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UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION
Vienna International Centre, P.O. Box 300, 1400 Vienna, Austria
Tel: (+43-1) 26026-0 · www.unido.org · unido@unido.org

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FINAL REPORT

REGIONAL TRAINING WORKSHOP FOR INDUSTRIAL ADMINISTRATORS IN ENGLISH-SPEAKING AFRICAN COUNTRIES

Addis Ababa, Ethiopia
9-28 October 1972

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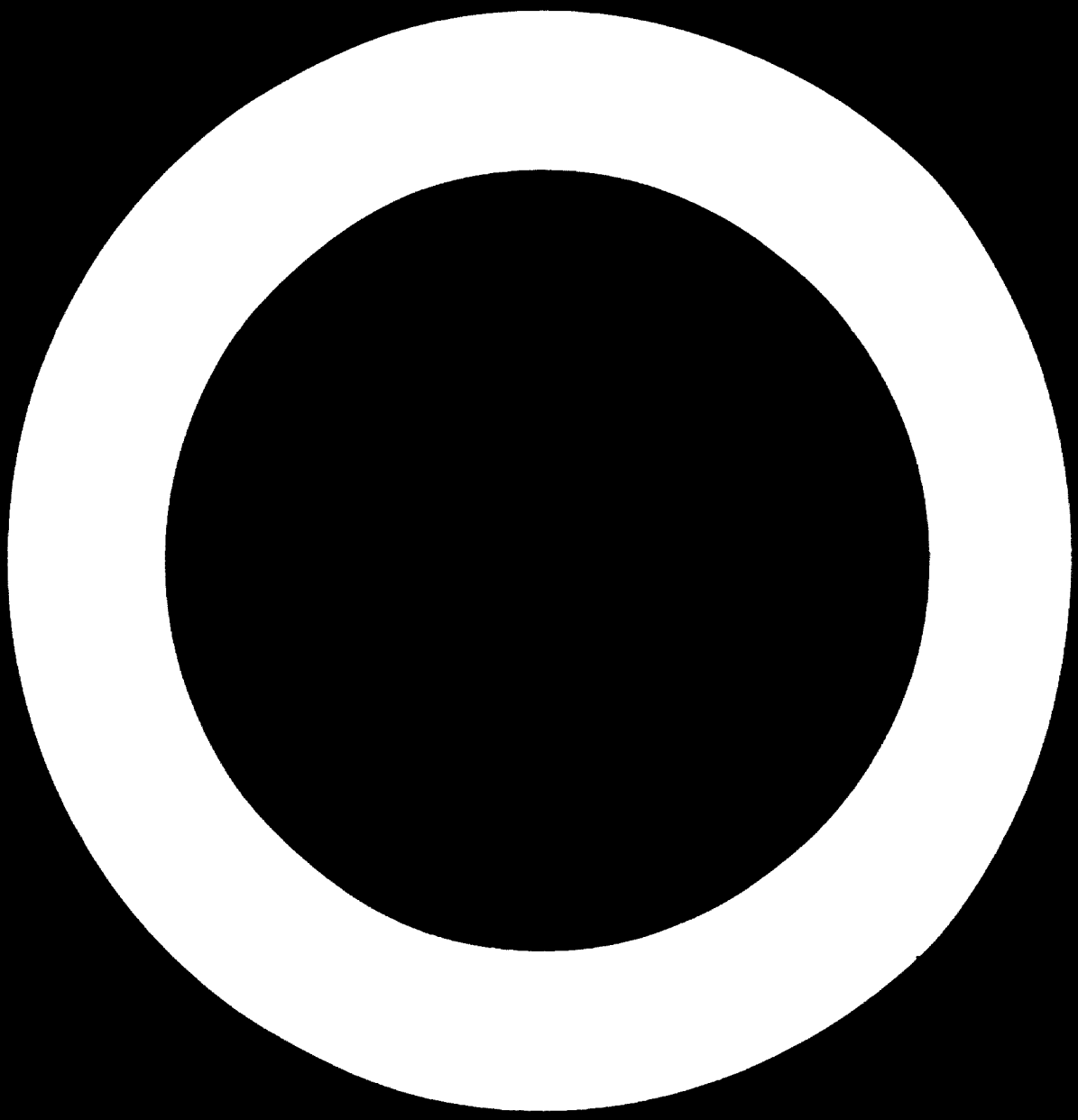
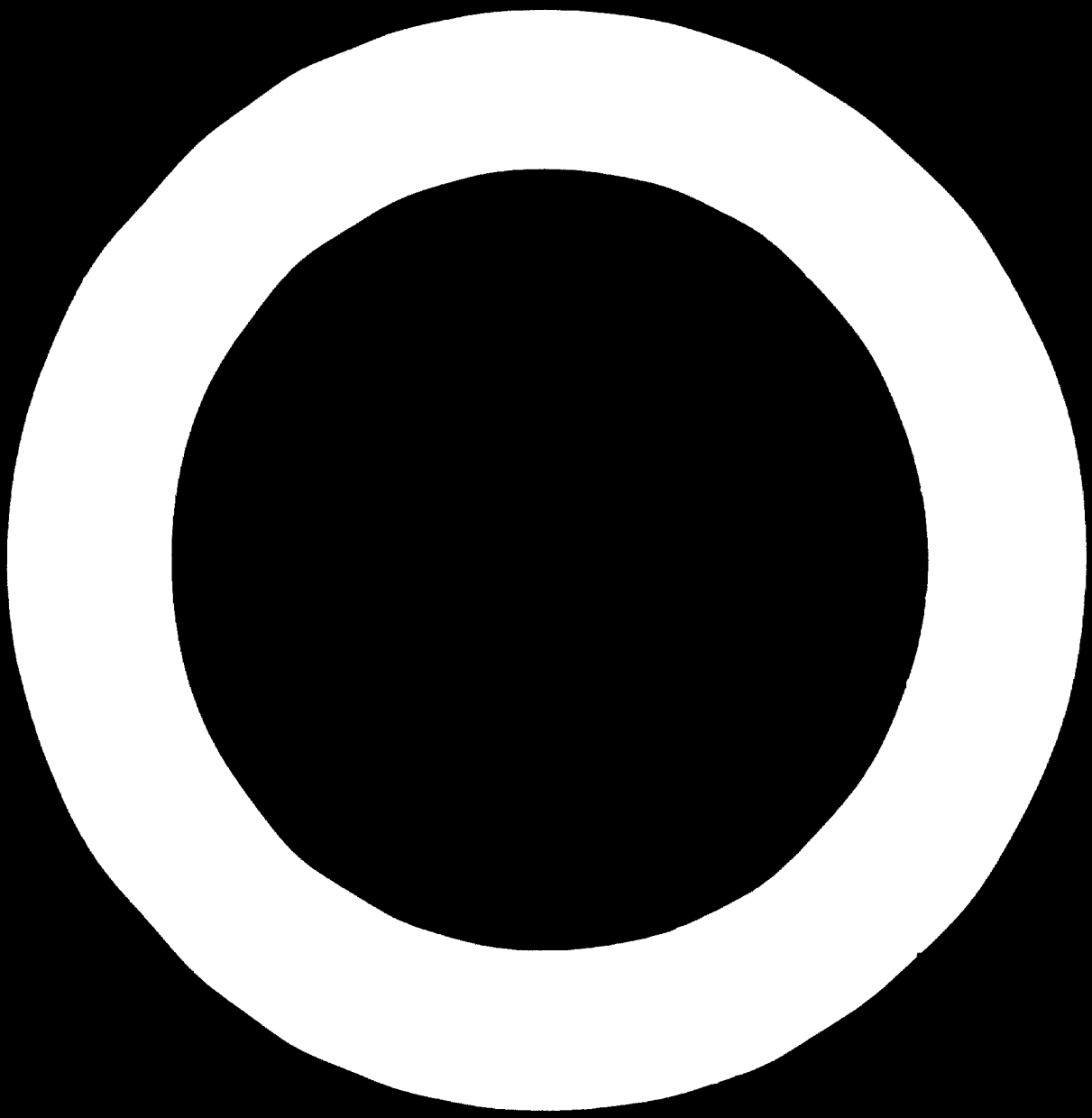


