AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
http://ageconsearch.umn.edu
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

Rural Small Scale Enterprises in Zambia: Results of a 1985 Country-Wide Survey

by

John T. Milimo
and
Yacob Fisseha

Working Paper No. 28 1986

MSU INTERNATIONAL DEVELOPMENT PAPERS

Carl K. Eicher, Carl Liedholm, and Michael T. Weber
Editors

The MSU International Development Paper series is designed to further the comparative analysis of international development activities in Africa, Latin America, Asia, and the Near East. The papers report research findings on historical, as well as contemporary, international development problems. The series includes papers on a wide range of topics, such as alternative rural development strategies; nonfarm employment and small scale industry; housing and construction; farming and marketing systems; food and nutrition policy analysis; economics of rice production in West Africa; technological change, employment, and income distribution; computer techniques for farm and marketing surveys; farming systems and food security research.

The papers are aimed at teachers, researchers, policy makers, donor agencies, and international development practitioners. Selected papers will be translated into French, Spanish, or Arabic.

Individuals and institutions in Third World countries may receive single copies free of charge. See inside back cover for a list of available papers and their prices. For more information, write to:

MSU International Development Papers
Department of Agricultural Economics
Agriculture Hall
Michigan State University
East Lansing, Michigan 48824-1039
U.S.A.

RURAL SMALL SCALE ENTERPRISES IN ZAMBIA: RESULTS OF A 1985 COUNTRY-WIDE SURVEY*

by

John T. Milimo
University of Zambia

and

Yacob Fisseha
Michigan State University

1986

*This paper is published by the Department of Agricultural Economics, Michigan State University, under Small Enterprise Approaches to Employment Project DAN-1090-A-00-2087-00 funded by the Office of Rural and Institutional Development, Bureau for Science and Technology, U.S. Agency for International Development, Washington, DC. This paper reports on work supported primarily by USAID/Zambia through an amendment to the Small Enterprise Approaches to Employment Project. The authors wish to acknowledge the contribution from USAID/Zambia, USAID/Washington, Michigan State University and the University of Zambia. A preliminary version of this paper appeared in 1985 as Report #25 from the Rural Development Studies Bureau, University of Zambia.

MSU is an Affirmative Action/Equal Opportunity Institution

ISSN 0731-3438

© All rights reserved by Michigan State University, 1983.

Michigan State University agrees to and does hereby grant to the United States Government a royalty-free, nonexclusive and irrevocable license throughout the world to use, duplicate, disclose, or dispose of this publication in any manner and for any purpose and to permit others to do so.

Published by the Department of Agricultural Economics, Michigan State University, East Lansing, Michigan 48824-1039 U.S.A.

Executive Summary

This paper reports on the results of a nationwide survey of small scale enterprises (SSEs) in Zambia conducted during 1985. The survey was undertaken in the rural and semi-urban (population below 50,000) localities of the country except for those in the Copperbelt and Lusaka provinces. All small scale non-farm enterprises employing 50 people or less and operating from a fixed location in these areas were included.

In the areas covered by the survey, about a quarter of the households were found to be involved in some kind of SSE activities. Approximately 211,000 small scale enterprises employing 343,000 individuals were estimated to exist in the survey areas. For the country as a whole, it was conservatively estimated that there were 340,000 enterprises employing some 575,000 people, (i.e., about a fifth of the national labor force), approximately twice the number previously believed to be employed in these activities.

The three major categories of small scale non-farm enterprises were manufacturing (81%), vending (14%) and trade or commerce (5%); their corresponding shares of employment were 79, 12 and 9 percent respectively. As one moves to the more rural areas, manufacturing becomes relatively more important than service enterprises; traditional beer brewing and forest-based enterprises were the most dominant activities. Within manufacturing, small scale firms accounted for over 99 percent of the enterprises and 80 percent of the employment when the figures for both small and large firms were combined.

Most of the enterprises were very small. The average enterprise employed 1.6 individuals, with two-thirds of the enterprises operating with only one person. Proprietors and family members comprised 90 percent of the labor force, while hired workers and apprentices accounted for only 6 and 4 percent respectively. Women played an important role, accounting for 60 percent of the enterprise owners and 54 percent of the SSE labor force.

RURAL SMALL SCALE ENTERPRISES IN ZAMBIA: RESULTS OF A 1985 COUNTRY-WIDE SURVEY

Table of Contents

Chapter			Page
I.	BACKGROUND		1
	1.0.	Introduction	1
II.	SURVEY METHODOLOGY		6
	2.0.	Introduction	6
	2.1.	Questionnaire Design and Content	7
	2.2.	Industry Definition and Coverage	8
	2.3.	Sampling Approach	9
	2.4.	Enumeration Procedure	11
	2.5.	Data Processing	12
III.	MAGNITUDE OF THE SMALL SCALE ENTERPRISE SECTOR		14
	3.0.	Introduction	14
	3.1.	Overall Magnitude of the SSE Sector	14
	3.2.	Subsectoral and Industrial Grouping of Enterprises	18
	3.3.	Enterprise Types Within Enterprise Groups	21
	3.4.	Geographic Characteristics of SSE Activities	21
	3.5.	Comparison of Small Scale with Large Scale Manufacturing Enterprises	26
	3.6.	Secondary Small Scale Enterprises	30
IV.	EMPLOYMENT IN SMALL SCALE ENTERPRISES		32
	4.0.	Introduction	32
	4.1.	Magnitude of Employment in the Small Scale Enterprise Sector	32
	4.2.	Categories of the Labor Force	37
	4.3.	Distribution of Enterprises by Size of the Labor Force	41
	4.4.	Small Scale Enterprise Employment on Full-Time Equivalent Basis	43
	4.5.	Employment in Small Scale and Large Scale Industries Compared	48
V.	THE ROLE OF WOMEN IN THE ZAMBIAN SSE SECTOR		51

Chapter		Page
VI.	SOME BASIC CHARACTERISTICS OF ZAMBIAN SMALL SCALE ENTERPRISES	56
	6.0. Introduction	56
	6.1. Enterprise Characteristics	56
	6.2. Bird's Eye View of Vendors	62
VII.	SUMMARY AND RECOMMENDATIONS	66
APPENDIX A		72
APPENDIX B		73
APPENDIX C		74
BIBLIOGRAPHY		75

List of Tables

		Page
Table 1.	Overall Estimates of Rural Small Scale Enterprises (SSE) and Their Employment by Population Size Strata	15
Table 2.	Relative Sizes of Industrial Groupings and Their Employment (Estimates for Rural Zambia)	19
Table 3.	Industrial Groupings of Enterprises by Strata (Survey Estimates for Rural Zambia)	22
Table 4.	Relative Magnitudes of Industrial Groupings After Excluding Charcoal/Firewood Production from Forest Based, Traditional Beer Brewing and All Vending Activities.	25
Table 5.	Comparative Table of Industries and Employment Between the Registered or Large Scale Industries (LSI) and the Small Scale Industries (SSI).	27
Table 6.	Number and Distribution of Employment Among Enterprise Groupings by Strata	34
Table 7.	Percentage Distribution of Enterprises and Employment Within Each Stratum and Subsector	36
Table 8.	Characteristics of the Small Scale Enterprise (SSE) Labor Force by Industry Groupings	39
Table 9.	Distribution (%) of the Small Scale Enterprises (SSE) by the Size of Their Labor Force.	42
Table 10.	Intensity of Participants of the Labor Force in SSE Activities.	45
Table 11.	Magnitude of the SSE Labor Force on Full-Time Equivalent Basis.	47
Table 12.	The Magnitude of Female Participation in the Small Scale Enterprise (SSE) Sector.	52
Table 13.	Some Basic Characteristics of the Small Scale Enterprise (SSE) Sector	57

I. BACKGROUND

1.0. Introduction

Zambia has an estimated population of about 6.5 million people and a land surface of 753,000 square kilometers. Beginning long before independence in 1964, the country has been characterized by a mono-economy almost entirely dependent on copper mining.[1] Soon after independence, diversification of the economy was initiated by emphasizing also the agricultural and manufacturing sectors. The effort of the government in promoting these other sectors was however concentrated on the modern and large scale parastatals (such as INDECO, the Industrial Development Corporation) and not on the private small scale and informal sectors. The industrial undertakings were highly capital-intensive, heavily import dependent and greatly susceptible to instability from external sources. Although many external factors contributed to the gravity of the problem,[2] the situation worsened by such "domestic distortion of priorities . . . that increasingly preempted the lion's share of resources pledged in plans for rural revival, employment creation and basic needs for all" (ILO, 1981).

The inability of the modern sector to solve the unemployment problem alone was becoming increasingly obvious. Between 1965 and 1980 wage earning

---

[1]During the first ten years of independence, copper provided about 95% of Zambia's total export revenue, a third to GDP and half to government revenue and 16% to formal sector employment. By the 1980s, while its relative contributions to export revenue remained unchanged, these to GDP and government revenue declined to about 20 and 5 percent respectively (CSO, 1984A; ILO, 1981).

[2]Important among these are the sudden skyrocketing prices of imported oil, the resulting world-recession (which depressed demand for copper) and the war of liberation in Zimbabwe.

employment could only amount to about 7,500 a year, while the number of school leavers was expected to be about 100,000 by 1980 (ibid., p. xxxii). In fact, between 1975 and 1982 the national labor force grew by 3.5% annually while the corresponding formal or wage employment (which employed about 20% of the total) declined almost by 1% (CSO, 1984B, p. 10). The implication of the situation was not lost to the government and in an increasing reorientation of emphasis more serious attention was given to the small scale (non-farm) enterprises towards the end of the seventies.

Thus between 1978 and 1983, three organizations were created to help serve the small scale industrial enterprises. These organizations were the Village Industries Services (or VIS formed in 1978), the Small Industries Development Organization (or SIDO formed in 1982) and the Small Scale Enterprise Promotion (or SSEP formed in 1983 by the Development Bank of Zambia in conjunction with the Friedrich-Ebert Foundation of West Germany).[1]

The ultimate objective for the establishment of these three organizations, which deal with micro and small scale enterprises, is to increase incomes and improve standards of life of the people who are engaged in them, people who probably would otherwise be unemployed.

There is, however, a critical shortage of information regarding the small scale enterprise sector. For detailed planning, accurate monitoring

---

[1]Briefly, VIS promotes village small industries and handicrafts, with capital investment of no more than K 15,000 (through financial technical and entrepreneurial Development); it supplements SIDO's activities. During the field work of this study K 1.0 was US$ 0.42. SIDO is functionally responsible among other things for planning, promoting and offering industrial extension services to small scale industries. It deals with enterprises whose total investments, excluding land and buildings, do not exceed K 250,000. SSEP is involved in the participation (provision) in equity capital and in providing technical advice.

and evaluation of Small Scale Enterprise projects, and indeed for a comprehensive understanding of the small enterprises sector, its potentials and problems, accurate information on this sector must be available to the organizations dealing with the sector. These organizations are mainly Government, especially the Ministry of Commerce and Industry, the National Commission for Development Planning, the Small Scale Enterprises Promotion and the Small Industries Development Organization. In view of this the last mentioned organization requested the Rural Development Studies Bureau of the University of Zambia to make a survey of the rural small scale enterprise sector.

The United States Agency for International Development (USAID/Zambia) came in at this stage to provide RDSB with the necessary support to undertake a nationwide survey of rural small scale enterprises which is the subject of this report. The overall objective of the study is to provide basic essential statistics on the rural small scale enterprise sector. In particular the study aims at identifying the types, sizes and seasonality of the various small scale enterprises as well as their employment characteristics and ownership status. Depending on the results of the present survey and the interest shown by the relevant agencies, a follow-up, more detailed survey may be undertaken on specific enterprises and issues.

While the Rural Development Studies Bureau undertook the study by providing both professional and field staff, technical support was sought and obtained through AID/Zambia from Michigan State University's Department of Agricultural Economics. The latter institution, which has a cooperative agreement with the United States Agency for International Development, has gained in many developing countries very useful experience in the study of

non-farm income generating activities.[1] Michigan State University assisted with the questionnaire design and seconded a member of the staff to the Rural Development Studies Bureau who assisted in the training of enumerators, the fieldwork, as well as in data analysis and report writing.

The Central Statistical Office assisted in the survey in providing a list of rural standard enumeration areas (SEAs), preparing maps for the selected localities and in processing the data for the preliminary report through their main frame computer facilities. Throughout the field work, Woodgate Holdings made their micro-computer facilities freely available for keying and editing the data.[2]

The survey concentrated on rural Zambia. For the purposes of the survey the provinces of Lusaka and Copperbelt were omitted as both provinces are highly industrialized and urbanized. For the same reasons the largest and Zambia's oldest towns of Kabwe and Livingstone (in Central and Southern provinces respectively) were excluded from the provinces covered in the survey. Attention was given both to the towns and villages in rural areas as both have concentrations of small scale enterprises.

---

[1]See, for example, (a) E. Chuta and C. Liedholm, "Rural Non-Farm Employ-ment: A Review of the State of the Art," MSU Rural Development Paper No. 4, 1979 (East Lansing: Michigan State University); (b) Yacob Fisseha, The Contribution of Small-Scale Forest-Based Processing Enterprises to Rural Non-Farm Employment and Income in Selected Developing Countries (FAO, 1985).

[2]The present final version of the report is prepared and analyzed from this micro-computer data.

Limited studies on Small Scale Industries that have been conducted in Zambia include those done by the Institute for African Studies.[1] These have focused their attention on urban Zambia, in particular Lusaka. These studies have also concerned themselves with employment opportunities in certain categories of the Small Scale Industrial Subsector, or the informal sector as it is generally referred to in these studies.

Other such studies include those sponsored by the West German Technical Assistance Agency (GTZ) in North-Western Province and the Dutch in Western Province. Some of these studies are what are regarded as aspects of the Phase II of the Michigan State University series of small scale enterprise studies, that is to say they go into more detail and study specific issues relating to the understanding and development of small scale industries. All the studies referred to deal with industries only and do not concern themselves with small scale service enterprises which are included in the present study.

---

[1]For instance:

-- R. Bardouille, "Women's Economic Participation in the Urban informal Sector," (University of Zambia: Institute of African Studies, 1981).

-- D. Todd and C. P. Shaw, "Education, Employment and the Informal Sector in Zambia," related report in Journal of Modern African Studies, Vol. 8, No. 3, 1980.

-- D. Todd, "Small Scale Manufacturing in Lusaka," (University of Zambia: Institute of African Studies, 1980).

-- A. Kamayo and Edwin C. Bbenkele, "Small Scale Industries in Zambia: A Case Study of Selected Enterprises on the Copperbelt," African Social Research, Institute of African Studies, University of Zambia (June 1982).

For additional localized studies on SSE, refer to the June 1982 special issue of the African Social Research journal of the Institute of African Studies, University of Zambia.

