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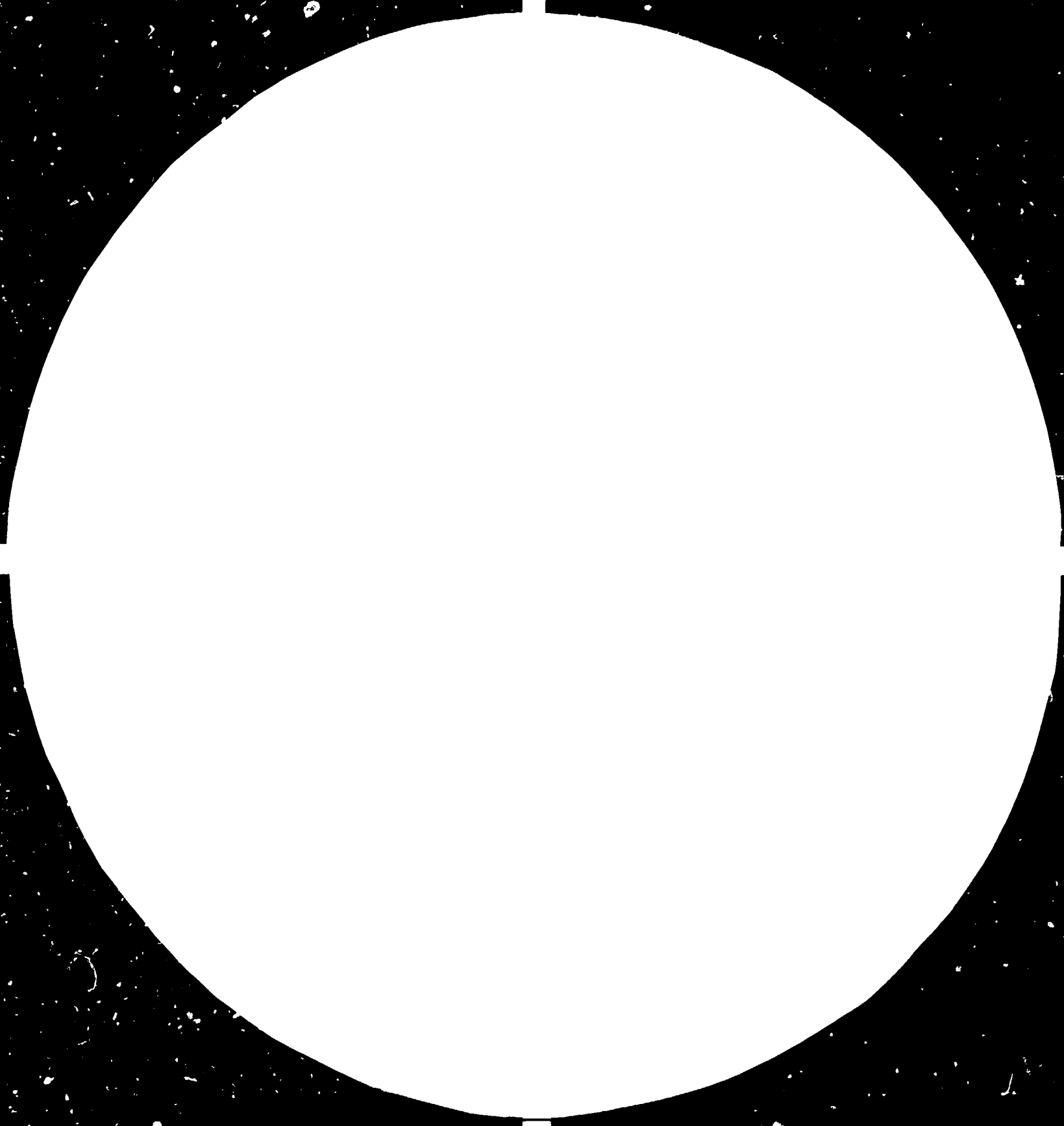
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DP/ID/SER.B/457
13 June 1984
English

Zambia

ASSISTANCE TO THE MINISTRY OF COMMERCE,
INDUSTRY AND FOREIGN TRADE

DP/EAM/82/011

ZAMBIA

Terminal report *

Prepared for the Government of Zambia
by the United Nations Industrial Development Organization,
acting as executing agency for the United Nations Development Programme

Based on the work of R. J. Dolczewski, Senior Technical Adviser,
N. Pagh, Industrial Engineer,
M. S. Thawfeek, Management Cost Accountant

United Nations Industrial Development Organization
Vienna

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INTRODUCTION

1. The development of the national economy of Zambia in the two decades since independence in 1964 was marked by efforts undertaken by the Government to lessen the dependence on export of copper - Zambia's main wealth, and to develop transport and communication facilities, energy generation and other elements of the economy infrastructure, which determine the real conditions for industrial development, for development of agriculture and other sectors of the economy, as well as for improving conditions of life of the Zambia growing population.
2. The efforts undertaken by the Zambian Government brought remarkable results in the mid 70s:
 - surpluses of electric energy which could be exported to Zimbabwe,
 - the TAZARA Railway opened a safe route to the Indian Ocean through the port of Dar-es-Salaam for export and import deliveries,
 - the tarred main roads made it possible to get access to all parts of the country round the year,
 - the telecommunication links established with a number of urban centres eased the exchange of information for business and private purposes.
3. Exploiting the favourable conditions established, and the aptitude to get foreign exchange because of good prices of copper on the world market, many new industries were set up in the early 70's. Most of them, however, were based on the assumption that they will continue to easily obtain imported inputs. That tendency brought import oriented industrial development which resulted in rising dependence on availability of foreign exchange for getting the industrial inputs imported.
4. The situation changed dramatically in mid 70's, in connection with the world wide recession and the fall in prices of exported copper. The shortage of foreign exchange caused operational problems for the particular sectors of the

Zambia economy, including the manufacturing sector. Stoppages in the production processes, closing of factories, remarkable under-utilization of production capacities became a common feature in the country. This resulted in sharp decline in industrial output, and combined with a decline in agricultural output caused by consecutive years of drought - in sinking national income per capita population.

5. In order to counteract this unfavourable development of events, the Zambia Government introduced a policy to diversify the national economy, by intensifying the development of industries based on local raw materials, and development of industries which would be able to export their products and gain the needed foreign exchange, partly replacing the earnings from copper sales abroad. (See(1)and(2)).
6. Since the implementation of such a policy required existence of a strong government body that would be able to translate into details the Government industrial development policy and to implement it into reality, the United Nations Development Programme and the United Nations Industrial Development Organization were requested to provide the necessary assistance in order to advise the Government, how to strengthen the Department of Industry in the Ministry of Commerce, Industry and Foreign Trade (later the Ministry of Commerce and Industry), to enable it to carry out its responsibilities.
7. In May, 1979 a Project Document No. DP/ZAM/78/005 entitled "Strengthening the Department of Industry" was signed. The Project provided funds for 48 man/month assistance to the Department of Industry for:
 - one Senior Adviser
 - one Industrial Engineerwithin 24 months from 1st July, 1979 through 30 June, 1981.
8. The Senior Technical Adviser arrived in Lusaka in November, 1979 and worked at the implementation of the Project until October 1980.
The Industrial Engineer was not recruited at that time. Instead, a Management Cost Accountant was recruited and

arrived in Lusaka in June, 1980.

9. During that first period of implementation of the project, the activity of the STA was concentrated on carrying out an industrial survey. The results were presented in Project Progress Reports dated 6th June and 10th September, 1980 (see (3) and (4)). No technical reports have been presented. The STA left in October, 1980.
10. The Management Cost Accountant worked at creation of the basic elements of a system of monitoring the performance of the industrial units, and assisted in implementation of the Industrial Development Act. However, since the Expert Team has not been completed, implementation of the project could not be advanced.
11. The activities carried out and results achieved in the period November, 1979-June, 1981 have been presented in the Terminal Report for the Project DP/ZAM/78/005 dated 15th September, 1981, by R. Dolczewski, the new Senior Technical Adviser (see Annex 4, item 2).
12. Since the Project DP/ZAM/78/005 was to expire at the end of 1981, a new Project Document DP/ZAM/82/011 was prepared and signed on 27th July, 1981. The new Project Document provided funds for assistance to the Department of Industry for 36 man/months:
 - 20 months of assistance of a Senior Technical Adviser
 - 10 months of assistance of an Industrial Engineer
 - 6 months assistance of a Management Cost Accountant.
13. The Expert Team was completed in mid 1981:
 - the Senior Technical Adviser arrived in July, 1981 (as mentioned above)
 - The Industrial Engineer arrived in May, 1981
 - the Management Cost Accountant was already in the field at that time.
14. The Expert Team started to work at the implementation of the Project DP/ZAM/78/005 and continued to work in 1982 and 1983 under provisions of the Project DP/ZAM/82/011. Thanks to the Project Budget Revision arranged in 1982, the Project Team was able to work together at the implementa-

tion of the Project until the end of 1982:

- the Industrial Engineer Mr. N. Pagh left in November, 1982
 - the Management Cost Accountant Mr. M. S. Thawfeek left in December, 1982.
15. In 1983 additional funds have been provided for extension of the assistance to the Department of Industry of the Senior Technical Adviser Mr. R. Dolczewski until the end of 1983.
 16. In total, within the period November 1979-December 1981, covered by the Project DP/ZAM/78/005, assistance of 42 man/months (instead of 48 m/m as scheduled) was given to the Department of Industry.
In the period January, 1982-December 1983, covered by the Project DP/ZAM/82/011, assistance of 45 man/months (instead of 36 m/m as scheduled) was given to the Department of Industry.
 17. The total UNDP financial contribution, scheduled primarily for the Project DP/ZAM/82/011 for US\$250,000 has been increased by the Revisions "B" and "C" to US\$333,400.

