating countries.

36. Scope of the programme: It was noted that in carrying out their various consultant services, national productivity centres and similar institutions seldom rely solely on data as is readily available in the form of administrative records of enterprises, but make recourse mainly to the direct analytical studies conducted by their expert teams within the enterprises and factories concerned. Similarly, the Productivity Profiles will have to lean heavily on the original diagnostic data to be provided by direct observations of in-plant field teams.

37. The Working Party agreed that a great deal of advantages would no doubt result from developing a standardized analytical framework to deal with enterprises in different countries. It was also agreed that such a framework would comprise different sets of worksheets for different branches of industry. It is important to have such a framework properly

adjusted for national, as well as sectoral, variations. But it cannot be intended to provide complete answers to all the potentially important questions regarding each enterprise's management, technology and productivity. Thus even when fully developed, the approach will call for the active and imaginative intervention of an experienced diagnostic team who will have to complement the Profiles approach with its own problem-solving capacity.

38. It was recommended that the technical scope of the programme be carefully developed so as to permit comparative evaluations not only among a limited number of firms to be studied in each field project, but also vis-à-vis performance standards as available from sources in other countries in Europe, America, etc.

39. The Working Party briefly examined the kind of enterprise performance ratios that could be derived from the earlier version of the UNIDO Profiles (which in fact was quite similar to the "Profiles" component of the IDCAS Industrial Survey Programme).^{13/} It was pointed out that these ratios concerning the over-all performance of an individual enterprise could be considered as constituting an "upper" part of the "pyramid of ratios" for enterprise diagnosis, serving by themselves as a first feeler for trouble spots. The Party noted that the UNIDO Analytic Profiles involves, in addition, an attempt to re-structure these performance ratios at a one-step lower level where further diagnostic clues are to be sought in relation to major specific process departments and product lines.

40. In this connexion, it was demonstrated by an example^{14/} that, for the purpose of both industrial analysis and branch-level planning, each enterprise or establishment might be viewed as one of the various possible combinations^{out} of a finite set of "prototype shops", and that such a finite set of prototype shops could be identified for each specific branch of industry. It was thus suggested that the identification of a complete and

^{13/} IDCAS "Utilization of Profiles to Identify Performance and Shortcomings in Individual Enterprises and the Need to Incorporate Method Studies in the Proposed Profiles Studies".

^{14/} ID/WG.57/3 "The Analytic Profiles: Draft Questionnaire oriented to the Metalworking Industries". Also see ID/WG.23/4 "Data Requirements for Industry Analysis and Programming".

definitive set of such prototype shops, and its selective permutations to be related to the various product lines constituting each specific branch of industry, would be considered as an important step towards the Analytic Profiles.

41. The reformulation and elaboration of Profiles at this "intermediate" level of the ratio pyramid would have the notable advantage of enhancing the scope for inter-firm comparison, even when the number of enterprises to be compared for a given branch of industry is relatively small.

42. It is anticipated that the cost centre accounting techniques will offer a practical guide for the elaboration of Profiles at such an intermediate level. Having reviewed the preliminary working document introduced in this connexion, some participants felt that not only the types of cost centre, but also the steps and assumptions to be followed in allocating various overhead costs to cost centres, should be subject to a good degree of standardization for each branch of industry, in order that meaningful inter-firm and inter-country comparisons may become possible in the field of cost accounting. The point was registered that an appropriate action along these lines should better be taken in connexion with the Profiles programme, than as a separate programme.

43. The Working Party favourably reviewed the questionnaire prepared by IDCAS on the "Technology and Productivity of Cotton Spinning and Weaving Enterprises". This questionnaire was composed of the following four sections: (1) Operation process chart, flow diagram and analysis of material-handling efficiency; (2) Machine utilization - theoretical and feasible capacities, bottleneck capacity of the production lines, stoppages and other factors influencing utilization; (3) Utilization of material - material specification, processing wastes, rejects and defectives, and their salvage; (4) Labour productivity - overtime and incentives. It was noted that the fairly detailed technical performance ratios to be derived from the method studies and other engineering studies on machines, materials and labour would more readily pinpoint areas in need of improvements in the production lines of each enterprise, although completing such a questionnaire for each case would easily require a several-month in-plant inquiry administered by an expert team.

