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Small Scale Industry in Sub-Saharan Africa: Empirical Evidence and Strategic Implications

by

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Executive Summary

This paper sets forth what is known about small scale industry in Sub-Saharan Africa and the implications of these findings for policies and programs. Small scale is defined to include those firms employing fewer than fifty persons.

The available empirical evidence indicates that small scale firms are a significant if not the dominant component of the industrial sectors of most African countries. The vast majority of small producers are found in rural areas and are generally engaged in the production of "light" consumer goods: clothing, furniture, simple tools, food and drink. Most are very small (fewer than five employees), and are privately owned and operated, primarily as sole proprietorships, frequently by women. The limited evidence available suggests that small scale industrial activity in Africa has been increasing and has provided for a substantial majority of the increases in industrial employment in Sub-Saharan Africa.

Both demand and supply factors play a key role in determining the existing and future role of small scale industry in Sub-Saharan Africa. With respect to demand, the main markets for small firms are local. Increases in demand for their products are closely linked to increases in household income, particularly among the rural and low income segments of the population. With respect to supply, the limited empirical evidence indicates that in many lines of activity small scale firms in Sub-Saharan Africa generate more employment, output and economic profit per unit of scarce capital than do their larger scale counterparts; these small industrial firms thus appear to be quite efficient in their use of resources.

In light of the many favorable characteristics of small industries in Sub-Saharan Africa, the policy and project implications for enhancing their role are then explored. There are three major conclusions on the policy side. First, the major thrust of current policies has been to provide subsidies and special assistance to large firms; this has the effect of putting small producers at a competitive disadvantage. A major goal of policy should be to provide a more equitable balance of incentives for firms of different types and sizes. Secondly, since much of the output of small producers is sold in local markets in rural areas and faces problems of limited demand, a key issue for small manufacturing firms concerns government policies towards agricultural income; growing prosperity, particularly among rural and low-income families, will have important feed-back effects in creating new markets for the output of small non-agricultural firms. Third, in reviewing the policy framwork for small manufacturers, it is of crucial importance to adopt a comprehensive point of view which includes not only industrial policy per se but also the country's tariff and exchange rate policies, education and training policies, and the provision of infrastructure.

On the projects side, in the past most small enterprise projects have had one or both of two characteristics. They have provided a comprehensive package of assistance to a limited group of beneficiaries; and they have included a heavy credit component. In designing future projects, it is suggested that a major focus on the credit side should be on providing working capital, using very small loans with rapid turn-over and simplified approval procedures. For non-credit activities, successful projects are likely to be narrowly focused to meet a limited range of identified needs for producers in a particular industry or locality. Such needs might include help in establishing improved marketing systems, in providing technical training for workers or managers, or in introducing new product lines.

Policy change is a long-term process; one of the most effective routes to policy reform is the involvement of actual and potential policy-makers in studies focusing on the ways in which policy currently works and how alternative policy configurations might affect the growth of income and employment.

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Small Scale Industry in Sub-Saharan Africa: Empirical Evidence and Strategic Implications

by C. Liedholm and D. Mead

I. INTRODUCTION

The role of small scale industries in the development strategies of African countries has recently emerged as an important concern among policy-makers, international donor agencies, and researchers. The Lagos Plan of Action (OAU, 1982), for example, argues that, as part of their industrial strategies, countries should aim at "creating a network of small and medium scale industries as well as actively promoting and encouraging the informal sector." Unfortunately, even today, relatively little is known about many of the important characteristics of these activities in Africa;[1] consequently policy-makers and planners charged with the formulation of policies and programs to assist small scale industry are frequently forced to make decisions that are "unencumbered by evidence." This paper aims to help fill the knowledge gap by setting forth what is known about small scale industries in Sub-Saharan Africa and what the implications of these findings are for policy and programs.

II. DESCRIPTIVE PROFILE

This section will examine the extent, composition, nature, and growth of small scale industries in Sub-Saharan Africa. Before proceeding, a clarification of the term "small scale industry" is in order. Our coverage of

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[1]For a review of existing studies, see Liedholm (1973), Page (1979), and Page and Steel (1984).

industry includes not only manufacturing (ISIC codes 31-39) but also the repair of manufactured goods (ISIC code 951), a treatment that is consistent with most manufacturing censuses and studies.[2] Small scale in this paper is defined as those establishments with less than fifty workers. Although somewhat arbitrary, such an upper-bound limit would tend to exclude most foreign owned firms as well as most of those firms with more modern and sophisticated management skills, often using more capital intensive production techniques, and with greater access to capital, technical assistance and government incentive schemes.

A. Overall Magnitude and Importance

Just how important are small scale industries in Sub-Saharan Africa? A marshalling of the available evidence indicates that small scale firms are a significant if not dominant component of the industrial sectors of most African countries. Not only are the overwhelming majority of industrial establishments small, but these small establishment account for the vast bulk of industrial employment in these countries. As a glance at Table 1 will indicate, small scale firms in the five countries with the required data never account for less than 59 percent of total industrial employment; indeed, in one country, Sierra Leone with quite complete and accurate data, the figure is 95 percent. Moreover, most of the employment is concentrated at the smallest end of the size spectrum, with relatively little employment found in firms in the 10-49 worker size range.

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[2]Mining, construction, trading, and transport are not included in this review.

Table 1

Distribution of Employment in Manufacturing by Firm Size

Percentage

Country and Survey Date	Firm Size (number of workers)		
	Large Scale	Small Scale	
	50 or more workers	10-49 workers	below 10 workers
Sierra Leone - 1974	5%	5%	90%
Nigeria - 1972	15%	26%	59%[a]
Ghana - 1970	15%	1%	84%[a]
Ethiopia - 1971	17%	NA	NA
Kenya - 1969	41%	10%	49%[a]

Note: [a]Computed as a residual, which is the difference between employment recorded in labor force or population surveys (includes all sources) and establishment surveys.