II. SURVEY METHODOLOGY

2.0. Introduction

The overall survey methodology used in Zambia is basically the same as similar small scale enterprises (SSE) surveys in other countries done by Michigan State University (MSU) and host institutions.[1] The SSE surveys were usually done in two stages called Phase I and Phase II. The Phase I surveys were tailored mainly to provide the overall magnitude of enterprises and employment in the SSE sector. Detailed analysis of enterprise, characteristics, business operations, and constraints were examined in the Phase II surveys.[2] The present survey in Zambia corresponds to the Phase I study.

In this chapter a brief account of the questionnaire design and format, industrial and area coverage of the survey, sampling approaches and scope, enumeration procedures, and data entry and processing methods is provided.

---

[1]Examples of these studies include:

C. Liedholm and E. Chuta, The Economics of Rural and Urban Small-Scale Industries in Sierra Leone, African Rural Economy Paper No. 14, Michigan State University, 1976.

M. Badr et al., Small Scale Enterprises in Egypt: Fayoum and Kalyubiya Governorates, Phase I Survey Results, Working Paper No. 23, Michigan State University, 1982.

S. Haggblade, J. Defay and R. Pitman, Small Manufacturing and Repair Enterprises in Haiti: Survey Results, Working Paper No. 4, Michigan State University, 1979.

Omar Davies et al., Small Scale Non-Farm Enterprises in Jamaica: Initial Survey Results, Working Paper No. 8, Michigan State University, 1979.

[2]Differences in methodology and contents between the two phases are more fully described in Fisseha, (op. cit.).

2.1. Questionnaire Design and Content

Some modifications were introduced into the survey questionnaire to suit the Zambian situation and data requirement; otherwise the basic MSU design was used for optimum ease and speed of data collection, computer entry and verification.

All the field data on an enterprise or observation unit is entered by the enumerator in a single horizontal line of foolscap paper. One such page holds all the data for seven cases or observation units. A copy of the questionnaire is included in Appendix A.

The questionnaire format was also designed to serve as a neat and systematic single line listing of the enterprises enumerated during the survey. Each line (of enterprise entry) was given a unique sequential number. The whole list could then serve as a sampling frame (a list of target enterprises) from which smaller samples could be drawn for possible future study, for example, such as the Phase II.

The Phase I survey has the specific and limited objective of providing quick and basic information on the characteristics of the enterprise, as there is a trade-off between the amount and type of data collected on the one hand and the time (turn around) and expense incurred to collect and process it on the other. The survey is not intended to provide in-depth analysis of issues and policies regarding SSE promotion and assistance of investment, employment, production, distribution and management. These types of studies are better reserved for subsequent studies after the assessment of the overall magnitudes, characteristics, and relative sizes of the different industries or SSE subsectors. With this understanding in mind, the contents of the questionnaire are described below.

The content of the Phase I questionnaire could be divided into four main sets of information on the enterprise: its type, size, location, and employment characteristics. These four sets were supplemented with additional information on the importance of the enterprise in the household income as well as on the structural and locational descriptions of the workshop (see Appendix A).

The first part of the questionnaire contains some general locational identification of the enterprise. Included here are the names of the province, district and locality or town. Additionally, the specific address is indicated by writing the name of the owner (proprietor), the house number and the name of the township (village) street or compound.

The type of enterprise and its importance in household income and in seasonal labor requirement is then indicated. If there is a secondary (non-farm) SSE activity done by the same proprietor, this is also noted. The nature of the workshop and the total size of the labor force as indicators of enterprise size or importance are also specified.

The final set of data deals with the employment characteristics. Employment is broadly defined here to include anybody engaged in the business on a full-time or part-time basis. Data entry distinguishes the labor force by type (i.e., proprietor, family member, hired worker and apprentice), sex, age (i.e., adult versus child) and the nature of employment (i.e., part time versus full time).

2.2. Industry Definition and Coverage

The survey is geared towards collecting information on the small scale non-farm enterprises (SSE) of fixed location. Small scale is defined

here to encompass enterprises with 'employment' of up to 50 people.[1] Both private manufacturing and trade (commerce) enterprises which are identified in codes 31-39 and 95 (excluding domestic and personal services) of the International Standard Industrial Classification of All Economic Activities (ISIC) are included in the study.[2]

Manufacturing is used in a wider context to include the repairing of manufactured goods since repair shops also engage in the production of items. Because of their numerical preponderance in rural towns, 'street' or petty vendors of fixed location are distinctly accounted for in the study. The survey thus covers both what are usually called formal (factory type) and informal (ad hoc) sectors with the exclusion of (a) business entities without fixed location of operation, for example, mobile or itinerant hawkers; (b) business branches of parastatals or national corporations; (c) public or local government enterprises; and (d) businesses in private transportation sector.

2.3. Sampling Approach

The survey covers seven out of the nine provinces in the country, and is targeted towards the rural and small urban township enterprises. For this reason, both Lusaka and Copperbelt provinces were excluded because of their high urban concentration of commercial and industrial activities. From the provinces included, except Kabwe and Livingstone towns which were

---

[1]Employment number is used for size limitation since it is relatively easy to identify and measure, and proprietors have less inhibition about divulging this information during an initial and brief encounter such as this study.

[2]See Report on Employment and Earnings: 1980, CSO, 1983.

dropped for similar reasons, all other localities were included.[1] Within the seven provinces, the survey then represents all rural and urban localities with population below 50,000. Together they account for about 60 percent of the national population.

The actual sampling approach employed is stratified random sample of population localities. These localities consist of townships and clearly demarcated rural areas or hamlets called standard enumeration areas (SEA). These SEAs are subpopulations into which the whole country is divided by the Central Statistical Office (CSO), for example, during the 1980 population census. The CSO also uses them as standard area units in many socio-economic surveys. In the present survey 70 townships and reportedly 5126 rural SEAs were represented in the sample drawn. Names of towns, CSO identification numbers and district locations of rural standard enumeration areas covered in the survey are given in Appendix B.

Subsequent MSU studies in other countries have shown that the number, size and characteristics of SSEs generally vary by population sizes of localities and their degree of urbanization. To take account of this possibility in Zambia, the target localities were stratified (grouped) into three strata (population subgroups): the target towns were divided into two strata: (a) those with population 12,000-50,000 and (b) those

---

[1]Rural or urban designations here do not use the UN definition of below or above 20,000 population size. Conventionally, towns with registered township status providing some basic need services qualify as urban, although they are situated in essentially rural areas. There are ten "large urban areas" (as defined by the CSO in the Preliminary Report: 1980 Census of Population and Housing, CSO, 1981) in Zambia eight of which are found in Copperbelt and Lusaka provinces and the remaining two are Kabwe and Livingstone. None of these large urban areas are included in the survey.

12,000 or below; all the SEAs were grouped into a third stratum. Stratum one consisted of 10 major towns and stratum two of 60 smaller ones.[1]

A simple random sample of localities within a stratum was then used to draw 6 major towns from the first stratum, 24 smaller towns from the second and 37 SEAs from the third. It should be pointed out that the sampling frame (list of target areas) for the SEAs did not consist of all the 5126 rural SEAs reportedly found in the seven surveyed provinces. Rather, it consisted of a randomly drawn sample list of SEAs from another bigger random sample list used by the CSO in the 1984/85 agricultural survey. The small number of SEAs in the sample is justified on the assumption (and experience[2]) that there is great homogeneity in economic characteristics and activities among the rural SEAs. Conversely small urban townships show a greater variety and concentration of activities.

2.4. Enumeration Procedure

A team of 16 enumerators was intensively trained for a week using a manual prepared to go with the questionnaire. At the end of the training period, the enumerators were taken to urban and rural localities outside Lusaka for a field trial. Since maps of the localities to be surveyed were acquired from the CSO, their use in fieldwork was explained and demonstrated during the classroom sessions and field trial trips.

Before the survey team left for field work, letters of introduction to local officials and identification cards were issued to them. The

---

[1]A list of all the towns with their population sizes is reported in Preliminary Report: 1980 Census of Population and Housing, CSO, 1981.

[2]Carl Liedholm, "Research on Employment in the Rural Nonfarm Sector in Africa," African Rural Employment Paper No. 5 (East Lansing: Michigan State University, Department of Agricultural Economics, 1973).

project was also introduced to provincial and district officials as well as the public through letters and the public media. Throughout the course of the survey, these officials were extremely helpful in facilitating physical accommodation and public acceptance.

The enumerators moved from one survey area to another canvassing every rural and urban street, neighborhood or compound in search of household SSE activities. For the most part responses were directly entered into the questionnaire as numbers (representing codes or actual values). The type of the SSE activity and its specific address were, however, written out in words and later coded at camp from a list of prepared codes. At the end of the day, each questionnaire was coded completely, checked and arranged for dispatch to Lusaka for micro-computer entry.

The survey work started in the Southern Province in May, 1985 and continued province by province. The total field work with an average of 14 enumerators took exactly three months.

2.5. Data Processing

The format of the questionnaire was such that it was unnecessary to transfer the data onto coding sheets for computer entry. The data were therefore entered directly into the computer from the questionnaire. Initially, the data entry and analysis were planned to be done with a micro-computer. Unfortunately, with the floppy disk micro-computer, the large data base made it necessary to use a large number of diskettes resulting in a time consuming process and memory shortage. For the preliminary report, the data were eventually entered (in two weeks) into and analyzed (in a week) using the main frame computer under the auspices of the CSO. The data were entered into floppy diskettes however so that,

if so desired, a further analysis could be made by RDSB when it acquires its own micro-computer (of suitable capacity). This final version of the report used the micro-computer analyses. It should be pointed out that while data entry, verification and editing on a (hard disk) micro-computer could be carried out concurrently with field work and thus save time, data analyses itself is much faster and easier on the main frame. This, of course, is relative for factors such as the quality of the program for data analyses and computer accessibility must also be considered.

III. MAGNITUDE OF THE SMALL SCALE ENTERPRISE SECTOR

3.0. Introduction

An operational definition used in this study for small scale enterprises (SSE) is those with total employment of up to 50 people. By employment is meant anybody engaged in SSE activity including the proprietor or owner/operator, family members, hired workers and apprentices or trainees. In actuality, about 98% of the enterprises were found to employ less than 6 people. The definition used here thus corresponds closely with what are sometimes loosely called traditional or informal enterprises, specifically with those found in the more rural areas (see Section 2.3).

This chapter will describe the absolute and relative magnitude of this SSE sector as found in the smaller towns and rural areas of Zambia. As Chapter IV will deal with the employment picture in the SSE sector in detail, the focus of discussion here is the enterprises themselves.

3.1. Overall Magnitude of the SSE Sector

Table 1 shows the outcome of the field enumeration and the resulting 'overall' estimations for all the localities represented in the survey.[1]

About 51,000 households accounting for 8 percent of the overall target population were enumerated or checked during the field survey in the three population strata. Because of the sampling proportion chosen,

---

[1]For the sake of brevity and ease of expression, 'the localities represented in the survey' will be referred to as 'overall' although it should be remembered that this 'overall' estimate is not synonymous with the national estimate since two major provinces and two major towns from the other provinces were excluded.

TABLE 1. OVERALL ESTIMATES OF RURAL SMALL SCALE ENTERPRISES (SSE) AND THEIR EMPLOYMENT BY POPULATION SIZE STRATA

Population Strata[1]	Households in the Sample				Overall Estimates[4]				Within Stratum Population Surveyed
	Households Sampled[2]	Households with SSE		SSE Employ. Enum.[3]	Enterprises		Employment		
	#	#	%	#	#	%	#	%	%
Small towns (12-50,000)	23,500	8,595	37	15,202	14,326	6.8	25,336	7.4	56
Rural townships (0-12,000)	22,100	6,885	31	11,645	17,213	8.1	29,113	8.5	44
Rural standard enumeration areas (SEA)	5,300	1,296	24	2,082	179,548	85.1	288,442	84.1	1
Total	50,900	16,776	24	28,929	211,087	100	342,891	100	8

Source: 1985 SSE study.

Notes: [1]See Section 2.3 for definition of the population strata.

[2]These are number of households found (enumerated) in the random sample of localities.

[3]These are number (#) of people found working in those enterprises with enumerated SEAs.

[4]These estimates are only for those localities represented in the sample. For the nation as a whole, the number of enterprises and employment is expected to increase respectively by 130,000 and 230,000.

a large majority of the enumerated households are from the small towns and rural townships. Such a sampling choice was employed in view of past experiences which showed that as the population sizes of localities increase, the number, diversity and size ranges of SSE activities also increase more than proportionally. Among the surveyed households, about 17,000 or 24 percent (33% if unweighted by strata population sizes) were found to **own** small scale enterprise (SSE) activities with a total employment of 29,000. The table shows that the percentage of households with SSE activity declines from 37 for the small towns to 24 for the SEAs. Expectedly, as the level of urbanization rises, the concentration of SSE activities increases.

Table 1 also shows the **overall** estimates (extrapolations) for a number of SSEs and their employment derived from the surveyed households and localities. The extrapolation is based on projections from data obtained from the sample survey corresponding to each stratum; for example, the overall estimate for the rural towns was derived by multiplying the enumerated results by a figure representing the reciprocal of their sampling proportion.

Any small-scale, non-farm private economic activity pursued for commercial business reasons as a source of full or partial income and employment is considered as an SSE activity. Examples include tailoring, carpentry, basket/mat making, auto repair, beer brewing, tinsmithing, trade and 'street' vending. Using such a comprehensive scope of business activity coverage, it is estimated (extrapolated) from the survey that there are about 211,000 enterprises employing some 343,000 people in the areas represented in the survey. Close to

85 percent of both the number of enterprises and the employment are found in the rural Standard Enumeration Areas (SEAs).[1]

No comprehensive survey of SSE activities had been done in Zambia so far. And the number of enterprises and the size of the corresponding employment estimated from limited and localized studies seem to have been substantially underestimated. For example, an ILO World Employment Programme paper using a similar definition puts the total number of employment in the 'informal' sector at 200,000-300,000 people for all of Zambia.[2] However, the present survey shows there are close to 345,000 people working in the sector in the areas covered in the survey alone. The survey does not enable one to directly extrapolate the total number of enterprises and employment for the whole country. However, taking into account the demographic sizes and characteristics of the areas left out from the survey and on the basis of the present survey's experience, it is expected that the large urban areas would add at least another 120,000 enterprises and the rural SEAs of Lusaka and Copperbelt still another 10,000. Thus, the total national figure could be about 340,000 enterprises engaging some 575,000 people. These proportional

---

[1]Unlike for the towns, the survey estimates for the rural parts of Zambia depend on the number of the rural standard enumeration areas (SEAs) which are the area sampling units used in the survey. Figures supplied by the Central Statistics Office show there are 5,126 such localities in the target areas.. However, by proportional calculations from earlier CSO sample studies, the corresponding number of rural SEAs is only 4,300 or 83.9% of the reported 5,126. If 4,300 is the correct number, then the SSE extrapolations for the SEAs' number of enterprises is reduced by 16% and the 'overall' estimates by 7% (or by 13.5% for overall employment). A different approach of estimating the number of rural enterprises could be to use the population of rural households and their proportion with SSE activity from Table 1. Using this approach, the resulting estimate shows about 14% fewer enterprises than shown on the table.