CHAPTER I. OBJECTIVES AND LOGIC OF THE PROJECT

A. Project background

18. Zambia is a landlocked developing country, depending on export earnings from sale of copper.
19. Because of the land-locked position, all raw materials, spare parts and all supplies, as well as all goods exported have to be transported over long distances by land.
20. The movement of goods into and from Zambia is aggravated by the fact that only one port at the Indian Ocean - Dar-es-Salaam is accessible, and that the transport communication system is not well developed in the country.
21. The fluctuating and relatively low price of copper on the London Metal Exchange has adversely affected the country's foreign exchange situation; lack of foreign exchange caused under-utilization of industrial capacity and decline of productivity of the industrial enterprises.
22. Another important factor affecting industrial performance related to shortage of techno-managerial expertise.
23. Under the influence of the factors mentioned as well as of the world-wide recession, the growth of the Zambia national economy has been hampered, causing decline in recent years of the income per capita of the Zambian fast growing population.
24. To reverse this tendency, the Zambia Government declared a policy to diversify the economy in order to get away from the precarious dependence on a single commodity (copper) affected by the vagaries of the international market⁽¹⁾.
25. This policy is elucidated by the introduction of the Industrial Development Act 1977, which contains a great deal of incentives for the establishment of industrial enterprises. The Government is keen to see the effective implementation of the Act.⁽²⁾
26. The Department of Industry in the Ministry of Commerce and Industry has the responsibility of the overall industrial development comparable with the country's economic and social goals.

B. Logic of the Project

28. After many changes and fusions in the last decade, the Ministry of Commerce and Industry has concentrated its activities on performing functions concerned with direction of the current processes of material production and the exchange of goods, excluding the mining industry.
29. Because of the pressure of the foreign exchange shortage, the main efforts of the leadership and the staff of the Ministry have been focused on export promotion and import licensing fields.
30. The result is the deficit of capacities within the Ministry for making and executing the long-term and medium-term industrial development policy: the Department of Industry has no capability for playing a role of the Governmental industrial development policy making and executing body and for forming a sound investment policy, which would take into account the growing national demand, the long-term export prospects and the national advantage.
31. In view of the foregoing, the strengthening of the Department of Industry as the governmental industrial development policy making and executing body became in fact a condition for the balanced development of the Zambia economy.
32. To achieve this goal - the strengthening of the Department of Industry - a careful search for its real functions determined by the statutory documents enacted and the current Government policy - became a priority requirement, followed by the need for investigation of conditions for setting up of an industrial information system and starting to build up a comprehensive system of guiding and directing the Zambia industrial development.
33. Because of the limited internal capabilities of the Ministry it has been found necessary to request UNDP/UNIDO to provide the necessary assistance in order to carry out the investigations needed and to present recommendations on ways and practical steps on how to strengthen the Department of Industry.

34. The assistance requested was provided under the Zambia Country Programme 1977-1981 - by the Project DP/ZAM/78/005, and under the Zambia Country Programme 1982-1986 by the Project DP/ZAM/82/011.

C. Project Objectives

35. The Project was intended to contribute to the raising of the operating efficiency and effectiveness of the industrial sector in order to increase its economic and social contribution to the National development goals.
36. Project's Immediate Objectives were formulated as follows :
(Project DP/ZAM/82/011)
- 1/ strengthen the capability of the Department of Industry to service the industrial sector and guide the industrial growth;
 - 2/ improve the performance of the existing industrial enterprises affected by the foreign exchange shortage with a view to adopting them to prevailing local conditions and increasing the production capacity;
 - 3/ assist in the effective implementation of the Industrial Development Act;
 - 4/ help in the mobilisation of the local resources and encourage utilization of local raw materials for industrial production;
 - 5/ develop and expand the role of national industrial consultants in analysing opportunities for operational improvements and implementing necessary action programmes of the company and plant levels as well as within supporting and directing organizations;
 - 6/ design and implement a basic system for direction of industrial investments in accordance with National Development Plans and monitoring and analysing the performance of the industrial sector;
 - 7/ assist in the development of suitable methodology and skill contracting, negotiating services and facilities with respect to the acquisition of appropriate industrial technology and importation of production equipment;

- 8/ assist in the production of import substitution goods and the consequential conservation of foreign exchange;
- 9/ in consultation with INDECO provide requisite managerial services to their manufacturing subsidiaries to assist in improving their productivity.

CHAPTER II. ACTIVITIES CARRIED OUT
AND OUTPUTS PRODUCED

A. Activities as described in the Project Document

37. The Project Document defined the following activities to be carried out in order to achieve the Project's Immediate Objectives:
 - 1/ Introduce new measures or strengthen existing ones for effective implementation of the objectives of the Industrial Development Act, 1977;
 - 2/ Examine closely the whole range of industrial production process with plant managers and other personnel concerned and provide assistance on continuous basis in taking appropriate action in the operational activities of the plant in order to increase industrial output
 - 3/ Advise on ways and means of improving of internal technical and managerial capability of the Department of Industry
 - 4/ Assist in the application on continuous basis as necessary of suitable measures commensurate the changing situation to monitor and guide industrial activities
 - 5/ Set up a flexible and effective scheme for acquiring or purchasing the most suitable production equipment and related technology
 - 6/ Assist in the establishment of industrial data bank which should be continuously and easily retrievable
 - 7/ Improve the management of R & D facilities for product quality control, packaging, storage, and physical distribution systems
 - 8/ In the processes of operational plant management develop a practical approach of transferring industrial resource technology through learn-as-you-do techniques.

B. Practical approach

38. According to the rules, activities to be carried out by the Experts were fixed in Work-Plan prepared by the STA in consultation with the SIDFA and approved by the National Director of the Project, Mr. M. X. Mufwaya, Under Secretary, M.C.I.

Work-Plans for the following periods were prepared and approved:

- 1/ 1st August, 1981-30th April, 1982
- 2/ 1st May, 1982-31st December, 1982
- 3/ 1st January, 1983-31st August, 1983 (extended up to 31st December 1983).

39. Following the suggestions of the National Director of the Project, the topics listed below were chosen from within the eight groups of activities mentioned in the Project Document - to start with immediately:

- 1/ Implementation of the Industrial Development Act
- 2/ Industrial Survey and assistance to managements of industrial plants
- 3/ Activities aimed at the strengthening of the Department of Industry itself
- 4/ Setting up of the Industrial Monitoring and Information System.

40. It has been decided to carry out activities related to improvement of contractual and consultancy services, to research and development facilities for industry and to transfer of technology problems and routines in the second phase of implementation of the Project.

C. Implementation of the Industrial Development Act

41. The Industrial Development Act, 1977 creates the legal framework for all activities of the Department of Industry related to implementation of the Government policy in that particular field.
42. Because of that reason, wide range of activities have been carried out by the Expert Team and the individual Experts. The main ones were:
- 1/ assistance in improving the Act itself, by preparation

of comments to the Amendments proposed to the Act:

- 2/ assistance in improving the process of granting of manufacturing licences, by preparation of new application forms, as well as forms and procedures for evaluation of the applications;
 - 3/ assistance in considering the particular applications, by presenting comments and opinions;
 - 4/ assistance in evaluation and appraisal of particular investment proposals, submitted by companies applying for manufacturing licences;
 - 5/ assistance in working out of Departments position related to setting up of particular industries in Zambia, compatible with reconciliations made within the South Africa Development Co-ordination Committee (SADCC) and the Preferential Trade Area (PTA) treaty;
 - 6/ assistance in improvement of import licensing and foreign exchange allocation procedures, with the aim to promote production based on local raw materials and export oriented production;
 - 7/ assistance in preparation of position papers for negotiations with the World Bank Missions;
 - 8/ preparation of layman's drafts for regulations regarding restricted imports of particular goods, in order to promote local manufacturing;
 - 9/ presentation of recommendations on how to promote manufacturing of export goods;
 - 10/ assistance in identification of obligations of the Zambia Government resulting from investment agreements to be signed.
43. Besides the activities mentioned, a current assistance and advice was given to the Under Secretary (Industry) and to officers of the Department in matters related to industrial development of Zambia.