CONTENTS



INTRODUCTION

In recognition of the crucial role played by industrial administrators in improving the quality of the management of industrial development, the United Nations Industrial Development Organization (UNIDO), in co-operation with the United Nations Economic Commission for Africa (ECA), organized a Regional Training Workshop for Industrial Administrators in English-Speaking African Countries, which was held at Addis Ababa, Ethiopia, from 3 to 28 October 1976.

The purpose of the Workshop was to examine: industrial administration; the functions performed by the industrial administrator; the application of modern management techniques to agencies concerned with industrial development; the resources available to industrial administrators; the problems; and future needs for research, consultation and training.

The Workshop was opened by the Executive Secretary of ECA, who welcomed the participants and expressed the view that the Workshop was of major significance to the industrialization efforts of African countries. He also noted that the three basic problems affecting African industrialization during the current decade were problems of scale, of efficiency and of equity. An opening statement was also made by a Senior Industrial Development Officer of UNIDO.

The Workshop was attended by 17 participants from 10 African countries, a representative of the Executive Director of UNIDO and a representative of ECA. Several officials from agencies of the Government of Ethiopia attended some of the sessions.

Arne Rubin (UNIDO) and Narasinganadha R. Srinivasan (ECA) served as co-directors of the Workshop. Edward Rubin, President of Action Programs International, United States of America, served as special consultant. Sebhat Hable-Selassie, Acting Chief of the ECA Division of Industry and Housing, rendered over-all assistance and counselling.

