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STATUS OF INDUSTRIAL STATISTICS IN
AFRICAN COUNTRIES

C66-47

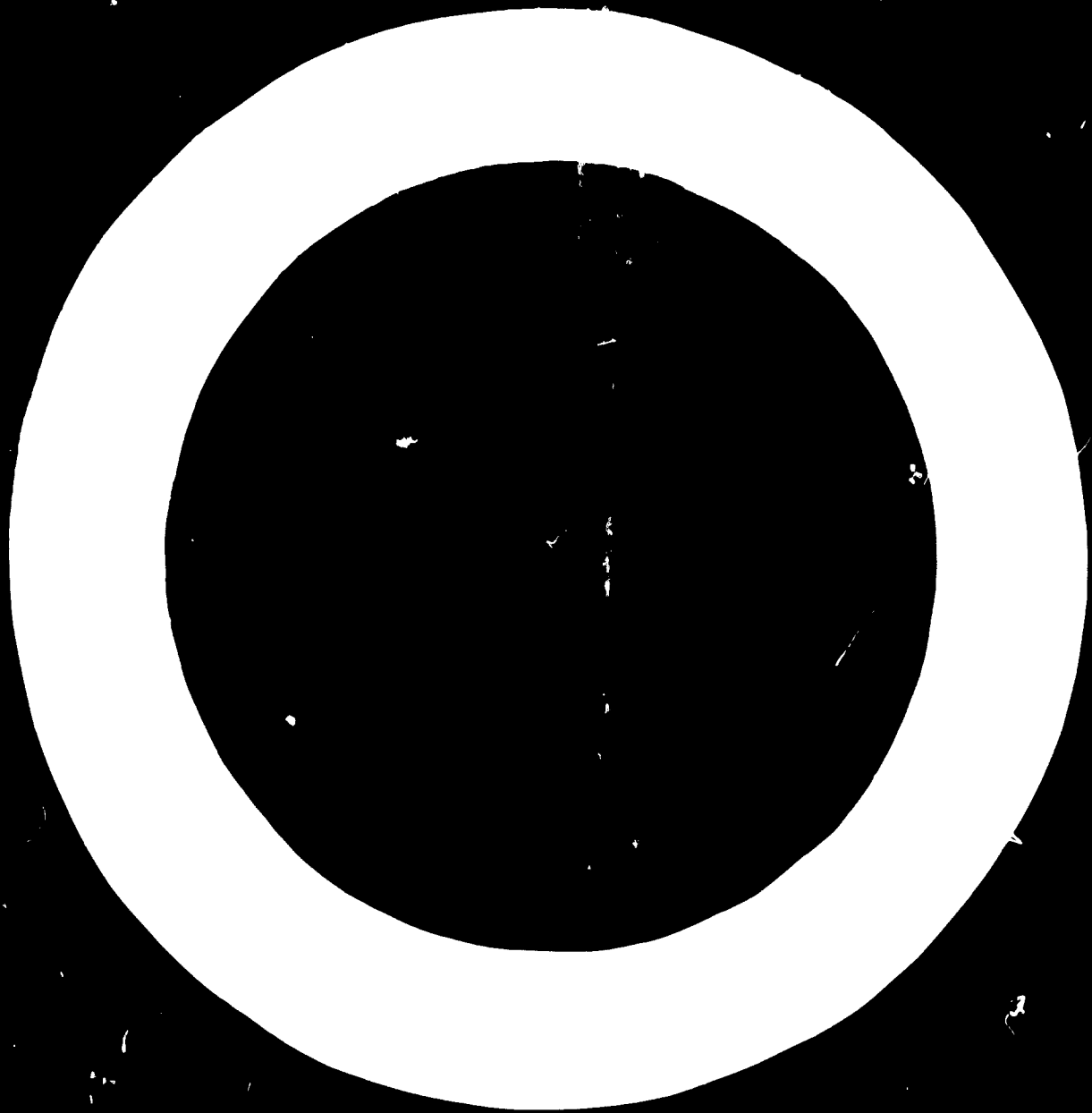


Table of Contents

- Introduction

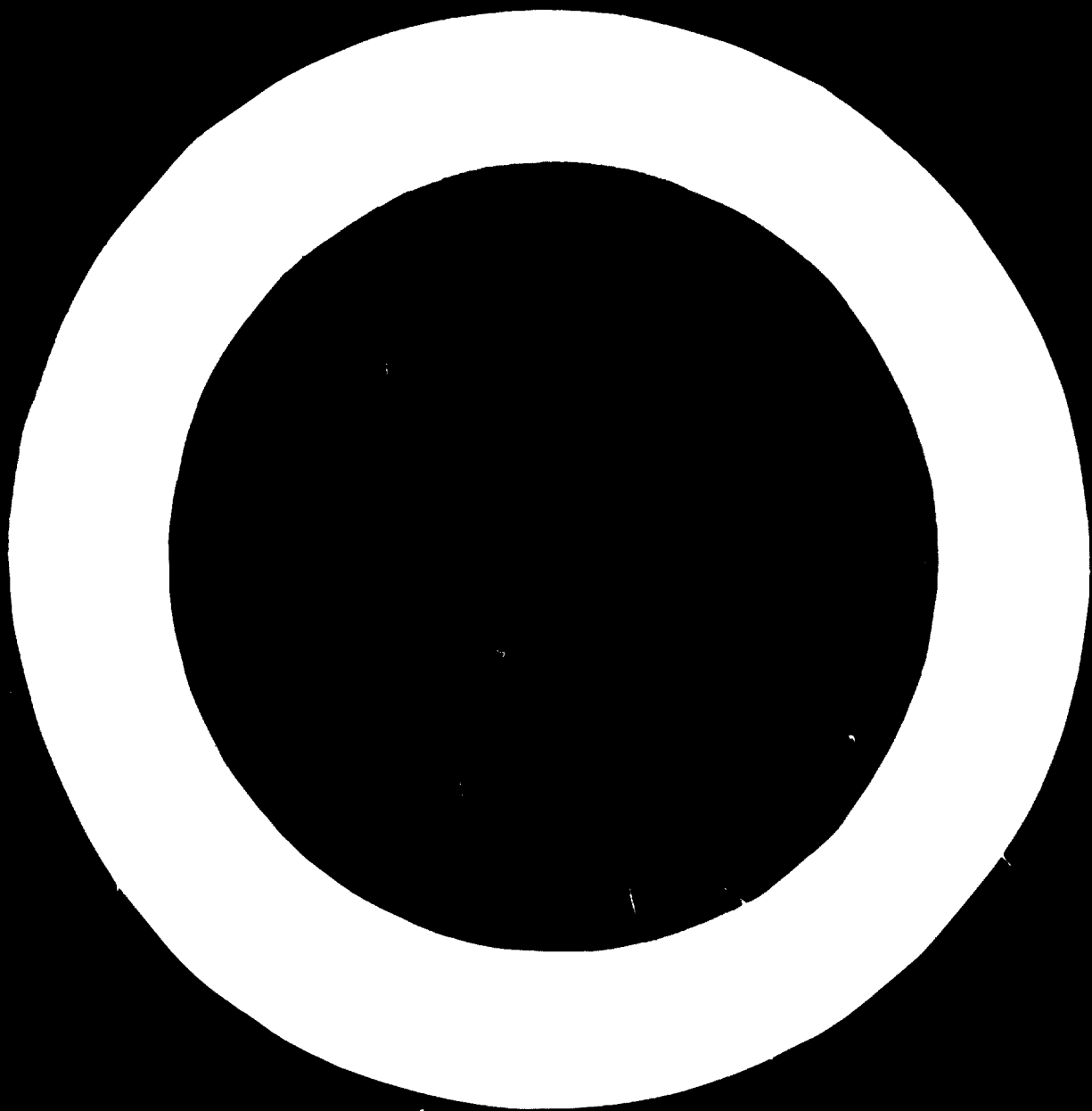
Chapter I

- I.1 Existing Industrial Statistics in North Africa
- I.2 Existing Industrial Statistics in West Africa I
- I.3 Existing Industrial Statistics in West Africa II
- I.4 Existing Industrial Statistics in East Africa.

Chapter II Existing Census of Production in African Countries

Chapter III

- III.1 Action required in improving African Industrial Statistics
- III.2 Industrial Census
- III.3 Statistics of larger enterprises
- III.4 Statistics of smaller enterprises
- III.5 Data to be collected
- III.6 Co-ordination action required.