Sources: Computed from Page (1979) and Liedholm and Chuta (1979).

Small scale firms also generate an important portion of the value added of Africa's industrial sectors, although their relative value added contribution usually is not as great as their relative employment contribution. Nevertheless, as Table 2 reveals, small firms' share of total manufacturing value added ranges from 26 to 64 percent. In terms of the entire economy, small firms' share of total GDP varies from 2.9 to 8.3 percent.

B. Composition

What are the most important types of small scale industrial activities undertaken in Sub-Saharan Africa? An examination of the available data, some of which are presented in Table 3, indicates that clothing production, primarily tailoring, predominates in most countries, ranging from 25 percent of all establishments rural Burkina Faso to 52 percent in Nigeria. Wood production, primarily furniture making, generally follows, with metal working (usually black-smithing), food production (primarily baking), vehicle, shoe, electrical and bicycle repairs also found with some frequency. In the rural areas of several countries, such as Burkina Faso and Botswana, beer brewing, which is usually undertaken by women, is a dominant activity. In general, small scale firms are concentrated in the production of "light" consumer goods: clothing, furniture, simple tools, food and drink.

C. Location

Where are most of the small industries located? A surprising yet important finding is that in most countries the vast majority are located in rural areas.[3] Moreover, employment in small rural manufacturing industries often exceeds that generated by all urban manufacturing firms. In Sierra

Table 2

Contribution of Small Scale Manufacturing to Gross Domestic Product

Country	Small Scale Manufacturing[1] as a: Percentage of Total Manufacturing Value Added	Percent of Total GDP
Ethiopia [1979-80]	46%	4.5%
Burundi [1980]	64%	8.2%
Ghana [1970]	26%	2.9%
Sierra Leone [1975]	43%	2.9%

Note: [1]Less than 50 workers.

Sources: Sierra Leone: Liedholm and Chuta, 1976

Ghana: Steel, 1981

Burundi: Page and Steel, 1984

Ethiopia: Ethiopia, 1980

Table 3

Composition of Employment in Small Scale Manufacturing Establishments

-- Percentage --

Item	Sierra Leone entire country 1976	Nigeria Western State 1972	Ghana Accra 1972	Cameroon Yaounde 1978	Burkina Faso Eastern ORD 1980	Tanzania Dar and 20 major townships 1966-67	Kenya Central Province Market Centers 1977	Kenya Central Province Villages 1977
Clothing Products	51	52	46	48	25	26	44	22
Wood Products	20	11	12	16	1	19	16	43
Metal Products	18	4	2	5	8	5	8	6
Food/Agricultural Processing	5	NA	5	1	55	9	15	22

Sources: Sierra Leone: Liedholm and Chuta (1976); firms below 50 persons.
Nigeria: Aluko et al. (1972); firms below 50 persons.
Ghana: Steel (1979); firms below 5 full-time wage employees.
Cameroon: Steel (1979); firms below 5 full-time wage employees.
Burkina Faso: Chuta and Wilcox (1982); firms below 50 persons.
Tanzania: Schadler (1968); firms below 10 persons.
Kenya: Norcliffe, Freemann, and Miles (1984); firms below 50 persons.

Leone, for example, 86 percent of the total industrial sector employment and 95 percent of the industrial establishments were located in rural areas (Liedholm and Chuta, 1976). Similar findings have been reported elsewhere in Africa and in other parts of the World (see Liedolm and Mead, 1985). These figures may actually understate the true magnitude of rural industry because country censuses often fail to pick up the smallest of the rural industries.[4]

D. Size

What is the average size of these small scale industries in Sub-Saharan Africa? The overwhelming majority of these firms are very small, with most employing fewer than 5 persons. Studies in Nigeria (Aluko, 1972), Sierra Leone (Liedholm and Chuta, 1976), and Ghana (Ghana, 1965) have found that 95 percent or more of the small scale firms employ fewer than 5 individuals. Many are simply one person enterprises. In rural Burkina Faso (Chuta and Wilcox, 1982), for example, 52 percent of the small scale firms were one person activities while in Sierra Leone (Chuta and Liedholm, 1976) the figure was 42 percent. Such findings indicate that most small scale industrial firms in Sub-Saharan Africa are tiny. In view of their large numbers and generally low incomes (see Chuta and Liedholm, 1979), they constitute a potentially important target group for policy-makers concerned with the poor.

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[3]The U.N. definition of rural, localities with fewer than twenty thousand inhabitants, is used in this paper. The conclusions do not change markedly if other definitions are used.

[4]Rural manufacturing employment had been underestimated in Sierra Leone by almost one-half (Liedholm and Chuta, 1976).

E. Ownership

What are the ownership patterns of small scale industry in Sub-Saharan Africa? The available evidence indicates that the overwhelming majority of small firms are organized as sole proprietorships. In Nigeria (Aluko et al., 1972), Sierra Leone (Liedholm and Chuta, 1976), and Burkina Faso (Chuta and Wilcox, 1982), for example, over 97 percent of the small firms are set up in this fashion. Female sole proprietors dominate certain small industries in a number of countries. Beer brewing in Burkina Faso (Chuta and Wilcox, 1982), Botswana (Haggblade, 1984), and Ghana (Steel, 1981), gara dyeing in Sierra Leone (Liedholm and Chuta, 1976), and clothing production in Ghana are examples of some of the small scale industries in which female owners predominate. There are a few limited liability companies, partnerships, and cooperatives but almost no small enterprises in the public sector. Indeed, the vast majority of the private industrial establishments in Sub-Saharan Africa are small scale.