At its first session, the Workshop adopted the following agenda:

1. The field of industrial administration - its elements and the functions it performs

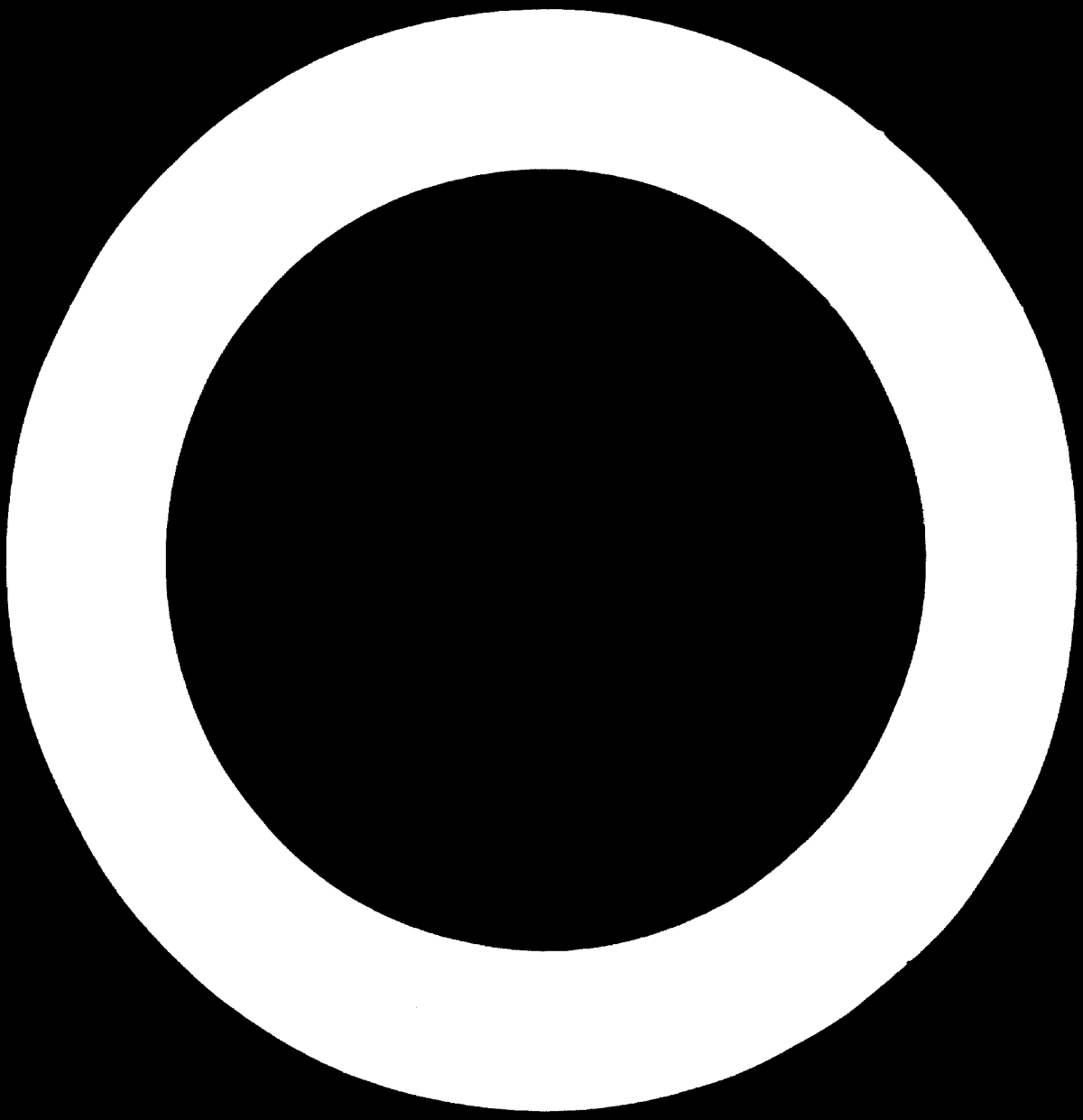
2. Resources and services available to the industrial administrator

3. Analysis of problems of industrial administration as presented by the Workshop participants and other contributors

4. Management concepts and methods useful to the work of the industrial administrator

The Workshop unanimously approved the draft report of the discussions. The recommendations formulated by the participants were carefully considered and unanimously approved.

At the conclusion of the Workshop, the participants were asked to complete an evaluation report so that their reactions and suggestions for improving future training programmes of this nature could be obtained.



RECOMMENDATIONS.

The Workshop concluded that industrial administration should be considered a distinct entity and profession, with an important role to play in fostering industrial development. After considering the administrative requirements of industrialization, the Workshop made the following recommendations:

1. That the industrial administration machinery in African countries be strengthened with necessary technical assistance services from international agencies such as UNIDO and ECA, in order to fulfil their responsibilities for carrying out the programme of action outlined in the Addis Ababa Declaration on Industrial Development in Africa in the 1970s. (E/CN.14/INR/[illegible]);

2. That industrial administrators provide for effective intersectorial and interagency consultations in which specific operational problems would be examined and thereby improve channels of communication, promote co-operation and help accelerate implementation of approved policy measures;

3. That the "Operational industrialization system" outlined in ECA document E/CN.14/INR/[illegible] be adopted with modifications as needed in the light of country conditions. This document provides a basic framework for designing, evaluating and strengthening the institutional arrangements for industrial investment promotion;

4. That high priority be accorded to the strengthening of national facilities for training. To this end, legislative and administrative measures should be considered. African countries should be assisted by international agencies in setting up or strengthening independent training institutions for specific occupations. UNIDO and ECA should assist in working out suitable arrangements for the introduction of long- and short-term training programmes;