44. The opinion was voiced that the analytical techniques demonstrated by this IDCAS questionnaire might well be considered as referring to the "lower" part of the "pyramid of ratios" for enterprise diagnosis. The over-all structure of the Productivity Profiles/Analytic Profiles would thus be viewed as involving three different levels of trouble-finders:

- (a) Over-all enterprise performance ratios similar to those derivable from the earlier version of the UNIDO Profiles;
- (b) Departmental cost analysis and product costing exercise, guided by a standardized application of the cost accounting techniques; and
- (c) Method studies and other detailed engineering studies on machines, materials and workers involved in unit operations.

The relative importance of these three levels of diagnostic exercise should be determined, in each case, taking into account the particular top-priority objectives and the amount of resources considered in participating in the programme.

45. In regard to the third level mentioned above, particular attention was drawn to the problems arising with an application of the work study methods for productivity improvements. It was recommended that the human element should always be considered whenever such method studies are utilized to raise labour output. In order to cope with this problem, it was suggested that incentive schemes be seriously considered, although this is only an approach to the increasing productivity. In this context it was noted that the labour efficiency problem was only one aspect of productivity improvements and that such issues as repair and maintenance of machinery and equipment, production planning, marketing, etc., should also be considered.

46. Organization of the team work: The point was made by several participants that it would be wiser, when possible, to attempt to channel all the proposed establishment case studies through existing national productivity/management/project development institutions, rather than to develop an institutionally independent "Profiles Unit" from scratch. There are three practical reasons for making such a choice:

- (a) **Contacts** - These national institutions will already have established appropriate working contacts with industrial enterprises;

- (b) **Reputation** - These institutions will already have a reputation for effective consulting work at the plant level, and moreover will have generally established a reputation for not disclosing information on participating firms to any sources not agreed upon in advance; and,
- (c) **Capacity** - These institutions will often have both an in-house capacity and professional contacts, as required in support of such a programme at the national level.

47. Some of the existing national productivity/management centres might find it expedient to participate actively in the organization and execution of the Profiles programme, for this programme would provide a pragmatic complement to their own current activities. For example, mention was made of the activity mix of a certain Management Development Centre which involved (roughly): training courses 40%; consulting services 40%; and research activities 20%. The Profiles programme will assist each of these in turn, respectively: first, in providing a specific form and detailed materials for some of the training courses; secondly, in assisting the Centre in developing an improved methodology and reference points for its consulting activities; and finally by inviting the research participation of the Centre in further elaboration and extension of profiles materials for diagnostic use in its own country.

48. Such a centre serving as the national administrating/using agent of a given profiles study will be able, in conjunction with the appropriate national authorities, to decide to which organization and in what forms should the findings of the profiles studies be communicated. The point to be emphasized here is that the feedback aspects of each particular national profiles study will be determined entirely by the relevant national bodies, and further that every attention should be given to using the results (perhaps in a qualitative form) to indicate how corrections or alterations should be made in the mix of national policies (taxes, subsidies, licenses, import duties and other regulations) as they affect the individual industrial unit.

49. In addition to the possible role of the existing management, productivity or project development institutions, the Working Party considered the possibilities open for the management of individual enterprises

themselves to administer at least part of the set of Profiles worksheets. This would not only greatly reduce the cost of a comprehensive Profiles programme, but also allow it to be extended to many more firms than could otherwise be covered. It was pointed out that most enterprise managers were unlikely to take the time and effort required to do an adequate job. This might be possible, however, if special in-plant productivity units could be set up within each enterprise, as proposed in the IDCAS programme. An appropriate solution should be established between the two extremes: the several-month in-plant enquiry administered by a team of specialized experts on the one hand, and the voluntary contribution of each enterprise's own self-administered Profiles study on the other. Whatever an approach might prove the most desirable would have to make use of specialized expert groups in one way or another. Occasional visits of these expert groups to enterprises would be required in any event, but it would be desirable that all such visits would be needed only for relatively brief periods (several hours to a few days per enterprise).