D. Industrial survey - assistance to managements
of industrial plants

44. In order to get acquainted with the Zambia Industry and with problems facing it, 56 companies were visited in the period July 1981-December 1983. Within that number of

companies 41 were manufacturing companies and 15 were consultancy services companies. (For list of companies visited see Annex 6)

45. Twenty companies visited were under state ownership and the rest of them were private or with minority state shareholder ownership.
46. Four companies were visited several times, in connection with case studies and advisory service to their management, carried out by the Team Members.
These were:
 - 1/ Mansa Batteries Ltd. in Mansa (N. Pagh)
 - 2/ ZAMEFA, Luanshya (N. Pagh)
 - 3/ Mazabuka Sugar Estates Ltd (N. Pagh)
 - 4/ Zambia Breweries Ltd. Lusaka (M. S. Thawfeek).
47. Consultancy Services Companies listed in Annex 6 (Items 42-56) were visited in 1983 in connection with preparation of the report on consultancy services in Zambia.
48. Besides manufacturing and consultancy services companies, Government Ministries and other institutions were visited in connection with activities carried out by the Experts Team. Most frequently visited were:
 - National Commission for Development Planning, Lusaka
 - Ministry of Finance, Lusaka
 - Bank of Zambia, Lusaka
 - Zambia Industrial and Mining Corporation Ltd. (ZIMCO) Lusaka Hq.
 - Industrial Development Corporation Ltd (INDECO) Hq, Lusaka
 - Zambia Industry and Commerce Association (ZINCOM), Lusaka
 - National Council for Scientific Research, Lusaka
 - University of Zambia, Lusaka campus
 - Management Services Board, Lusaka.
49. Visits have been paid also to:
 - Zambia Institute of Technology, Kitwe,
 - Zambia Institute of Standards, Lusaka.
50. The timing of the visits was as follows:
 - 2nd half 1981 - 19 companies visited in the Copperbelt (Team)

- Kabwe Textiles Ltd under construction (Team)
- Mansa Batteries Ltd (case study - N. Pagh)
- Mazabuka Sugar Estate (case study - N. Pagh)
- 1st half of 1982 - Zambia Breweries (case study M.S. Thawfeek)
- ZAMEFA (case study - N. Pagh)
- 5 companies in Lusaka and Livingstone (R. Dolczewski, N. Pagh)
- 2nd half of 1982 - 16 companies on the Copperbelt (Team)
- ZIT, Kitwe (R. Dolczewski)
- 1st half of 1983 - 12 consultancy services companies in the Copperbelt visited (R. Dolczewski and C. G. L. Mubanga)
- 2nd half of 1983 - 4 consultancy services companies/units in Lusaka visited (R. Dolczewski)

(details of the visits - see Progress Reports and Company visits Reports listed in Annex 4, part C).

F. Efforts to strengthen the Department of Industry

51. In order to assist in strengthening the Department of Industry the following activities have been carried out:
- a) a study of the Department of Industry functions, organisation and procedures followed were undertaken to establish a basis for conclusions and recommendations;
 - b) recommendations regarding the staffing and organization of the Department of Industry, its functional co-operation, procedures to be followed and external assistance have been presented in three versions;
 - c) in order to make the discussion on recommendations mentioned under b) easier, they were presented in figures, and transparencies were prepared to demonstrate them using an overhead projector;
 - d) advice has been given on how the Department should present itself during the Prime Minister's Economic Symposium, with the aim of strengthening its position within other Government bodies and within the Business community;
 - e) organisation charts and job descriptions for the additional staff members of the Department were prepared in 1982 and 1983, taking into account the organizational

changes to be introduced following the recommendations approved;

- f) organisation Manual of the Department of Industry has been prepared at the end of 1983, in connection with designation of new staff members to work with the Department of Industry;
- g) the Department of Industry staff members were trained on-the-job on how to carry out the Department of Industry functions and how to follow procedures prescribed;
- h) the Head of the Department was currently assisted in working out position papers regarding main issues of the government industrial development policy.

F. Setting up of the Industrial Information System

- 53. From the very beginning of the implementation of the Project it became clear for the Expert Team, that setting up of the Industrial Information System is a crucial condition for achieving success on all other fields of Department of Industry activities, since the information provided by the Central Statistical Office could not be used for the Department of Industry purposes mainly because of its 6-7 years delay.
- 54. Having that in mind, full support was given by the Team Members to the Management Cost Accountant in his efforts to shape the framework for the Industrial Information System.
- 55. In particular, the Senior Technical Adviser designed the structure of the Industrial Management System, and on that base - the structure of the Industrial Information System. The Industrial Engineer worked out the part of the Industrial Information System, concerning information on existing production capacities and on their utilization.
- 56. As the result of efforts undertaken jointly by the Expert Team members, it became possible to finalize the work on the Industrial Information System at the end of 1982. The Management Cost Accountant presented an integrated paper - the Manual for the Industrial Information System, making it

- possible to begin with the setting up of the system in 1983.
57. For that purpose a "Programme of Action" was elaborated by the Senior Technical Adviser and approved by the Under Secretary (I) for implementation.
58. In the course of realisation of the Programme:
- hundreds of Annual Return Forms were sent to manufacturing companies
 - contacts have been established with Data Processing Centres in Lusaka aimed at preparing conditions for a smooth processing of data submitted in Annual Return Forms into reports and easy accesible sources of information for industrial policy making purposes
 - a formal request has been registered with the IBM African Institute in Zambia to train two officers of the Department of Industry in application of IBM Personal Computer i.a. for industrial planning and industrial information system purposes (training is scheduled for 2nd Quarter, 1984)
 - in connection with the training mentioned it has been ensured, after series of consultation of the Senior Technical Adviser with the IBM (Zambia) Ltd management, that the Department of Industry will receive an IBM Personal Computer, to be operated by the officers trained (scheduled for 2nd Quarter, 1984)
 - first elements of the Industrial Data Bank have been put together and stored physically, making the way for the next steps to establish the Industrial Information System.

G. Other fields of activities

59. Research and Development facilities for the Zambia industry have been investigated, including visits to the National Council for Scientific Research, University of Zambia, Zambia Institute of Technology, Zambia Institute of Standards, participation in meetings of the NCSR committees dealing with research for industry, and presentation of a paper on the role of the Ministry of Commerce and Industry in the transfer of technology into Zambia to a Meeting of

the Zambia National Committee for Appropriate Technology.

60. The administration of agreements about transfer of technology was thoroughly analysed and discussed with officers dealing with the matter in the Ministry of Commerce and Industry and in the National Council for Scientific Research, and advice on particular cases given to the Under Secretary (Industry).
61. Research of consultancy services operating in Zambia was carried out, by company visits in Lusaka and the Copperbelt, by circulating of a questionnaire and by discussions with professionals acting on that particular field.
62. Ways on how to improve contracting and related activities in Zambia were analysed in conjunction with an ECA Report presented to the Ministry of Commerce and Industry in the matter. The report was found very useful and it pointed out many United Nations sources which could be used for training of officers of Government bodies and parastatal companies' headquarters, responsible for negotiating and clearing of draft contracts before signing them by authorized representatives of the Government or the Parastatal groups of companies.

H. Training of nationals

63. Junior officers of the Department of Industry were trained on-the-job by the Experts Team members on a case to case basis during all the period of implementation of the Project.
64. Following a request of UNDP, Lusaka office, four students of the Namibia Institute were trained in problems of Industrial Development Administration.
65. On-the-job instruction was given to the counterpart nominated in January, 1983 Mr. C. G. L. Mubanga on how to start work or the setting up of the Industrial Information System, following the Programme of Action drafted by the STA and approved by the Under Secretary (I).

66. Assistance was given to the UNDP, Lusaka/SIDFA in arrangement of conditions for carrying out the UNIDO Industrial Management Development Seminar in Zambia (RP/ZAM/82/003) and in carrying out the Seminar in September, 1983 at the President's Citizenship College, Mulungushi/Kabwe, despite of many problems met.
67. A Programme of Training of newly appointed UNZA graduates to posts of economists in the Department of Industry was drafted in December, 1983, and approved by the Under Secretary (Industry).

J. Activities in the period July-December, 1983

68. In the last period of implementation of the Project, activities were focused on
- advancing the establishing of the Industrial Information System
 - preparation and carrying out of the UNIDO Industrial Management Development Seminar
 - research on consultancy services for industrial development in Zambia
 - preparation of the Department of Industry Organization Manual, in connection with providing the Department of Industry with additional newly appointed professional staff.
69. In the Industrial Information System field
- assistance was given in follow-up work on the Annual Return Forms sent to industries in the 2nd Quarter, 1983
 - consultation was carried out with management of the Data Processing Centre, Ministry of Finance on how the Industrial Annual Return Forms could be processed
 - consultation was carried out with Mr. B. Demissie, UN Adviser in data processing attached to the Central Statistical Office on matters related to already available software which could be considered for use for processing of Annual Return Forms
 - consultations were carried out with management of the IBM Zambia Ltd in connection with the setting up of the IBM African Institute and the intended training of Government officers in using IBM Personal Computers for processing of data for their Ministries purposes
 - recommendations were presented to the US (I) on how the Ministry of Commerce and Industry could use the created opportunity to get some of its officers trained in Personal Computers Applications and to receive an IBM Personal Computer for the Department of Industry purposes without being asked to pay for it.
70. Continuing assistance was given to UNDP/Lusaka, SIDFA in

preparatory work to carry out the UNIDO Industrial Management Development Seminar in Zambia, scheduled for 1983. Since the term negotiated by the UNIDO Back-stopping officer with the principal of the President's Citizenship College, Mulungushi/Kabwe for June, 1983 proved not realistic, new negotiations were undertaken by the STA and a new term fixed for September, 1983. After a series of consultations with the Under Secretary (Industry), ZIMCO Hq. Lusaka, Indeco Hq, Lusaka and ZINCOM Lusaka, an Information paper on the Seminar including Programme of the Seminar, the schedule and the organisation details was drafted by the STA and circulated to parastatal and private companies. The following recruitment of participants was thoroughly monitored by the STA and other organisatory arrangements carried out.

The permanent overlook by the STA of all organizational matters and the assistance given to the UNIDO Consultants during the Seminar have helped to achieve the Seminar's goals as described in the Final Report on the Seminar (see (5).

71. The research on consultancy services for industrial development in Zambia was continued. It proved very difficult to get the questionnaires properly filled in by consultancy services companies and returned. Henceforth, additional visits and phone calls had to be made. Efforts undertaken to get the information completed only brought results at the end of November.
72. In the course of preparation of the UNIDO Regional Investment Promotion Meeting for Southern African Countries scheduled for October, 1983 in Lusaka, the STA assisted in drafting of the Information for Investors as regards Zambia, included in the Meeting's Information Material. During the Meeting itself the STA participated in the plenary sessions and meetings of some committees and in country presentations as well.

