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# MAHAWELI ENTERPRISE DEVELOPMENT

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### MICROENTERPRISES IN THE DRY ZONE STRUCTURE AND DYNAMICS OF NON-FARM ENTERPRISES AND EMPLOYMENT IN MAHAWELI AREAS

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INTERNATIONAL SCIENCE AND TECHNOLOGY INSTITUTE, INC.

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CONSULTANTS TO THE MAHAWELI AUTHORITY OF SRI LANKA

## Mahaweli Enterprise Development (MED)

The development of the natural and human resources of the Mahaweli river basin is a high priority of the Government of Sri Lanka. The construction of physical infrastructure, the settlement of the land and the formation of the agricultural production base are largely completed. The challenge now is to build a diverse, dynamic economy capable of steadily raising Mahaweli family incomes. In meeting this challenge, the private sector - farmers, entrepreneurs, companies, community groups, non-governmental organizations - has an important role to play.

MED is a project of the Mahaweli Authority of Sri Lanka and the United States Agency for International Development. MED promotes investment and employment generation by the private sector in non-farm economic activities and contract outgrower programs producing diversified crops. MED does this by: (i) developing technical, marketing, financial and other services which assist self-employed individuals, microenterprises and companies to start and improve their businesses; (ii) developing entrepreneur associations and other participatory groups; and (iii) carrying out studies and analyses to improve the frameworks for development in the Mahaweli areas.

The Employment, Investment and Enterprise Development (EIED) Division of the Mahaweli Authority is the MED implementing agency. Technical consultancy is provided by a consortium led by the International Science and Technology Institute, Inc. (ISTI), and including Agroskills, Development Alternatives, Ernst and Young, High Value Horticulture and Sparks Commodities.

## PREFACE

Dr James R. Finucane is an economist whose areas of specialization include rural development and enterprise development.

This report, based on a 1993 survey and the experiences of the 12 EIED operated Business Centers with more than 3,400 microenterprise clients, provides information which may be useful to those concerned with developing measures for poverty alleviation and economic growth in the rural areas and with the potential of non-farm enterprises to contribute to these goals.

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## Overview

1.0 This paper discusses rural non-farm private enterprises in Mahaweli areas using data from the 1993 survey of the enterprises and employment and the experiences with 3,400 clients of Business Centers operated in the areas.

1.1 To provide a context, information is presented on non-farm enterprise development in the process of structural economic transformation and in the dry zone areas of Sri Lanka generally. Also, during the discussion, comparisons are drawn between the findings and, on the other hand, the expectations for rural enterprise development in the areas which were current during the late 1970's and early 1980's and the situation in other areas of Sri Lanka and in other countries.

1.2 The basic information is reported on structural aspects of the non-farm enterprise sector, such as the size and industrial sector distributions of the units and employment. The dynamics are treated less fully. Partly this is because the data record developments over a very short period. Also, however, the dynamics of very small enterprises are in general less well understood than are the broad patterns of structural change in the economy. The constant churning of enterprise entries, contractions, expansions, closures, and re-entries which occurs at intense rates in small enterprise sectors supports continuing debates on the role of small enterprises in job creation, their contribution to the growth and efficiency of the economy and whether policy interventions to assist them are helpful, needed, effective or significant in the process of broadbased economic development.

1.3 Non-farm employment is one of the main strategies of families in the areas to increase their incomes and avoid depending solely on agriculture.

1.4 Those concerned with formulating public policy interventions (or non-interventions) to sustain and increase family incomes in the areas by fomenting non-farm enterprise sector development are also concerned to achieve economic competitiveness and growth. They confront difficult choices as the result of conflicting views about the potential of the sector to contribute to either or both poverty alleviation and economic growth, choices made more difficult by the relative lack of information on the sector.