5. That ECA undertake a survey to assess the available resources of skills in various disciplines in Africa, and that a registry be kept and revised periodically. An up-to-date registry would enable African countries (and international recruiting agencies) to draw upon these resources for their industrialization programmes and thus to become less dependent on foreign personnel from non-African countries;

6. That African Governments undertake a survey of the long-term needs of managers, supervisors, operators and other project personnel so as to help evolve a concrete programme of personnel training and recruitment;

7. That African Governments consider the incorporation of provisions in industrial investment agreements specifying training of African counterparts for foreign personnel. The agreements should include controls to ensure that the training will be successfully completed within the contract period;

8. That enterprises initiate and document in-service training measures for nationals from the project engineering and the construction stages of a project. In considering applications for work permits, Governments should insist on the inclusion of training assignments in the job descriptions of foreign personnel;

9. That institutional services in Africa be established with UNIDO and ECA assistance to provide industrial data on costs of technologies, machinery, intermediates, raw materials, marketing etc. This would help African countries to improve the formulation, evaluation and negotiation of projects;

10. That project agreements provide adequately for basic as well as assembly-type of manufacture. African industrialization efforts are handicapped by the tendency on the part of industries in developed countries to limit their operations in Africa to the assembly-type of manufacture. Apart from being denied opportunities for carrying out basic manufacturing operations, African countries are placed at the extreme and continuous disadvantage of having to buy the spare parts and components from proprietory sources abroad;

11. That international agencies concerned with industrial development facilitate the licensing of specialized process know-how to African countries;

12. That UNIDO assist in the rationalization of national agencies and institutions concerned in the technical assistance and supporting programmes of industrial development in African countries;

13. That industrial administration be included in the activities of the proposed African Institute of Management Development[1] as well as in subregional and national institutions of this kind;

14. That special efforts be made to promote the growth of the small-scale industry sector, rural industrialization and linkage industries. In particular, the establishment or strengthening of institutions providing technical services such as feasibility studies and making available detailed information on these sectors is recommended;

15. That UNIDO and ECA assist specialized industrial financing institutions in African countries through technical services to enable them to undertake project evaluation and consultancy as well as project management;

16. That international organizations sponsoring industrial promotion meetings, in which African industrialists and potential investors, machinery suppliers, consulting firms participate, evaluate the record of participating foreign firms in advance. In addition, such organizations should help African enterprises, where required, in examining the details of proposals for joint ventures, including quality and appropriateness of plant and machinery, raw materials and technology.

1/ Proposal submitted on 18 October 1972 by ECA to UNIDO for comments, endorsement and transmission to UNDP for its approval.

I. THE FIELD OF INDUSTRIAL ADMINISTRATION

Definitions

Industrial administration is a field that is still in the process of being identified and established. Economic development authorities have long considered stable government and efficient administration prerequisites of economic development. Industrial administration is now being recognized as a field of study in developing countries. Accordingly, the Workshop felt it was now appropriate to establish definitions of the following terms:

Industry - manufacturing and associated productive interests including agro-industry

Industrial development - the process by which industry is initiated, expanded and improved

Administrator/manager - one who makes systematic use of means in the achievement of objectives

Industrial administrator - an administrator of industrial development, working with industry

Industrial manager - a manager within industry

Objective - the purpose/goal to which effort is directed

Project - a set of related activities with a scheduled beginning and end and measurable objectives

Service - a set of related activities with measurable objectives

The Workshop agreed that it was important for the industrial administrator to approach his work systematically. This involves looking at the traditional elements of administration - planning, organising, co-ordinating, guiding and controlling - as an integrated whole. This perspective enables the administrator to think through each of his major responsibilities in advance. For each, he considers the goals, the work programme, the planned use of resources, the measures by which he will evaluate results and the corrective action to be taken.

Aspects of industrial administration

The Workshop examined four aspects of industrial administration as part of the process of identifying and establishing the field.

The vertical approach

The range of industrial administrative positions extends from individual administrators who approach their work as a system for accomplishing planned objectives to the principal or permanent secretary of a ministry of industry or head of a national development authority. Administrators who take a traditional

approach are not considered industrial administrators. Ministers of industry are not industrial administrators, since they deal primarily with industrial policy; industrial administrators deal primarily with implementation.

The horizontal approach

The industrial administrator occupies a position between the economist/planner and the project manager. The industrial administrator's work is generally based on the strategy for an industrial sector that has been established by industrial economists and on studies made by planners/economists. The industrial manager is responsible for the planning, construction and operation of specific projects. However, the industrial administrator may participate in project identification and project promotion, depending on how industrial development is organized by his government. He may also facilitate and monitor planning and construction of specific projects.