[2]Hans C. Haan, "Some Characteristics of Informal Sector Businessmen in Lusaka and Kitwe, Zambia," ILO World Employment Programme, Lusaka, 1982.

estimates are considered reasonable (conservative) since they were arrived at after discounting the number of enterprises in the towns and the SEAs respectively by 6% and 9%.

3.2. Subsectoral and Industrial Grouping of Enterprises

The SSE activities could be divided into three broad components or subsectors (see Table 2): manufacturing SSEs (accounting for 81 percent of the enterprises), trade and service (5 percent) and vending (14 percent). One of the interesting findings is the dominance of the manufacturing sector relative to the service activities in general. In Jamaica, for example, manufacturing accounted for only a third of the SSE sector (Davies *et al.*, 1979) and in Thailand, the manufacturing sector accounted for 65 percent of the enterprises in those areas covered by the survey (Mead and Charsombut, 1980). In the case of Thailand, this percentage would go even lower if all services (e.g., such as catering) had been included.

Very small SSE activities, which are sometimes referred to as micro enterprises, could present double-counting problems in enumeration if they do not operate from a fixed spot. As a result all itinerant entrepreneurs were left out from the study. The survey made a special effort, however, to include all SSE activities as long as they operate from a fixed spot.

Vendors are classified separately from other trade/service activities mainly for four reasons. One, their volume of business (stock of material) is typically very small consisting of a few tiny piles of different consumer items usually amounting to no more than K20-50; two, although they operate from a fixed location, their business site is either completely open or without private enclosures; three, vendors are currently a subject of public and media interest; and four, they are not included in many other

TABLE 2. RELATIVE SIZES OF INDUSTRIAL GROUPINGS AND THEIR EMPLOYMENT (ESTIMATES FOR RURAL ZAMBIA)

Industrial or Enterprise Groupings	Enterprises		Employment		
	Number	%	Number	%	Average/Firm
Garment	8,444	4.0	11,740	3.4	1.39
Forest-Based	52,209	24.7	89,606	26.2	1.72
Metals	7,869	3.7	10,347	3.0	1.32
Repairs	2,232	1.1	3,190	0.9	1.43
Foods	6,683	3.2	14,341	4.2	2.15
Traditional Beers	81,057	38.4	123,937	36.2	1.53
Sweet Beer	5,402	2.5	8,504	2.5	1.57
Leather	1,222	0.6	1,454	0.4	1.19
Ceramics	4,408	2.1	6,540	1.9	1.48
Other Manufacturing	344	0.2	407	0.1	1.18
Total Manufacturing	169,870	80.5	270,066	78.8	1.59
Restaurants	138	0.1	767	0.2	5.56
Bars/Taverns	1,451	0.7	4,184	1.2	2.88
Trading	6,750	3.2	14,049	4.1	2.08
Other Services	3,159	1.4	11,045	3.2	3.50
Total Services	11,498	5.4	30,045	8.7	2.61
Vending	29,719	14.1	42,780	12.5	1.44
GRAND TOTAL	211,087	100	342,891	100	1.62

Source: 1985 SSE Study.

studies and separating their impact here helps for comparative purposes with such SSE studies in other countries.

Table 2 shows a further disaggregation of the three subsectors into industrial or enterprise groups. The list of individual enterprise types comprising each group is given in Appendix C. Briefly, examples of enterprise types in each group are as follows:

(1)	Garments:	tailoring, dressmaking, and knitting;
(2)	Forest-based:	pitsawing, carpentry, furniture making, charcoal/firewood production, and basket/mat making;
(3)	Metals:	blacksmithing, tinsmithing, and welding;
(4)	Repairs:	auto and bicycle repairs, electronic and electrical repairs and jewelry and watch repairs;
(5)	Foods:	bakery, confectionery, and butchery;
(6)	Traditional Beers:[1]	traditional beer brewing;
(7)	Sweet Beers:[1]	a form of traditional beverage with little or no alcohol content;
(8)	Leather:	shoemaking/repair and other leather works;
(9)	Ceramics:	pottery, brick/block making, stone carving;
(10)	Other manufacturing:	chemicals, plastics, and photo studio;
(11)	Restaurants:[2]	catering of food;
(12)	Bars:	retail of traditional or modern beers;
(13)	Trade:	wholesalers, groceries and various retail shops or activities;
(14)	'Other services:'	dry cleaning, hair dressing, and construction; and
(15)	Vending:	all sorts of products but mainly foods, metal, garment and wood/charcoal.

---

[1]Combined both traditional and sweet beers and tea are referred to as beverages.

[2]Combined both restaurants and bars are referred to as catering.

The SSE sector as a whole is dominated by beverages, forest-based enterprises and vendors in that order; the three of them accounting for about 80 percent of the enterprises. At the subsectoral level, the largest groups within the manufacturing subsector are beverages and the forest-based enterprises each accounting for 50 and 30 percent respectively. These two are distantly followed by garments and metals. Within the service group, trade accounts for about 60% of the enterprises.

3.3. Enterprise Types Within Enterprise Groups

Certain industries or enterprise groups are dominated by a few enterprise types. Thus in manufacturing, traditional beer brewing accounts for 94 percent of beverages; basket/mat making, 60 percent of forest-based; knitting 78 percent of garments; and tinsmith, about 40 percent of metals. Within services, groceries and other food shops account for over 43 percent of trade; and construction, for 98 percent of the 'other' services group. Finally, food vendors account for over 80 percent of all vending activities. There are however great variations by region and stratum. The Western Province, for example, is well known for basket making, while the North-Western Province has a concentration of pitsawing; similarly traditional beer brewing is more prominent in Northern Province compared with Southern Province.

3.4. Geographic Characteristics of SSE Activities

There is a marked difference between the towns and the rural SEAs with respect to the subsectoral incidence of SSE activities (Table 3). One of the clear trends noticable from enterprise distribution in the table is the increasingly dominant role the manufacturing group plays as one moves

TABLE 3. INDUSTRIAL GROUPINGS OF ENTERPRISES BY STRATA (SURVEY ESTIMATES FOR RURAL ZAMBIA)

Industrial or Enterprise Groupings	Small Towns		Rural Towns		SEAs		Overall	
	#	%	#	%	#	%	#	%
Garment	1,220	8.5	1,405	8.2	5,819	3.2	8,444	4.0
Forest-Based	652	4.5	1,128	6.5	50,429	28.1	52,209	24.7
Metals	193	1.4	195	1.1	7,481	4.2	7,869	3.7
Repairs	265	1.8	305	1.8	1,662	0.9	2,232	1.1
Foods	952	6.6	1,298	7.5	4,433	2.5	6,683	3.2
Traditional Beers	1,575	11.0	3,285	19.1	76,197	42.4	81,057	38.4
Sweet Beer	357	2.5	612	3.6	4,433	2.5	5,402	2.5
Leather	127	0.9	125	0.7	970	0.5	1,222	0.6
Ceramics	53	0.4	60	0.4	4,295	2.4	4,408	2.1
Other Manufacturing	27	0.2	40	0.2	277	0.2	344	0.2
Total Manufacturing	5,421	37.8	8,453	49.1	155,996	86.9	169,870	80.5
Restaurants	58	0.4	80	0.5	0	0	138	0.1
Bars/Taverns	102	0.7	102	0.6	1,247	0.7	1,451	0.7
Trading	1,342	9.4	1,390	8.1	4,018	2.2	6,750	3.2
Other Services	140	1.0	110	0.6	2,909	1.6	3,159	1.4
Total Services	1,642	11.5	1,682	9.8	8,174	4.5	11,498	5.4
Vending	7,263	50.7	7,078	41.1	15,378	8.6	29,719	14.1
GRAND TOTAL	14,326	100.0	17,213	100.0	179,548	100.0	211,087	100.0

Source: 1985 SSE Study.

from the more urban to the rural stratum. The reverse is true with respect to the non-manufacturing activities.

	Small Towns	Rural Towns	SEAs
Manufacturing	37.8%	49.1%	86.9%
Services	11.5	9.8	4.5
Vending	50.7	41.1	8.6
Total	100.0	100.0	100.0

This shift of dominance is mainly due to an increasing concentration of beverages and forest-based activities in the more rural areas compared to vending activities which play a similar role in the urban areas.

In small towns and rural townships, the ranking of the magnitude of the enterprise groups is almost identical. Thus, in both cases, vending is the dominant one, followed by beverages, trade and garments in that order; conversely, ceramics, followed by leather, catering (i.e., restaurants and bars) and metals are the least prevalent; somewhat in the middle ranking are forest-based and repairs.

In the rural SEAs, however, the dominant activities are beverages (i.e., traditional and sweet beers), forest-based activities, vending and garments in that order. The least prevalent are leather, catering, repairs and trade. A closer look reveals that the rural SEAs are comparatively (vis-a-vis the towns) more dominated by SSE activities such as beverages, forest-based products, metals and ceramics which could thrive on traditionally acquired skills; and they are less dominated by what could be considered as non-traditional SSE activities in the Zambian context such as the service and vending activities.[1]

---

[1]For a similar conclusion, see Malcolm Christie, "The Informal Sector: Its Role in Economic Development," unpublished memo; Lusaka (1974).

In many developing countries, the two most prevalent enterprise groups usually are garments and forest-based followed by foods or metals. This is the case, for example, in Sierra Leone, Egypt, Bangladesh, and Honduras.[1] If, for comparative purposes, traditional beer brewing, charcoal/firewood production, and vending enterprises are excluded from consideration due to either their preponderance here or their absence from other such studies,[2] then forest-based assume the highest rank in Zambian SSE followed by garments, metals and foods (Table 4). The numerical dominance of the forest-based group is due to basket/mat making and wood furniture production (20 percent).[3]

The exclusion of beer brewing and vending from Table 4 does not affect that much the overall relative magnitude of the manufacturing group within the SSE sector as a whole. The marked effect is at the town level where manufacturing now accounts for two-thirds of all the remaining small town SSE activities as compared to a little over one-third previously and for almost three-fourths in the rural townships compared to one-half previously. The share of the service group also rises since vending is not in the picture; however, the change is less striking compared with that for manufacturing.

Finally, considering the total population found in the localities covered by the survey, there are 17 people (or roughly about 3 to 4

---

[1]See Fisseha (1985), op. cit.

[2]The dominance of traditional beer brewing is not unique to Zambia; it is also an important activity in many countries in Eastern and Southern Sub-Saharan Africa (Haggblade, 1984).

[3]Whether charcoal/firewood is included or not does not have much effect on the conclusions as it accounts for less than 5 percent of all forest-based activities. The relative size of charcoal/firewood might have been higher than 5 percent though if the Copperbelt and Lusaka provinces had been included with their rural localities supplying charcoal/firewood to the large urban populations in these two provinces.

TABLE 4. RELATIVE MAGNITUDES OF INDUSTRIAL GROUPINGS AFTER EXCLUDING CHARCOAL/FIREWOOD PRODUCTION FROM FOREST BASED, TRADITIONAL BEER BREWING AND ALL VENDING ACTIVITIES

Enterprise Groupings	Strata							
	Small Towns		Rural Towns		SEAs		Overall	
	#	%	#	%	#	%	#	%
Garment	1,220	22.2	1,405	20.5	5,819	6.6	8,444	8.4
Forest-Based	652	11.9	1,128	16.5	50,429	57.3	52,209	52.1
Metals	193	3.5	195	2.8	7,481	8.5	7,869	7.8
Repairs	265	4.8	305	4.5	1,662	1.9	2,232	2.2
Foods	952	17.3	1,298	18.9	4,433	5.0	6,683	6.7
Sweet Beer	357	6.5	612	8.9	4,433	5.0	5,402	5.4
Leather	127	2.3	125	1.8	970	1.1	1,222	1.2
Ceramics	53	1.0	60	0.9	4,295	4.9	4,408	4.4
Other Manufacturing	27	0.5	40	0.6	277	0.3	344	0.3
Total Manufacturing	3,846	70.1	5,168	75.4	79,799	90.7	88,813	88.5
Restaurants	58	1.1	80	1.2	---[1]	---	138	0.1
Bars/Taverns	102	1.9	102	1.5	1,247	1.4	1,451	1.5
Trading	1,342	24.4	1,390	20.3	4,018	4.6	6,750	6.7
Other Services	140	2.5	110	1.6	2,909	3.3	3,159	3.2
Total Services	1,642	29.9	1,682	24.6	8,174	9.3	11,498	11.5
GRAND TOTAL	5,488	100	6,850	100	87,973	100	100,311	100

[1] No restaurants were found in the SEAs.

Source: 1985 SSE Study.

households) for each enterprise activity; and with 16 for the towns and 17 for the SEAs, there is no difference among the strata. There is however substantial difference among and within the subsectors. Thus, for the manufacturing group, there are about 40 people for each manufacturing activity in the small towns compared to 140 for a service enterprise. On the other hand, there are 20 and 300 people respectively for each manufacturing and service enterprises in the SEAs. The general picture is usually more people per enterprise in services, followed by vending and manufacturing.

3.5. Comparison of Small Scale with Large Scale **Manufacturing** Enterprises

The Central Statistics Office (CSO) maintains for its socio-economic surveys a list of large scale (actually registered) industrial (LSI) firms which it obtains from the Ministry of Commerce and Industry. These are firms with at least one (paid) employee. Theoretically they could include substantial number of enterprises that fall within our definition of small scale manufacturing activities. In practice, though, there are two reasons why the number of small scale manufacturing or industrial (SSI) enterprises included in the list could be insignificant relative to all SSI enterprises: (a) 92 percent of all SSI enterprises are found in the rural SEAs (unlikely to be registered), while another 7 percent found in the small towns and rural townships are either one-person operations or entirely operated by family labor; and (b) of the remaining 1 percent, only some may get registered since they are not eager to do so or they are not conspicuous enough to attract official attention.

TABLE 5. COMPARATIVE TABLE OF INDUSTRIES AND EMPLOYMENT BETWEEN THE REGISTERED OR LARGE SCALE INDUSTRIES (LSI) AND THE SMALL SCALE INDUSTRIES (SSI)

Industrial[1] or Enterprise Groupings	Number of Enterprises		Number of Employment		SSI share (%) of	
	LSI	SSI	LSI	SSI	Enterprise	Employment
Garment and Textile	120	8,444	10,209	11,740	98.6	53.5
Wood and Furniture[2]	29	16,770	3,410	28,540	99.8	89.3
Other Forest Products[2]	37	33,292	2,680	54,169	99.9	95.3
Metals	72	7,869	6,250	10,347	99.1	62.3
Food	111	6,683	16,559	14,341	98.4	46.4
Beverages	25	86,459	3,840	132,441	99.9	97.2
Leather	7	1,222	983	1,454	99.4	59.7
Non-Metallic (e.g., Ceramics)	25	4,408	3,539	6,540	99.4	64.9
Chemicals	51	6	7,310	24	10.5	0.3
Machinery	18	(834)[3]	959	(1,352)	97.9	58.5
Electrical Products	23	(873)	1,719	(973)	97.4	36.1
Transport Equipment	14	---	1,293	---	0.0	0.0
Jewelry, etc.	7	(518)	158	(847)	98.7	84.3
	539	167,378	58,909	262,768	99.7	81.7

Source: (a) for LSI, Census of Industrial Production, 1980, CSO (1983);
(b) for SSI, 1985 SSE Study.