1.5 This report, while not providing prescriptions, is aimed at providing data and analyses which will strengthen the contextual basis of policy formulation and choices for stimulating rural non-farm enterprise development as an approach to achieving both equity and growth objectives in economic development. From this perspective, a number of findings and possible implications are interesting:

- 97% of non-farm enterprises are microenterprises employing less than five people; 67% of those employed in the non-farm sector are employed in these very small units, suggesting the need to monitor the microenterprise sector as one of wide concern to the local economy and to the livelihood of many individuals and families;
- 84.5% of those working in microenterprises are either own account workers or part-time workers. In many cases, they are also available for wage employment. Whether an enterprise "survives" in these situations is often determined more by the outcome of job searches than by the performance of the enterprise unit, suggesting the need to focus scarce resources available for program type enterprise interventions on individuals least likely to be successful in the labor market;

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females hold most (69%) of the jobs in the wage paying, higher income medium and large enterprise sector while males hold most (75%) of the jobs in the lower return microenterprise sector. Importantly, however, most (69%) enterprises are family businesses in that they employ only family labor. In most cases, the support of family members is necessary for the operation of the enterprise. Most of these families are also farmers, and the availability of family labor, including those individuals engaged in microenterprises, particularly during the peak periods, is necessary for the operation of their farms, particularly for the poorer families which can not afford to hire sufficient labor. The multiple activity nature of the family households, the interlinking of the labor supply for the non-farm and farm activities, and the institutional importance of the family household in the operation of both the enterprises and the farms suggest the need to **adopt enterprise development interventions which support the continued intactness of family household units or, at a minimum, do not weaken these institutions;**

- 26% of the self-employment units and 30% of the microenterprises had formal financial sector institutional credits outstanding at the time of the 1993 survey (in the analysis, the broad microenterprise sector is often segmented into self-employment units with a proprietor and less than one full time employee and microenterprise units with a proprietor and one to four employees). This coverage is a result of the extensive rural banking networks and the various directed or priority credit programs that banks have mounted over the years. However, the banks indicate problems with recoveries, particularly of agricultural credits, throughout the areas. The continued wide availability of financial services for microenterprises will depend on the continued financial sustainability of the banks providing these services, suggesting the need to **strengthen the rural branch banking networks in order to maintain the relatively wide access to financial services that has been achieved;**
- business incomes and wages in the microenterprise sector are low, with most being below the minimum survival needs of a family (which is why the non-farm enterprise activity is usually one of many family household income activities), yet a small proportion of units make incomes well above these levels, suggesting the need to **target scarce resources on lower income units (rather than on all small scale enterprises) if the objective is to improve equity by acting directly to increase family incomes;**
- average per capita incomes in the areas are half the national average and within the areas there are blocks and units in which incomes are considerably lower than in other sections, for instance those at the end of the water distribution systems and highlands and other rainfed areas with agricultural encroachers. Most enterprises are located in the interior areas, rather than in the rural town centers; enterprises in the interior are smaller and have lower incomes than those in the centers. These spatial aspects suggest the need to **target lower income areas as well as lower income enterprises if the objective is to improve equity by acting directly to increase family incomes;**
- most jobs and enterprises are created by self-employment units, with the largest proportion being by start-ups. Self-employment units also destroy the most jobs and

**enterprises. This high turnover, which is as expected in microenterprise sectors under market conditions, suggests the need to continue to ensure and facilitate ease of entry for enterprise start-ups;**

**23.8% of the units in the microenterprise sector increased their employment during the year, while 23.3% closed, suggesting the need to target assistance selectively on the minority of enterprises likely to expand if the objective is to generate employment directly in assisted enterprises;**

**a substantial portion of the unemployment in the areas results from a mismatch between the types of work available, which are often low paid, low technology jobs, and the types of work sought by the unemployed, who are often educated and young. This rural structural unemployment, which has contributed to social and political difficulties in Sri Lanka, suggests the need to promote higher value added microenterprises.**

**all the above suggestions are related to supply side type interventions ultimately intended to assist families and entrepreneurs start and improve their businesses. However, the performance of these businesses is heavily influenced by demand side factors. As most sales by microenterprises are for household consumption, the level and character of market demand for their products and services is most influenced by real per capita incomes in the areas, particularly farm incomes, which have not grown in recent years. Another aspect of the demand situation is the level of competition, which has intensified with relatively good quality, well priced products coming into the areas under the continuing transition to an open economy. Finally, although wage employment in the areas expanded over 1992-93 with the establishment of seven large garment factories, the factories' weak linkages with the local economies have limited their demand stimulus impact and their sustainability in the areas is not certain. The high share of non-farm employment concentrated in microenterprises and the difficult market demand context which they confront, suggest the need to continue to stimulate increased demand for microenterprise products and services by facilitating the development of higher value agricultural production and inward investment in larger scale enterprises.**