The entities/resources approach

The typical entities (organizations and institutions) in which industrial administrators generally work are:

- Ministry of industry
- National development authority
- Development finance institutions
- Statutory boards
- Industrial research institutes
- Industrial training institutes
- Industrial co-operatives
- Industrial information and statistics organizations
- Consulting groups
- Federation of industries - chambers of commerce
- Professional associations
- Standardisation, testing and quality control organizations
- Special industrial institutions (design and development centres, small-scale industries)

Other internal resources typically available to industrial administrators include:

- Other ministries
- Legislative bodies
- Educational institutions
- Trade unions
- Banking system

The principal external resources available to industrial administrators include:

Industrial information

Technical assistance

Sources of finance

Training institutions

Consultants

Elements of industrial administration

The Workshop agreed that industrial administration could be improved if elements common to the work of industrial administrators could be identified. Modern management methods and concepts could be used as appropriate, to improve the performance of each element. The following were found to be the common elements:

(a) Planning and programming the work of industrial development organizations/institutions;

(b) Co-ordinating efforts among industrial development organizations/institutions;

(c) Staff development;

(d) Administering projects;

(e) Providing other industrial services } means for carrying out

(f) Drawing on national and international institutional resources for } elements (a), (b) and (c); industrialization;

(g) Furthering national and regional goals;

(h) Effecting change.

Elements (d) and (e) above, administering projects and providing other industrial services, were further examined to identify the functions performed. The functions were grouped into four categories, with specific services listed under each. The following listing is typical of the African countries represented at the Workshop; it is not intended to be exhaustive.

1. Assisting existing industry by:

(a) Providing consulting services. The Workshop noted that industrial administrators performed advisory services themselves, as well as called on outside experts for advice;

(b) Fostering linkages and service industries;

(c) Providing industrial information;

(d) Carrying on industrial research. It was noted that some institutes engaged in research on marketing and management as well as on technical aspects;

(e) Providing training facilities. The importance of training programmes concerned with formulating and conducting investment programmes was noted;

(f) Improving the investment environment. This covered such varied services as standardization and testing programmes, promotion and protection of individual property rights, and licensing arrangements;

(g) Initiating appropriate legislation and controls.

. Attracting private investment (mixed economies) by:

(a) Promoting opportunities for investment (assuming prefeasibility studies have been made). The potential saving in cost and time by shifting detailed project development to the interested participants was noted;

(b) Offering adequate financial incentives, including direct and indirect assistance to domestic investors and incentives to attract foreign investment;

(c) Making suitable plant sites available at reasonable cost;

(d) Providing full information on the investment environment and data for investors' feasibility studies.

. Assisting implementation of new ventures (mixed economies) by:

(a) Conducting negotiations with domestic and foreign partners;

(b) Assisting in arranging finance;

(c) Co-ordinating and expediting government approvals. It was noted that ease of doing business with the government was one of the most important aspects of the investment environment.

4. Generating and managing public investment projects from the initial pre-investment feasibility study through implementation.

II. APPLICATION OF MODERN MANAGEMENT CONCEPTS TO INDUSTRIAL ADMINISTRATION

The Workshop examined each element of the work of the industrial administrator and considered which modern management concepts might be applicable. The results are summarized below.

Element 1 - Planning and programming the work of industrial development organizations/institutions

Following the principle established by the Workshop, namely, that industrial administration should be systematic, a methodology of administration-by-objectives (ABO) was examined. This methodology requires the industrial administrator to analyse his work assignments to determine the inputs (resources to be applied), the outputs (specific items to be produced) and the objectives (what conditions are to be attained as a result of the effort). In addition, the administrator establishes, in as specific terms as possible, how the outputs are to be measured. The Workshop felt this methodology could be

used in organising and planning the work of an industrial administration organisation, and could also be used in carrying out other work elements.

The Workshop concluded that the ABO methodology had two major advantages over traditional administration:

(a) In traditional administration, procedures were emphasised; the ABO emphasis was on results (inputs leading to outputs);

(b) The traditional administration devoted much time to detailed supervision and to solving specific problems; the ABO approach to administration devoted more time to selecting, defining and communicating objectives and to evaluating alternative means of achieving them.

The Workshop also examined the methodology to be used in preparing work programmes after an ABO framework had been established. It was agreed that industrial administrators often needed to prepare such programmes, which were based on general statements in economic development plans or other policy documents. The methodology called for breaking the work down, level by level, and for each level, systematically examining the alternative courses of action and choosing the most appropriate.

Element 2 - Co-ordinating efforts among industrial development organisations/institutions

The Workshop agreed that since no single organisation was usually responsible for all aspects of industrialisation, the industrial administrator must have special skills as a co-ordinator.

The Workshop examined a particular co-ordination problem in one country which involved interministerial effort, and the solutions that were designed to solve it. It was noted that co-ordination problems required different solutions, depending on the formality or informality of the organisational procedures, the contacts established, the nature and duration of the effort and the personalities involved. It was stressed that whatever means of co-ordination were adopted, techniques of holding meetings should be improved and clear and prompt follow-up of the results of meetings be maintained.

The subject of programme budgeting was introduced as part of co-ordination, since it was a new means of harmonising the economic development plans and national budget of a country.

The basic contribution of programme budgeting is to change traditional budgets (for men, materials, equipment etc.) into budgets based on programme objectives. It reports physical accomplishment as well as money spent. This type of budgeting has much in common with economic development, which is also [illegible]. Its adoption, on a pilot project basis, and phased with other [illegible] should therefore be encouraged.