Notes: [1]The word "industrial" indicates here manufacturing or non-service enterprises.

[2]Woodcarving is included in "wood and furniture" and charcoal/firewood production is excluded from "other forest products."

[3]SSI values in parentheses refer to enterprises that are basically in repair activities.

To the extent that some SSI enterprises get registered, the number of large scale (or registered) enterprises is probably exaggerated in Table 5. While the number of SSI enterprises that actually get registered may be very insignificant relative to all SSI enterprises, it could still be substantial relative to the registered genuine large scale enterprises. Further underestimation of the SSI group relative to their LSI counterparts may occur because the registered firms cover the whole country and they include national corporations, parastatals as well as publicly owned firms, neither of which is the case for the SSI group.

With these caveats in mind, Table 5 gives an indication of the relative magnitudes of enterprises and employment between the small-scale and the large-scale industrial or manufacturing enterprises. The industrial classification shown on the table is the one used by the CSO. Since the CSO classification omits some of our enterprise groups, such as charcoal/firewood production and repairs, the SSI enterprise and employment figures are somewhat lower in this table than shown elsewhere in the report. There are about 540 LSI firms employing some 60,000 people compared to 167,000 SSI enterprises employing about 263,000 people. The number of people employed in the LSI group was thus less than a fourth of that in the SSI group. The SSI group accounts for over 99 percent of all the manufacturing enterprises in the national economy and for over 80 percent of the corresponding employment. In fact, the SSI group accounts for over 97 percent of the enterprises in each of the industries in the manufacturing sector except in the chemical and transport equipment industries. Furthermore, in 9 out of the total 13 industries, the LSI contributes less than half of the employment. If the SSI group were to

include those found in the areas not represented by the survey, they probably would account for close to 90 percent of the employment too.

In addition, large scale service (catering) and trade area employed 31,000 people compared to about 20,000 in the SSE sector. Again, if the large urban areas (with a population of almost two million) and the rural SEAs of the Copperbelt and Lusaka were included in the SSE estimates, they could proportionally add another 5,200 enterprises with corresponding employment of at least 12,000.[1] In construction, 389 large scale enterprises employed about 24,000 people compared to 12,000 employed by 3,300 enterprises in the SSE sector; again, a proportional expansion of the SSE sector estimates would result in 1,800 additional enterprises and 6,200 employment.[2]

According to the annual list of registered firms, the number of LSI enterprises reached a peak of 747 in 1974. The mean annual growth rate between 1965 and 1975 was 4.6%, although, with a coefficient of variation of 345%, there has been a wide variation over the years. After 1974 the number has considerably declined reaching 539 as of 1980; this represents an annual decline of 5.8 percent. This latter period was roughly the time

---

[1]Since the average employment per firm in urban areas is higher by about 20 percent compared with the more rural areas, the employment estimate of 12,000, which is based on the results of the rural areas, is probably biased downward.

[2]Comparisons between large and small scale enterprises may eventually boil down to the efficiency with which capital, as the major scarce resource in developing countries, is used; neither the time nor the data is available for Zambia to discuss this issue here. It should be pointed out however that many studies in other countries have shown that SSI enterprises are not necessarily inefficient users of capital relative to the large-scale, more capital-intensive enterprises; the SSI groups typically have less capital per worker relative to the larger ones and hence usually lower labor productivity but they generate more or equal output per unit of capital relative to the large enterprises. See Fisseha (1985) op. cit. for a review of some evidence.

when GDP per head declined by about 50 percent and real wages by about 20 percent (ILO, 1981). No historical data exist of the changes that have taken place over the years on the small scale industrial enterprises.

Finally, although the information for the large scale group is from the 1980 CSO industrial census, it is not expected that their magnitude has grown since. In fact, it is most likely that they have declined in line with the general formal sector trend since the mid-seventies.[1]

3.6. Secondary Small Scale Enterprises

The report so far and the rest of it beginning with chapter IV deals with primary SSE activities, but it should briefly be pointed out that some proprietors had an additional SSE activity as a secondary source of income. The secondary activity usually complements well the primary one. Thus, a person who repairs car batteries may have a retailing shop of new or used batteries just next door; a person who brews traditional beer may also produce or retail food items for sale for the beer customers as well.

The management and sometimes the labor is provided by the same proprietor. The effect on entrepreneurial efficiency when the two enterprises are unrelated will probably depend on the availability of slack time to be used on one or the other enterprise and the degree of close supervision required.

In the present survey 10 percent of the SSE proprietors had a secondary enterprise. The smaller the enterprise, the less likely it will have a secondary enterprise. Thus, 90 percent of those proprietors with a labor force of 5 or less had no secondary enterprise while 53

---

[1]See Country Profile, CSO (1984).

percent of those with a labor force of greater than 10 had. This may be due to the lack of additional capital (both initial and operating) to invest in a secondary enterprise. It is also true however that a large majority of the small SSE proprietors in the SEAs, and even the towns, have farming as a secondary or primary source of household income. In fact, for two-thirds of the SEA enumerations, the primary small scale non-farm enterprise is not the major source of income.

Enterprises that were common as secondary enterprises include beer brewing (25 percent of all secondary enterprises), vending (22 percent), basket/mat making (12 percent), woodcarving (7 percent) and knitting (6 percent). Others that were less common include sundry retail shops, blacksmith, electronic repair and charcoal production in that order.

IV. EMPLOYMENT IN SMALL SCALE ENTERPRISES

4.0. Introduction

The most important contribution of the small scale enterprises (SSE) to the national economy most likely lies in employment. Being highly labor-intensive units, the amount of capital needed to train and employ workers is very little. Furthermore, since they tend to be accessible also to the poor, the landless or the unskilled, they serve an important economic function of providing some income to the disadvantaged among society.

In the present study, any person engaged in an SSE activity whether on part-time or full-time basis is said to be 'employed' in that activity. The total employment includes four types of workers: proprietors (owner/operators), family members, hired workers and apprentices or trainees.[1]

This chapter will discuss the following major topics on SSE employment: (a) the magnitude of the employment; (b) the distribution of the labor force by type of worker; (c) the distribution of the enterprises by the size of their labor force; (d) the rate of full employment of the labor force; and (e) a brief employment comparison between the small scale and the large scale industrial or manufacturing enterprises.

4.1. Magnitude of Employment in the Small Scale Enterprise Sector

As Table 1 showed, about a fourth of the households surveyed are involved in small scale enterprise activities. For the areas represented

---

[1]Proprietor employment is discussed here as if all of it was engaged in the primary enterprise. Although a small part of it may be used on a secondary SSE enterprise, the two employment types are not differentiated.

in the survey, the heaviest concentration of these enterprises is in the small towns -- that is towns with a population of between 12,000 and 50,000. Thirty-seven percent of the households in these towns take part in SSE activities whereas thirty-one percent of the households in rural townships and twenty-four percent in the rural enumeration areas (SEAs) are involved in such activities.

Small scale enterprises provide employment to some 29,000 people in the sample which was taken for the study. When extrapolated to include all the areas represented by the sample, the figure rises to about 343,000 (Table 6). The large urban centers of Lusaka and the Copperbelt together with their rural SEAs (which were not included in the survey) could proportionally be given another 130,000 enterprises employing some 232,000 people, making the total number of people engaged by the SSE sector in the country of 575,000.

For the localities covered in the survey, Table 6 shows the distribution of the total employment by population size strata and by industrial or enterprise groups of the SSE activities. About 84 percent of the SSE employment is found in the rural enumeration areas. Furthermore, the manufacturing subsector accounts for just below 80 percent of the employment compared to 12 percent for vending and 9 percent for the service enterprises.

Since the survey leaves out the large urban areas with population sizes over 50,000, it is not possible to make an exact relative comparison on the incidence of SSE activities between the rural and urban localities. However, looking at the trends, one can say that activities pertaining to forest-based, metals, traditional beers and ceramics relatively seem to be primarily located in the rural areas. On the other hand, all service

TABLE 6. NUMBER AND DISTRIBUTION OF EMPLOYMENT AMONG ENTERPRISE GROUPINGS BY STRATA

Enterprise Groupings	Small Towms		Rural Towns		SEAs		Overall	
	#	%	#	%	#	%	#	%
Garment	1,915	7.6	2,205	7.6	7,620	2.6	11,740	3.4
Forest-Based	1,420	5.6	1,875	6.4	86,311	29.9	89,606	26.2
Metals	349	1.4	300	1.0	9,698	3.4	10,347	3.0
Repairs	655	2.6	595	2.0	1,940	0.7	3,190	0.9
Foods	2,107	8.3	2,813	9.7	9,421	3.3	14,341	4.2
Traditional Beers	2,388	9.4	4,898	16.8	116,651	40.4	123,937	36.2
Sweet Beer	498	2.0	940	3.2	7,066	2.4	8,504	2.5
Leather	158	0.6	188	0.7	1,108	0.4	1,454	0.4
Ceramics	218	0.9	88	0.3	6,234	2.2	6,540	1.9
Other Manufacturing	55	0.2	75	0.3	277	0.1	407	0.1
Total Manufacturing	9,763	38.6	13,977	48.0	246,326	85.4	270,066	78.8
Restaurants	327	1.3	440	1.5	0	0	767	0.2
Bars/Taverns	485	1.9	374	1.3	3,325	1.2	4,184	1.2
Trading	3,510	13.8	3,612	12.4	6,927	2.4	14,049	4.1
Other Services	345	1.4	310	1.1	10,390	3.6	11,045	3.2
Total Services	4,667	18.4	4,736	16.3	20,642	7.2	30,045	8.7
Vending	10,906	43.0	10,402	35.7	21,474	7.4	42,782	12.5
GRAND TOTAL	25,336	100.0	29,115	100.0	288,442	100.0	342,893	100.0

Source: 1985 SSE Study.

activities, vending and repairs are primarily urban activities. These relative characteristics would not probably change even if the large urban areas had been included in the survey.

In general, the relative magnitudes of employment closely correspond with the corresponding relative magnitudes found among the enterprise groups (see Table 7). For example, overall manufacturing and services account respectively for 80.5 and 5.4 percent of the total number of enterprises; their corresponding contributions to employment are 78.8 and 8.7 percent. Similarly, the small towns and SEAs contribute respectively 6.8 and 85.0 percent of the enterprises and their corresponding contributions to employment are 7.4 and 84.1 percent. Table 7 gives the more disaggregated picture.

The average labor force size in the rural enumeration area enterprises is only 7 percent smaller than its town counterpart (i.e., both small towns and rural townships together). Therefore, enterprises that dominate in number between the two locations also dominate in employment. For example, beverages (traditional and sweet beers) account for 45 percent of the enterprises in SEAs and 43 percent of the employment there; in the towns vending sector accounts for 46 percent of the enterprises and 39 percent of the employment there. The employment generated by these two groups of enterprises constitutes half of the total employment generated by the small scale enterprise sector.

The second highest contributors of employment in the two localities are forest-based activities (30 percent) in the SEAs and beverages (16) in the towns. Production activities using leather are the least developed both in the towns and the SEAs; furthermore, repairs in SEAs and ceramics in the towns are also relatively less significant.

TABLE 7. PERCENTAGE DISTRIBUTION OF ENTERPRISES AND EMPLOYMENT WITHIN EACH STRATUM AND SUBSECTOR

	Strata					
	Small Towns		Rural Towns		SEAs	
	Enterprises	Employment	Enterprises	Employment	Enterprises	Employment
A. Within Stratum (%)						
1. Manufacturing	37.8	38.6	49.1	48.0	86.9	85.4
2. Services	11.5	18.4	9.8	16.3	4.5	7.2
3. Vending	50.7	43.0	41.1	35.7	8.6	7.4
Column Totals	100.0	100.0	100.0	100.0	100.0	100.0
B. Among Strata (%)						
1. Manufacturing	3.2	3.6	5.0	5.2	91.8	91.2
2. Services	14.3	15.5	14.6	15.8	71.1	68.7
3. Vending	24.4	25.5	23.8	24.3	51.8	50.2
All Subsectors	6.8	7.4	8.2	8.5	85.0	84.1

Source: 1985 SSE Study.

In conclusion, the size of the national labor force engaged in the SSE sector is estimated to be substantial. It could range between 20 and 25 percent of the total national labor force depending on whether or not one uses the lower estimate for the number of SEAs in the rural areas (see footnote on page 17).[1] Considering that wage employment as a percentage of total labor force was 22 in 1978 (ILO, 1981), the share of the SSE employment is indeed significant. The kind of incomes generated both by proprietors and employees in the SSE sector would be very useful in the context of the present discussion. Since a different inquiry format and time frame are required for the measurement of income levels, such information was not part of the present study. With respect to vending proprietors, however, some anecdotal income information is given later in this report and could probably serve as a rough order of magnitude for this group.

4.2. Categories of the Labor Force

In order to identify the nature of employment, the labor force in the SSE activities is categorized into four types. These are the proprietor (or owner/operator), proprietor's family members, fully paid hired workers and apprentices or trainees whose payment, if any, may be incidental to their goal of learning the trade. Other aspects of the labor force such as sex classification are discussed in Chapter V.

It is characteristic of small scale activities that the bulk of

---

[1]The present survey covered a little less than 1% of the number of SEAs or about 1% of their total population. While the sample size for the rural localities seems rather small, it is not obvious how the result would have been affected with a larger sample since no prior knowledge exists on the incidence of such SSE activities or of their characteristics.

the work provided by people other than the proprietor comes from family members. In Zambian SSE activities, family members accounted for almost three-fourths of all non-proprietor labor force (Table 8). In fact about 94 percent of all SSE enterprises used no outside labor (i.e., hired and apprentice labor).

On the other hand, since two-thirds of all SSE activities are one-person operations (just the owner/operator), about 60 percent of the total labor force is accounted for by proprietors. Hired workers and apprentices account respectively for 6 only and 4 percent of the total labor force. Since entry barriers are generally minimal and skill requirements simple, many people probably prefer to have their own SSE activity to working for somebody else. For this reason, it is likely that competition is intense and income low in some crowded enterprise types. On the other hand, the low percentage share of outside labor on the total employment may be a reflection of the low level of development of Zambian SSE. For example, in the SSE manufacturing subsector the share of outside employment (i.e., hired and apprentices) is only 7.6 percent in Zambia; the corresponding shares in Jamaica, Honduras, Egypt, and Sierra Leone are respectively 43, 37, 36, and 59 percent.[1]

The proprietor and family members provide for 91 percent of the total labor force in the rural SEAs; the corresponding figure for towns is about 86 percent. Also, there are twice as many hired workers per enterprise in the small towns compared with the rural SEAs; this is so although the small town enterprise employment is on average only 7 percent larger than found in the rural SEAs.