50. Speaking of the costing aspects of the IDCAS Productivity-Profiles programme, the Working Party pointed out that the proposed arrangement - wherein the firm pays 50%, the State 25%, and IDCAS 25% of total project costs - might place undue financial pressure on just those poorer firms that most needed such a service. Whereas the principle of requiring payment for advisory services is undoubtedly well-advised, it will be necessary to apply any such formula with adequate flexibility taking into account the situations of candidate firms to be considered in each country.

PLAN OF IMPLEMENTATION

51. Given the above general guidelines, the Working Party was requested to put forward concrete suggestions as to the steps to be taken in the immediate future towards the implementation of the proposed Productivity Profiles programme in various Arab countries. It would be indeed important that such a programme be developed, not as an ad hoc, once only undertaking, but rather as a continually sustained programme of long-term significance. To start the wheels turn, however, it was suggested that the activities during the coming several months be phased as follows.

52. Further preparation of Profiles worksheets: UNIDO and IDCAS will work together to further elaborate the prototype questionnaires and analytical worksheets which can be applied to each country project with minor adaptations. It was agreed that (a) textiles (mainly cotton-based spinning and weaving mills), (b) vegetable oils and fats processing mills, and (c) grain mills (including cereal preparations) would be specifically considered this year under the IDCAS programme. It is anticipated that such basic preparatory work will be completed by the beginning of July 1970.

53. Technical session/training workshop, July 1970: "Profiles branch teams", consisting of two or three local experts for each branch of industry, will be organized within each country in accordance with its own decision as to which branch or branches it desires to examine. These teams will take part in a two-week workshop that will finalize all Profiles materials and procedures, run a field test with a few volunteer enterprises near the venue of the workshop and orient national teams to function as the leading body of experts for the programme in respective countries.

54. This workshop will be sponsored jointly by UNIDO and IDCAS, as in the case of the present meeting of the Working Party. It is expected that it is organized either in Alexandria or in Cairo, UAR, for the period 13 - 30 July 1970.^{15/}

^{15/} An earlier proposal was for the period 4 - 16 July 1970. The new dates have been proposed after the Working Party concluded its Beirut sessions.

55. It is important that the Profiles branch teams participating in the workshop draw upon national productivity centres or similar existing industrial development institutions, as referred to in paras. 46 - 48. The members of these teams are expected eventually to carry out field studies along the proposed lines, either under a special national project instituted for the particular purpose or as an integral part of the regular programme of work of the respective national institutions. Moreover, the programme will permit each contemplated national profiles study to be shaped in accordance with a unique set of priority objectives that are to be determined by the responsible national authorities, provided, of course that the general objectives and methodologies for the Productivity-Profiles programme as a whole prove relevant to these specific national objectives.

56. Profiles field studies: After the above workshop, the various national teams will return to their countries. In accordance with their own plans of operation, they will lead a series of Productivity Profiles case studies and make efforts to propagate a similar approach and expand the local expertise body. IDCAS will be prepared to render assistance as required in this phase. But any other non-national organization, such as UNIDO, shall, in principle, not be involved in the field work.

57. Evaluation session: Towards the end of 1970 or an early part of 1971, after most field work has been completed and the results been compiled, representatives of several national teams may be invited to meet together under the aegis of IDCAS to review and evaluate the results. UNIDO would be strongly interested in participating in such evaluation session. At this time, recommendations will be made as to how to make more effective use of the results, as well as how to alter the general approach and specific worksheets and techniques to make them more suitable for the task for which they are intended.