Element 3 - Staff development

The Workshop agreed that staff development was an essential part of an industrial administrator's work in Africa. It felt that new means of creating an environment for individual growth in an organisation should be carefully examined.

The first means examined was manpower planning. This process measures existing skills against the human resource requirements of a country's development plan and then designs programmes to fill the needs. The programmes are concerned with education and training on and off the job and improving the utilization of existing staff. The Workshop felt that manpower planning provided the necessary data base for comprehensive staff development.

A second means examined was face-to-face discussion of objectives between an employee and his supervisor. In meeting together, they mutually translate the plans for the forthcoming period into objectives that the employee is to achieve.

A third means examined was changing specific job content and removing unwarranted controls to motivate employees. Studies have shown that employees are motivated by factors such as achievement, recognition, responsibility, possibility of advancement and the work itself, rather than factors such as company policy and administration, supervision, work conditions, even salary.

The importance of job ladders or schemes of service that tied educational and training requirements to job advancement were noted.

Element 4 - Administering projects

The Workshop agreed that much of the industrial development work classified under elements 1, 2 and 3 could be applied to projects. Since objectives were set over a fixed period, the results were more controllable and measurable. Also, projects carried more sense of urgency, which was relevant in development work. There was also more reliance on the project team to solve problems and thus less red tape.

The phases of the project cycle and the close relation between project administration and ABO were noted. The contribution of network analysis to project planning and to improving allocation of resources during project [illegible] stration was illustrated. The component parts of a project control [illegible] were discussed. It was pointed out that numerous changes were to be [illegible] during the project cycle, and that the proper response was to establish [illegible] new [illegible] points and attempt to [illegible] them.

Element 5 - Providing industrial services

The ABO concepts were held to be applicable in providing the services used to carry out elements 1, 2 and 3. Administrative concepts in relation to the industrial development machinery were reviewed. Special emphasis was placed on new approaches in cost analysis and cost calculation as well as on the implementation of supply management.

Element 6 - Drawing on national and international institutional resources for industrialisation

The Workshop felt an industrial administrator could greatly increase his usefulness by keeping his knowledge of institutional resources current. This meant being aware, within feasible limits, of the activities and capabilities of domestic and foreign entities involved in industrialisation and of significant economic trends. No additional new management technique was noted.

Element 7 - Furthering national and regional goals

Various goals, the means of attaining them and the problems encountered were discussed. The important responsibility of the industrial administrator to consider the total costs and benefits of projects for the society as a whole was stressed.

Element 8 - Effecting change

Industrial administrators live in an environment of change, since change is inherent in development. The Workshop took note of new techniques called organisation development (OD), which could help administrators to bring about desired changes and to learn to manage the process of change.

Organisation development pays close attention to relationships between individuals in organisations. It brings about change by working directly with those who are to be affected, helping them to focus their energy on specific objectives and improving the quality of relationships in the organisation.

The participants made no judgement on the techniques, but previous discussion had brought out that participation of all members of a group in reaching a consensus was in the African tradition.

III. JOINT VENTURES

The Workshop examined various approaches to establishing joint ventures. It approved the concept of taking sufficient time for each partner to understand the other's "business style". It was agreed that joint ventures should work towards control of local operations by the local partner.

IV. TRAINING FACILITIES

The participants examined the innovative training programmes of one country and felt that many of the principles on which they were based merited wider application. These principles included: design of training programmes by national personnel with operating experience; review of the content of training to make it more relevant; use of engineers as training managers who would report to top managers of industry; establishment of training facilities within plants, with foreign trainers following local training plans; special training for persons whose performance indicated management potential. The Workshop felt that the training of African staff in plants abroad might be advantageous.

V. FINANCE

The Workshop examined the financial alternatives available for investment projects. These could be classified on the basis of severity of terms and then be related to the internal rate of return on projects in the following manner:

Industrial projects Internal rate of return (r)	Financial alternatives
High r	Commercial loans
Medium-high r	Export credits
Medium r	Standard development loans
Low r	Grant-like loans
Long-term economic or social value only	Grants

This perspective enables the industrial administrator to tap the full range of alternatives and to be more selective in his choice.

VI. INSTITUTIONS AND SERVICES

The Workshop noted with concern a tendency to set up too many unco-ordinated institutions in certain countries. The problem has been aggravated in some cases by providing buildings and equipment that do not suit the conditions in the country concerned. The programmes and projects of international agencies should be conceived in the context of the country's objectives, needs and priorities.

The Workshop also expressed the view that the structure, authority and functions of semigovernmental industrial development organisations should be well defined. It was desirable, for the sake of efficiency, to avoid frequent changes in their top management personnel. These organisations should be permitted to carry on their day-to-day operations without interference.