## Introduction

2.0 There are an estimated 11,000 private non-farm enterprises in the rural areas in which the Mahaweli Authority of Sri Lanka (MASL) is active. Of these, 97% are microenterprises in which an estimated 23,000 persons are employed, representing 67% of total non-farm private enterprise employment.

2.1 The areas are remote, irrigated "systems" located in the dry zone in six of Sri Lanka's nine provinces: Southern, Sabaragama, Central, North Central, North Western and Uva Provinces.

2.2 Microenterprises in this report are discussed in two categories: (i) self-employment units with less than one full time employee in addition to the owner/operator and (ii) microenterprises with one to four full time employees in addition to the owner/operator. The individuals in these two groups are very heterogeneous; often the operators of the enterprise units are termed "entrepreneurs", a term with many definitions, usually alluding to some aspect of motivation or innovation. For our purposes, we use the term entrepreneur, as well as proprietor and owner/operator, in a broad sense to refer to an individual who is operating a self-employment or microenterprise unit.

2.3 Employees in this report are job positions filled by workers. Included are proprietors and paid and non-paid, full-time and part-time, family and non-family workers. All are counted as one job, although at several points in the commentary the proportions of different job types in the total employment composition is discussed.

2.4 The report is based on survey data and field based information. During September - October, 1993, a survey of non-farm, private enterprises and employment was carried out which covered all self-employment and microenterprise units in 31 geographically based sampling areas. The survey also covered all small, medium and large enterprises.<sup>1</sup> The survey purposes were two: first, to serve as a post enumeration survey for the Mahaweli Enterprise Development Project (MED) baseline census of private non-farm enterprises and employment carried out during the same period in 1992, the objective being to establish the basis for estimating census under-enumeration; second, to provide the initial longitudinal data to chart and to permit a fuller understanding of the growth and decline of non-farm enterprises and employment in the areas. A total of 2023 enterprises were surveyed, not including the 267 units whose closure during the period between the census and the survey was recorded during enumeration. Annual repeat surveys of the same enterprises and a final census are planned.

2.5 The field information is derived from the client experiences of 12 Business Centers based in rural locations in the areas. Opened during 1992, the Centers provide credit facilitation, business planning, training and other services to self-employed individuals, microenterprises and aspiring entrepreneurs. By mid-1994, the Centers had serviced more than 3,000 clients, for most of whom information has been maintained on key business aspects (Finucane 1994).<sup>2</sup>

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<sup>1</sup>Small enterprises have five to 24 full time employees excluding the proprietor; medium and large enterprises have 25 or more employees. The survey methodology and full definitions of size and sectoral categories are provided in Annex I.

<sup>2</sup>Annex II provides information on the client profile of the Business Centers.

2.6 The broad purpose of this document is to present findings which may be useful to those concerned with development in the rural areas in the dry zone. It is a tentative contribution at this stage, as there are obvious data limitations imposed by using data covering one year to report on dynamic aspects. Subsequent reports will draw upon more extended longitudinal data from the repeat surveys.

2.7 After a review (para. 3.0) of structural change in rural enterprise sectors, there is a brief background on the areas (para. 4.0) and the enterprises (para. 5.0). This is followed by the commentary which addresses eight general points:

- structural (spatial, size, industrial sector, and gender) distribution of enterprises and employment,
- the effect of the garment sector,
- the effect of the agricultural production sector,
- the pattern and rate of business formation,
- the growth of employment,
- the churning and mobility of business units within the enterprise structure,
- the survival pattern of businesses, and
- the explanatory value of land tenure as a variable affecting access to formal financial sector credit and other indicators of business performance.