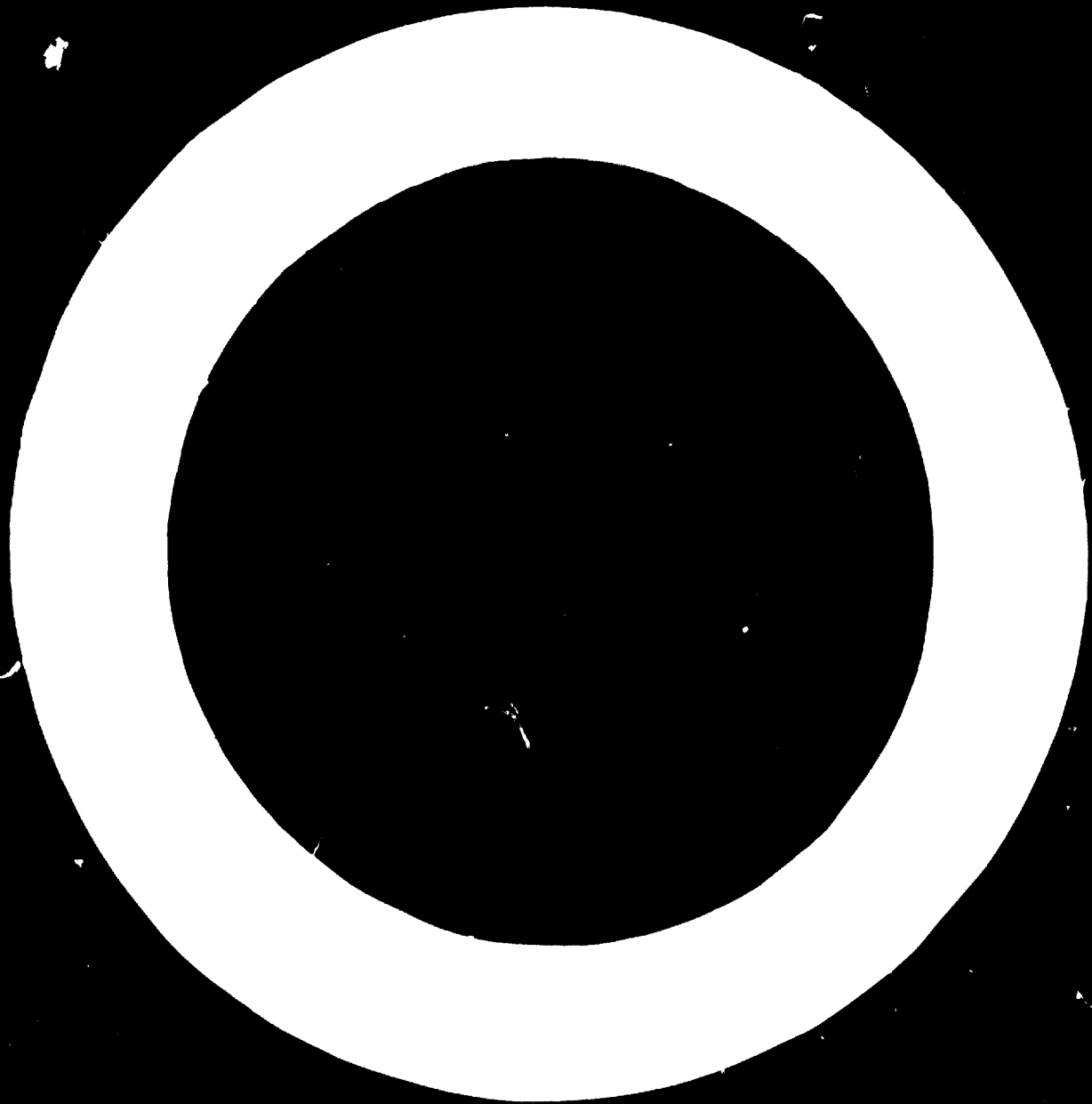
INTRODUCTION

This document contains three chapters.

The first one deals with the existing industrial statistics in Africa by type of statistics and by country. Type of statistics are broken down into three main items: Mining industries, Manufacturing industries and Energy.

Chapter two presents the countries and years for which an industrial census has been conducted. A table shows the branches of the International Standard Industrial Classification (ISIC) which are covered by the census.

Chapter three presents briefly the action required to improve African industrial statistics. It stresses the point that effort must be made now to improve the quality and coverage of data while African industry is still young. Another point to be borne in mind is that although grave statistics at the National level are the first requirements. It is also essential that it be possible to incorporate them in analysis for much wider areas and to make international comparisons. In the last part of this chapter the co-ordinating action required is explained as well as what could be the role of the ECA Secretariat in promoting standardization.