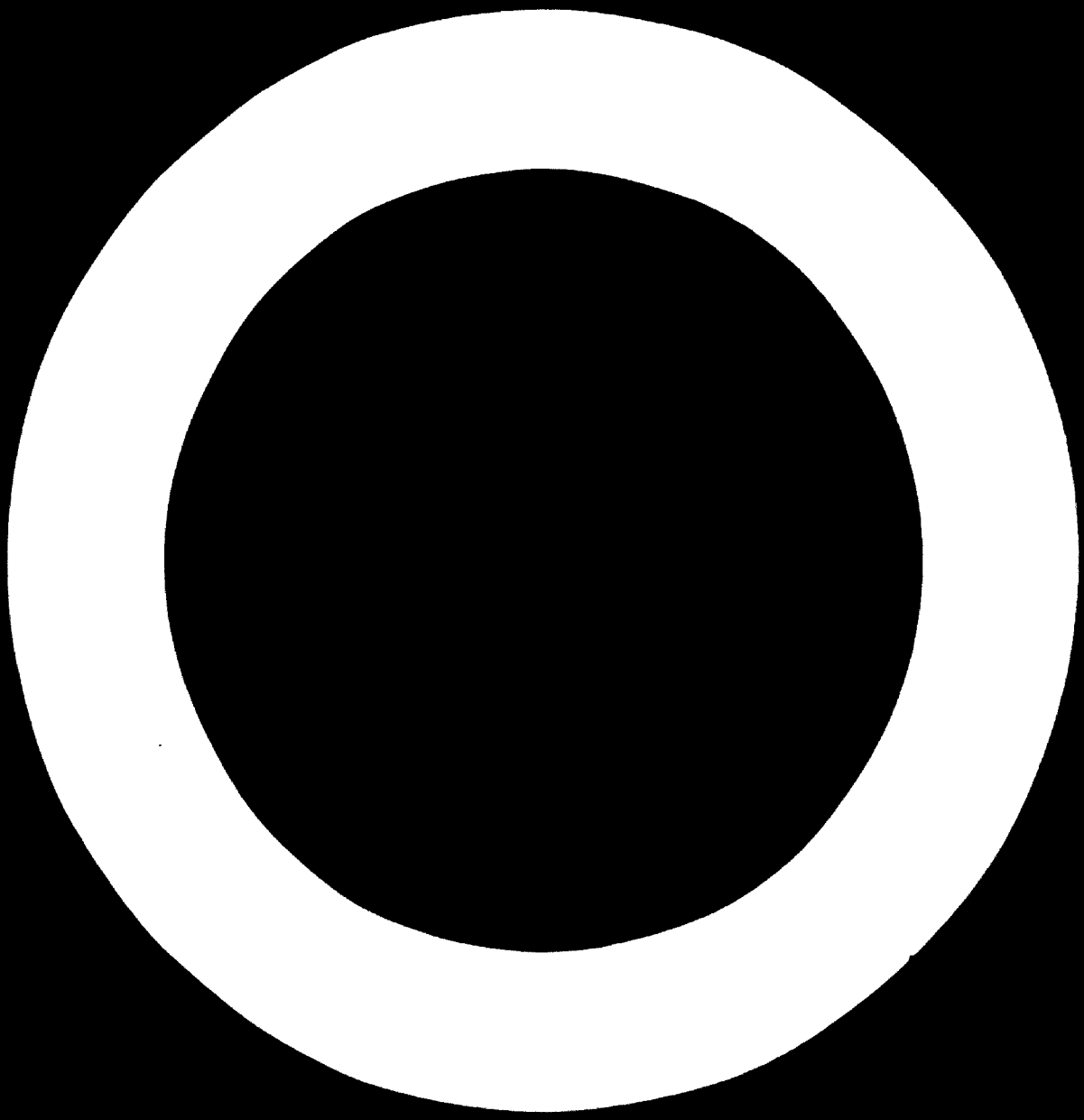
It was pointed out that African countries needed help from Africa-based expert teams in negotiating the settlement of industrial disputes. The establishment of suitable African machinery for this purpose was recommended.

It was also felt that African countries needed assistance in market analysis as a means of stimulating the establishment of industries.

ECA project descriptions were considered a useful tool for stimulating African industrial development. It was suggested that the raw material and market aspects be given more attention.

Management accounting and audits were becoming increasingly important, and institutions dealing with industrial administration and management should know how to use such techniques. It was considered especially important that financial reports be provided more promptly than at present, since reporting was a vital element of management control.

The Workshop emphasised that modern concepts and tools were as relevant to industrial administration as to industrial management.