### **Structural Change in Rural Enterprise Sectors**

3.0 The historical experience has been that as economies develop there is a long term decline in the employment share of the agricultural production sector in the economy (Kuznets 1957; Chenery *et al.* 1986). With higher capital accumulation, productivity and growth in the manufacturing and, increasingly, services and commerce sectors, the employment share of these sectors increases through a "pulling" of labor out of agriculture production. When this pulling is occurring, the structural shift towards non-farm employment is a dynamic one associated with rising labor productivity and higher per capita incomes. When pulling is not occurring, but rather a weak or declining (in per capita terms) agricultural sector performance is "pushing" labor out of agriculture, the shift is related to the labor market condition of a stagnant economy with individuals and families initiating self-employment and microenterprises as alternatives to insufficiently available wage income alternatives. In the rapid, broadly equitable economic growth of the East Asian countries (not including Singapore and Hong Kong), the pulling of dynamic growth has been reflected in the share of agriculture in employment, which has declined at a faster rate than in other regions. At the same time, however, recent analyses indicate that one of the distinguishing characteristics of their dynamic growth, which set them apart from most other development countries, has been that this decline in agriculture's employment share has been accompanied by a strong growth and increasing productivity in their agricultural sectors, supported by appropriate public

policies and government programs, including land reform, extension services and infrastructure investments in rural areas (Turnham 1993; World Bank 1993).

3.1 Secondly, within the non-farm enterprise sector itself, the historical experience is of a long term shift of labor out of household and cottage units and into larger, more formally organized and specialized business units, with non-farm labor working increasingly for wage incomes for non-family enterprises.<sup>3</sup> In an economy such as Sri Lanka's, with a large proportion of employment concentrated in the household and cottage sector, dynamism is indicated by the pulling of individuals out of household based enterprises and into the wage paying sector (Little *et al.* 1987; Cortes *et al.* 1987). A slowed or stalled economic transformation is often indicated when the share of household and cottage sector based labor is not declining. Within the rural economies, as development occurs, the empirical evidence from most countries is that total employment in absolute terms in rural industry and service sectors expands (Chuta and Liedholm 1984), with certain activities increasing (units making clothes, furniture, food), other declining (units making shoes, leather products, pottery products), and others starting (repair services for bicycles, motorcycles, autos, tractors, electrical apparatus).

3.2 Thirdly, these historical structural shifts of labor away from basic agriculture production and household and cottage units are associated with a shift of population from rural to more urban areas, or a slower rate of growth of rural than of urban populations.

3.3 In the recent development of Sri Lanka, under an increasingly market based policy framework, structural change or transformation at the national level has been occurring at, on balance, a steady rate over the past 15 years, as indicated, for example, by the decline in the contribution of the agricultural sector to gross national product and the large growth in the share of manufactured exports in total exports (World Bank 1993). While the nature of this transformation is arguable, it is clear that it is not generating sufficient wage paying positions in industry to absorb the growth in the labor force, with one of the implications being the continuing dependence on the rural sector to generate employment. Also, the transformation is proceeding in an imbalanced fashion and, within the rural economies covered in this report, its pace is lagging, as indicated, for example, by the continued high dependence on basic agriculture and household sector employment, per capita income levels which are half the national average, and population growth rates which, due to emigration to urban areas and abroad, are apparently lower than those of Colombo and the other more developed areas of Sri Lanka. One impact in the areas of the market based policy framework and the opening economy is that the products of the country's industrial sector as well as imported products, for both agricultural inputs and consumption, are more and more available at competitive prices. The combination of low average incomes and a rising availability of products from outside is associated with the enterprise sector in the areas being composed of many very small units, with low levels of business incomes, operating under a constant stress of intense competition.

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<sup>3</sup>There appears to have been a reversal of this pattern during recent years in several high income countries, with self-employment increasing (OECD 1992).