1.1 Existing Industrial Statistics in North Africa

NORTH AFRICA

M = Monthly Statistics
 Q = Quarterly Statistics
 A = Yearly Statistics

Mauritania
 Morocco
 Algeria
 Tunisia
 Libya
 Egypt
 Sudan

Mining Industries

Production of principal minerals	A	A	A	A	-	A
Value of production	-	-	-	A	-	-
Summary of production of: Coal, iron, oil, phosphates, salt, etc.	-	M	M	M	A	A
Index of mineral production	-	M	-	M	-	-

Manufacturing Industries

Production by commodities	-	A	M	A	A	A
Dairy production	-	-	-	-	-	A
Production of construction materials	-	A	M	-	-	A
Index of industrial production	-	-	A	-	-	A

Energy

Production of Electrical Energy						
- Total	A	M	M	M	A	A
- Hydraulic	-	M	M	M	-	-
- Thermic	-	-	M	M	-	-
Production of natural gas	-	-	A	-	-	-
Installed generating capacity	-	A	-	-	A	-
Hydraulic energy in reserve	-	M	-	-	-	-
Consumption of electric energy by users	A	A	-	-	-	-
Total consumption of electric energy by broad groups	-	M	-	-	-	-
Consumption of coal	-	M	A	-	-	-
Consumption of liquid fuel	-	-	A	-	-	-
Production of crude oil, gas oil, fuel, oil, etc.	-	M	-	-	-	-
Production of coal	-	M	-	-	-	-

Existing Industrial Statistics in West Africa I

WEST AFRICA I

M = Monthly Statistics
 Q = Quarterly Statistics
 A = Yearly Statistics

	Senegal	Mali	Ivory Coast	Upper Volta	Dahomey	Niger	Cameroon	Chad	Centrafric	Gabon
<u>Mining Industries</u>										
Mining Production	M	-	M	-	-	A	M	-	M	M
Index of Mining Production	-	-	-	-	-	-	-	-	-	▲
Number of working days	-	-	-	-	-	▲	-	-	-	-
<u>Manufacturing Industries</u>										
Industrial Production	-	-	-	-	-	-	Q	M	M	-
Non-Agricultural Production Statis.	-	-	-	-	M	-	-	-	-	-
Production of Miscellaneous Industries	M	-	-	M	-	-	-	-	-	-
Index of Industrial Production	M	-	-	-	-	-	-	-	-	-
Development of the Industrial Production by Sectors (in value)	-	-	A	-	-	-	-	-	-	-
Industrial Production and value added	-	-	A	-	-	-	-	-	-	-
Analysis of the Production by sector	-	-	A	-	-	-	-	-	-	-
Table of Industries	-	-	A	-	-	-	▲	-	-	-
<u>Energy</u>										
Production of Electrical Energy										
- Total	-	-	M	M	-	M	M	-	M	-
- Hydraulic	-	-	M	-	-	-	M	-	M	-
- Thermal	-	-	M	-	-	-	-	-	M	-
Electric Energy Delivered to Network	-	-	-	M	-	-	-	-	M	▲
Consumption (or sales) of Electrical Energy - Total	M	-	M	M	-	Q	Q	-	-	-
- Low Tension	M	-	M	M	-	Q	Q	-	-	-
- High Tension	M	-	M	M	-	Q	Q	-	-	-
By Sectors of Users	M	-	-	-	-	Q	Q	-	-	-
Number of Subscribers	-	-	M	M	-	-	Q	-	-	-
Disposal for Consumption of Hydrocarbons	-	M	-	-	-	Q	-	-	-	-

I.3 Existing Industrial Statistics in West Africa II

WEST AFRICA II

M = Monthly Statistics
 Q = Quarterly Statistics
 A = Yearly Statistics

Mining Industries

- Production of Principal Economic Minerals
- Index of Mining Production
- Mining Production
- Development of the Mining Production
- Production and Exports of Diamonds
Ironore, Gold and Bauxite
- Production of Gold, Diamonds, Manganese
and Bauxite
- Comparative Statement of Annual
Production Value

Manufacturing Industries

- Index of Industrial Production
- Development of Production in Manufacturing
Industries
 - Food Industries
 - Textile Industries
 - Footwear Industries
 - Rubber Industries
 - Basic Chemical Industries
 - Vegetable Fats and Oil Industries
 - Other Chemical Products Industries
 - Non-Metallic Mineral Products Industry
 - Manufacturing of Basic Metals and Metal
Products
 - Manufacturing of Portland Cement
 - Manufacturing of Miscellaneous Products
- Output and Disposal of Sawmills & other
Woodmills
- Production of Palm Oil
- Industrial Production
- Animals Slaughtered
- Production of Timber
- Output of Veneer and Plywood
- Reception of Forest Products
- Forest Reserve Production