ANNEX I

LIST OF PARTICIPANTS

A. From national development institutions

ALGERIA	Mohamed A. ISUI Directeur, Institut National de la Productivité et du Développement Industriel	Ministère de l'Industrie et de l'Economie Alger
	Hicham ELASS (UN) Acting Project Manager	Industrial Studies and Technological Centre •Rue Didouche Mourad Alger
IRAQ	Mohamed F. AL-AZZAWI Director, Production Management Division	National Centre for Consultancy and Management Development Baghdad
JORDAN	Tewfik Y. BATARSEH Deputy Director	Jordan Centre for Industrial Development Ministry of National Economy Amman
KUWAIT	Mohamed M. MADOOH Assistant Under-Secretary	Ministry of Commerce and Industry Kuwait
	Ahmed A. AL REFAI Director Follow-up Department	Planning Board P.O. Box 717 Kuwait
	Mohamed AL-SANAN Industrial Engineer	Shuaiba Area Authority P.O. Box 4690 Kuwait
LEBANON	Marwan NASR Executive Secretary	Association of Lebanese Industrialists P.O. Box 1520, Beirut
LIBYA	Beshir M.I. EL RAJHY Chief, Productivity Department	Ministry of Industry Tripoli
	Gebril Ali MAMI Director, Marketing Department	Ministry of Industry Tripoli

SAUDI ARABIA	Zuhdi A. BUSHNAK General Manager Industrial Relations Department	PETROMIN P.O. Box 757 Riyadh
	Jameel JISHI Industrial Engineer	Industrial Studies and Development Centre Riyadh
SOUTHERN YEMEN	Shamshair TAJ MOHAMMED Director of Economy	Ministry of Economy and Industry Tawahi, Aden
	Husain A.H. HAMDANI Assistant Director of Economy	Ministry of Economy and Industry Tawahi, Aden
SUDAN	Osman A. TAMAM Assistant Director Department of Industry	Ministry of Industry and Mineral Resources P.O. Box 268 Khartoum
SYRIAN ARAB REPUBLIC	Ahmad RADJAI Director	Central Bureau of Statistics Abou Roumané, Damascus
	Nassouh MALAS Director, Private Industrial Sector and Crafts	Ministry of Industry Damascus
	Zuhair TABBA Director General	Management Development and Productivity Centre Mchajrine, Damascus
	Ibrahim LAHAM Technical Director	General Organization for Executing Industrial Projects P.O. Box 2493, Damascus
	Mohamed M. AL-KABBANI Director, Planning Directorate	Textile Union Industries Damascus
	Ali MAJBOUR Assistant Director Planning Directorate	Ministry of Planning Damascus
	TUNISIA	Mhaddeb ROUISSI Directeur Général

UNITED ARAB REPUBLIC	Ibrahim A.H. AHMED Productivity and Vocational Training Department	Ministry of Industry Cairo
YEMEN	Abdul R. YOUSSEF Consultant	Technical Bureau Supreme Planning Council Sana'a

B. From international development institutions**Industrial Development Centre
for Arab States (IDCAS)**

Haider FARAHSHI
Director, Productivity
and Management Studies

**P.O. Box 1297
Cairo**

Osama M. EL-KHOLY
Consultant

**5 Rue Okasha
Dokki, Cairo**

**Centre of Industrial Studies
for the Maghreb**

Mohamed YAICHE (UN)
Ingénieur Statisticien

**P.O. Box 2132
Tripoli**

UNITED NATIONS

Mohamed EL-HALFAMI
Senior Industrial Development
Field Adviser (UNIDO/UNDP)