J. Outputs of the Project

67. In the period of implementation of the Project since July, 1981 through December, 1983, 86 items of outputs have been produced and circulated to the National Director of the Project.
68. 76 of the outputs produced are listed in the four Progress Reports presented for the particular periods:

Period	Number of outputs
July-December, 1981	19
Jan.-June, 1982	26
July-December, 1982	21
Jan.-June, 1983	10
	Total 76

with indication on whether copies were circulated to UNDP and UNIDO.

The main outputs totalling to 54, have been listed in Annex 4 to this report.

69. In the last period of implementation of the Project, i.e. July-December 1983, 10 outputs were produced. They are listed in Annex 5 to this report.
70. Within the 6th outputs singled out in Annexes 4 and 5, the following are seen as the crucial ones for achieving the Project objectives:
- 1/ "Performance of the Industrial Sector in 1980"
by M. S. Thawfeek
 - 2/ "Comments to the proposed Ammendments to the Industrial Development Act, 1977" by R. Dolczewski
 - 3/ "Draft of Annual Returns of Industrial Production",
by M. S. Thawfeek

- 4/ "Development of Industrial Information System in the Department of Industry" by M. S. Thawfeek
- 5/ "Procedure of financial analysis of investment projects" by M. S. Thawfeek
- 6/ "A scheme for setting up of a Planning Unit in the Ministry of Commerce and Industry", by R. Dolczewski
- 7/ "On Ways to strengthening the Industrial Development Administration and Promotion in Zambia" by R. Dolczewski
- 8/ "Report on administration of agreement of transfer of technology" by N. Pagh
- 9/ "Manual for Industrial Information System" by M. S. Thawfeek
- 10/ "Research and Development Facilities for the Zambia Industry" by R. Dolczewski
- 11/ "Results of Research into Import Licensing and Foreign Exchange Allocation Procedures" by R. Dolczewski
- 12/ "Industrial Survey Report" by Experts Team
- 13/ "Department of Industry Organisation Manual" by R. Dolczewski
- 14/ "Consultancy Services for Industrial Development in Zambia" by R. Dolczewski.

71. The structure by subject of the 64 outputs listed in the Annexes 4 and 5 and the 22 not listed outputs is as follows:

Activity field description		Number of outputs listed	Number of outputs not listed	Total	%
1/	IDA implementation	17	19	36	41.9
2/	Industrial Survey	10	-	10	11.6
3/	Strengthening of the Department of Industry	11	1	12	14.0
4/	Industrial Information System	11	-	11	12.3
5/	Other fields	4	-	4	4.6
6/	Training of nationals	4	1 (work	5	5.8
7/	Progress Reports	7	1 plan)	8	9.3
Total		64	22	86	100.0

The figures show clearly the concentration of efforts of the Expert Team on matters related to Industrial Development Act, 1977 implementation. It has to be mentioned, that most of the outputs not listed in the Annexes 4 and 5 have been produced by the Industrial Engineer Mr. M. Pagh, presenting his advice to the Department of Industry officers on how to respond to applications made by particular companies for granting of manufacturing licences in form of comments and opinions.

CHAPTER III. ACHIEVEMENT OF PROJECT'S
IMMEDIATE OBJECTIVES

72. In effect of activities carried out by the Expert Teams Members at the Project implementation in the period July 1981-December 1983, the immediate objectives of the Project as described in the Project Document (see above para 36) have been achieved in proportion to the UNDP/UNIDO inputs.
- A. Strengthening the Department of Industry
73. The Department of Industry has been provided with a series of documents creating the necessary framework for the process of strengthening its capability as the Government industrial policy making and executing body.
- The following documents can be mentioned:
- Recommendations on ways to strengthening the Department of Industry, including organizational and functional structure of the Department, description of tasks of the particular sections, principles of functional co-operation, description of external assistance needed, and Rolling Plan on how to implement the recommendations
 - series of papers and recommendations on the way on how to set up the Industrial Monitoring and Information System, including
 - the new classification of industries
 - the new designed Annual Return Form
 - the Manual for the Industrial Information System
 - recommendations on steps needed to implement Electronic Data Processing for the Industrial Information System and Industrial Development Planning purposes

- Department of Industry Organization Manual.

74. In order to enable the Department of Industry to use the framework established, the officers of the Department were trained on-the-job, and a comprehensive programme for training of newly appointed staff members in 1984 has been prepared and approved by the U.S. (I).

B. Improving performance of existing companies

75. It has been found during the Industrial Survey carried out, that the performance of the existing companies is hampered mainly by lack of foreign exchange and by lack of pressure for better utilization of production capacities by the existing legal framework (Industrial Development Act).
76. Having that in mind, recommendations were presented to the Government, on how to improve the formulation of the Industrial Development Act 1977, so that strong stimuli to better utilization of capacities in existing companies would be provided.
77. With the aim to promote the performance of the existing manufacturing companies and eliminate cases of importation of goods which can be produced locally, recommendations have been presented to the Government to give top priority to the existing companies within the procedure of import licensing and foreign exchange allocation, while considering applications submitted.
78. Ways on how to improve performance of particular companies were sought during in-depth studies by the Industrial Engineer and Management Cost Accountant. Solutions found have been presented to managements of the companies and taken under consideration.

C. Assist in Implementation of the Industrial Development Act

79. In order to provide stronger stimuli for better utilization of existing capacities, which would be balanced with incentives for new investments, proposals on how to improve

the formulation of the Industrial Development Act, 1977 (as mentioned in Paragraph 76) were presented and are under consideration by the Government.

80. The new forms of the Manufacturing Licence Application prepared and introduced along with forms for Manufacturing Licence Application evaluation and appraisal of investment projects submitted to the Department of Industry have helped substantially to improve implementation of the Industrial Development Act provisions, in favour of the industrial development in Zambia.
81. The proposed Industrial Activity Promotion Section of the Department of Industry, after becoming operational would strengthen the Department's capability to deal with Industrial Development Act implementation problems.
 - D. Mobilizing local resources and encouraging utilization of local raw materials
82. The utilization of local raw materials has been promoted within the Project by three ways:
 - by case studies in particular companies
 - by recommendations on setting up of new industries
 - by recommending of appropriate changes in procedures and regulations.
83. On the basis of the case studies carried out in ZAMEFA, Luanshya, Mansa Batteries, Mansa and Nakambala Sugar Estate, Mazabuka, recommendations were given to increase the utilization of
 - copper for widening the range of final products (ZAMEFA)
 - zinc for increasing the output of dry cell batteries (Mansa)
 - coal instead of burning bagassa in process of sugar refining (bagasse could be used for manufacturing of paper), and to export more sugar instead of processing it to alcohol (for mixing with petrol to cut down its import).
84. Recommendations have been given as regards setting up one of the crucial subsectors of the economy in Zambia - the iron and steel industry. On the basis of results of

Geological Survey carried out by ZIMCO/MINEX Department, the Government was advised to take under consideration a long-term solution based on utilization of existing deposits of high quality iron ore and new technology of direct reduction of ore keeping the scale of capacity planned compatible with the prospective local demand.

85. Within the recommended procedure of manufacturing licensing (as regards application for priority status) and import licensing/foreign exchange allocation (highest priority for companies using local raw materials) mobilization of local resources have been proposed.

E. Developing the role of national industrial Consultants

86. It has been found during the research carried out, that the consultancy services in Zambia are quite well developed, and that they are able to respond to increase in demand for their services in the future. This is in particular concerning the engineering consultancy services and the accountancy services.
87. The problem of developing the role of the national consultants is determined by the existing deficit of high skilled national professional consultants, since reaching the required level of skill takes a long time, mostly many years. Most of the companies are trying to train their professional Zambian staff with mixed results.
88. Because of that it has been advised to strengthen the capacity of the INDECO Civil Engineering Section, which is carrying out engineering services for the industrial parastatal companies included in the INDECO Group of Companies, and to promote its close co-operation with the Zambia Engineering Services Ltd - a highly professional engineering consultancy company operating within the ZIMCO Group of Companies, with Head office and most of the professional staff located in Ashford, Kent, U.K.
89. In order to close the existing gap in the field of management consultancy services, recommendations have been given to support the Management Services Board in its efforts to develop the necessary management consultancy capability by

providing help in solving its staffing problems.

F. Designing and developing of a system for
direction of industrial investments

90. The system for direction of industrial investments designed consists of two elements:
 - 1/ long/medium term industrial development planning
 - 2/ approval of particular investment projects.
91. In order to create conditions for preparation of long/medium industrial development plans, setting up of a Planning Unit in the Ministry of Commerce and Industry or an Industrial Planning Section in the Department of Industry has been proposed and detailed systematic approach to the industrial planning presented.
92. For consideration and approval of particular investment projects, a system of investment projects' evaluation and appraisal has been designed, and setting up of an Investment Promotion Section has been prepared. The system includes consideration of the results of appraisal of the projects by the Investment Committee, attended by representatives of other Sections of the Department of Industry as well as other Departments and other Government bodies concerned.
93. The system is supported by the Industrial Information System, which is going to provide information on investments intended and investments being already under way (progress reporting)
94. The proposed amendment to the Industrial Development Act 1977, mentioned above under Paragraph 79, should provide additional stimuli for the Department of Industry to direct industrial investments according to the Government policy of promoting investments based on utilization of local raw materials and in existing companies.

G. Assisting in developing of suitable contracting
skill and negotiating services

95. Recommendations have been given on how to develop the contracting skill and negotiating services of the officers

of the Government bodies and parastatal companies headquarters concerned, by utilization of series of papers prepared by UNIDO and other UN agencies, and seminars to be organized with assistance of the mentioned UN agencies.