---

[1]Fisseha (1985), op. cit.

TABLE 8. CHARACTERISTICS OF THE SMALL SCALE ENTERPRISE (SSE) LABOR FORCE BY INDUSTRY GROUPINGS

Enterprise Groupings	Total SSE Employment	Category of Workers (%)				
		Proprietor	Family Member	Hired Worker	Apprentice	All
Garment	11,740	73.1	15.2	0.8	10.9	100
Forest-Based	89,606	63.6	21.4	7.1	7.9	100
Metals	10,347	74.8	13.3	0.7	11.2	100
Repairs	3,190	70.9	6.1	9.8	13.2	100
Foods	14,341	50.7	38.7	7.0	3.6	100
Traditional Beers	123,937	65.4	33.5	0.5	0.6	100
Sweet Beer	8,504	63.6	33.0	0.1	3.3	100
Leather	1,454	84.4	11.3	0.7	3.6	100
Ceramics	6,540	67.5	26.0	2.0	4.5	100
Other Manufacturing	407	84.5	4.4	9.8	1.3	100
Total Manufacturing	270,066	64.9	27.5	3.2	4.4	100
Restaurants	767	20.6	15.0	63.8	0.6	100
Bars/Taverns	4,184	31.4	24.6	43.9	0.1	100
Trading	14,049	48.7	28.1	22.6	0.6	100
Other Services	11,045	28.7	10.5	49.2	11.6	100
Total Services	30,045	38.2	20.8	36.4	4.6	100
Vending	42,782	69.6	26.7	2.5	1.2	100
GRAND TOTAL	342,893	63.2	26.8	6.0	4.0	100

Source: 1985 SSE Study.

The difference in labor types between the strata may be explained by the difference in locality specific enterprise type concentrations. Thus, repairs, which are relatively insignificant in the rural SEAs, hire about 10 percent of the labor force compared to 1 percent for beverages which are dominant in the SEAs. Close to half (over 48 percent) of the labor force in catering and other services are hired workers (Table 8); this is not surprising as such enterprise groups include bigger enterprise types such as restaurants and construction works. With over 20 percent, trade has also a high proportion of its labor force as hired workers. Enterprise groups with very little hired workers include garments, leather, metals and beverages; when these are disaggregated into enterprise types, they correspond with knitting, shoe repair, tinsmith and traditional beer brewing.

In some countries the apprenticeship system is an important source of labor for the proprietor and training for the apprentice. Thus, the proportion of proprietors who went through the apprenticeship system is 90 percent in Sierra Leone, 78 in Jamaica, 52 in Honduras, 28 in Egypt and 25 percent in Bangladesh.[1] Consistent with the situation in many West African SSE activities, apprentices in Sierra Leone accounted for 42 percent of the total labor force. By accounting for less than 5 percent of the total SSE labor force, the apprenticeship system in Zambia can be described as weak except in repairs, metals and garments. The data are not available to assess its constraints and potential contributions in the development of the Zambian SSE sector.

---

[1]See Fisseha (1985), op. cit.

Finally, it should be pointed out that 0.8 percent of the enterprises are owned by absentee entrepreneurs. They are usually run by hired workers or family members.

4.3. Distribution of Enterprises by Size of the Labor Force

From the size of their labor force, Zambian SSE activities are very small outfits (Table 8). The average size is 1.62 workers per enterprise as a whole (and 2.61 for services, 1.59 for manufacturing and 1.44 for vending). Two-thirds of all the enterprises are one-person operations and another 17.9 percent are two-person operations. The percentage of surveyed enterprises that employ 10 to 50 persons is very small for each of the subsectors and when translated into raw numbers it works out to 510 enterprises in manufacturing for the survey areas (or about 824 nationally), 391 in services (or 627 nationally) and none for vending. The total number of surveyed enterprises with employment above 20 in these areas was only 60 (or about 100 nationally).

While the majority of the enterprise groups employ one person per enterprise (usually the proprietor), services tend to employ two people or more each (see Table 9). Thus close to 85 percent of the catering enterprises and a little less than half of those involved in trade employ two people. Relatively bigger enterprises are found in catering, 'other services,' trade and foods.

The highest number of workers in each enterprise group is as follows: trade (47 people), other services (37), catering (35), ceramics (32), garments (28), forest-based (23), leather (17), repairs (15), metals (12) and other manufacturing (10). All of these enterprises were found in the towns (small towns and rural townships combined). The highest number found

TABLE 9. DISTRIBUTION (%) OF THE SMALL SCALE ENTERPRISES (SSE) BY THE SIZE OF THEIR LABOR FORCE

Enterprise Groupings	Labor Force Size Ranges (Overall)			
	1	2-5	6-9	10+
Garment	77.7	21.4	0.7	0.2
Forest-Based	69.5	28.0	1.6	0.9
Metals	78.8	21.1	0.1	0.0
Repairs	82.2	16.1	1.2	0.5
Foods	48.8	47.9	2.9	0.4
Traditional Beers	68.1	31.2	0.7	---
Sweet Beer	68.9	28.4	2.7	---
Leather	86.0	13.8	0.0	0.2
Ceramics	70.7	29.1	0.0	0.2
Other Manufacturing	91.2	7.5	0.8	0.5
Total Manufacturing	68.9	29.6	1.1	0.4
Restaurants	9.6	64.5	18.1	7.8
Bars/Taverns	11.0	86.2	2.2	0.6
Trading	48.1	47.3	1.4	3.2
Other Services	34.0	47.9	13.4	4.7
Total Services	38.7	52.8	5.1	3.4
Vending	68.7	31.0	0.3	---
GRAND TOTAL	68.2	30.4	1.1	0.3

Source: 1985 SSE Study.

in the rural enumeration areas (SEAs) was 19 for the forest-based enterprise group which already has a higher number of 23 in the towns. The highest number for services was in construction.

There is not much difference between the three strata with respect to the enterprise size distributions. For example, the proportions of enterprises that are only one person operations are 61.6, 64.0 and 68.3 percent respectively for the small towns, rural townships and the rural SEAs. Their corresponding percentages for the employment of up to 10 people is respectively 99.3, 98.77 and 99.3. Although Zambian SSE activities are small, their size distribution is not that different from what one finds in other less developed countries.

From a policy intervention point of view, one can raise size distribution related questions such as the following: What are some of the size specific current and potential constraints faced by the Zambian SSE sector? Is it as a whole capable of absorbing certain resources and services to expand and grow? If not, what are the characteristics of the capable ones and what is the best means of reaching them? This study was not directly designed to answer such questions but it does help one to raise them and hopefully to carefully design future studies that address them.

4.4. Small Scale Enterprise Employment on Full-Time Equivalent Basis

The level of labor force participation in the SSE activities depends not only on the number of months worked per year, but also on the number of hours per day or the number of days per week during the working season. To the extent that children do not work as much as adults, the total employ-

ment picture could also change due to a substantial number of working children.

In the present survey, anyone who worked less than half of the working time was considered as a part-time worker. Children were defined as those below the age of 14.

Generally the rate of work participation or effective employment among the SSE activities was very high (Table 10). Thus, on average, each enterprise was operated for about 11 months. The average number of months worked in each of the three population strata are 11.4, 11.2 and 10.7 respectively for the small towns, rural townships and the rural SEAS. Except for traditional beer brewing and vending (both due to their rural components), all the other enterprise groups were operated at least for 11 months. With 6 months worked per year, logging had the shortest season of production; among the rest, only beer brewing, woodcarving, and construction were operated for about 10 months; all the other enterprise types were operated at least for 11 months.

There were only 10.4 and 4.1 percent respectively part-time and children workers for the SSE subsector as a whole. There is little difference between the proportion of part-time workers among the three subsectors. On average vending had twice as many children than manufacturing and 66 times more than services.

The average size of part-time workers per enterprise was 40 percent higher in the towns (i.e., both small and rural towns combined) than in the rural SEAs. For children, the town figure was higher by a full two-thirds. The proportion of part-time workers as a proportion of all workers is 9.8 and 10.7 respectively for the towns and the SEAs; the corresponding figures for children are 5.7 and 3.6 respectively. Because of vending activities,

TABLE 10. INTENSITY OF PARTICIPATION OF THE LABOR FORCE IN SSE ACTIVITIES

Enterprise Groupings	Months Worked per Year	Percentage of Employment	
		Part-time	Children
Garment	11.1	4.3	1.8
Forest-Based	11.2	9.0	2.1
Metals	11.5	7.1	2.7
Repairs	11.3	2.1	0.0*
Foods	11.3	9.9	6.0
Traditional Beers	10.1	14.4	5.3
Sweet Beer	11.2	9.8	6.7
Leather	11.3	1.8	9.9
Ceramics	11.2	2.5	0.0
Other Manufacturing	11.8	0.1	---**
Total Manufacturing	10.7	11.0	3.9
Restaurants	12.0	4.6	---
Bars/Taverns	11.3	4.6	---
Trading	11.5	6.5	0.1
Other Services	10.2	15.7	0.0
Total Services	11.1	8.8	0.1
Vending	10.9	7.6	6.6
GRAND TOTAL	10.7	10.4	4.1

Notes: * less than 0.1%.

** no children were enumerated.

Source: 1985 SSE Study.

there are relatively more children involved in the towns than in the rural SEAs.

Table 11 presents the magnitude of employment after adjusting for part-time and children workers as well as for seasonal variations. It converts the total unadjusted employment figure of Table 6 into a full-time equivalent number. In order to make the conversion an adjustment factor derived from the annual number of months of work and the number of part-time and children workers was used. Thus, each full-time equivalent worker is equated to 4 part-time or 2 children workers; adjustment for seasonality employs the fraction of a year that the SSE activity is usually operated. If the enterprise is operated for 12 months, then no seasonal adjustment is required.

As a result of the adjustment, the overall employment figure now declines to about 292,000 full-time equivalent adult workers, an average reduction of 15 percent. Locationally, the highest percentage reduction occurs in the SEAs (15.5 percent) followed by the rural towns (12.6) and the small towns (11.5). There is not much difference in the percentage reduction among the subsectors, either at the overall level or within a stratum.

Among the enterprise groups, the highest reduction occurs in the 'other services' (20.3 percent), followed by traditional beers (18.0) and garments (15.9). The high reduction rates for these three groups is mainly due to some seasonal activities found in the rural areas, such as respectively construction, traditional beer brewing and knitting. The enterprise groups least affected by such adjustment are restaurants (1.7 percent), 'other manufacturing' (3.0) and ceramics (7.8).

TABLE 11. MAGNITUDE OF THE SSE LABOR FORCE ON FULL-TIME EQUIVALENT BASIS

Enterprise Groupings	Population Strata							
	Small Towns		Rural Towns		SEAs		Overall	
Garment	1,625	84.9	1,733	78.6	6,511	85.4	9,869	84.1
Forest-Based	1,218	85.8	1,685	89.9	73,565	85.2	76,468	85.3
Metals	320	91.7	270	90.0	8,451	87.1	9,041	87.4
Repairs	583	89.0	528	88.7	1,662	85.7	2,773	86.9
Foods	1,748	83.0	2,410	85.7	8,728	92.6	12,886	89.8
Traditional Beers	2,110	88.4	4,360	89.0	95,177	81.6	101,647	82.0
Sweet Beer	447	89.8	798	84.9	6,234	88.2	7,479	88.0
Leather	153	96.8	145	77.1	970	87.6	1,268	87.2
Ceramics	138	63.3	73	83.0	5,819	93.3	6,030	92.2
Other Manufacturing	53	96.4	65	86.7	277	100.0	395	97.0
TOTAL Manufacturing	8,395	86.0	12,067	86.4	207,394	84.2	227,856	84.4
Restaurants	322	98.5	432	98.2	----	----	754	98.3
Bars/Taverns	420	86.6	355	94.9	3,048	91.7	3,823	91.4
Trading	3,138	89.4	3,165	87.6	6,512	94.0	12,815	91.2
Other Services	282	81.7	212	68.4	8,312	80.0	8,806	79.7
TOTAL Services	4,186	87.4	4,164	85.7	17,872	86.6	26,012	86.6
Vending	9,868	90.5	9,225	88.7	18,426	85.8	37,519	87.7
GRAND TOTAL	22,425	88.5	25,456	87.4	243,692	84.5	291,573	85.0

Source: 1985 SSE Study.

Finally, it should be noted that even after making allowance for part-time, child or seasonal works found there, the SSE sector employment contributes as much as 75% as employed in all the formal sector (or 80% if the formal agricultural sector is excluded).[1]

4.5. Employment in Small Scale and Large Scale Industries Compared

Small scale rural industries (i.e., manufacturing) provide almost four and a half as much employment as the registered or large scale ones; for while the latter employs only 59,000, the former has a labor force of almost 263,000. Table 5 compares the number of large and small scale enterprises and the employment opportunities they provide. The size of the labor force in the small scale industrial (SSI) subsector could be higher if large urban centers were included. This goes to underline the great potential for employment and income generation which SSEs may have.

Whereas beverages account for only 6.5% of the employment among large scale industries (LSI) they provide 50% of the total employment opportunities offered by the small scale industrial subsector. On the other hand, large scale industries involved in food provide 28% of the employment in this subsector as against 6% in the small scale subsector. In fact food based industries provide the largest labor force in the large scale subsector whereas it is fourth in the small scale subsector, that is, after beverages, 'other forest' products and wood and furniture.

Forest-based industries employ more than 31% of the total labor force engaged in all SSI; they provide only 10% in the large scale industries (Table 5). Forest-based SSI activities are concentrated in the rural areas

---

[1]For size of the formal sector see CSO (1984B, p. 10).

and not in the small towns and townships. In particular the heaviest concentrations are in the North-Western, Western and Eastern Provinces.

Large scale manufacturing enterprises (LSIs) employ proportionately more people in electrical and chemical industries than small scale ones. Thus whereas chemical enterprises take 12 percent of the employment offered by LSIs, they provide only 0.01 percent employment in the SSI subsector.

As Table 5 shows, the SSI group accounts for over 99 percent of all industrial or manufacturing enterprises (i.e., both small scale and large scale combined) and for 82 percent of the employment found there. In 9 out of the 13 industrial or enterprise groups, the SSI provide more than half of the employment and in 4 of them, it provides over three-fourths of the employment. The SSI employment is particularly dominant in beverages, wood/furniture and the 'other forest-based' products and to some extent in metals and non-metallic minerals.

It is estimated that the Zambian labor force is growing at 3.5% per annum (ILO, 1982). However, the annual wage employment growth rate is only 1.1% and if the wage employment is to absorb the total annual increase in the labor force, it must grow by about 17% per annum (ibid.) -- a rate not likely to be achieved even in the best of times. Furthermore, wage employment has been declining during the second half of the 1970s -- from 393,000 in 1975 to 368,000 in 1982 (CSO, 1984A, p. 32). On the other hand, although no hard or comprehensive data exist, the informal sector is estimated to be growing at 8-12 percent per year. The rate 8.12% is probably an overestimate however when viewed against rates in other country studies.