**UNDP
P.O. Box 3216
Beirut**

UNESOB

Jean-Pierre MARTIN
Director

**P.O. Box 4656
Beirut**

Quang TRAN-LE
Regional Adviser in
Industrial Development

**P.O. Box 4656
Beirut**

Salah JOUHRI
Chief, Industrial
Development Unit

**P.O. Box 4656
Beirut**

Robert KAMMER
Chief, Administrative Unit

**P.O. Box 4656
Beirut**

UNIDO

Nikoto USUI
Senior Industrial Development
Officer
Industrial Programming Section

P.O. Box 707
Vienna

Werner BEHRENS
Industrial Development Officer
Industrial Programming Section

P.O. Box 707
Vienna

Francis E. K. BRITTON
Industrial Development Officer
Industrial Programming Section

P.O. Box 707
Vienna

René CRESSON
(Consultant)

Institut d'étude et de
mesure de productivité
25 Rue Marbeuf
Paris VIII

ANNEX II

LIST OF WORKING DOCUMENTS

Meeting agenda

ID/WG.57/1 - Objectives, background and agenda

Analytic Industry Profiles (UNIDO)

ID/WG.57/5 - The Analytic Industry Profiles: a progress report on a new UNIDO industrial programming data project

ID/WG.57/4 - Main Elements of Industrial Cost Accounting: a preparatory note

ID/WG.57/3 - The Analytic Profiles: draft questionnaire oriented to the metalworking industries (by T. Victorisz)

ID/WG.57/2 - Profiles of Manufacturing Establishments: Selected cases from Volume III

ID/WG.23/6 - Standard Questionnaire Form for the compilation of primary information for Profiles of Manufacturing Establishments

ID/SER.E/4 - PROFILES OF MANUFACTURING ESTABLISHMENTS, Volume I

ID/SER.E/5 - PROFILES OF MANUFACTURING ESTABLISHMENTS, Volume II

Productivity Profiles (IDCAS)