Annex

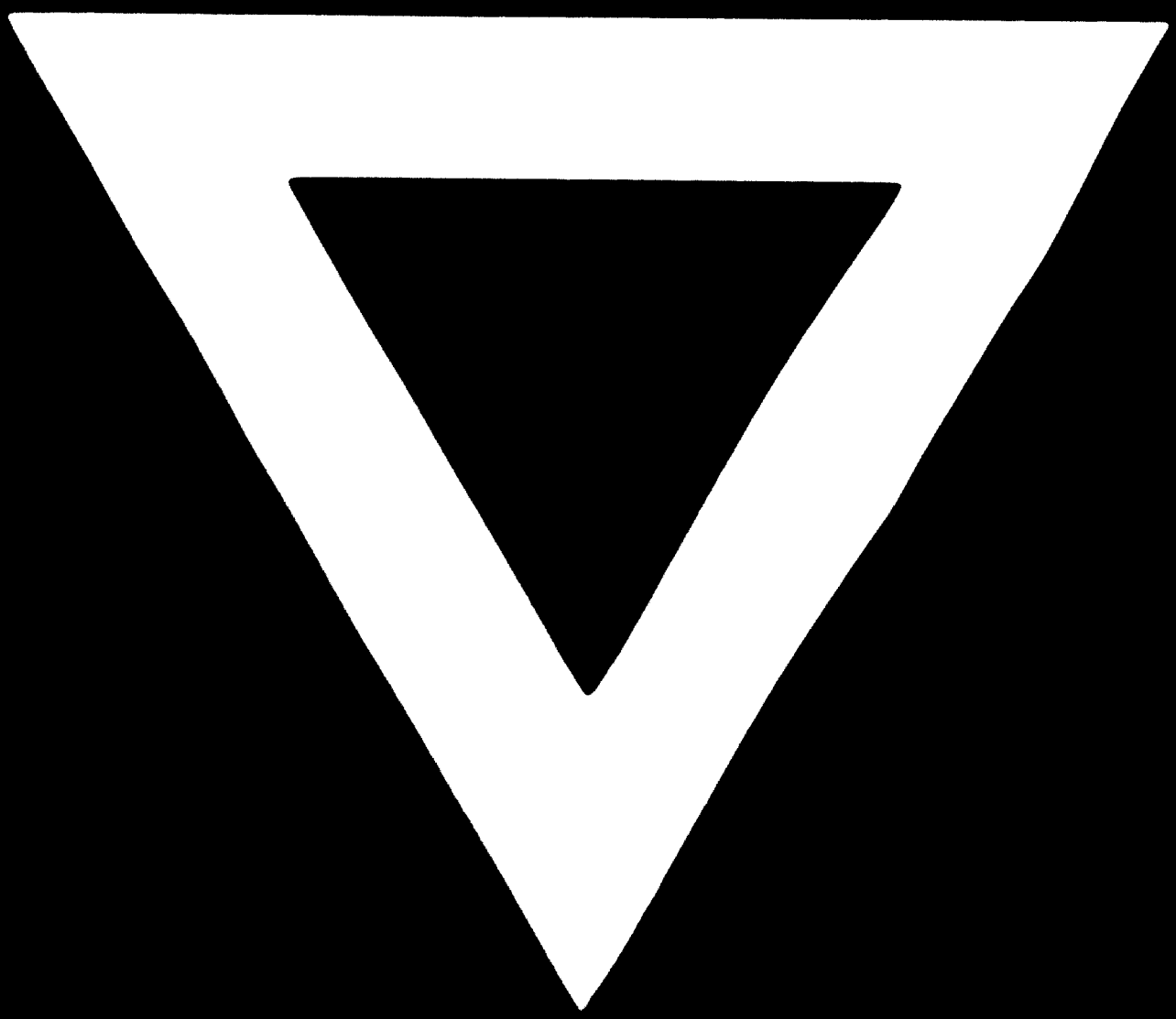
LIST OF PAPERS SUBMITTED TO THE WORKSHOP

E/CN.14/IND/200	Operational guidelines for the development of investment promotion institutions ECA secretariat
IND/TW/PIA/1	Supply management ECA secretariat
IND/TW/PIA/2	Financial management ECA secretariat
IND/TW/PIA/4	Importance of budget-making in the decision-making process of government and major requisites of budget plan harmonization ECA secretariat
IND/TW/PIA/5	Some problems of industrial development Tesfaye Dinka
IND/TW/PIA/6	Development administration - new dimensions J.N. Khosla
IND/TW/PIA/7	Industrial administration in Malawi Sam Mpasu
IND/TW/PIA/8	The role of the CEM in management development in Ethiopia Worede Gebre Yohannes
IND/TW/PIA/11	Industrial training project management for self-reliance O.E. Osundu
IND/TW/PIA/12	Functions and organizations of industrial administrative services Mohamed Salih Mohamed Abdalla
IND/TW/PIA/13	Inadequacies of industrial services in the Sudan Ali Abdel Hamid Ali
IND/TW/PIA/14	The Sudan Industrial Research Institute - functions and organisations El Abbas A/AAL Hammour
IND/TW/PIA/15	Public industrial administration in Zambia J.L. Lubasi
IND/TW/PIA/16	Industrial administration of dairy industry in Zambia D.N. Malupande
IND/TW/PIA/17	Outline of the organisation and functions of industrial undertakings in Zambia V.S. Mumba
IND/TW/PIA/18	Development of small-scale enterprises M.C. Kotut
IND/TW/PIA/19	Industrial administrative agencies: their functions Edwin L. Phillips
IND/TW/PIA/20	Functions and organisation of industrial administrative services in Liberia Marie Parker
IND/TW/PIA/21	Basic problems facing industrial development in Ethiopia Tadesse Wolde Yohannes

IHD/TW/PIA/22 Industrial development and industrial organisation in Ethiopia
Tesfaldet Yohannes

IHD/TW/PIA/23 Some aspects of industrial administration in Sierra Leone
J.A.M. King

IHD/TW/PIA/24 Commercial banking and industrial finance - the Ethiopian case
Abebe Adera



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