	Sierra Leone	Liberia	Ghana	Nigeria	Togo	Congo Braz.	Congo Leop.	Rwanda	Burundi
- Production of Principal Economic Minerals	-	-	-	Q	-	-	-	-	-
- Index of Mining Production	-	-	Q	-	-	-	-	-	-
- Mining Production	-	-	Q	-	-	M	-	A	-
- Development of the Mining Production	-	-	-	-	-	-	Q	-	-
- Production and Exports of Diamonds Ironore, Gold and Bauxite	Q	-	-	-	-	-	-	-	-
- Production of Gold, Diamonds, Manganese and Bauxite	-	-	Q	-	-	-	-	-	-
- Comparative Statement of Annual Production Value	A	-	-	-	-	-	-	-	-
- Index of Industrial Production	-	-	Q	-	-	-	Q	-	-
- Development of Production in Manufacturing Industries	-	-	Q	-	-	-	Q	-	-
- Food Industries	-	-	-	-	A	-	Q	A	-
- Textile Industries	-	-	-	-	-	-	Q	-	-
- Footwear Industries	-	-	-	-	-	-	Q	-	-
- Rubber Industries	-	-	-	-	-	-	Q	-	-
- Basic Chemical Industries	-	-	-	-	-	-	Q	A	-
- Vegetable Fats and Oil Industries	-	-	-	-	-	-	Q	A	-
- Other Chemical Products Industries	-	-	-	-	-	-	Q	-	-
- Non-Metallic Mineral Products Industry	-	-	-	-	-	-	Q	-	-
- Manufacturing of Basic Metals and Metal Products	-	-	-	-	-	-	Q	-	-
- Manufacturing of Portland Cement	-	-	-	M	-	-	Q	-	-
- Manufacturing of Miscellaneous Products	-	-	-	-	A	-	-	A	-
- Output and Disposal of Sawmills & other Woodmills	-	-	A	-	-	-	-	-	-
- Production of Palm Oil	-	-	-	-	A	-	-	-	-
- Industrial Production	-	-	-	-	-	M	-	A	-
- Animals Slaughtered	-	-	Q	-	-	-	-	-	-
- Production of Timber	-	-	A	-	-	-	-	-	-
- Output of Veneer and Plywood	-	-	A	-	-	-	-	-	-
- Reception of Forest Products	-	-	-	-	-	M	-	-	-
- Forest Reserve Production	-	-	A	-	-	-	-	-	-

WEST AFRICA II (Continued)

	Sierra Leone	Liberia	Ghana	Nigeria	Togo	Congo(Braz.)	Congo(Lec.)	(Rwanda)	(Burundi)
<u>Energy</u>									
- Electricity Generation	Q	-	Q	A	-	-	-	-	A
- Electricity Generated by Type of Producer	-	-	-	Q	-	-	-	-	A
- Electricity: Index of Industrial Production, Government-Mining.	-	-	Q	-	-	-	-	-	-
- Generating Capacity by Station	-	-	A	A	-	-	-	-	-
- Generating of Electricity by Region	M	-	A	-	-	-	Q	-	-
- Number of Consumers by Station and Region	-	-	A	-	-	-	-	-	-
- Number of Consumers by Type of Tariff	-	-	A	-	-	-	-	-	-
- Electricity Sales by Type of Tariff	-	-	A	-	-	-	-	-	-
- Distribution of Electrical Energy	-	-	-	-	A	-	-	-	-
- Production of Electrical Energy	-	-	-	-	-	-	-	-	-
- Hydraulic	-	-	-	-	-	M	-	-	-
- Low Tension	-	-	-	-	-	M	-	-	-
- Consumption	-	-	-	-	-	-	-	-	-
- High Tension	-	-	-	A	-	-	Q	Q	Q
- Low Tension	-	-	-	-	-	-	Q	Q	Q
- Generating Capacity and Generating of Electricity of Mining and Related companies	-	-	A	-	-	-	-	-	-
- Electric Energy: Sales	-	-	-	-	M	M	-	-	-
- Production of Crude Petroleum	-	-	-	M	-	-	-	-	-
- Petroleum Products: Deliveries for inland consumption	-	-	Q	-	-	-	-	-	-
- Sales of Coal by Principal Users	-	-	Q	-	-	-	-	-	-