F. Labor

What are the major characteristics of the labor used by small scale industries in Sub-Saharan Africa? A review of the available data, which are summarized in Table 4, indicates that hired labor is generally a minor component of the small industry labor force. An interesting finding is that apprentices play a dominant role in parts of West Africa (Nigeria, Ghana, and Sierra Leone), but are quite minor elements of the labor force in East Africa, where there has been no long tradition of an organized, indigenous apprenticeship system. Proprietors and family workers play a key role in small scale industries. Most of the entrepreneurs have little formal education,

Table 4

Labor Force Characteristics of Small Scale Manufacturing Firms
[Percentages]

Country (area covered)	Proprietors and Family Workers	Hired Workers	Apprentices
Sierra Leone			
entire country [1976]	41	17	42
Nigeria			
Western Region [1970]	39	11	50
Mid-West Region [1971]	30	7	63
Lagos [1971]	33	10	57
Ghana			
Kumasi [1975]	29	6	65
Accra [1972]	39	9	52
Burkina Faso			
Eastern ORD [1980]	94	2	4
Tanzania			
Dar and 20 townships [1967]	52	41	7
Kenya			
Rural industries (RIDC clients) [1977]	20	69	11

Sources: Sierra Leone: Liedholm and Chuta, 1976; Nigeria: Aluko et al. 1972 and 1973; Kumasi: Aryee, 1977; Accra: Steel, 1979; Burkina Faso: Wilcox and Chuta, 1982; Tanzania: Schadler, 1968; Kenya: Child, 1977.

learned their technical skills as apprentices in other small scale enterprises, and lack extensive training in marketing, financing, or management (see Liedholm and Chuta, 1979).

G. Capital

What are the major sources of capital for small industries in Sub-Saharan Africa? The available evidence, summarized in Table 5, indicates that the overwhelming source of capital, either for establishing or expanding the firms, is from personal savings, relatives, or from retained earnings. In these countries, less than 4 percent of the funds come from formal sources. The paucity of funds that small scale industries obtained from either the commercial banking system or the government is striking.

H. Growth

Have the number of small scale industrial establishments and employment in them been growing in Sub-Saharan Africa? Although systematic information on industrial growth is limited, the available evidence indicates that small scale industrial activity in Africa has been increasing. Small industry employment, for example, grew at a 6 percent annual rate during the 1960's in Ghana (Steel, 1981), and at the same rate over the 1974-80 period in Sierra Leone (Chuta and Liedholm, 1981). Whether small scale has been increasing at a faster rate than large scale industry is not clear. In Sierra Leone, small scale employment grew at a faster rate than did the large, but in Ghana the opposite pattern occurred.[5] Nevertheless, since small scale industries

[5]In Tanzania it appeared that small industry's share of industrial output fell from 1966 to 1974 (Wynne-Roberts, 1980).

Table 5

Sources of Finance for Initial Investments by Small Enterprises in Some African Countries

[Percentage of Initial Investment by Source]

Source	Nigeria				Tanzania	Sierra Leone	Uganda
	Western State	Mid-West State	Kwara State	Lagos State			
Own Savings	98	88	96	98	78	60	78
Relatives	2	10	*	2	15	20	---
Banks	*	*	2	*	1	1	1
Government	---	---	2	*	1	---	---
Money Lenders	*	1	---	*	---	1	
Other	---	1	---	---	6	18	21

Sources: Nigeria: Aluko, et al., 1972 and 1973
Tanzania: Schadler, 1968
Sierra Leone: Liedholm and Chuta, 1976
Uganda: Bosa, 1969

Note: * less than 1 percent

account for such a large portion of industrial employment, even if small were to grow at slower rates than the large, the absolute increase in small scale employment could still be substantial. In Ghana during the 1960's, for example, small scale industries absorbed five times as many workers as the large scale firms, although the latter grew at a faster rate.

What kinds of small scale enterprises are growing the most rapidly? By firm size, the limited evidence from Sierra Leone and from other developing countries outside of Africa indicates that the one person firms are increasing the least rapidly (indeed, in Sierra Leone they were declining), while those in the 10-49 size group are growing the fastest.[6] By location, it is in the urban areas that the number of and employment in small firms appear to be growing the most rapidly. In Sierra Leone, for example, small industry employment grew at a 6 percent annual rate from 1974 to 1980 in urban areas but at less than half that rate in rural areas. By enterprise types, food related activities (such as baking and milling), tailoring and dressmaking, furniture making, and metal-working, have generally grown rapidly, even after large scale domestic factory production in these subsectors has begun. Moreover, several newer types of activities, such a bicycle, auto, and electrical repair, have grown particularly rapidly. On the other hand, activities such as spinning and weaving, shoe and leather goods production, and pottery generally appear to have been declining in importance. These differential growth patterns are important to recognize in the design of policies and programs directed towards small scale enterprises.

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[6]In Sierra Leone, the one person firms were declining at a 4 percent annual rate, the firms in the 2-9 workers category increased at a 3.5 percent annual rate, while those firms with from 10 to 49 workers increased at a 12.7 percent annual rate (Chuta and Liedholm, 1982).

III. DETERMINANTS OF THE ROLE OF SMALL SCALE INDUSTRY

What are the main determinants of both the existing and future patterns of small industry employment and income? These can be usefully understood by focusing on factors influencing the demand for and supply of these activities.

A. Demand Prospects

What is the major source of demand for small scale industry products in Sub-Saharan Africa? The overwhelming bulk of the products made in small scale firms are simple, consumer goods that cater primarily to the needs of relatively low income urban and rural households. Consequently, a key issue is whether or not the demand for these types of products increases as local income increases. Most entrepreneurial surveys in Africa indicate that lack of demand is an important constraint facing most small firms. Although some have argued that these types of products are inferior goods (i.e., their demand would decline as incomes increase), the few empirical studies indicate that there is a strong, positive relationship between local income and the demand for small scale industry products. In Sierra Leone, for example, King and Byerlee (1978) report, on the basis of their pioneering survey and analysis of rural expenditures, that an income increase of ten percent would increase the demand for the products of small scale firms by almost nine percent. Consequently, the growth of demand for small scale industry products would appear to be closely linked to corresponding increases in household incomes, particularly among the rural and low income segments of the population.