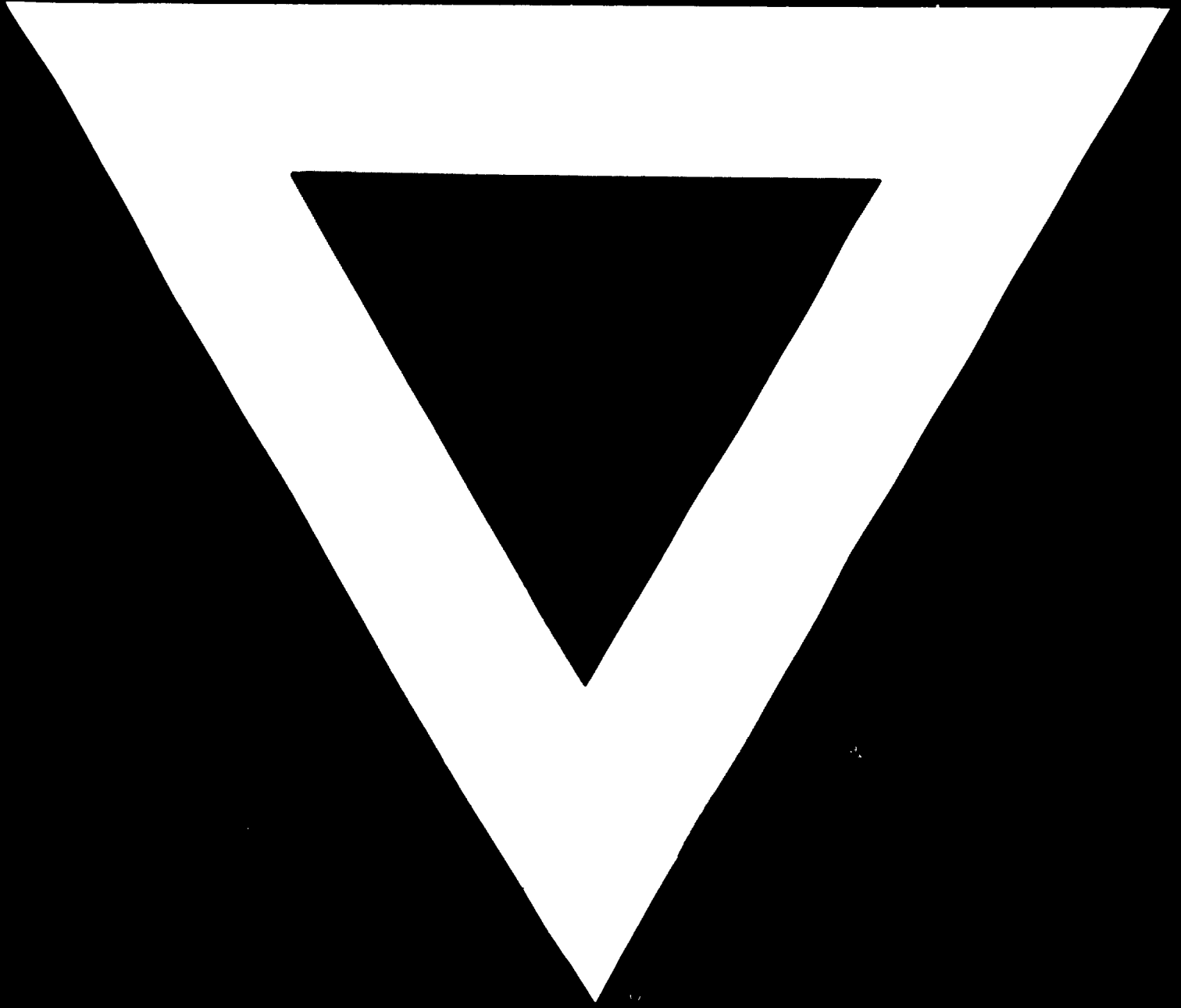
- (i) - Profile-Productivity Study Programme in Arab countries
- (ii) - Organizational Measures for Productivity Studies: data collection at the enterprise level, services for analysis and assessment at the national and regional levels
- (iii) - Some Preliminary Thoughts on the Use of Present Profile Studies for Inter-Industry Analysis and Comparisons
- (iv) - Utilization of Profiles to Identify Performance and Shortcomings in Individual Enterprises, and the Need to Incorporate "Method Studies" in the Proposed Profiles Studies
- (v) - Survey on Industrial Branch Level: Sugar Industry
- Survey on Industrial Branch Level: Leather Industry
- Survey on Industrial Branch Level: Cereals Grinding
- Survey on Industrial Branch Level: Oil Industry
- Survey on Industrial Branch Level: Printing Industry
- Survey on Industrial Branch Level: Textile Industry
- (vi) - Questionnaire on the Technology and Productivity of Cotton Spinning and Weaving Enterprises

General Background Documents

- Oman A. Tamam** - Data on Sudanese Industrial Establishments
(Sudan)
- B.M.I. El Rajhy** - Memorandum on the meeting concerning the organization of
and **G. Ali Mami** studies for raising industrial productivity in the Arab
(Libya) countries
- ID/WG.52/2** - Extracts of Industrial Feasibility Studies: Introductory
note and examples (UNIDO)
- ID/WG.23/4** - Data Requirements for Industry Analysis and Programming
(by T. Victorisz/UNIDO)
- ST/CID/15** - FERTILIZER MANUAL (UNIDO)
- ID/SER.F/1** - FERTILIZER INDUSTRY SERIES MONOGRAPH No. 1: Chemical
Fertilizer Projects: their Creation, Evaluation and
Establishment (UNIDO)
- ID/7** - TECHNOLOGICAL AND ECONOMIC ASPECTS OF ESTABLISHING TEXTILE
INDUSTRIES IN DEVELOPING COUNTRIES (UNIDO)
- IDCAS** - General Form for Industry Survey at the Level of
(a) a Branch of Industry and (b) an Industrial Establish-
ment
- IDCAS** - Working Plan for the Field Programme of an Industrial
Survey in Arab States

- - - - oOo - - - -





3. 12. 73