Promoting employment in the SSE in general and the SSI in particular would appear to make both social and economic sense. Before one can start

promoting the SSE or SSI activities, however, it is vital to know where the direct or indirect potential employment growth lies. This would involve a clearer understanding of the constraints and opportunities facing the small scale enterprises and the kind of resources and services they would require.

V. THE ROLE OF WOMEN IN THE ZAMBIAN SSE SECTOR

The role of women in enterprise ownership and employment participation in the Small Scale Enterprises (SSE) sector is of special interest. These two opportunities could enhance their economic independence through the generation of employment and income in SSE activities. They acquire business management skills through on-the-job training experience. Above all, they earn income for the support of their families and dependents.

Historically, certain economic activities in the formal sector are not readily accessible to women as they are to their male counterparts. This could be due to lack of skill, time, finance or just cultural habits excluding them from participation in such activities.

By contrast, skill and capital requirement in the informal sector is usually minimal and the schedule of labor requirement may easily accommodate other family chores especially if the business can be operated from the home. All this is relative, of course, because the smallest capital requirement, for example, may be an effective barrier to entry even in the SSE sector. Also, there are certain activities even in the SSE that are not yet open to women either as proprietors or workers. By and large, though, the SSE sector is increasingly providing more employment and ownership in business than the formal or large scale sector.

The role of Zambian women in SSE ownership and employment is shown in Table 12. Overall, they account for 60 percent of the ownership in SSE activities and 54 percent of the employment. They are particularly dominant in beverages, ceramics, garments and vending in that order. Their representation is very low in leather, repairs and metals. Even in basket/mat making, which accounts for 60 percent of the forest-based

TABLE 12. THE MAGNITUDE OF FEMALE PARTICIPATION IN THE SMALL SCALE ENTERPRISE (SSE) SECTOR

Enterprise Groupings	Shares (%) of Females in Ownership and Employment Within Each SSE Group							
	Small Towns		Rural Towns		SEAs		Overall	
	Ownership	Employment	Ownership	Employment	Ownership	Employment	Ownership	Employment
Garment	80.6	74.9	80.0	80.5	74.4	73.2	74.6	73.3
Forest-Based	14.1	12.3	23.1	18.8	11.6	12.0	11.8	12.1
Metals	6.9	7.7	6.4	3.4	5.6	4.3	5.6	4.3
Repairs	5.1	6.7	4.9	2.5	0.0	0.0	0.1	0.1
Foods	86.3	64.4	78.0	58.7	68.8	51.5	69.2	51.8
Traditional Beers	98.2	89.5	98.3	91.4	98.7	91.1	98.7	91.1
Sweet Beer	99.1	93.3	99.2	90.1	90.6	78.4	90.8	78.8
Leather	1.3	4.4	0.0	0.0	0.0	0.0	0.0	0.1
Ceramics	21.9	14.5	33.3	31.4	93.5	86.7	91.6	84.9
Other Manufacturing	6.3	21.2	0.0	3.3	0.0	0.0	0.1	0.3
TOTAL Manufacturing	70.8	58.4	74.3	65.5	62.2	56.2	62.7	56.6
Restaurants	51.4	54.6	28.1	42.0	----	----	37.4	47.0
Bars/Taverns	26.7	28.5	26.8	41.6	11.1	16.7	11.6	17.0
Trading	42.4	38.7	36.3	31.4	31.0	24.0	31.2	24.0
Other Services	20.2	12.0	9.1	2.4	4.8	8.0	5.1	8.0
TOTAL Services	39.8	36.7	33.6	31.2	18.6	14.8	22.0	17.7
Vending	84.2	74.5	82.5	73.6	58.6	59.4	59.3	59.8
GRAND TOTAL	74.1	61.1	73.7	62.5	59.9	53.6	60.3	53.8

Source: 1985 SSE Study

enterprises, they account only for 12 percent of the ownership. Their involvement in catering as owners is also low (14 percent) but this is probably not due to lack of acumen for trading on their part as can be seen from their wide involvement in trading and vending. These differences may be due to some enterprise groups requiring more skills not yet found among females or due to some enterprises being in traditional male professions.

Major enterprise types from which they are almost totally absent (less than 5 percent) in ownership are logging, pitsawing, carpentry, woodcarving, tinsmith, electronic repair, bicycle repair, brick making, shoe making, and construction. Major enterprise types of which they account for over 90 percent of the ownership are knitting, beer brewing, and pottery. They also account for over three-fourths of the ownership in confectionery (sweets) and food vending.

Women tend to dominate in employment those enterprise groups that they dominate in ownership. The coefficient of correlation between the two variables is 0.99. However, in each enterprise group the proportion of female employment is always less than that for ownership, except in catering, which may mean that enterprise groups are generally more open to female ownership than female employment. The average number of females in the total labor force was 8 times greater in female owned enterprises than in the male owned enterprises.

At the enterprise type level, the following are prominent in female employment: beer brewing (90 percent of all workers), pottery (90), knitting (80), food vending (70), confectionery or sweets production (67), bakery (46) and food retail (34). Among the least female employers are car repair (4 percent) and basket/mat making (17). In fact, female employment in beer brewing is so dominant that if it is excluded from Table 12, the

proportions of female employment and ownership in the SSE sector fall respectively to 18 and 40 percent (from 54 and 60 percent respectively as given in Table 12); and in the manufacturing subsector, their proportions fall to 27 and 30 percent respectively.

The proportion of all SSE enterprises owned by women in the small towns and rural townships is identical, 74 percent. By contrast, the proportion in the rural standard enumeration areas (SEAs) is only 60 percent. This difference is primarily due to vending activities (with a high female ownership share of 59.4 percent nationally), which accounts for 40-50 percent of all SSE activities in the towns.

Enterprises owned by females tend to be small. The average size of the labor force in a female owned enterprise was 18% less than the corresponding size in male owned enterprises. They account for 64 percent of all enterprises with a labor force of up to 5 but only 44 percent of those with 10 workers or more. They tend to have less part-time but more child workers compared with their male counterparts. And thus they have more of their family members involved in the enterprise -- average size for family workers per enterprise was 0.5 for females compared with 0.4 for males. Also only 0.4 percent of them had any powered machinery compared with 1.5 percent for males. Although males tend to work a littler longer in the year than females, the difference is less than 10 percent. Interestingly enough, not only is the SSE activity not the major source of income for three-fourths of the females (compared to one-half for males) but over 90 percent of them (87 for males) do not have another SSE activity as a secondary source of income. Agriculture or the outside employment of other family members may be the main source of additional family income.

The 1980 population census showed that the proportion of female workers in the formal sector was only 7.6 percent.[1] Assuming this proportion still holds, it means that the SSE sector employs five and one half times as many full-time equivalent female workers (151,500 to 28,000) as does the formal sector. In fact, since the formal sector figure makes no adjustment for part-time labor and since the present survey did not include enterprises in the major towns and rural areas in Lusaka and the Copperbelt, the magnitude of the female employment should be much higher than indicated here -- proportionally about 202,000, or seven times that of the formal sector.

Compared with other countries where similar studies have been carried out, the proportion of Zambian small scale manufacturing (SSI) enterprises owned by females is on par with Honduras but higher than in Bangladesh (3 percent), Egypt (43) and Jamaica (49).[2] The proportion of female employment is also much higher in Zambia than elsewhere. If traditional beer brewing is excluded however, the proportions are again consistent with the other countries.

---

[1]CSO, Selected Socio-Economic Indicators, Lusaka, 1984.

[2]See Fisseha (1985), op. cit.

VI. SOME BASIC CHARACTERISTICS OF ZAMBIAN SMALL SCALE ENTERPRISES

6.0. Introduction

The success of providing technical or financial services to small scale enterprises may depend on the ability of these enterprises to meet certain rudimentary business requirements. This chapter will discuss a few of the basic characteristics shown in Table 13.

6.1. Enterprise Characteristics

The typical SSE enterprise is small with an average 1.62 individuals engaged in the business. The small size of labor force among small scale enterprises is not unique to Zambia. The average SSE employment size is 2.2 in Jamaica, 1.6 in both Honduras and Egypt and 1.9 in Sierra Leone. Out of the total Zambian SSE activities two thirds of them are one-person operations. It should be noted however that there are probably about 30,000 small scale industrial (SSI) or manufacturing enterprises in the sampled localities (48,000 nationally) with employment of three or more and about 6,000 with five people or more (or 10,000 nationally).

Hired workers account for only 11 percent of the SSE labor force in the towns (i.e., both small towns and rural townships) and 5 percent in the rural enumeration areas. In absolute numbers this translates respectively into 6,000 and 14,000 workers for the survey areas. For the nation as a whole the corresponding numbers could be 30,000 and 15,000 respectively .[1]

---

[1]The estimation of these numbers assumes that the average employment size in the large urban areas and the rural localities of Lusaka and the Copperbelt (areas not covered in the survey) are the same respectively as that for the smaller towns and the rural SEAs.

TABLE 13. SOME BASIC CHARACTERISTICS OF THE SMALL SCALE ENTERPRISE (SSE) SECTOR

Population Strata	Small Towns	Rural Townships	Rural SEAs	All Strata
Characteristics:				
A. From main questionnaire				
1. Average number of workers per enterprise	1.77	1.69	1.61	1.62
2. Hired workers as a percentage of total workers	12.6	9.1	5.0	6.0
3. Proportion of SSE activities providing				
(a) major income (%)	59.6	54.5	30.1	34.1
(b) minor income (%)	38.4	43.7	67.1	63.2
4. Number of months worked in a year	11.4	11.2	10.6	10.7
5. Enterprises operating from				
(a) the home (%)	21.8	25.6	53.8	49.3
(b) the homestead (%)	12.1	14.6	31.9	29.2
6. Enterprises with				
(a) permanent workshop (%)	33.6	34.1	20.0	22.1
(b) open space (%)	63.9	62.3	77.3	75.2
7. Enterprises with powered machines (%)	1.7	1.2	0.5	0.6
B. From supplementary inquiry (of 333 cases)				
8. Age of enterprise (years)	7.4	8.6	10.3	8.6
9. Age of proprietor (years)	36.0	36.3	39.2	36.8
10. Proprietor started SSE activity from scratch (%)	85.7	88.5	78.3	85.7
11. Enterprises naming raw material as a problem (%)	58.6	56.3	37.3	53.2

Source: 1985 SSE study and a concurrent supplementary survey of 333 respondents.

Whether an enterprise is the major source of household income or not may indicate the level of attention the proprietor gives to it. Nationally, about a third of the enterprises are the major sources of family income. Generally, SSE activities become more important in household income as one moves from the rural areas to the urban localities and from the smaller enterprises to the larger enterprises. Thus, they are the major source of income in 60 and 55 percent of the cases respectively in the small towns and rural townships but only 30 percent in the rural SEAs. Agricultural activities may be the major source of income for the latter. Also, in the small towns, 59 percent (30 percent for the SEAs) of the enterprises with employment of 5 people or less were the main source of income for their proprietors. The corresponding percentage for those with employment greater than 9 is 76 percent (37 percent for the SEAs).

At the enterprise group level, the SSE activities are the major source of income for at least half of the service and vending proprietors. For the manufacturing groups, almost none of them show at least half of their components being the main sources of income. In the case of the beverages, only about one fourth of them are the main source of income.

It was indicated in Chapter IV that the rate of the labor force participation in SSE activities depends not only on the number of hours per day or the number of days per week but on the number of months per year as well. Table 13 shows that the average number of months worked per year for all the SSE activities is about 11 months. There is not much difference in this between the towns and the rural SEAs. Thus, SSE activities are almost a year long occupation for their operators.

An enterprise that is operated from a separate workshop structure or premises may be expected to be comparatively more developed than one

operated right from the home. This could be a sign of proprietor commitment and a larger volume of business operation. Over three-fourths of the SEA enterprises are operated from the home or the homestead while this figure falls to two-fifths in the rural townships and to a third in the small towns. At the enterprise group level, a third or less of all the service and vending activities tend to be operated away from the home/homestead. For the manufacturing groups, almost all of them show over three-fourths of their respective members operated from the home/homestead. Garments, metals, traditional beers and ceramics are typically home-based activities with over 90% of their members being operated from the home/homestead. Generally if an enterprise is operated from the home, it tends not to be the main source of income.

Similarly, workshop structure could also serve as an indication of business permanency and development. The percentage of enterprises with a permanent (e.g., cement, brick, metal or baked mud) workshop structure generally falls from the rural SEAs to the towns. This is mainly due to the fact that the rural enterprises tend to be operated from the home, which is a permanent structure. What is interesting is that about three-fourths of the enterprises are operated in the open space, e.g., under a tree; even in the towns this proportion is about 60 percent. Another 2-3 percent operate from temporary structures.

The proportion of enterprises with powered machines is less than one percent at the national level but close to two percent in the small towns. Thus, the vast majority of the enterprises use manual labor for their operations.

The preceeding town-rural differences of basic characteristics translate into large-small enterprise differences. Thus, the enterprise

is a major source of income for 35 percent of the owners with a labor force up to 5 compared to 65 percent for those with employment greater than 10; about a fifth of the smaller firms have the enterprise located away from the home compared to more than one-half for the larger ones; about a fifth of the former have permanent workshops compared to a third for the latter; and less than 1 percent of the former use powered machines compared to 6 percent for the latter.

Table 13 also presents information obtained from field observations or informal inquiry of 333 SSE activities throughout the country. The data are not part of the main questionnaire. Rather, the enterprises were interviewed randomly (not in the statistical sense) for a few minutes throughout the field work whenever time was available to do so in between the regular enumeration. Thus the information from this informal inquiry should be taken as an indication of general tendencies rather than an outcome of a formal survey.

On average, SSE activities are about 9 years old (i.e., under the present owner) with the age increasing from 7 years in the small towns to 10 years in the rural SEAs. One can thus say that there seems to be a certain degree of permanence among the enterprises and that proprietors do not operate them temporarily as a stepping stone for more desirable occupations. On the other hand, the average age of the proprietor is about 37 years with rural proprietors tending to be older. These figures indicate that generally proprietors start their SSE activities when they are in their late twenties. And the large majority of them start the SSE activity from scratch (i.e., they do not inherit or buy it or start it in partnership).

The final entry in Table 13 shows the proportion of proprietors who described problems related to raw materials as the most serious one. The problem seems to be more serious in the towns than in the rural enumeration areas. While it may not be wise to be too specific from this supplementary inquiry, the large majority of the respondents said that outright shortage of (directly or indirectly) imported raw materials was the main feature of the problem. It may seem ironical that SSE enterprises which are supposed to be dependent of locally available raw materials should be handicapped due to shortage of imported raw materials. This is the typical problem of SSE enterprises though in countries such as Zambia facing a shortage of foreign exchange and its inequitable allocation.[1] It should be remembered that many SSE products may require small amounts of imported materials or materials made from imported ingredients. Thus, furniture requires, for example, nails, glue, varnish, sandpaper, screws and paints which may be imported or made from imported items. And when there is a foreign exchange constraint as exists in Zambia today, SSE production is affected by shortages of these imported materials even though the quantity required may be a tiny fraction of the overall raw material requirements of the enterprise. The national SSE sector requirement of imported items is also likely to be a small fraction of the demand by the large scale enterprises.