Are there important sources of demand for small industry products that stem from their backward and forward production linkages with other segments of the economy? In general, these sources of demand appear to be less developed in Sub-Saharan Africa than in other parts of the developing world. The strongest of these production linkages in Sub-Saharan Africa, however, exist with agriculture, where the processing of several agricultural crops, such as rice and oil palm in West Africa (see Spencer et al., 1976, and Miller, 1965), and the production of implements for traditional agriculture (see Chuta and Liedholm, 1976) are frequently undertaken by small scale firms. The production linkages with large scale industry appear particularly weak in Sub-Saharan Africa; very few subcontracting relationships between large and small industrial firms appear to have been developed as yet.

What about the foreign demand for small industry products? At present, the foreign demand is relatively small and limited to a few specialty products such as gara dyed cloth from Sierra Leone (Chuta and Liedholm, 1976) or baskets from Botswana (Haggblade, 1984).

B. Supply Factors

Are small scale industries more labor-intensive than their larger scale counterparts? Since in Sub-Saharan Africa capital and foreign exchange are relatively scarce, and labor, particularly unskilled, is relatively abundant, those firms that generate more employment per unit of capital would appear to represent activities or techniques most appropriate to the country's factor endowments. Both aggregate and industry specific data consistently show that small firms in Sub-Saharan Africa generate more employment per unit of scarce

capital than larger scale counterparts (see Chuta and Liedholm, 1979 and Page and Steel, 1984).

A key related issue is whether these same labor-intensive small scale firms use the scarce factor, capital, more effectively than their larger scale counterparts. Aggregate data are limited and do not show any consistent result. A few industry specific studies have been completed, in which firms in the same industry with approximately the same degree of vertical integration are grouped together. The findings from these studies, some of which are presented in Table 6, indicate that small scale firms in these industries generate more output per unit of scarce capital than their larger scale counterparts.

Do these same small enterprises, however, generate a higher rate of "economic profit" than their larger scale counterparts in Sub-Saharan Africa? The economic rate of return to capital, a measure that reflects profit when all inputs including family labor and capital are valued at their opportunity cost, may be a better measure of economic efficiency or total factor productivity than the output-capital ratio, which assumes that labor and other factor inputs have a "shadow price" of zero. Although economic profitability data are limited, the available results, which are presented in Table 6, are consistent with the previous capital productivity findings; the small scale firms generated higher "economic" rates of return to capital than their larger scale industrial counterparts. These findings, while not conclusive, do indicate that in several lines of activity small scale industries are economically efficient.

Table 6 · 16

Capital Productivity and Economic Profits -- Large and Small Scale Enterprises in Africa and Latin America

Country/Enterprise Type	Value Added / Capital Services: Large[1] Scale	Value Added / Capital Services: Small[2] Scale	Economic Profit[3] / Capital Stock: Large Scale	Economic Profit[3] / Capital Stock: Small Scale
Sierra Leone (1974)				
Clothing	1.7	8.3	-27%	+59%
Bread	1.7	12.4	-11%	+12%
Rice Milling	1.4	57.1	-30%	+80%
Botswana (1982)				
Sorghum Beer	6.2	19.6	+130%	+190%
Egypt (1982)				
Clothing	2.6	8.5	+17%	+42%
Metal Products	1.5	18.5	-3%	+103%
Honduras (1980)				
Clothing	2.5	6.9	-21%	+45%
Furniture	1.9	13.9	-26%	+58%
Shoes	0.9	12.5	-22%	+102%
Leather Products	1.5	10.6	-21%	+79%
Metal Products	1.4	12.1	-24%	+23%
Jamaica (1979)				
Clothing	1.6	10.5	-11%	+86%
Furniture	2.3	13.1	-0.4%	+173%
Shoes	2.3	17.8	-6%	+247%
Metal Products	2.8	6.6	16.9%	+56%

Sources: Honduras - small scale: data collected during 1980 survey of 485 rural small scale industries conducted by CDI and MSU; large scale: computed from worksheets of 1975 Industrial Census of Honduras (firms included ranged in size from 50 to 500 employees; Jamaica - small scale: data collected during 1979 survey of 197 rural and urban firms conducted by MSU, SEDCO, and University of the West Indies; large scale: 1977 industrial survey conducted by NPA; Botswana - Steve Haggblade, "The Shabeen Queen," Ph.D. dissertation, MSU, 1983; Egypt - small scale: data collected during 1982 survey of 460 manufacturing enterprises in two governoartes, Fayoum and Kalyubiya; large scale: GOFI Investment Approvals, 1976. Sierra Leone - C. Liedholm and E. Chuta, The Economics of Rural and Urban Small Scale Industries in Sierra Leone, African Rural Economy Paper #14, 1976.

Notes: [1]Large scale firms are those employing fifty or more workers. [2]Small scale firms are those employing less than fifty workers. [3]In making these calculations, the following have been subtracted from value added: a) capital services valued at shadow interest rate; b. labor costs, including inputs of family workers and proprietors valued at the competitive wage in that industry. A marginal firm or industry would posses economic profits of zero.

IV. POLICY AND PROJECT ISSUES

A. Introduction

The preceding discussion makes clear that small enterprises are widespread and diverse in Sub-Saharan African economies, and that they apparently are quite efficient in their use of resources. In view of their potential contribution to future growth in income and employment, it is appropriate that they should be the target of policy- and project-focused attention from African governments as well as aid donors. A focus on small producers also fits well with AID's current interest in the encouragement of private enterprise, one of the "four pillars" of emphasis in current aid programs.