H. Assisting in the production of import substitution goods

96. Assistance was given to the Under Secretary (I) in starting the local production of motor vehicle components, in collaboration with the Motor Vehicle Assemblers Association, with the aim to reduce gradually the import content of the motor vehicles assembled.
97. The Under Secretary (I) was assisted in efforts undertaken to start with local production of irrigation equipment, in order to lessen the Zambia dependence on imported ones in the implementation of the LIMA-Agricultural Development Programme in Zambia.
98. The possibility of local manufacturing a wide range of copper products was analysed and recommendations presented.

I. Providing requisite managerial services to INDECO companies

99. On the request of INDECO Hq., case studies in ZAMEFA, Luanshya, Mansa Batteries, Mansa, Nakambala Sugar Estate Ltd. Mazabuka and Zambia Breweries Ltd., Lusaka have been carried out and recommendations on how to improve some managerial and technical aspects in companies concerned given (confidential)

CHAPTER IV. UTILIZATION OF PROJECT RESULTS

100. All recommendations presented to the Government have been subject to consideration. Decisions regarding implementing of particular recommendations have been already taken in many cases, implementation of some of them have been delayed because of the existing financial and manpower limitations.
101. The results of the Industrial Survey were utilized by the Under Secretary (Industry) for industrial policy making and executing purposes.
102. The recommendations given to management of particular companies, which were the subject of case studies, were considered thoroughly, and conclusions taken for future action.

103. Recommendations given to the Under Secretary (I) regarding Amendments of the Industrial Development Act have been considered, but not yet included into the drafts presented to the Cabinet Office for consideration.
104. The proposed improved classification of industries, the new forms of Application for Manufacturing Licence, and the newly drafted Application Evaluation Form and the Investment Projects Appraisal Form have been approved in full and implemented in the practice of the Licensing Unit of the Department of Industry.
105. The many opinions and comments presented to particular Applications for Manufacturing Licence and Investment Projects have been fully utilized in the course of consideration of the applications or the investment projects.
106. The recommendations presented in mid 1982 in papers regarding ways to strengthening the Department of Industry have been considered and approved by the Government in the third of the variants. (Strengthening the Department of Industry staff and introducing organization of the Department in sections without creating of new Government bodies, like a separate Industrial Planning Unit or an Industrial Development Promotion Agency).

Because of budgeting procedure, it was possible to strengthen the Department of Industry staff since the end of 1983 only. The Organization Manual prepared at the end of 1983 already created the framework for introducing the new organization structure of the Department.

107. The set of recommendations aimed at setting up of the Industrial Information System have been fully approved and most of them implemented already. The most important move was the approval and introduction of the Annual Return Form, and the Manual for Industrial Information System.
108. Recommendations on how to introduce the Electronic Data Processing for the Department of Industry purposes presented in 2nd half of 1983 were also accepted and are awaiting

future action (training of Department of Industry officers and providing the Department with an IBM Personal Computer is scheduled for 2nd Quarter, 1984).

109. Recommendations regarding better use of local resources and raw materials, in particular of copper, zink, iron ores, timber, irrigation equipment as well as import substitution were considered by the Government and conclusions for future action taken.

Practical steps were undertaken as regards organizing of local production of motor vehicle components and spareparts to ensure the gradually decrease of import content of the vehicles assembled.

110. Recommendations presented on how to strengthen and better utilize the existing R & D facilities for industrial development have been considered. Implementation of recommendations in part concerning the Ministry of Commerce and Industry, particularly those on controlling the technology transfer and its appropriateness to Zambia needs and conditions has been delayed because of staffing problems.

111. Recommendations aimed at developing of contracting and negotiating skills and the role of national consultants presented in 2nd half of 1983 are under consideration.

112. Report and recommendations on how to improve the import licensing and foreign exchange allocation procedures have been presented by the Government with other papers to the members of the Paris Club for discussion on their financial assistance to Zambia.

It has also been presented by the Government to the World Bank Mission in connection with negotiations regarding the IMF loan granted to Zambia.

Since the first edition of the Report was fully depleted in a short time, a second revised edition was prepared in III Quarter, 1983 and set up for disposal of the Government.

CHAPTER V. FINDINGS

- Industrial Survey -

113. The lack of foreign exchange for purchase of raw materials, semi-products, spare parts and other maintenance materials was found as the main reason of the low utilization of capacities in industrial companies in Zambia.
114. Among other factors influencing the companies' performance, the following can be singled out:
 - high debts and shortage of available funds,
 - slow and complicated public administration and bank procedure,
 - Government prices adapt slowly to increasing costs (1982),
 - long distances and slow transports,
 - equipment not in good condition, causing break-downs,
 - decreasing domestic demand and competition from abroad.
115. Some of the companies are able to manufacture exportable products, but they are not interested really in export expansion, because of the many existing constraints and lack of pressure from the authorities.
116. The changes in the terms of trade had not been followed by the management of some companies. They have not developed or found new markets for their products or ways to diversity their production.
117. Most of the companies are established as a monopoly producing for the domestic market only, without a direct objective to specialize their production in order to get into foreign markets. Such a situation is making the progress in development of new products, in cutting costs of production, in finding new clients and new markets extremely difficult, since there is no real competition for the particular companies.
118. There are significant differences in the quality of management of particular industrial companies, influencing their ability to fight the real constraints and to achieve good economic and financial results.

- Industrial Development Act implementation -

119. The Industrial Development Act, 1977 has been found as a very comprehensive legal framework, promoting the industrial development and providing the Ministry of Commerce and Industry with useful and potentially efficient instruments allowing direction of the industrial development in Zambia.
120. What is missing in the Act, is providing of stimuli which would promote full utilization of existing production capacities, parallel to promotion of investments in new projects.
121. The proposed Amendments to the Act, already presented to the Government for consideration (1981) were found by the Expert Team as not quite appropriate to the real situation of Zambia since they are leading to further increase in the country foreign debt by promoting new investments only (new criteria for granting of priority status to companies have been proposed) without the necessary effort to promote development in the existing companies, based on local raw materials.
122. The form of Application for Manufacturing Licence - which is the main instrument of directing the industrial development by the Ministry of Commerce and Industry - was found not fully appropriate for a sound consideration of the Application. Reformulation of the Application form and drafting of new forms for evaluation of the applications and for appraisal of investment projects presented to the Ministry in connection with the Application for Manufacturing Licence submitted was found necessary.
123. Zambia has got a big potential for industrial development, because of many known mineral deposits (some of them quite rich), available resources of water, surpluses of electric energy, existing communication and transportation facilities, reserves of land, and abundance of semi-skilled manpower. In addition, Institutions of higher education, including University of Zambia are providing the national economy with a limited number of

higher skilled professionals.

124. Despite the existence of the development potential mentioned above, the industrial development is hampered by lack of long/ mid term industrial development planning and of strong authority, that would ensure a co-ordinated and coherent industrial development, compatible with the Government's economic policy aimed at lessening the country's dependence on export of copper and on imported inputs.

- Strengthening the Department of Industry -

125. The searches for ways of strengthening the Department of Industry as the Government body responsible for the industrial development policy creation and implementation have showed, that in the existing organization structure and staffing, the Department is unable to fulfil satisfactory its statutory tasks on that field.
126. In addition, the existing management system of the national economy, in particular of the state owned companies by ZIMCO and INDECO Headquarters, is creating a situation, in which the Department of Industry may promote the industrial development only by application of indirect measures, based on very good long-term industrial development plans.
127. Within the Ministry of Commerce and Industry, the Department of Industry, one of the existing six departments, employs less than 10% of the Ministry's staff although the much longer time horizon needed for planning and implementation of industrial development projects, requires much more staff. As a result of that, practically all the Department's staff members are concentrated at processing of Manufacturing Licences Applications and at evaluation and following of some investment projects presented to the Department, in connection with applications for Manufacturing Licences. In fact, there is no capacity for execution of industrial development planning functions by the Department of Industry.
128. The functional co-operation within the Department of Industry and within the Ministry in matters concerning industrial

development planning and promotion is showing some significant gaps, which are making the carrying out of this function and taking good decisions by the Ministry on that field very difficult (1982).

129. Another field, where the Department of Industry is not able to strain the Government industrial development policy is the import licensing and foreign exchange allocation. It has been found, that because of the procedure followed, import licences are granted and foreign exchange allocated to trading companies for importing of goods which could be manufactured locally, leaving the manufacturing units without foreign exchange for materials and causing under-utilization of capacities and - sometimes - redundancies of workers.

- Setting up of the Industrial Information System -

130. It was found that in order to fulfil its functions, the Department of Industry requires the following information on:
- resources available within the country for industrial growth, including indigenous materials, human skills and finances
 - forecast of demand for the various industrial products and materials in the different planning periods
 - capacities licensed to be set up to meet such demands
 - progress achieved by the industry in setting up manufacturing plants, operating them and reaching expected production and performance level
 - factors causing deviations from the Plans
 - growth potential of the different industries in the context of the priorities set by the Government and the limited resources available.
131. Investigations have showed that none of the information required is available for Department of Industry purposes, since
- there is no statistical unit in the Ministry or in the Department, which would systematically collect, and process the above information

- the statistics provided by the Central Statistical Office are over 5 years behind and do not reflect current conditions prevailing in Zambia; they do not cover all the data required for the Department of Industry purposes in sufficient detail;
- information received by the Department of Industry from manufacturing companies in connection with applications for Manufacturing Licences is casual and cannot be used for getting a comprehensive picture of the situation in the industrial sector.