I.4 Existing Industrial Statistics in East Africa

EAST AFRICA

M - Monthly Statistics
 Q - Quarterly Statistics
 A - Yearly Statistics

	Rhodesia	Zambia	Malawi	Madagascar	Tanzania	Uganda	Kenya	Somalia	Ethiopia	Mozambique
<u>Mining Industries</u>										
Production of principal minerals	M	M		A	A	A	A	A	A	A
Value of production by major industrial Division	M	-		A	A	-	A	-	-	A
Mineral production and local sales	-	-		-	A	-	-	-	-	-
Summary of production of: diamonds, silver, gold, mica, salt, tin ore etc.	-	-		-	A	-	-	-	-	A
<u>Manufacturing Industries</u>										
Index of industrial production	M	M		-	-	-	-	-	A	-
Value of production by major industrial divisions	-	M		-	-	-	-	-	-	-
Production by commodities	-	-		-	-	-	-	-	-	A
Estimated production of selected items	-	-		-	A	-	-	-	-	-
Production of excisable commodities	-	-		-	-	A	Q	-	-	-
Excisable commodities, consumption and production	-	-		-	-	-	A	-	-	-
Production and disposal of certain large industries	-	-		-	-	-	Q	-	-	-
Cement production and consumption	-	-		-	-	A	A	-	-	-
Dairy production	M	-		-	-	-	Q	-	-	-
Summary of sugar situation (production)	-	-		-	-	-	Q	-	-	-
<u>Energy</u>										
Production of electric energy	-	-		A	-	-	Q	-	A	-
Production and Sales table	-	-		-	A	A	-	-	-	-
Production of electricity by type of generator	-	-		-	-	A	-	-	-	-
Production by area and imports	-	-		-	-	-	A	-	-	-
Electrical energy sent out by all undertakings	M	-		-	-	-	-	-	-	-
Installed generating capacity	M	M		-	A	-	-	-	A	-
Installed capacity by area and type of power	-	-		-	-	-	A	-	-	-
Sales and installed capacity	-	-		-	A	-	-	-	-	-
Installed capacity and production of electricity	-	-		-	-	-	-	-	-	A
Production of Central African petroleum refineries	M	-		-	-	-	-	-	-	-
Sales of motor spirits, fuel, lubricants, etc.	-	-		-	-	A	A	-	-	-
Total consumption of electrical energy by broad industrial groups	M	-		-	-	-	-	-	-	-
Consumption of motor and other fuels	-	-		-	-	-	Q	-	-	A

II. Census of Industrial Production

The following countries publish statistical information in the form of an 'Industrial Census'. However, for most countries we do not know if all existing industrial establishments are included in every new inquiry. In other words, it is not certain that the essential characteristic of a census, e.g. the exhaustive gathering of information concerning all industries, is fulfilled.

	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
Ethiopia										
Ghana										
Kenya	x		x	x						
Malawi										
Mozambique			x	x	x	x	x			
Rhodesia		x	x	x	x	x				
Sudan										
Tanganyika	x		x		x					
Tunisia				x	x	x	x			
UAR	x		x	x	x	x	x	x	x	
Zambia		x	x	x	x	x				

Classification

All countries are using the International Standard Industrial Classification of all Economic Activities (UN statistical papers Series M No. 4 Rev.1).

Coverage

The following table indicates the branches of the ISIC which are covered by the various countries in their census.

	Ethiopia	Ghana	Kenya	Malawi	Mozambique	Rhodesia	Sudan	Tanganyika	Tunisia	UAR	Zambia
0 Agriculture								x		x	
1 Mining and quarrying		x	x		x	x		x	x	x	x
2-3 Manufacturing	x	x	x	x	x	x	x	x	x	x	x
4 Construction	x		x					x	x	x	x
5 Electricity Gas, Water	x	x	x	x	x	x		x	x	x	x
6 Commerce										x	
7 Transport, Storage										x	
8 Services										x	
9 Activities, m.a.d.											
Grand Total				x	x	x		x		x	

The findings, as used in the different countries, are as follows.

	Ethiopia	Ghana	Kenya	Malawi	Mozambique	Rhodesia	Sudan	Tanganyika	Tunisia	UAR	Zambia
Gross output											
- Current Prices	X	X	X	X		X		X	X		X
- Fixed Prices		X									
Value added											
- Current Prices	X	X	X	X			X	X			X
- Fixed Prices		X									
Value of Sales		X				X					X
Value of Goods											
sold for Export		X						X			
Average Number of Persons											
Engaged		X	X				X	X	X		X
Number of Paid Workers											
Total Number employed	X	X		X		X		X			
Total Wages and Salaries											
paid (Labour cost)	X	X	X	X		X		X	X		X
Number of Statistical											
Units (Establishments)	X	X	X	X		X	X	X	X		X
Number of Firms by Size			X								
Fixed Capital Assets											X
Capital Expenditure	X	X		X		X		X	X		X
Payment for Services						X		X			
Generating Power	X										
Motor Power	X										
Stocks end of year	X			X		X		X	X		X
Purchase of Material											
and Fuel			X	X		X		X	X		X

III.1 Action required in improving African industrial statistics

It is clear from the foregoing paragraphs that, although considerable progress has been achieved in developing African industrial statistics, a great deal of work remains to be done before the position can be considered satisfactory.