Problems related to transportation was the second most frequently mentioned after raw materials. Very close to it are constraints related to tools, spare parts and machinery which again can be traced to the foreign exchange constraint. The problems varied from total shortages to poor quality.

---

[1]See, for example, Fisseha (1985, p. 34).

With only 7 percent mentioning it, problems related to finance was fifth among eight major potential problems; this problem perception would have been higher if the survey had been linked to some financial agency. Finally, about 15 percent of the proprietors said they have no problem.

6.2. Bird's Eye View of Vendors

A very high percentage of the vendors enumerated in the present study are operating from permanent, officially approved (market) stands. Their method of business operation and merchandise handling is still subject to official disapproval and discouragement. Indeed, now and then one sees some controversial issues on vendors appearing in the daily papers of Zambia.[1]

With at least 30,000 enterprises (14% of the total SSE activity) and 43,000 workers (or 13% of the total SSE employment) in the sampled areas, vending activities are a very important part of the small scale enterprise sector, especially in the towns.

Average employment per enterprise is a mere 9 percent smaller than found in the SSE manufacturing subsector. They account for about 40-50 percent of all the town enterprises but only for 10 percent of those in the SEAs. Their corresponding employment contribution is respectively 39 and 7 percent. About a third of them employ two or more people and less than 0.5 percent employ more than 5 people. Vendors are identical in almost all characteristics to their manufacturing and service SSE counterparts.

Vending activities are the least understood (or appreciated) in

---

[1]See, for example, Zambia Daily Mail (Tuesday, August 13, 1985) or The Times of Zambia (Monday, July 22, 1985). For an international perspective on such activities, see Newsweek (June 24, 1985).

official circles. Although the business environment in which they operate may be different and difficult, they do manage to earn some income. By way of providing examples of their activities, the cases of six vendors are presented below along with estimates of their net revenue, which excludes the cost of family supplied capital and labor. All of them were interviewed in centralized market places where the large majority of vendors are found throughout the country.

(a) Vegetable Vendor (Mporokoso): Each day for 5 days she buys about a dozen heads of lettuce at K 0.20 each and sells them at K 0.40 each.[1] She has no other explicit expenses.

Revenue:	12 x K 0.40	K 4.80
Costs:	12 x K 0.20	K 2.40
Net revenue per day:		K 2.40
Net revenue per 5-day week:	5 x K 2.40 = K 12.00	

(b) Charcoal Vendor (Choma): She buys three bags of charcoal each week at K 6.00 a bag. Each bag is divided into (measured out in) 20 small tins each selling for K 0.50.

Revenue:	3 x 20 x K 0.50	K 30.00
Cost:	3 x K 6.00	K 18.00
Net revenue per week:		K 12.00

[1]See page 16.

(c) Chikanda Plant (Root) Vendor (Mansa): She spends two days to collect the produce from farmers and 4 days to sell it. She has no other explicit costs. She buys 2 tins of the plant at K 6.00 each and sells (vends) them at about K 15.00 each.

Revenue:	2 x K 15.00	K 30.00
Cost:	2 x K 6.00	K 12.00
Net revenue per week:		K 18.00

(d) Chikanda Cake Vendor (Mansa): She buys the chikanda root usually from a vendor and prepares chikanda "meal" cake which looks like uncooked sausages or 'polony.' She sells four cakes a week and each cake takes a day and a half to prepare and sell.

Revenue per day (one cake)			K 12.00
Costs:	Chikanda roots	K 3.00	
	Groundnuts	K 2.00	
	Spices	K 0.50	
	Council 'tax'	K 0.30	
	Other expenses	K 0.50	
Total Expense			K 6.30
Net revenue per day	K 12.00 - K 6.30		K 5.70
Net revenue per week	K 5.70 x 4		K 22.80

(e) Boiled egg vendor (Mbala): This is a partnership of 3 people who buy eggs from Lusaka (1,000 kms away) and sell them as boiled eggs in the market. Two of them make a trip to Lusaka once every two weeks and buy 75 crates of 30 eggs each. Each crate costs K 6.90 and each boiled egg is sold at K 0.40.

Revenue:	75 crates x 30 eggs x K 0.40		K 900.00
Costs:	purchase of eggs -- 75 x K 6.90	K 517.50	
	transportation to Lusaka -- 2 x K 51.90	K 103.80	
	charcoal to boil eggs	K 4.00	
	other expenses	K 20.00	

Total Expenses	K 645.30
Net Revenue: K 900.00 - K 645.40	K 254.70
Net revenue/partner: K 254.70/3	K 84.90
Net revenue/person/week: K 84.90/2	K 42.45

(f) Dry Fish Vendor (Mansa): Two people are involved in the work. The fish is bought fresh from Lake Mweru and sold dry. They operate from a market not recognized by the town council and hence pay no council tax. Each week one of them goes with K 300.00 to buy fresh fish at K 1.30 for five (a total of about 1154 fish). After they are dried, they are sold at K 2.00 for four.

Revenue: 1154/4 x 2		K 577.00
Costs: for 1154 (K 300/K 1.30 x 5) fish	K 300.00	
Transportation costs	K 43.00	
Food and lodging on trip	K 15.00	
Other expenses	K 15.00	
Total Costs		K 373.00
Net revenue for 2 weeks K 577 - K 373		K 204.00
Net revenue per week per person K 204/2/2		K 51.00

With the exception of the vegetable and charcoal vendors, the incomes of the other vendors are relatively respectable. The income levels would of course depend on the type of vending activity, the location of the activity and the ability of the proprietor to make correct business decisions to minimize costs and wastage and even to raise revenue. However, although a few have prospered through it, the importance of vending may not lie on the relative magnitude of net revenue it generates alone but on the opportunity of last resort employment and on the sense of purpose in life it imparts to the most needy among the SSE proprietors.

VII. SUMMARY AND RECOMMENDATIONS

Lack of information on the small scale enterprises (SSE) sector has been a critical problem in Zambia as the country attempts to address the possibility of raising incomes and employment in the sector. The objective of the present SSE survey was geared to redress this paucity of information so that effective and enlightened policy options and programs can be instituted for the sector.

The specific objective of the survey included information on the magnitude, composition, characteristics and geographical dispersion of SSE activities and their employment. This survey, which was conducted in 1985, covered all private non-farm enterprises with a total labor force of up to 50 people (including one-person operations) but did not include those without a fixed location of operations or those branches of parastatals and national corporations.

The survey covered all provinces except Lusaka and the Copperbelt; two major urban areas, Kabwe and Livingstone from the included provinces were also excluded from the survey as the focus was on rural and small urban localities. A random sample of localities consisting of 6 small towns (population between 12,000 and 50,000), 24 rural townships (population below 12,000) and 37 rural standard enumeration areas (SEAs) was used in the survey. During the survey about 51,000 households were contacted and 24 percent of them (34 percent in the towns and 24 in the SEAs) were found to have SSE activities resulting in the enumeration of close to 17,000 enterprises employing some 29,000 people (see Table 1). These were then 'blown up' or extrapolated to estimate the 'overall' or total numbers in the areas represented by the sample.

The results of the survey indicate that there are about 211,000 manufacturing, service (trade) and vending enterprises in those areas represented by the survey.[1] About 84 percent of these enterprises are found in the rural SEAs. About 80 percent are in manufacturing where manufacturing is broadly interpreted to include the repair of manufactured goods. The remaining are divided between services, 5 percent, and 'petty' vending, 14 percent.

The subsectoral and locational (stratum) distribution of these enterprises are given in the following table which is extracted from Table 3.

Subsectors	Small Towns	Rural Townships	Rural SEAs	Total for Surveyed Areas
Manufacturing	5,421	8,453	155,996	169,870
Service (Trade)	1,642	1,682	8,174	11,498
Vending	7,263	7,078	15,378	29,719
Total	14,326	17,213	179,548	211,087

If proportional estimates of those urban and rural localities not represented by the sample are made, it is calculated that there are roughly about 340,000 SSE activities throughout the country (i.e., nationally).

At the industrial or enterprise group level, traditional beer brewing enterprises dominate accounting for about 38 percent of the SSE sector. They are followed by forest-based enterprises (with 25 percent) and vending activities (14 percent). Metals are a distant fourth accounting for about 4 percent.

---

[1]When the figures refer to the areas represented in the sample, they are identified as 'overall;' when reference is occasionally made to the country as a whole, it is clearly specified and is described as 'national.'

The large majority of the SSE enterprises are very small. Two-thirds of them are one-person operations and 98.6 percent employ less than 6 people. On average the size of the number of people working in a SSE activity is only 1.62. Services have comparatively larger labor force (2.61) than manufacturing (1.59) which in turn exceeds that of vending (1.44). The labor force is also slightly bigger in the towns (1.73) than in the rural enumeration areas (1.61).

With an average of 11 months of operation per year, the people working in these enterprises are engaged almost the whole year. A little less than a third of the enterprises are the main source of household income for their owners. This percentage falls from a high of 60 in the smaller towns to 30 in the rural enumeration areas. In the latter localities, agriculture is presumably the main source of income.

Over half of the enterprises are operated from the home (not separate premises) and only a fifth have a permanent workshop structure. However, the proportion of enterprises that operate from the home rises from one fifth in the small towns to one half in the rural SEAs; by contrast, the permanent workshop figure falls from a third in the small towns to a fifth in the rural SEAs.

Being labor intensive by character, very few SSE activities have machinery. Only about 0.6 percent of the enterprises use any powered machines. The typical SSE activity is about 9 years old with rural tending to be older (10 years) compared to those from the small towns (7 years).

The greatest relative contribution of Zambian Small Scale Enterprises is in the employment area. The estimated 211,000 enterprises found in the localities represented by the survey provide a corresponding employment of 343,000 people. If adjustment is made for part-time and children workers,

the employment figure declines to 292,000 people. If the estimates are extrapolated for the whole nation, the SSE employment rate may be close to 575,000 people or about 472,000 full-time equivalent. This is almost double some previous estimates, which had indicated SSE employment was at most 300,000.

The subsectoral and locational (stratum) distribution of employment in the SSE sector is shown in the following extract from Table 6:

Subsectors	Small Towns	Rural Townships	Rural SEAs	Total for Surveyed Areas
Manufacturing	9,763	13,975	246,326	270,064
Service (Trade)	4,667	4,736	20,642	30,045
Vending	10,906	10,402	21,474	42,782
Total	25,336	29,113	288,442	342,891

About 84 percent of the total employment is found in the rural enumeration areas (SEAs), that is, outside the small towns and rural townships. The employment in the rural areas is dominated, however, by beverages (traditional beer brewing) to the extent that they provide more than 40 percent of the employment. Overall, beverages provide for 38 percent of the total employment and are followed by forest-based activities (26 percent) and 'petty' or informal sector vending (12). Thus, these three activities provide for about three-fourths of the total employment. Other activities with substantial employment are foods (4 percent), garments (3), trade (4) and metals (3). Like beverages in the rural SEAs, vending accounts for 39 percent of the employment in the towns; they are followed by beverages (16 percent), retailing or trade (13) and foods (9).

More than 60 percent of the labor force is accounted for by the proprietors (owner/operators) and another fourth by their family members. Hired workers and apprentices account respectively for 6 and 4 percent of

the employment.

On average the SSE activities operate for 11 months in the year. There is not much difference between population strata nor between industrial groups. Part-time and child labor each contributes respectively 10 and 4 percent of all the SSE labor force. Only in 'other services' and beverages does part-time work appear to be significant, accounting respectively for 16 and 14 percent of the labor force.

The role of women in Zambian SSE activities is very prominent. They account for 60 percent of the SSE activity ownership and 54 percent of the total employment. They own the majority of the enterprises in beverages (98 percent of the total), ceramics (92), garment (75), vending (59) and foods (69). By contrast, their ownership share is very low in repairs (0.1 percent) and metals (6).

In employment, women account for the majority of the labor force in beverages (90 percent of the total), ceramics (85), garment (73), vending (60) and foods (52). Generally, they contribute less to employment than they do to ownership.

If beverages are excluded, then females account for close to 40 percent of the 'overall' ownership and a third of employment. If the manufacturing subsector alone is examined after excluding beverages, women contribute about 30 percent both in ownership and in employment. Thus, women constitute an integral part of the small scale enterprise sector of Zambia. This is in line with the findings of similar studies done in other countries.

Finally, an interesting and useful question to answer would be how the small scale enterprises (SSE) sector stands relative to the large scale enterprises (or modern) sector. The necessary data are not available to

answer this question for all the subsectors nor do key indicators such as value added for the SSE sector exist. There is information however, to compare the relative magnitude of the number of enterprises and the size of the employment found both in the large-scale and small-scale **manufacturing** subsectors. In 1980, there were about 540 large-scale manufacturing firms (LSI) employing some 59,000 people nationally. These figures are not expected to have significantly increased by 1985 (in fact, they are expected to have declined). By 1985, the small scale manufacturing enterprises (SSI) sector in the surveyed areas had about 167,000 enterprises employing some 263,000 people. Thus the SSI sector is accounting at least for about 99.7 percent of the enterprises and 81.7 percent of the employment for all manufacturing. If the SSI sector was to include the areas not represented by the sample survey, the above two relative figures would be even higher. In fact, the 'overall' SSI sector accounted for over half of the employment in beverages, forest-based activities, jewelry, non-metallic minerals (e.g., ceramics), metals, leather, machinery, and garment. They showed insignificant contribution in chemicals and none in transport equipment. The SSE sector in general and the SSI sector in particular thus play a very important role in employment despite the fact that their contributions are in many cases officially underestimated.