132. It has been found that the index of companies used for the Department of Industry purposes is not fully compatible with the international classification of industries, and needs to be adjusted.

133. As a result of investigations carried out it has been stated that the information requirements of the Department of Industry can be satisfied only by a comprehensive industrial information system which would use all external sources of data available, but which would be based on a permanent information flow into the Department from industries, organized supervised and followed by the Department of Industry staff.

- Research and Development Facilities for Industrial Development

134. The research and development potential of the University of Zambia and the National Council for Scientific Research, amounted to approximately 500 staff, is making possible the creation and implementation of a national science and technology development policy.

135. In order to co-ordinate the R & D activities in Zambia, including those for industrial development purposes, the National Council for Scientific Research has been requested to carry out the co-ordinating functions in that field.

136. In spite of efforts undertaken by the NCSR to fulfil this function by means of four sectoral committees, including

the Mining and Industrial Committee, and - since 1982 - by the National Committee for Appropriate Technology, there are still cases of duplication of research efforts, and some research undertaken seems not to be coherent with the Zambia industrial development requirements.

- Contractual/negotiating skill development and consultancy Services -

137. There is an urgent need to promote the development of contracting/negotiating skill of officers of Government bodies and parastatal Hq. concerned, dealing with contracts since the difficulties in the Zambia industrial/economic development which occurred in connection with the world wide recession and the balance of payment problems require a very thorough approach before signing of contracts for implementation of new investment projects. A paper prepared by the UNECA on the subject was found to be very helpful.
138. Investigation of the potential of the consultancy services in Zambia which can be used for industrial development purposes has showed that the potential is sufficient to current requirements and ready to expand if demand for the services would rise. There is a clear gap in the field of industrial management consultancy services, covered mainly by accountancy services companies. The requirements of parastatal companies for engineering services are satisfied by the existing potential operating within the INDECO and ZIMCO group of companies. There is no co-operation between the two parastatal engineering services units.

- Transfer of technology -

139. In spite of the provisions of the Industrial Development Act, 1977, the agreements for transfer of technology to Zambia are not a subject of registration with the Department of Industry because of staffing problems.
140. Although the cases of transfer of technology presented to the Ministry of Commerce and Industry in connection with investment projects and applications for Manufacturing Licences are currently considered, no procedures have been

imposed that would ensure a verification of the intended transfer by a professional body i.e. NCSR or UNZA from the point of view whether the technology to be transferred is appropriate for Zambian requirements and conditions.

CHAPTER VI. RECOMMENDATIONS

The Government of Zambia may wish to consider the following Recommendations:

1. In order to strengthen the legal framework for industrial development and create new stimuli for it, it is advisable to enact soon Amendments to the Industrial Development Act, 1977, that would promote investment in existing companies, parallel to promotion of new investments. Top priority status should be given to companies which would base their investment projects on local raw materials, better utilization of existing capacities, or would manufacture products replacing imported ones.
2. It is advised to keep in use the forms of Application for Manufacturing Licence, Application Evaluation Form and Appraisal of Investment Projects Forms proposed by the Expert Team and introduced in the practical routines of the Department of Industry in 1982.
3. In order to create conditions for preparation of long/medium industrial development plans and for following of their implementation in the course of enforcement of the Government's economic policy in that field, it is recommended to set up the Industrial Development Planning and Monitoring Section, and the Investment and Industrial Activity Promotion Section in the Department of Industry. This should immediately involve the newly appointed economists in performing these functions.
4. Since the new economists lack of experience in and knowledge of Zambia's industrial development problems, it is advised to arrange training-on-the-job for them, using the Programme of Training presented to the Under Secretary (Industry) as a base for it.

5. In connection with the strengthening of the Department of Industry Staff, it is necessary to implement the Department of Industry Organization Manual in practice, in all its parts, including the part ruling the periodic Department's staff meetings.
6. Of equal importance is implementation of that part of the Manual which rules the functional (horizontal) co-operation within the Department of Industry, and co-operation with other Departments of the Ministry and other Government bodies as well. This co-operation is a condition for a coherent implementation of the Government industrial development policy.
7. Bearing in mind that the Department of Industry will be able to fulfil its functions as the Government industrial policy making and executing body only when it has at its disposal about a comprehensive and up to date information, it is recommended to follow strongly the "Programme of Action" to implement gradually all elements of the Industrial Information Systems, described in the Manual of the System and in the Industrial Information Structure (Annex 4, item No. 25, fig. No. 18-24).
8. It is advised that, parallel to following the return of Annual Return Forms and completing the particular parts of the Industrial Information Data Base (physically storage, manual operation), two officers of the Department of Industry should undergo training in Electronic Data Processing Applications for Government office purposes, which will be carried out in 2nd Quarter, 1984 at the IBM African Institute, Lusaka.
9. In connection with the training mentioned under paragraph 8., it is necessary to ensure that the Department of Industry is provided by the IBM (Zambia) with one IBM Personal Computer in 2nd Quarter, 1984 as arranged during the consultations carried out in the period September-December, 1983. In the first stage, the IBM Personal Computer should be used for processing of data submitted in the Annual Return Forms

and for generating the first elements of Industrial Data Base to be operated electronically (Indexes of companies licensed, company files, indexes of raw materials used, raw materials and product files).

10. It would be very helpful to the Department of Industry, if the Government would provide it with assistance of one Computer Applications Expert within three months of 1984, preferably in 2nd or 3rd quarter. The job description for that post has already been presented by the STA in 1983 in connection with the request for external assistance to the Department of Industry. The main task of the Expert would be to assist the two trained officers of the Department of Industry in getting the Industrial Information System/electronically processed and stored part-started and maintained. The Expert could also be requested to introduce word processing programmes for printing of reports, letters, memos, graphics and for other purposes.
11. The Investment and Industrial Activity Promotion Section proposed should work out detailed Programme of Promotion of Export Production and Production of Goods Replacing Imported ones and follow thoroughly their implementation by the chosen companies. The Programmes should include means of stimulation and single out periods of monitoring.
12. It is advised to consider within preparatory work at industrial development plan 1984-1988, in what way the number of existing monopoly positions held by some of the manufacturing companies could be reduced, in order to introduce more competition to fight the increase in cost of production and increasing prices, and mobilize the management of companies to undertake efforts to develop the products manufactured, improve their quality, diversify production and find export markets.
13. In order to achieve further improvement in quality of management of industrial companies, it is advised to assist in establishing of the Zambia Institute of Management, and to help in organizing and carrying out of an Industrial Management Development Seminar, similar to that held in September, 1983 at the President's Citizenship College in Kabwe/Mulungushi.

14. Since the foreign exchange allocation for import purposes is still the main constraint in achieving better results by the industrial companies, it is recommended to consider the implementation of further elements proposed within the procedure of import licensing and foreign exchange allocation. Also crucial is the inclusion into the procedures of the segregation of the applications by areas of priority (see Annex 4, item 39, page 6).
15. For the purpose of ensuring the full utilization of locally developed technologies and the involvement of the Zambian R & D institutions in the industrial development, it is recommended to arrange for a permanent close co-operation between the Ministry of Commerce and Industry and the National Council for Scientific Research and UNZA. The base for this co-operation should be established by introducing the registration of transfer of technology agreements with the Ministry of Commerce and Industry, after considering the application by the National Committee for Appropriate Technology and the Mining and Industry Committee of the National Council for Scientific Research.
16. It is recommended to introduce periodical seminars for officers of the Government bodies and Parastatal Companies involved in negotiating of contracts for investment projects. The seminars should be aimed at development of negotiating skill and knowledge of the officers concerned, and help to establish a place for exchange of experiences. Assistance of UN agencies, in particular UNIDO and UN ECA could be of great benefit for the participants.
17. It is advised to strengthen the professional staff of the Civil Engineering Section of INDECO to make its services more comprehensive, and to arrange for closer co-operation between CES of INDECO and the Zambia Engineering Services operating within ZIMCO group of Companies.
18. It is advised to assist the Management Services Board in strengthening its professional staff, in order to enable the M.S.B. to gradually build up its industrial management consultancy capacity.

The Senior Technical Adviser/Team Leader would like to express on behalf of all three team members sincere thanks to UNDP/UNIDO and to the Government of Zambia for making participation of the Team Members in implementation of such an interesting project possible.

Sincere thanks are also due to the UNDP Office in Lusaka and to officials of the Ministry of Commerce and Industry, in particular to the National Director of the Project, Mr. M. X. Mufwaya, the Under Secretary (Industry) for all help and excellent co-operation the Team Members received in carrying out of the Project.

Thanks are also extended to all officers of the Government bodies, parastatal and private companies, institutions and associations met by the Team Members during the implementation of the Project for their understanding, help and kind attitude to problems and questions presented by the Team Members.

It is hoped that further actions as recommended in this report and in the detailed technical reports would be taken, in order to continue the initiated process of strengthening the Department of Industry. This would bring the expected benefits for the Zambia national economy - a strong industrial development based on local resources in accordance with the Government's long term economic development policy.

LIST OF REFERENCES

- (1) Third National Development Plan, 1979-1983, Office of the President, National Commission for Development Planning, October 1979, Lusaka.
- (2) The Industrial Development Act, 1977, enacted by the Parliament of Zambia on 30th August, 1977 (Government Gasette No. 18/1977).
- (3) Project Progress Report,
covering the period 7 March to 30 May 1980
by Vincent A. Lowenberg, dated 6th June, 1980.
- (4) Project Progress Report covering the period 1 June-15 September, 1980, by Vincent A. Lowenberg - dated 19 September, 1980.
- (5) Seminar on Industrial Management Development, Final Report, UNIDO/IO/R.95 dated 21 November, 1983.