This work is not unduly difficult or expensive and the basic requirement in every country is a persistent effort to improve the quality and coverage of data. If this effort is made now, while African industry is still young, the problems of obtaining information on the expanding industries of the future will be greatly reduced.

Successful industrial development in Africa calls for a high degree of co-operation between countries and this is perhaps the principal factor which should be borne in mind in organizing industrial statistics. Good statistics at the national level are, of course, the first requirement, but it is also essential that it should be possible to incorporate them in analyses for much wider areas in order to provide a means of checking the consistency of co-operative planning and to give an indication of additional development possibilities.

International comparability of the data can be achieved by following the international recommendations for basic industrial statistics (Series M. No.17, UN Statistical Office), but methods of collection are dependent on local conditions. It is therefore necessary to consider the practical steps which are needed in Africa to ensure comprehensive and comparable data on industry.

There are two basic types of enterprise which are responsible for all industrial activity. Finally, there are those consisting of one or more establishments which can be identified as independent units. Secondly, there are the enterprises which form an integral part of household activities. These are found mainly in rural areas and comprise a major part of African agriculture and some trading and

handicrafts. The comments in this paper are limited to the first group, i.e. the so-called "organized" enterprises.

The organized enterprises have to be divided into two or more groups according to size because different methods of collection are involved. For simplicity, reference is made here only to "larger" and "smaller" enterprises. It is also necessary to distinguish between the structural statistics which should be obtained from an industrial census and current data relating to industrial activities.

III.2 Industrial census

Many countries have started their work on industrial statistics by first collecting information on the larger known enterprises and then gradually extending the coverage. This has the advantage that some data can be made available fairly quickly and, for industries where there are few establishments, there is no difficulty in obtaining complete coverage. However, the general position is that an adequate assessment of coverage is not possible, which severely limits the use of available data.

In the absence of effective legal registration or licensing, the only way of overcoming this difficulty is to conduct an industrial census. This has, so far, been done in very few African countries and it should be noted that the annual "industrial censuses" of some countries are not, in fact, censuses, but simply the collection of current data from known establishments.

It is clear that, in most African countries, the taking of an industrial census is a project requiring very high priority.

As the census is a large scale operation, it is important that the opportunity should be taken of recording establishments in all industries, but the coverage within industries is dependent on local conditions. For the larger enterprises, the census should form the basis of a permanent register which should be kept continuously up-

to-date. It may not be practicable to maintain such a register for the smaller concerns if they are numerous and relatively unstable. They should, nevertheless, be included in the census if at all possible because the results give useful information on the structure of industry at a point of time.

III.3 Statistics of larger enterprises

The collection of current data from larger enterprises can be controlled by means of a register of establishments once this has been compiled from census results. Data are normally required annually and should preferably relate to calendar years. Questionnaires for this purpose can often be sent out by post, but a considerable amount of follow-up field work is always required if a satisfactory response is to be achieved.

It is the capacity of the statistical office to carry out this follow-up work which principally determines the design of the annual enquiries. Most countries find that it is not practicable to include distribution and services. For other industries, it is, of course, necessary to include all the very large establishments, but, for the remainder, suitable sampling arrangements have to be devised from the basic information obtained from the census.

In addition to the annual statistics, more frequent information is required for some industries, particularly for production indices, etc.

III.4 Statistics of smaller enterprises

Statistical arrangements for smaller enterprises differ from those relating to larger concerns in two ways. Firstly, because these enterprises do not normally keep adequate records, information has to be collected by direct enumeration and needs to be very simple. Secondly, no up-to-date register can be maintained and different sampling arrangements have to be used.

Area sampling is often found convenient and it should be noted that these enquiries, in addition to providing current statistics, also have to be used as a means of obtaining structural data in cases where it has not been possible to include the smaller enterprises in an industrial census. The frequency of investigations depends on the resources of the statistical office, but the aim should be to conduct them at least every 2-3 years.

III.5 Data to be collected

The operations discussed above and the basic data which they should produce may be summarized as follows:

Items 59-64 in Annex II
of E/CN.14/CAS.4/Dev/1/Rev.1
(Note: Some amendments are needed)