APPENDIX A

Small Scale Enterprise Questionnaire: Zambia 1985

Page number _____

PROVINCE _____ ( )

DISTRICT _____ ( )

LOCALITY _____ ( )

STRATUM _____ ( )

ENUMERATOR _____

SUPERVISOR _____

DATE _____

# of hhs with no activity _____

Serial number	ENTERPRISE							Work-shop		USUAL NUMBER OF WORKERS								Propri-etor		Powered machines owned (e)
	Name of owner and business address	Primary				Secondary									Out of the total					
		Type	Code	Season-ality (a)	Family income source (b)	Type	Code	Location (c)	Structure (d)	Proprietor	Family	Hired	Non-cash assistants	Total	Female	Part-time	Children	Female (e)	Expatriate (e)	

[a] number of months; / [b] major, minor, same; / [c] 1. home, 2. separate building, homestead, 3. away; / [d] 1. permanent, 2. temporary, 3. open / [e] 1. yes, 2. no

APPENDIX B

A. Small Towns

1. Choma
2. Kasama
3. Monze
4. Mongu
5. Mansa
6. Solwezi

B. Rural Townships

1. Isoka
2. Chinsali
3. Chizera
4. Nega Nega
5. Limulunga
6. Kacholola
7. Mulobezi
8. Maamba
9. Luwingu
10. Kansanshi Mine
11. Chadiza
12. Kasempa
13. Kabompo
14. Mbala
15. Batoka
16. Sesheke
17. Katete
18. Mporokoso
19. Lundazi
20. Kalabo
21. Samfya
22. Zambezi
23. Kalomo
24. Mbabala

C. CSO Identification Numbers of Rural Standard Enumeration Areas (SEAs) [and their districts]

1.	#002/04	(Serenje)	15.	#021/02	(Chinsali)
2.	#018/03	(Serenje)	16.	#030/01	(Chinsali)
3.	#039/02	(Kabwe R.)	17.	#013/05	(Isoka)
4.	#035/03	(Samfya)	18.	#030/04-5	(Kasama)
5.	#009/1-4	(Chama)	19.	#023/05	(Mbala)
6.	#083/2-3	(Petauke)	20.	#016/03	(Mporokoso)
7.	#060/02	(Lundazi)	21.	#043/05	(Choma)
8.	#035/0-2	(Mongu)	22.	#010/3-4	(Kalomo)
9.	#018/1-2	(Samfya)	23.	#009/01-2	(Monze)
10.	#011/05	(Nchelenge)	24.	#010/03	(Monze)
11.	#016/05-6	(Mwense)	25.	#015/01	(Namwala)
12.	#007/03	(Luwingu)	26.	#005/02	(Kaoma)
13.	#005/02	(Chinsali)	27.	#025/01	(Kaoma)
14.	#018/02	(Chinsali)	28.	#012/01	(Kalabo)

APPENDIX C

Enterprise Groupings and Their Enterprise Types

1. Garments

Tailoring
Dressmaking
Knitting
Crocheting
Other Garments

2. Forest-Based

Logging
Motor sawmilling
Pitsawing
Carpentry
Furniture
Upholstery
Carving
Basket/mat-making
Charcoal
Bamboo-cane
Twine/rope
Other forest-based

3. Metals

Coppersmith
Tinsmith
Blacksmith
Welding
Other metals

4. Repairs

Auto
Tire
Bicycle
Electronic
Jewelry/watch
Other repairs

5. Foods

Bakery
Meat processing
Milk processing
Condiments
Grain mill
Confectionery
Other foods

6. Beverages

Traditional beer brewing
Sweet beer brewing
Tea

7. Leather

Shoemaking
Leather
Other

8. Ceramics

Pottery
Bricks
Blocks
Stone carving
Other

9. Other Manufacturing

Chemicals
Photo studio
Printing
Other

10. Catering

Restaurants
Bars/taverns
Hotels

11. Trade

Wholesale
Grocery
Hardware
Forest products
Garments
Other retail

12. Other Services

Dry cleaning
Hair dressing
Construction
Plumbing
Others

13. Vending

Food
Grains
Garments
Forest products
Metals

Bibliography

Badr, Mahmoud, Nadia el Sheikh, James Seale, Stephen Davies, Abdel Azim Mostafa and Abdel Rahman Saidi. 1982. "Small Scale Enterprises in Egypt: Fayoum and Kalyubiya Governorates Phase I Survey Results," Michigan State University Rural Development Series Working Paper No. 23. East Lansing: Michigan State University, Department of Agricultural Economics.

Bardouille, R. 1981. "Women's Economic Participation in the Urban Informal Sector." Lusaka: Institute for African Studies, University of Zambia.

Central Statistics Office. 1984a. Country Profile: Zambia. Lusaka: Central Statistics Office.

_____. 1984b. Selected Socio-Economic Indicators. Lusaka: Central Statistics Office, National Commission for Development Planning.

_____. 1983a. Census of Industrial Production, 1980. Lusaka: Central Statistics Office.

_____. 1983b. Report on Employment and Earnings: 1980. Lusaka: Central Statistics Office.

_____. 1981. Preliminary Report: 1980 Census of Population and Housing. Lusaka: Central Statistics Office.

Chuta, E. and Carl Liedholm. 1979. "Rural Non-Farm Employment: A Review of the State of the Art," Michigan State University Rural Development Series, Working Paper No. 4. East Lansing: Michigan State University, Department of Agricultural Economics.

Christie, Malcolm. 1974. "The Informal Sector: Its Role in Economic Development," unpublished mimeo. Lusaka.

Davies, Omar, Yacob Fisseha and Claremont Kirton. 1979. "Small Scale Non-Farm Enterprises in Jamaica: Initial Survey Results," Michigan State University Rural Development Series, Working Paper No. 8. East Lansing: Michigan State University, Department of Agricultural Economics.

Fisseha, Yacob. 1985. The Contribution of Small-Scale Forest-Based Processing Enterprises to Rural Non-Farm Employment and Income in Selected Developing Countries. Rome: FAO.

Fisseha, Yacob and Omar Davies. 1981. "The Small-Scale Manufacturing Enterprises in Jamaica: Socio-Economic Characteristics and Constraints," Michigan State University Rural Development Series, Working Paper No. 16. East Lansing: Michigan State University, Department of Agricultural Economics.

Government of Zambia. 1981. "The Small Industries Development Act, 1981, No. 18." Lusaka.

Haggblade, Steve. 1984. "The Shebeen Queen," Ph.D. dissertation. East Lansing: Michigan State University, Department of Economics.

Haggblade, S., Jacques Defay and Bob Pitman. 1979. "Small Manufacturing and Repair Enterprises in Haiti: Survey Results," Michigan State University Rural Development Series Working Paper No. 4. East Lansing: Michigan State University, Department of Agricultural Economics.

Haan, Hans C. 1982. "Some Characteristics of Informal Sector Businessmen in Lusaka and Kitwe, Zambia." Lusaka: ILO World Employment Programme.

ILO/JASPA. 1981. Basic Needs in an Economy Under Pressure: Zambia. Addid Ababa: International Labour Organization/Jobs and Skills Programme for Africa.

ILO/SATEP. 1982. Southern Africa Team for Employment Promotion (SATEP): The Urban Informal Sector in Zambia -- A Programme for Action. Lusaka: International Labour Office.

Kelley, John C. and Louis Coronado. 1979. "A Profile of Rural Small Industries in Selected Areas of Honduras." Tegucigalpa: Report for USAID/Tegucigalpa, Honduras, Central America.

Liedholm, Carl and E. Chuta. 1979. "The Economics of Rural and Urban Small Scale Industries in Sierra Leone," African Rural Economy Paper, No. 14. East Lansing: Michigan State University, Department of Agricultural Economics.

Liedholm, Carl. 1973. "Research on Employment in the Rural Non-Farm Sector in Africa," African Rural Employment Paper No. 5. East Lansing: Michigan State University, Department of Agricultural Economics.

Mead, Donald and Pradit Charsombut. 1980. "Rural Off-Farm Employment in Thailand: Phase I Survey Results," Rural Off-Farm Employment Assessment Project. Bangkok: Kasetsart University, Center for Economics Research.

Todd, David. 1980. "Small Scale Manufacturing in Lusaka." Lusaka: University of Zambia, Institute of African Studies.

_____. 1980. "Education, Employment and the Informal Sector in Zambia," Lusaka: University of Zambia, Institute of African Studies.

MSU INTERNATIONAL DEVELOPMENT PAPERS

		Price
IDP No. 1	Carl K. Eicher and Doyle C. Baker, "Research on Agricultural Development in Sub-Saharan Africa: A Critical Survey," 1982 (346 pp.).	$ 8.00
IDP No. 1F	Carl K. Eicher et Doyle C. Baker, "Etude critique de la recherche sur le developpement agricole en Afrique subsaharienne," 1985, (435 pp.).	$10.00
IDP No. 2	Eric W. Crawford, "A Simulation Study of Constraints on Traditional Farming Systems in Northern Nigeria," 1982 (136 pp.).	$ 5.00
IDP No. 3	M.P. Collinson, "Farming Systems Research in Eastern Africa: The Experience of CIMMYT and Some National Agricultural Research Services, 1976-81," 1982 (67 pp.).	$ 4.00
IDP No. 4	Vincent Barrett, Gregory Lassiter, David Wilcock, Doyle Baker, and Eric Crawford, "Animal Traction in Eastern Upper Volta: A Technical, Economic and Institutional Analysis," 1982 (132 pp.).	$ 5.00
IDP No. 5	John Strauss, "Socio-Economic Determinants of Food Consumption and Production in Rural Sierra Leone: Application of an Agricultural Household Model with Several Commodities," 1983 (91 pp.).	Out of Print
IDP No. 6	Beverly Fleisher and Lindon J. Robison, "Applications of Decision Theory and the Measurement of Attitudes Towards Risk in Farm Management Research in Industrialized and Third World Settings," 1985 (106 pp.).	$ 5.00

MSU INTERNATIONAL DEVELOPMENT WORKING PAPERS

WP No. 1	Daniel Galt, Alvaro Diaz, Mario Contreras, Frank Peairs, Joshua Posner and Franklin Rosales, "Farming Systems Research (FSR) in Honduras, 1977-81: A Case Study," 1982 (48 pp.).	Out of Print
WP No. 2	Edouard K. Tapsoba, "Credit Agricole et Credit Informel dans le Region Orientale de Haute-Volta: Analyse Economique, Performance Institutionnelle et Implications en Matiere de Politique de Developpement Agricole," 1982 (125 pp.).	Out of Print
WP No. 3	W.P. Strassmann, "Employment and Construction: Multicountry Estimates of Costs and Substitution Elasticities for Small Dwellings," 1982 (48 pp.).	Out of Print
WP No. 4	Donald C. Mead, "Sub-contracting in Rural Areas of Thailand," 1982 (52 pp.).	Out of Print
WP No. 5	Michael T. Weber, James Pease, Warren Vincent, Eric W. Crawford and Thomas Stilwell, "Microcomputers and Programmable Calculators for Agricultural Research in Developing Countries," 1983 (113 pp.).	$ 5.00
WP No. 6	Thomas Stilwell, "Periodicals for Microcomputers: An Annotated Bibliography," 1983 (70 pp.).	See IDWP #21
WP No. 7	W. Paul Strassmann, "Employment and Housing in Lima, Peru," 1983 (96 pp.).	Out of Print
WP No. 8	Carl K. Eicher, "Faire Face a la Crise Alimentaire de l'Afrique," 1983 (29 pp.).	Free
WP No. 9	Thomas C. Stilwell, "Software Directories for Microcomputers: An Annotated Bibliography," 1983 (14 pp.).	See IDWP #22
WP No. 10	Ralph E. Hepp, "Instructional Aids for Teaching How to Use the TI-59 Programmable Calculator," 1983 (133 pp.).	Out of Print
WP No. 11	Michael L. Morris and Michael T. Weber, "Programmable Calculator (TI-59) Programs for Marketing and Price Analysis in Third World Countries," 1983 (105 pp.).	Out of Print
WP No. 12	Valerie Kelly, Robert D. Stevens, Thomas Stilwell, and Michael T. Weber, "An Annotated Directory of Statistical and Related Microcomputer Software for Socioeconomic Data Analysis," 1983 (165 pp.).	$ 7.00
WP No. 13	Chris Wolf, "Guidelines for Selection of Microcomputer Hardware," 1983 (90 pp.).	$ 5.00

MSU INTERNATIONAL DEVELOPMENT WORKING PAPERS - CONTINUED

		Price
WP No. 14	Eric W. Crawford, Ting-Ing Ho, and A. Allan Schmid, "User's Guide to BENCOS--SuperCalc Template for Benefit-Cost Analysis," 1984 (35 pp.).	$ 3.00
	Copy of BENCOS Template in IBM PC-DOS 1.1 Format, on single sided double density diskette (readable on most MS-DOS systems).	$15.00
WP No. 15	James W. Pease and Raoul Lepage with Valerie Kelly, Rita Laker-Ojok, Brian Thelen, and Paul Wolberg, "An Evaluation of Selected Microcomputer Statistical Programs," 1984 (187 pp.).	$ 7.00
WP No. 16	Stephen Davies, James Seale, Donald C. Mead, Mahmoud Badr, Nadia El Sheikh, and Abdel Rahman Saidi, "Small Enterprises in Egypt: A Study of Two Governorates," 1984 (100 pp.).	$ 5.00
WP No. 17	Thomas C. Stilwell, "Microcomputer Statistical Packages for Agricultural Research," 1984 (23 pp.).	$ 3.00
WP No. 18	Thomas C. Stilwell and P. Jordan Smith, "An Annotated Directory of Citation Database, Educational, System Diagnostics and Other Miscellaneous Microcomputer Software of Potential Use to Agricultural Scientists in Developing Countries," 1984 (34 pp.).	$ 3.00
WP No. 19	Amalia Rinaldi, "Irrigation in Southern Africa: An Annotated Bibliography," 1985 (60 pp.).	$ 4.00
WP No. 20	Daniel C. Goodman, Jr., Thomas C. Stilwell, and P. Jordan Smith, "A Microcomputer Based Planning and Budgeting System for Agricultural Research Programs," 1985 (75 pp.).	$ 5.00
WP No. 21	Thomas C. Stilwell, "Periodicals for Microcomputers: An Annotated Bibliography," Second Edition, 1985 (89 pp.).	$ 5.00
WP No. 22	Thomas C. Stilwell, "Software Directories for Microcomputers: An Annotated Bibliography," Second Edition, 1985 (21 pp.).	$ 3.00
WP No. 23	Alan Hrapsky with Michael Weber and Harold Riley, "A Diagnostic Prescriptive Assessment of the Production and Marketing System for Mangoes in the Eastern Caribbean," 1985 (106 pp.).	$ 5.00
WP No. 24	Donald C. Mead, "Subcontracting Systems and Assistance Programs: Opportunities for Intervention," 1985 (32 pp.).	$ 3.00
WP No. 25	Carl Liedholm, "Small Scale Enterprise Credit Schemes: Administrative Costs and the Role of Inventory Norms," 1985 (23 pp.).	$ 3.00
WP No. 26	James J. Boomgard, Stephen P. Davies, Steve Haggblade, and Donald C. Mead, "Subsector Analysis: Its Nature, Conduct and Potential Contribution to Small Enterprise Development," 1986 (57 pp.).	$ 4.00
WP No. 27	Steve Haggblade, Carl Liedholm, and Donald C. Mead, "The Effect of Policy and Policy Reforms on Non-Agricultural Enterprises and Employment in Developing Countries: A Review of Past Experiences," 1986 (133 pp.).	$ 5.00
WP No. 28	John T. Milimo and Yacob Fisseha, "Rural Small Scale Enterprises in Zambia: Results of a 1985 Country-Wide Survey," 1986 (76 pp.).	$ 5.00

Copies may be obtained from: MSU International Development Papers, Department of Agricultural Economics, 7 Agriculture Hall, Michigan State University, East Lansing, Michigan 48824-1039, U.S.A. All orders must be prepaid in United States currency. Please do not send cash. Make checks or money orders payable to Michigan State University. There is a 10% discount on all orders of 10 or more sale copies. Individuals and institutions in the Third World and USAID officials may receive single copies free of charge.