All of this leads to questions concerning the design and implementation of policies and projects to support the growth of small producers. In the discussion of this section, we make a distinction between general policies, designed to affect broad classes of producers, on the one hand, and projects based on a patron-client relationship, to provide assistance to particular designated firms, on the other. For each of these, we find it helpful to separate policies and projects which operate on the "supply side" (i.e. which focus on the availability of inputs and production conditions), as distinct from those whose major focus is on demand considerations. Our discussion deals first with policy issues: the policy context in which small enterprises currently operate, and ways in which these policies might be improved. We then turn to an examination of projects which have been adopted in the past for small enterprise development, and make suggestions concerning appropriate new project activities. Section V of the paper explores the implications of

these findings for governments and donors, examining as well some issues of implementation of projects and of policy reform.

B. Policies

1. General Consideration. Industrialization was a major goal in virtually all countries of Sub-Saharan Africa in the immediate post-independence period. In large measure, this meant an emphasis on large-scale firms, generally using the most modern technology, usually implying a high level of capital intensity. Inevitably, much of this was characterized by an import substitution focus (see Ewing, 1968). This approach subsequently came under attack on two related counts: it often involved considerable economic inefficiency in resource use; furthermore, it led to only minimum absorption of labor in the manufacturing sector (see Frank, 1968, and Morawetz, 1974). The result was a widespread disillusionment with large-scale industrialization as a central focus for development policy.

This disillusionment led also to an awakened interest in exploring the possibilities of industrialization through small enterprises. Most governments in Sub-Saharan Africa have stated that they favor and support the growth of small producers (see, for example, OAU, 1984); yet when one looks in detail at the policies which they have adopted, there are only few such policies that might be considered as directly supportive of the growth of small firms. In fact, the most pervasive impacts of current government policies on small producers arise from unintended side-effects of policies adopted with other targets or goals in mind. In large measure, this means that the central effect of these policies on small producers is negative,

operating in ways which discriminate against them rather than encouraging their development.

This happens in two important ways. First, a considerable amount of assistance is provided through policies which are restricted in their design and specification to large producers. A typical example is the Development Ordinance enacted in Sierra Leone in 1960, which gave income tax holidays and import duty exemptions, but these were restricted to firms planning to invest $50,000 or more in plant and equipment (Liedholm and Chuta, 1976).Secondly, even for policies which in principle apply equally to all types of enterprises, implementation of such policies is often undertaken in such a way is to have strongly differential impacts as between producers of different types and sizes. In Rwanda, for example small enterprises do not benefit from import duty exemptions granted to most industrial enterprises, since they do not import their inputs directly but buy them from local importers, who are subject to the higher tariff rates. In a similar way, in Rwanda as in many other countries of Africa, small firms find it difficult if not impossible to act as suppliers to the government, since the procurement packages are too large, and there are no provisions for partitioning of contracts, so these could be handled by smaller firms.

In this situation, the most important first step in instituting a policy regime supportive of small enterprise growth is to eliminate the existing policy biases against the small producer. This might be expressed in terms of a need to "level the playing field."

2. Supply Side Policy Issues

There are a number of different policy areas which concern the availability and costs of inputs and related questions pertaining to the production process. These are discussed under headings of credit, foreign exchange, other inputs, labor, and rules and regulations.

a) Credit One important area where policies have a major impact on small enterprises concerns interest rate ceilings. Studies suggest that it generally costs more per dollar lent to process loans to small compared to large borrowers; risks of default may also be higher than for more established firms. In such a situation, interest rate ceilings may make it unprofitable for financial institutions to lend to small producers at all. The result is that small enterprises are often forced to turn for their credit needs to informal sources, which generally charge much higher interest rates. In Sierra Leone, for example, the maximum official interest rate in 1974 was 12%, but the informal market rate was over 160% (Byerlee et al., 1983). Official interest rate ceilings in Africa generally run from 10 to 20%, while informal rates frequently are 100% or more (see Chuta and Liedholm, 1979). Efforts, then, to protect small borrowers from bearing the full costs of their credit needs means that they are forced to rely on even higher-cost alternative credit channels.

The policy implications here are straightforward. It is important to work towards the elimination of interest rate ceilings as a move towards ensuring that interest rates more closely approximate the opportunity costs of capital for small borrowers.

b) Foreign trade and foreign exchange. Small producers often find themselves at a disadvantage in terms of their access to foreign exchange. Where there is licensing of imports, the obtaining of a license requires skills and contacts with government bureaucracies which small firms often do not have; they find it difficult to obtain the needed imports. Beyond this, tariff rates are generally set in a decision-making context based on a response to pressures; small firms often find that they do not have the required influence. Partly as a result of this, partly as a result of simple ignorance, the setting of tariffs often takes little account of the needs of small producers. In the case of tariffs on textile machinery in Sierra Leone, for example, large garment producers were covered by the country's industrial incentive package, and so were able to import their machines duty-free; small-scale tailors, by contrast, found that the sewing machine, their basic capital input, was classified as a luxury consumer good and taxed accordingly, with no duty relief. Similarly, dyes used in large-scale textile firms were admitted duty-free, while the dyes used in the making of gara cloth were subject to the full import tariff (Liedholm and Chuta, 1976). Such differential treatment of large and small firms with respect to foreign exchange access and tariffs should be eliminated.

c) Access to material inputs. In many countries, the government has a policy of exercising extensive control over the distribution of industrial inputs. This may reflect a suspicion of "unscrupulous merchants" and their "excessive mark-ups;" or it may be a part of a policy aimed at the control and regulation of supplies of imported inputs. In such cases, there is often a bias in the implementation of such controls in favor of larger producers.