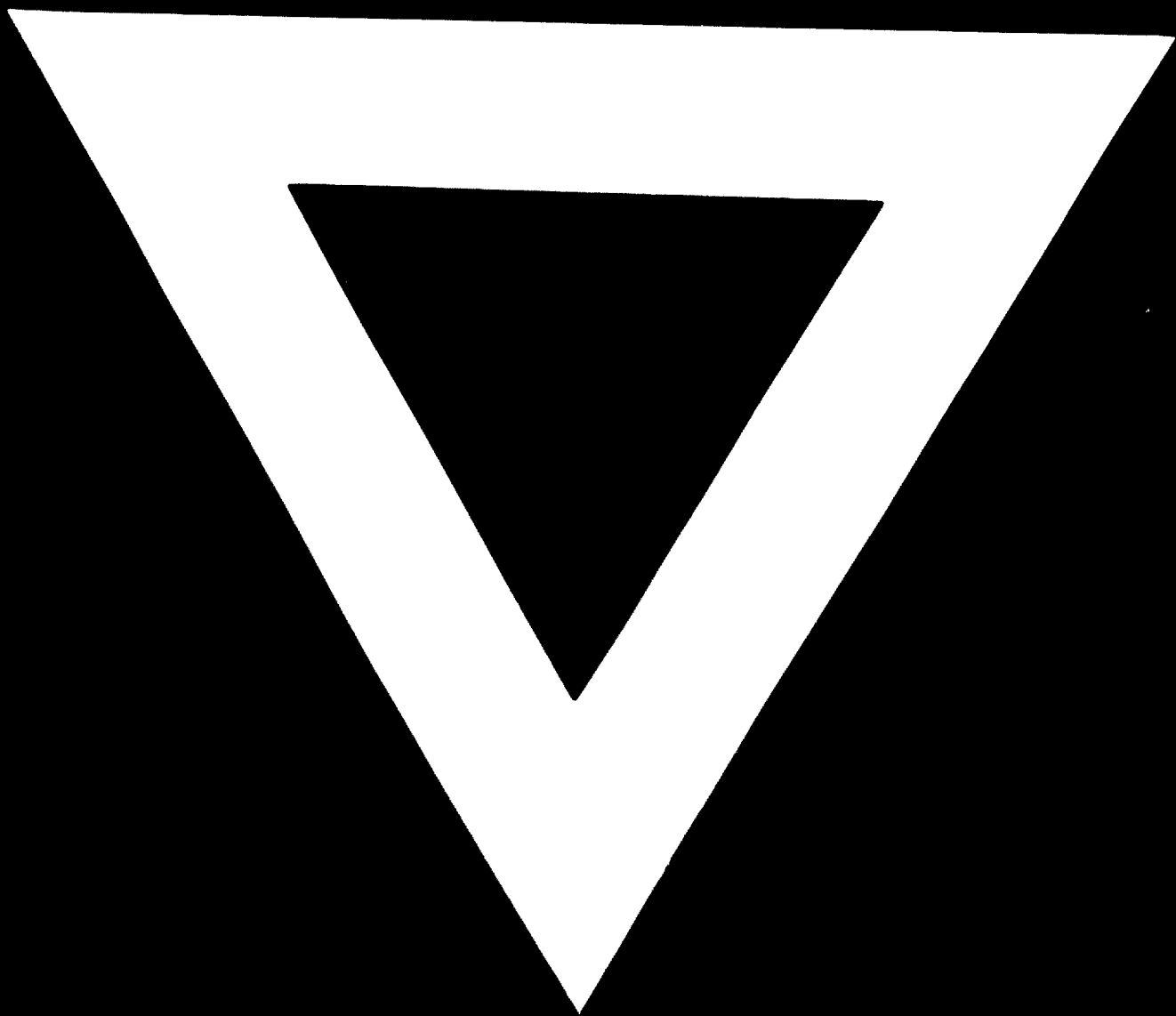
III.6 Co-ordinating action required

The foregoing notes indicate the basic data requirements in respect of industrial structure and activities and discuss some of the collection arrangements appropriate under African conditions. The implementation of these arrangements is, of course, a national responsibility, but co-ordination within the region is necessary to ensure that data are fully comparable and effectively utilized. In this the ECA secretariat can be of assistance and the following action is suggested:

- (1) It is appreciated that methods of collection are dependent on local conditions, but a reasonably standardized approach is necessary if adequate data is to be obtained for the purpose of guiding co-operative efforts. To this end, it is proposed that countries should advise the secretariat of their future plans for industrial statistics and provide copies of questionnaires, etc. A comparative study will be made of this material to assist countries in finalizing their arrangements.

- (2) The secretariat will undertake to elaborate the list of basic statistics required and provide definitions within the framework of the international recommendations. The adoption of these basic requirements would not, of course, in any way affect the collection of additional data required by countries and would not impose any rigidity in their arrangements.
- (3) The use of the data for analytical purposes at sub-regional and other levels would require a standardised presentation of the national figures. The secretariat will undertake to suggest a suitable layout.
- (4) Country data should be sent to ECA Headquarters at regular intervals, where it will be analysed and then circulated in the form of periodic reports.





1. 4. 74