**3.4 Rural microenterprises and structural change.** Business formation and survival rates at the self-employment and microenterprise end of the enterprise size distribution can be high under both dynamic and stagnant economic conditions. In the dynamic case, these enterprises make important contributions to growth and efficiency in the economy in response to increased demand and opportunities. In the stagnant economy case, they buffer the negative social impacts of slow growth or of stalled or imbalanced transformation by providing incomes which allow families to maintain consumption levels. In Sri Lanka, the post-1977 period has been one of transition to a market economy and of policies intended to hasten structural change. It has been argued that although the transition's impacts have affected different subsectors differently, for instance the handloom sector declined dramatically while enterprises linked to the expanding tourism and construction sectors often prospered, the net effect of the transition on rural non-farm self-employment and microenterprise units has been negative (Osmani 1987; internal ILO reports) with

the sector serving mainly its stagnant economy role of absorbing, in low productivity activities, individuals moving out of agriculture for whom there are inadequate jobs in the urban growth sectors. The composition of the sector's workforce and activities and the rise or fall in earnings and wages in its enterprises are indicators which one may consider in interpreting the degree of dynamism or stagnation in the sector's performance.

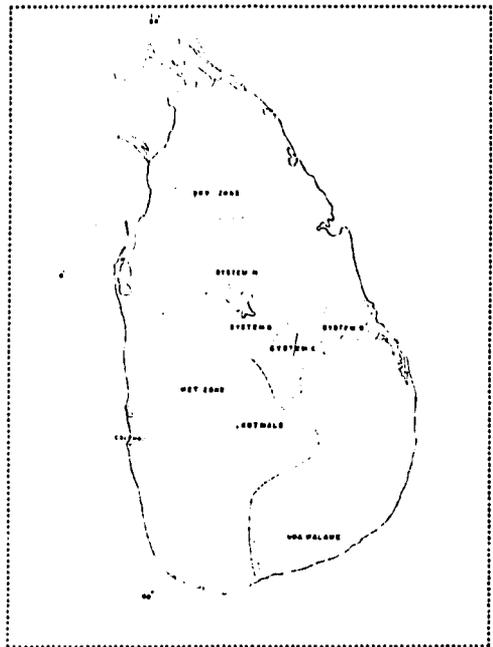
**3.5 Rural microenterprise sector in the Mahaweli areas - dynamic?** There are indications of both dynamism and stagnation in the small scale non-farm sector in the areas - dynamism most notably by the changing composition of the work force (lower proportions of own account workers and family workers in the employment structure), perhaps in response to the injection of relatively large scale, modern garment factories in the areas over the 1992-93 period, stagnation by the comparatively weak increases in enterprise earnings and wage levels in the sector. Given the imported nature of the garment factories and questions as to their sustainability in the areas, one can not be confident of the dynamic aspects of the small scale sector.

**Table 1 Employment in self-employment and microenterprise units**

		persons employed
Self employment		14149
Microenterprises		8905
<b>Total employed</b>		<b>23054</b>
		composition %
Own account workers	proprietors	53.0
	non-paid family	22.0
Part time employees		9.5
Full time employees	paid family	12.6
	non-family	3.0
<b>Total</b>		<b>100.0</b>

### Background on Areas

4.0 Most of the 580,000 residents are agricultural settlers - first, second or third generation members of families of individuals who have been resettled over the last 25 years as part of the main national program to irrigate and settle lands in the dry zone to improve rural welfare, increase agricultural production and generate power for the national grid. The dry zone is the less developed area of Sri Lanka with per capita incomes lower than those in the wet zone. Although the dry zone has 69% of the potentially arable land, its agricultural opportunities are limited, in the absence of irrigation infrastructure, beyond shifting (*chena*) cultivations. The irrigation and settlement of the dry zone has been a consistent theme of public policy (Farmer 1957), most recently in the modern era with the establishment of the Irrigation Department in 1990 and the passage of the Land Development Ordinance in 1935. Today, 80% of Sri Lanka's irrigated areas are in the dry zone. In some respects, this has been part of the broader "paddy policy" (Bruton *et al* 1992), focused on rice production and equity, with the result, among others, that Sri Lanka now produces some 90% of the rice consumption of its 18 million inhabitants, compared with one-third of the rice consumption of its population of 7.6 million in 1950.



Map of areas showing positions in dry zone

4.1 The settlers in the areas have varied backgrounds, including children of residents of the traditional (*purana*) villages or earlier settlements in the areas, encroachers (spontaneous settlers), evacuees from reservoir areas and "electorate settlers" selected from other parts of Sri Lanka.