Unless the government makes a conscious effort to ensure that these inputs are also equally available to smaller firms, it will generally be the larger producers who end up benefitting from the controlled markets. These problems arise most clearly in relation to imported inputs, handled by public sector distribution systems; they also appear, though, for local products, distributed through public sector channels. In both cases, the most common picture involves unequal access as between large and small users of the inputs. The most effective way of removing this bias is to work towards a system based on reduced governmental control and intervention in the distribution system.

d. Rules and Regulations. There has been considerable interest in Africa in exploring the position of a category of small producers referred to as the "informal sector." While we have not found this categorization to be particularly helpful in our studies, there is one characteristic highlighted by that literature which is of importance; this relates to issues of government controls and regulations (Page, 1979). In many ways, small producers are beyond the horizon of government officials, in terms of providing assistance to them, but also in terms of taxing, regulating or controlling them. In some cases, the laws explicitly state that they do not apply to small producers (small firms are not required to obtain certain kinds of licenses, to obey certain labor regulations, or to pay certain types of taxes). In many other cases, though, the laws are written as if they apply to all producers, regardless of size; this is often the case even when all agree that enforcing the laws for very small producers is quite unrealistic. Following this procedure of stating the laws in broad terms but then

interpreting them more restrictively not only has the effect of breeding contempt of the law; it also opens small producers to threats that unless they "pay off" the appropriate officials, the laws in question will be put into effect against them, with the risk that they can be put out of business. Frequently the implementation of such laws for small producers is highly arbitrary and erratic, making it virtually impossible to engage in sensible business planning. In general, care should be taken to screen industrial regulations to make sure that there is a workable and equitable way of implementing them for small producers, or that these small producers are explicitly exempted from their coverage.

3. Demand-side Policy Issues. Numerous studies have made clear that perhaps the single most important constraint facing small producers, particularly in rural areas, is the problem of finding markets for their output. Many of these producers sell only in local or regional markets. Conversely, a significant share of the low-cost consumer goods sold in such rural markets are produced by small enterprises located in the same region. What this means is that policies supportive of increases in income in rural areas will have significant multiplier effects through expanding demand for the output of small manufacturers. Probably the most important set of policies for the encouragement of small manufacturers, particularly in rural areas, concerns the expansion and equitable distribution of agricultural incomes. Policies slanted against agricultural development lead not only to a stagnant agricultural sector, but also to stagnant demand for products of rural small manufacturers.

C. Projects

1. General

In the area of small enterprise development, most of the attention of African governments and donor agencies has until recently been focused not on the overall policies described above that affect small businesses generally, but on targeted, client-focused projects or programs that involve some form of patron-client relationship with individual establishments. In the 1950's and early 1960's, most of these projects in Africa focused on the provision of an integrated package of inputs to a relatively limited number of "modern" small business, following the "Indian model" developed and applied earlier in Asia and Latin America by Stanford Research Institute and the Ford Foundation (see Staley and Morse, 1965). After a hiatus of about a decade, interest in small industry in Sub-Saharan Africa reemerged in the garb of appropriate technology and the informal sector. Currently, most of the focus of this interest is on firms at the lower end of the size distribution, typically with a rural orientation and involving subsidized assistance for a small minority of producers. Perhaps reflecting the normal lag between theory and practice, however, many projects are still designed on the earlier model, with relatively high cost assistance being provided to a relatively small number of firms.

2. Supply-side projects

a) Credit and Financial Assistance. In recent years, credit projects have been the most commonly used method of providing direct assistance to

individual small enterprises in Sub-Saharan Africa. These programs have been designed to overcome the small firms' lack of access to formal credit sources (see Table 5) and greatest "perceived" constraint, as viewed by the producers themselves. A number of countries in Sub-Saharan Africa (such as Cameroun, Zambia and Kenya) have designed special credit programs aimed specifically at the small producers (Kilby and D'Zmura, 1984). Very often, though, these have been aimed at the top end of the small enterprise sector, leaving the smaller producers with a continuing limited access to institutional credit. These programs have often been based on a set-aside of a tranche of funds from outside assistance, lent to a certain category of borrowers at subsidized interest rates. These below-cost interest rates raise the potential danger of spreading to small producers the same perverse excessive capital intensity which has often characterized the larger firms. They also make it unlikely that local funding agencies will step in to continue this credit flow, when external assistance is no longer available.

Only a few of these credit projects in Sub-Saharan Africa have been evaluated, and no overall study of them exists for Sub-Saharan Africa. It is frequently argued, however, that the administrative costs and risks of lending are much higher for small than for large firms (see World Bank, 1978). Concern is also expressed with regard to the extent of small industry's demand for credit and the effectiveness of the delivery channels for supplying this credit. Two recent reviews of several small industry credit schemes in Africa and elsewhere (Kilby and D'Zmura, 1984 and Liedholm, 1985), however, indicate that several of these credit projects have been successful, generating benefit cost ratios consistently above one, and frequently possessing administrative

costs and arrears rates below 10 percent of the loan value. Some of these reviewed projects, such as the Partners for Productivity Rural Enterprise Development Project in Burkina Faso, are located in Africa. Most of the successful ones have some particular common characteristics that should be considered when designing new schemes. First, the successful projects have provided primarly working capital rather than the fixed capital that is the focus of most lending schemes.[7] Such a result is consistent with the findings of most of the recent small industry studies that point to the lack of working rather than fixed capital as a primary financial constraint facing most small scale firms, particularly those at the lower end of the size spectrum. Second, the delivery mechanisms of these successful credit projects differ significantly from the standard credit schemes. Loans are screened on the basis of character rather than on project feasibility and/or collateral. Moreover, the institutions are locally-based with decentralized decision-making, the initial loans are small for short periods, and loan volume per loan officer is high. Finally, the interest rate has been high enough to cover operating expenses including the cost of funds. In several countries, formal credit institutions, including commercial banks, have been able successfully to modify their loan procedures to meet these characteristics.