LIST OF ANNEXES

1. INTERNATIONAL STAFF
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3. EQUIPMENT PROVIDED BY UNIDO/UNDP
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INTERNATIONAL STAFF

POST NO.	POST DESCRIPTION	NAME OF INCUMBENT (AND NATIONALITY)	ARRIVED (MO/YR)	DEPARTED (MO/YR)
11-01	SENIOR TECHNICAL ADVISER	ROMAN J. DOLCZEWSKI (POLAND)	7/81	1/84
11-02	INDUSTRIAL ENGINEER	NIELS PAGH (DENMARK)	5/81	11/82
11-03	MANAGEMENT COST ACCOUNTANT	M. S. THAWFEEK (SRI LANKA)	6/80	12/82

SENIOR COUNTERPART STAFF

NO.	POST DESCRIPTION	NAME	PERIOD	
			FROM MO/YR	TO MO/YR
1	UNDEP SECRETARY (INDUSTRY)	M. X. MUFNAYA	7/81	1/84
2	SENIOR ECONOMIST	R. MANAYIKA	7/81	6.82
3	AG. SENIOR ECONOMIST	C. G. L. MUBANGA	1/83	1/84

EQUIPMENT PROVIDED BY UNIDO/UNDP

	EQUIPMENT	DELIVERY MO/YR	REMARKS
1.	PROJECT VEHICLE PEUGEOT 504 GR SALOON	7/81	Handed over to UNDP, LUSAKA, ADMINISTRATION
2.	FILING CABINET	3/82	LOCATION: MINISTRY OF COMMERCE AND INDUSTRY, KWACHA ANNEX, FIRST FLOOR, ROOM NO. 2 (WITH DOCUMENTATION OF THE PROJECT)

PROJECT DOCUMENTATION

- LIST OF MAIN OUTPUTS -

Until June, 1983

No.	Title of report, paper, etc. author	Dated	Deposit (Deposited with)
1.	A. <u>PROGRESS REPORTS</u> Preliminary Report By R. Dolczewski	14 Aug., 1981	MCI Government UNDP UNIDO
2.	Terminal Report regarding the Project DP/ZAM/78/005 (continuation) By R. Dolczewski	15 Sept., 1981	MCI Government UNDP UNIDO
3.	Progress Report covering the period July-December, 1981 By R. Dolczewski	25 Jan., 1982	MCI Government UNDP UNIDO
4.	Progress Report covering the period January-June, 1982 By R. Dolczewski	22 July, 1982	MCI Government UNDP UNIDO
5.	Progress Report Covering the period July-December, 1982 By R. Dolczewski	30 Nov., 1982	MCI Government UNDP UNIDO
6.	Final Report of Management Cost Accountant By M. S. Thawfeek	Jan., 1983	MCI UNDP UNIDO
7.	Progress Report covering the period January-June, 1983 By R. Dolczewski	28 July, 1983	MCI Government UNDP UNIDO

No.	Title of report, paper, etc. author	Dated	Remarks (Deposited with)
8.	B. <u>TECHNICAL REPORTS, PAPERS</u> Review of financial analysis of Project for Manufacture of Irrigation Equipment By M. S. Thawfeek	28 July, 1981	MCI
9.	Performance of the Industrial Sector in 1980 By M. S. Thawfeek	17 Aug., 1981	MCI
10.	Comments on the proposed Amendments to the Industrial Development Act, 1977, drafted By R. Dolczewski	11 Oct., 1981	MCI
11.	Recommendations made in connection with the Prime Minister's Economic Symposium in Livingstone, By R. Dolczewski	22 Oct., 1981	MCI
12.	Draft of an Annual Return of Industrial Production By M. S. Thawfeek	22 Oct., 1981	MCI
13.	Review of the financial viability of Glass Sheet Plant, By M. S. Thawfeek	5 Nov., 1981	MCI
14.	"Development of Industrial Information System in the Department of Industry" By M. S. Thawfeek	15 Nov., 1981	MCI
15.	"On Industrial Development In Zambia" - paper prepared for presentation to the Prime Minister's Economic Symposium in Lusaka By Team Members, drafted By R. Dolczewski	23 Nov., 1981	MCI

No.	Title of report, paper, etc. author	Dated	Remarks (Deposited with)
16.	Procedure for financial analysis of Investment Projects By M. S. Thawfeek	18 Dec., 1981	MCI
17.	Analysis of operating results of INDECO Subsidia- ries as at 30 June, 1981 By M. S. Thawfeek	30 Dec., 1981	MCI
18.	A Scheme for Setting up a Planning Unit in the Ministry of Commerce and Industry By R. Dolczewski	14 Jan., 1982	MCI Government UNDP
19.	Review of performance of INDECO Manufacturing Subsidiaries By M. S. Thawfeek	January, 1982	MCI (Confidential)
20.	Results of searches for the organisation of the Depart- ment of Industry, By R. Dolczewski	March, 1982	MCI Government UNDP UNIDO
21.	In Ways to Strengthening the Industrial Development Admi- nistration and Promotion in Zambia By P. Dolczewski	March, 1982	MCI Government UNDP UNIDO
22.	Alternative layman's draft for restricted imports (motor vehicles) order of 1982, By R. Dolczewski & N. Pagh	14 April, 1982	MCI
23.	Outline for presentation of Industrial Projects By M. S. Thawfeek	3 May, 1982	MCI

No.	Title of report, paper, etc. author	Dated	Remarks (Deposited with)
24.	Report on administration of agreements about transfer of technology By N. Pagh	4 May, 1982	MCI
25.	Report "Presentation of recommendations on ways to strengthening the Department of Industry on figures" By R. Dolczewski	June, 1982	MCI/GOVT UNDP UNIDO
26.	Report on governmental organization of promotion of industrial development in Ecuador (exchange of experience) By N. Pagh	June, 1982	MCI
27.	"Suggestion of an initiative in order to boost short term increase of export from Zambia of manufactured products" By N. Pagh	July, 1982	MCI UNDP UNIDO
28.	"Export potential - Industrial Production Returns for 1981" By M. S. Thawfeek	19 July 1982	Analysis MCI
29.	"Requested reformulation of recommendations of measures for export promotion, made by several advisers" By N. Pagh	Aug., 1982	MCI UNDP UNIDO
30.	"Some practical aspects of the management of industrial project implementation" By N. Pagh	29-30 Sept/ 1 Oct., 1982	- presented at the First National Seminar on Industrial Project Management in Zambia, UNZA, Lusaka Campus

No.	Title of report, paper, etc. author	Dated	Remarks (Deposited with)
31.	"Additional staff members for the Department of Industry according to suggestions in report of March, 1983" By R. Dolczewski and N. Pagh	Sept., 1982	MCI
32.	"Project Formulation and Investment Appraisal" By M. S. Thawfeek (hand-out)	Sept., 1982	presented to the Management Ser- vices Board Semi- nar on Management Information System Programme
33.	"Profit Planning and Break-Even Analysis" By M. S. Thawfeek (hand-out)	Nov., 1982	presented to M.S.B. Executive Managers Development Training Programme, Livingstone (copy: UNDP)
34.	"Case Study on Pricing" By M. S. Thawfeek (hand-out)	Nov., 1982	presented to M.S.B. Lusaka for Execu- tive Management Development Trai- ning Programme, Livingstone - copy UNDP, Lusaka
35.	"Manual for Industrial Information System By M. S. Thawfeek	Nov., 1982	MCI UNDP UNIDO
36.	"Research and Develop- ment Facilities for the Zambia Industry" By R. Dolczewski	Dec., 1982	MCI UNDP UNIDO
37.	Department of Industry Organization Chart, 1983 By R. Dolczewski	Jan., 1983	MCI

No.	Title of report, paper, etc. author	Dated	Remarks (Deposited with)
38.	"Analysis of obligations of the Zambia Government resulting from the LIMA Tractor Assembly Plant Agreement" By R. Dolczewski	24 March, 1983	MCI
39.	"Results of Research into Import Licensing and Foreign Exchange Allocation Procedures" By R. Dolczewski and C. G. L. Mubanga	March, 1983	MCI UNDP UNIDO
40.	"Programme of Action for Implementation of the Industrial Information System" By R. Dolczewski	6 April, 1983	MCI
41.	Memorandum regarding Iron and Steel Industry in Zambia By R. Dolczewski	28 April, 1983	MCI
42.	Memorandum regarding "Re-organisation of Import Licensing and Foreign Exchange Allocation" By R. Dolczewski	29 April, 1983	MCI
43.	"Key issues for preparation of position papers of the Government of Zambia for discussion with the World Bank" By R. Dolczewski	May, 1983	MCI
44.	C. <u>INDUSTRIAL SURVEY - FACTORY VISITS REPORTS</u> "Report with recommendations after the Teams Visit in Kabwe Textiles under construction" By Experts Team	21 Aug., 1981	MCI

No.	Title of report, paper, etc. author	Dated	Remarks (Deposited with)
45.	"Report with conclusions after the Team's Visit in the Copperbelt By Expert Team	5 Jan., 1982	MCI
46.	Survey within some Zambian Industrial Companies (factory visits June- December, 1982) By N. Pagh	Jan., 1982	MCI
47.	"Industrial Survey Report" By Experts Team	5 Jan., 1982	MCI
48.	Accounting control of general stores and cost control of warehouse, transport and distribution in the central division of Zambia Breweries Ltd. By M. S. Thawfeek	Jan., 1982	- Zambia Breweries, INDECO, MCI
49.	Time standards and effici- ency reporting at ZAMEFA, Luanshya By N. Pagh	26 Feb., 1982	MCI UNDP
50.	"Some extracts from an Industrial Survey in Zambia" By N. Pagh	March, 1982	MCI UNDP
51.	Factory visits to the Copperbelt in September, 1982, By N. Pagh	Sept., 1982	Technical Report MCI
52.	Report on results of the official travel to visit Zambia Institute of Technology, Kitwe By R. Dolczewski	10 Sept. 1982	MCI UNDP