Two steps may be taken to encourage formal sector financial institutions to lend to small firms. One would be to help pay a share of the administrative costs for commercial banks or other financial institutions, as

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[7]The emphasis on fixed capital stems from aid donors' interest in lending schemes with high foreign exchange components, an orientation of academic economists toward fixed assets, and a paucity of requisite statistics.

well as providing loan guarantees while they learn about lending to these small producers. This could be done on a temporary basis, with the share of costs covered from outside and/or the magnitude of the guarantee declining over time. Secondly, consideration might be given to providing technical assistance to financial institutions to enable them to develop lower-cost screening mechanisms for lending to very small producers (Liedholm, 1985).

b) Labor, Training and Technical Assistance Issues. Technical and managerial assistance schemes have been a popular method of providing direct support to small firms in Sub-Saharan Africa. As early as 1962, Industrial Development Centers designed to provide technical and managerial assistance to small businesses were established in Zaria and Owerri, Nigeria, with USAID assistance (Hawbaker and Turner, 1972). Similar centers were subsequently established in many other African countries, including Ghana, Botswana, Tanzania, and Kenya (Livingston, 1977). Although there have been a few evaluations of individual centralized assistance centers (see for example Hawbaker and Turner, 1972), there has not yet been a systematic analysis of the experiences with or the effectiveness of technical assistance schemes for Sub-Saharan Africa. It is frequently argued, however, that the demand for such services on the part of business is very small.[8] Another often-heard criticism is that such programs have ended up concentrating a large volume of

[8]See for example, Page and Steel, 1984, and Liedholm and Chuta, 1976, and the Economic Commission for Africa (1982), which states that "it must be kept in mind that most small scale enterprises are unaware of the need for these services."

resources on a relatively limited clientele and that consequently their delivery costs per client are unduly high (see Kilby, 1982).

A review of a number of technical assistance projects in Sub-Saharan Africa makes it possible to isolate several common characteristics that seem to accompany successful technical assistance projects. First, these projects tend to be industry- and task-specific. As an example, one might cite the highly regarded training program in Botswana that imparted joinery skills to carpenters to enable them could produce coffins for the local markets (Haggblade, 1982). Second, these projects addressed situations where only a single "missing ingredient" needed to be supplied to the firm, rather than an array of ingredients.[9] The Botswana Mud Oven Training course, which was designed to teach women to make mud ovens and bake bread for sale, provides a graphic example of the importance of this characteristic. Those women in the scheme who previously had baked other products for sale were successful in increasing their incomes substantially, while those women without any prior commercial baking experience all failed (Haggblade, 1982). The latter group had too many "missing ingredients." An implication of the single "missing ingredient" characteristic is that projects assisting existing firms are more likely to be successful than those that attempt to establish new firms. Third, before the successful projects were launched, prior surveys of industries had been undertaken to uncover the demand for the activity and number and type of "missing ingredients." Such surveys are important because evidence is accumulating that the constraints facing small scale industries in

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[9]Peter Kilby (1979), developed this notion when reviewing ILO/UNDP small enterprise projects worldwide.

Sub-Saharan Africa vary importantly from country to country and indeed from industry to industry (see Chuta and Liedholm, 1984). Finally, successful projects tend to be built upon proven existing institutions.

Although these may frequently be formal institutions, it is important that existing informal institutions not be overlooked. The apprenticeship system is an example of such an informal institution that can provide a low-cost alternative for the delivery of technical and management assistance to small firms in Sub-Saharan Africa. One of the striking features of the labor market in West Africa, illustrated in table 4, concerns the central role of the apprenticeship system in the training of workers in small enterprises. The contrast with East Africa (as well as with most other countries of the world) is quite marked. This makes clear that, in East Africa, government training programs play a particularly important role in supplying skilled manpower to the small enterprise sector. Care is needed to ensure that these training programs are designed with the needs of smaller producers in mind. Beyond this, there are things which could be done to support the effective expansion of apprenticeship systems, in East as well as in West Africa. A comparison of apprenticeship systems with government vocational training programs makes clear that the former can be far more effective -- and particularly, more cost-effective (Mabawonku, 1979). Policies aimed at encouraging the expansion of apprenticeship systems might include recognizing their graduates as deserving of higher rewards, in public and private sector hiring practices; regularizing the terms of service for apprentices; perhaps, helping to pay some of the costs of such training, recognizing the externality dimensions of their activities (i.e. those who provide the training cannot always capture

its benefits, since trained workers are free to move to a different employer once they are trained). Other types of training programs might also be instituted through the apprenticeship system, particularly to help in the development of managerial skills among small producers.

c. Industrial Estates. In a number of countries of Africa, a key aspect of small enterprise development policy has centered around industrial estates. These involve the construction of sheds with basic utilities provided, which are then rented or sold to small enterprises. Two arguments have been advanced to justify the construction of such facilities. i) There is inadequate space currently available through market forces, with the required utilities; in some cases, this is explained in terms of problems of establishment of clear land titles. ii) Grouping firms together in such an estate makes it possible to provide common training programs or common facilities (e.g. machine shops), i.e. various types of industrial extension services. While these arguments sound convincing, in practice most industrial estates have proven to be expensive means of subsidizing the work-space costs of a limited number of existing enterprises (see, for example, Kilby, 1982). They have also not been effective in facilitating the development of new firms. For the firms which they do help, their assistance is high-cost for the country since it involves offering a wide range of types of assistance, several of which will generally not be needed by the client firms. In general, industrial estates have not proven to be effective channels for providing assistance to small enterprises in Sub-Saharan Africa.

3. Demand-side projects: Marketing assistance

One common characteristic of small producers, in Africa as elsewhere, is that they are often more capable in production activities than they are in product design and marketing. As a result, they often produce standardized products for sale in local markets, which may be growing only slowly. In such situations, an appropriate focus of projects for small enterprise development would be to look for ways to help them establish more effective links to outside markets. This could be done through subcontracting arrangements, either with larger producers or with merchants. Subcontracting arrangements among producers are reported to be relatively rare in Africa, although this may primarily reflect the fact that one often does not see them unless one is looking for them. Arrangements based on contracts between small producers and merchants or traders can be found in some African countries, often aimed at the marketing of craft products. An excellent example is Botswanacraft, which in the 1970's provided the single, missing marketing link that was needed to support the commercial production of basketmaking in rural Botswana (see Haggblade, 1983). Where they are effectively done, such contract production and subcontracting systems can play an important role in establishing linkages between isolated producers and more dynamic markets. Consideration should be given to exploring ways of expanding the nascent role of subcontracting in Sub-Saharan Africa (Mead, 1985).

V. IMPLICATIONS FOR AFRICAN GOVERNMENTS AND DONOR AGENCIES

A. Introduction

Small enterprises are of considerable importance as sources of employment and income in Sub-Saharan Africa today. This importance is likely to increase over time, as population growth puts strains on available cultivable land, and as the number of people seeking work outside of agriculture exceeds the absorptive capacity of large-scale industrial and service enterprises. The discussion of previous sections suggests a number of things that can be done to facilitate the expansion of small enterprises, and to channel this expansion in productive directions.

B. General Policy Issues. One can draw three major conclusions concerning small enterprise policies, the ways these policies currently impinge on small producers, and the needs for more effective policy support in the future. The first is that the major impact of current policies on this group of enterprises has been negative: discrimination against the small producers, in favor of their larger-scale and better-connected competitors. This discrimination arises both from the ways in which laws are written and the ways in which these laws are implemented. This suggests a clear need for African governments and donor agencies to better understand the ways in which existing policies operate in practice, with a goal of eliminating this discrimination and establishing more equal competitive conditions for large and small enterprises. Changes in the tariff structure are a particularly fruitful area for elimination of this differential effect.

The second major conclusion is that the key constraint hindering the growth of small enterprises, particularly in rural areas, relates to a deficiency of demand. The governments' overall development policies can play a key role in overcoming this deficiency. In particular, agricultural policies aimed at a rapid growth of rural incomes are important not only in their own right, but also because they contribute in a major way to the growth potential of non-agricultural, rural small enterprises. Efforts to establish pricing systems which provide incentives to farmers to increase their output, to encourage the development of effective marketing systems for selling their products, and to institute agrarian reform leading to an equitable sharing of the benefits of increasing agricultural output, all can contribute in major ways to the potential for growth among small non-agricultural producers.

The third major point is closely related to the previous two. It involves a recognition that, in thinking about the effects of policies on small producers, African governments and donor agencies must adopt a comprehensive view, looking far beyond the traditional sphere of industrial policy to include agricultural pricing and income policies as well as the general foreign exchange regime of the country.

C. Projects

Projects or client-specific programs in Sub-Saharan Africa have focused in the past primarily on eliminating or reducing supply constraints. There is clearly a useful continuing role for African governments and donor agencies in this area. In summarizing the project implications of the preceding

discussion, it is helpful to make a separation between credit projects and all others.

1 .Credit. The majority of projects directed at the support of small enterprises have been in the area of credit. This may partly reflect the fact that many small enterprise projects are best designed as small projects, which means that they generally require only small amounts of funding. Aid donors are often under pressure to "move money;" one of the few ways of doing this in significant volume is to concentrate on credit activities.

A review of successful credit projects indicates that there are useful things that can be done to facilitate the growth of small enterprises. The key characteristics of successful credit programs for small enterprises, in Sub-Saharan Africa as elsewhere in the world, include the following: a) concentration on working capital rather than fixed capital; b) screening of loans based on the character of the applicant rather than the characteristic of the project; c) decentralization of decision-making to local institutions and local individuals; and d) granting of loans in small amounts, for short periods, to encourage and facilitate high repayment rates.

2. Other types of projects. Among the key findings concerning small enterprise projects in areas other than credit, the following may be singled out as being of primary importance in the design and implementation of future projects. a) Useful projects will generally be carefully targeted to a limited range of enterprises, probably in one or a few closely related industries. b) Projects are more likely to be successful if they can be targeted to deal with one or a limited range of missing components, rather

than trying to introduce a complex range of changes all at once. c) Similarly, it is generally advisable to start from existing institutions, rather than seeking to start from scratch with a new locus and staff. d) There is often a useful contribution to be made by projects aimed at the establishment of more effective links between dispersed producers and more dynamic and often more distant markets. e) All of this implies that there is a need for careful field research, to determine the needs of small producers in particular situations, so projects can be effectively targeted.

D. Policy Reform and Implementation Issues

The process of policy change is a complex one, involving pressure groups and compromises which are difficult for an outsider to understand, much less lead. Experience suggests some rules about the most effective way of working towards policy change. i) Policy change is generally a long-term process. Almost any policy change will mean that some groups benefit while others lose; efforts to move things too rapidly can cause great social turmoil, during the course of which all possibilities of improvement may be frozen. ii) The most effective route to policy reform often centers around the involvement of actual and potential policy makers in studies focusing on the ways in which policy currently works and how alternative policy configurations might operate. Well-focused policy-oriented studies can provide important insights into the ways in which policies are currently working, thereby providing (intellectual!) ammunition for those who wish to effect changes.

With judicious governmental policies and carefully formulated direct assistance measures, the already sizeable contribution of small scale industries in Sub-Saharan Africa can be even further enhanced.

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