No.	Title of report, paper, etc. author	Dated	Remarks (Deposited with)
53.	D. <u>TRAINING OF NATIONALS</u> Terminal evaluation report on training of UN Namibia Institute students (Project NAM/79/002) By R. Dolczewski	25 Jan., 1982	UNDP SIDPA
54.	Comments to the Revised Course Structure for the degree of BA Economics at UNZA By Experts Team	28 Jan., 1982	MCI

LIST OF OUTPUTS
in the period July-December, 1983

No.	Title of report, paper, etc. author	Dated	Remarks (Deposited with)
1.	Application for Provision of Assistance to the Department of Industry By R. Dolczewski	10 Aug. 1983	Drafts, English, presented to the Under Secretary, MCI on his request
2.	"Introducing of EDP in the Department of Industry" By R. Dolczewski	20 Sept., 1983	Memorandum, circulated to the Under Secretary (I), MCI
3.	"Consultancy Services in the Copperbelt - Company visits Report" By R. Dolczewski and C. G. L. Mubanga	Aug., 1983	Technical Reports, English circulated to - the US (I) - UNDP, Lusaka
4.	"Results of Researches into Import Licensing and Foreign Allocation Procedures - Second Revised Edition" By R. Dolczewski and C. G. L. Mubanga	Aug., 1983	- MCI - UNDP
5.	UNIDO Industrial Management Development Seminar, 12-30 Sept., 1983 - Experts Travel Report By R. Dolczewski	Oct., 1983	UNDP UNDP
6.	"Business Information in Zambia" By R. Dolczewski	21 Nov., 1983	Memorandum English circulated to the Under Secretary (I), MCI
7.	"ECA Report on Contracting and Related Activities" By R. Dolczewski	29 Nov., 1983	Memorandum, English, circulated to the U.S. (I), MCI

No.	Title of report, paper, etc. author	Dated	Remarks (Deposited with)
8.	"Department of Industry Organization Manual" By R. Dolczewski	Dec., 1983	Draft, English circulated to the Under Secretary (I)
9.	"Programme of Training of Newly Appointed UNZA Gra- duates to posts of Econo- mists in the Department of Industry" By R. Dolczewski	Dec., 1983	Draft, English circulated to the Under Secretary (I)
10.	Consultancy Services for Industrial Development in Zambia By R. Dolczewski and C. G. L. Mubanga	Dec., 1983	Technical Report, circulated to - the U.S. (I) - UNDP - UNIDO

LIST OF COMPANIES VISITED

No.	NAME OF COMPANY	MAIN PRODUCTS	LOCATION	VISITOR	REMARKS
1.	Nkwazi Manufacturing Co. Ltd.	Fishing nets, raps	Kafue	N. Pagh	
2.	Nitrogen Chemicals of Zambia Ltd.	Fertilizers	Kafue	N. Pagh	
3.	Kafue Textiles of Zambia Ltd.	Textiles	Kafue	N. Pagh	
4.	Nakambala Sugar Estate Co. Ltd.	Sugar	Mazabuka	N. Pagh R. Dolczewski M. S. Thawfeek	Case Study 3 times
5.	Mansa Batteries Ltd.	Dry Cell Batteries	Mansa	N. Pagh	Case Study many times
6.	National Milling Co. Ltd.	Mealie meal	Lusaka	N. Pagh	2 plants
7.	Rucom Industries Ltd.	Rural development investments	Lusaka	N. Pagh	
8.	Metal Fabricators of Zambia Ltd. (ZAMEFA)	Copper rods Z Cables	Luanshya	N. Pagh	many times case study
9.	Dunlop Zambia Ltd.	Tyres and Rubberware	Ndola	N. Pagh	
10.	Norgroup Plastics Ltd.	Plastic ware	Ndola	N. Pagh	
11.	Kabwe Industrial Fabrics Ltd.	Propylene bags	Kabwe	Team	
12.	General Pharmaceuticals Ltd.	Intravenous Fluids	Kabwe	Team	
13.	National Milling Co. Ltd.	Mealie meal, flour	Kabwe	Team	
14.	Kabwe Textile Co. Ltd.	Fabrics	Kabwe	Team	under construction

No.	NAME OF COMPANY	MAIN PRODUCTS	LOCATION	VISITOR	REMARKS
15.	Speciality Foods Ltd.	Sweets	Kitwe	Team	
16.	Monarch Zambia Ltd.	Steel products cans,	Kitwe	Team	
17.	ROP (1975) Ltd.	Edible oil, detergents, soap	Ndola	Team	
18.	Indeni Petroleum Refinery Ltd.	Refined petroleum products	Ndola	Team	
19.	Kapiri Glass Products Ltd.	Bottles and jars	Kapiri Mposhi	Team	
20.	Amiran Ltd.	Irrigation equipment	Lusaka	R. Dolczewski N. Pagh	
21.	Livingstone Motor Assembler Plant Ltd	Motor vehicles	Livingstone	R. Dolczewski N. Pagh	
22.	Zambezi Sawmill Ltd.	Timber	Livingstone	N. Pagh	
23.	Zambia Sugar Co. Ltd (Hq)	Sugar	Lusaka	R. Dolczewski N. Pagh	
24.	Bata Shoe Co. Ltd.	Shoes	Lusaka	R. Dolczewski M. S. Thawfeek	
25.	Bata Tannery Ltd.	Leather	Kafue	R. Dolczewski N. Pagh	
26.	Leyland Motors Ltd.	Motor vehicles	Lusaka	R. Dolczewski N. Pagh	
27.	Chloride Zambia Ltd.	Batteries	Kitwe	R. Dolczewski N. Pagh	
28.	Universal Spring Ltd.	Springs	Kitwe	N. Pagh	

NO.	NAME OF COMPANY	MAIN PRODUCTS	LOCATION	VISITOR	REMARKS
29.	MDM Engineering Ltd.	Steel work, springs	Kitwe	N. Pagh	
30.	SKF Zambia Ltd.	Conveyors Bearings	Kitwe	N. Pagh	
31.	Northland Engineering Ltd.	Hammer mills wheel barrows	Kitwe	N. Pagh	
32.	Crown Cork Zambia Ltd.	Crown corks tin cans	Ndola	N. Pagh	
33.	Reckitt and Colman Ltd	Chemicals	Ndola	N. Pagh	
34.	Johnson & Johnson Zambia Ltd.	Cosmetics	Ndola	N. Pagh	
35.	Vitofoam Ltd.	Pancake elements for construction	Ndola	N. Pagh	
36.	FURNCOZ Zambia Ltd.	Furniture	Ndola	N. Pagh M. S. Thawfeek	
37.	Mukuba Textile Ltd.	Textiles	Ndola	M. S. Thawfeek	
38.	Zambia Paper Mills Ltd.	Paperware	Ndola	M. S. Thawfeek	
39.	Bitumen Products Ltd.	Bitumen products	Ndola	M. S. Thawfeek	
40.	Rover Zambia Ltd.	Motor Vehicles	Ndola	M. S. Thawfeek	
41.	Zambia Breweries Ltd.	Beer	Lusaka	M. S. Thawfeek	case study
42.	Associated Accounting Services Ltd.	Cons. Services	Kitwe	R. Dolczewski C. G. L. Mubanga	
43.	Consolidated Management Services Ltd.	" "	Kitwe	R. Dolczewski C. G. L. Mubanga	

NO.	NAME OF COMPANY	MAIN PRODUCTS	LOCATION	VISITOR	REMARKS
44.	Coopers & Lybrand Co. Ltd Hq.	Cons. Services	Lusaka	R. Dolczewski	
45.	Coopers & Lybrand Co. Ltd. Kitwe Branch	" "	Kitwe	R. Dolczewski C. G. L. Mubanga	
46.	Copperbelt Accounts Bureau Ltd.	" "	Kitwe	R. Dolczewski C. G. L. Mubanga	
47.	Deloitte Haskins & Sells, Hq.	" "	Lusaka	D. Dolczewski	
48.	Deloitte Haskins & Sells, Kitwe Branch	" "	Kitwe	D. Dolczewski C. G. L. Mubanga	
49.	Engineering Services Installations Ltd.	Contractors, Engineering	Kitwe	R. Dolczewski C. G. L. Mubanga	
50.	Industrial & Business Accounting Services Ltd.	Cons. Services	Kitwe	R. Dolczewski C. G. L. Mubanga	
51.	ZMCK Consulting Engineers Ltd. Kitwe Branch	" "	Kitwe	R. Dolczewski C. G. L. Mubanga	
52.	KENT Accounting & Related Services Ltd.	" "	Ndola	R. Dolczewski C. G. L. Mubanga	
53.	Mulyi & Company Ltd.	" "	Ndola	R. Dolczewski C. G. L. Mubanga	

NO.	NAME OF COMPANY	MAIN PRODUCTS	LOCATION	VISITOR	REMARKS
54.	Professional Services Ltd.	Cons. Services	Ndola	R. Dolczewski C. G. L. Mubanga	
55.	Brian Colquhoun Hodonwell and Partner (Zambia)	" "	Lusaka	R. Dolczewski C. G. L. Mubanga	
56.	INDECO Ltd Civil Engineering Section	" "	Lusaka	R. Dolczewski	