4.2 The main sections of two systems (B and C) are relatively new settlements (1980's), the other three (G - 1950's, Uda Walawe - 1960's and H - 1970's) are older although within each there are sections which have been settled during the 1980's and more recently. The sixth area covered (Kotmale) is a headworks area with most settlers being members of families resettled during the 1980's from the valley reservoir area. The main sections of all the systems have now been settled for more than five years and thus, hopefully, are experiencing the development of non-farm employment opportunities suggested or expected for the third settlement phase.

4.3 In 1993 there were an estimated 125,300 families in the areas, 97.5% residing in the five irrigated dry zone systems. Of all the families, 60% are settler farmers living on individual, average one hectare rice farms. The average net population growth over 1992-93 was approximately 1.3%, with the exception of system B, which had an estimated 20% increase, due to new settlement (PMU 1993b).

**4.4 Income levels.** All the areas are outside the direct reach of the relative economic boom experienced in recent years in Colombo, the free trade areas and the sections of the wet zone within this arc of economic growth. It has been estimated that 32% of the rural households in non-estate agricultural areas are living in poverty as compared with 16% in estate agriculture and 12% in the urbanized areas (Kelegama 1992; IPS 1992). A comparison of the results of poverty incidence studies carried out between 1969/70 and 1986/87, found that for the earlier years there was no consistent pattern as to whether the incidence was higher in rural or urban areas (World Bank 1993), which would appear to suggest that the more polarized situation at present has been a relatively recent development, or at least relatively recently observed.

**Table 2 Information 1993 on areas**

location	population	settler farms	employment	Rs per cap income
Kotmale	14250	0	6495	n.a.
System B	92900	16223	42344	10802
System C	115750	20775	52759	12534
System G	26000	3969	11851	15138
System H	149500	24079	68142	19858
Uda Walawe	168900	17576	76985	7400
Total	567300	82622	258575	13126

Source: estimates and MASI, PMU data, including estimated 45,000 persons in 10,000 unregularized encroacher families in Uda Walawe who are not included in the settler farms figure.

**4.5** In the areas covered in this report, the 1993 average annual per capita incomes have been estimated (PMU 1993b) at Rs13,126, compared with a national average of approximately Rs25,000. In System B, the average 1992 farm income net of paid out costs was estimated based on a farm household survey at Rs18,846 (Lalith and Gleason 1993); assuming this to be 60% of household income (the balance being imputed income and cash from other sources) and an average household size of 4.5 persons, the average per capita income was Rs6,980. Based on a separate farm household survey, PMU estimated the 1992 System B per capita net cash income at Rs9,790 (PMU 1993a). Also, within the areas there are major sections and groups in which the families have incomes considerably lower. These include, for example, much of lower Uda Walawe with average annual per capita incomes below Rs7,000 (JICA 1993)<sup>4</sup> and the 60% of the families in System B estimated (PMU 1993a) to have average incomes one-fifth the average incomes of the 20% of the households with the highest incomes.

**4.6 Comparative nutrition levels.** The 1993 national Demographic and Health Survey surveyed children under five years of age for undernourishment. The results, as indicated by a simple average of the weighted averages for the three anthropomorphic nutrition measures of height for age, weight for height and weight for age, which reflect variously acute and chronic malnutrition, found the incidence of undernourishment to be 62% higher in the irrigated dry zone than in the urban and more developed wet zone areas (DHS 1993).<sup>5</sup>

<sup>4</sup>Annex III contains the estimates of Uda Walawe incomes from the JICA report.

<sup>5</sup>Annex IV presents the results of the nutrition survey by region.

4.7 **Poverty concern.** Although there was apparently some optimism in the early and mid-1980's (Scudder 1980) about the development progress in some of the areas, for instance with average incomes in System H being estimated as above the national average by some observers (Bandaragoda 1988), since at least the late 1980's there has been concern about the slowness of the rise in family incomes, a possible "replication of poverty" and slipping backwards in the areas, particularly in seasons of poor rainfall and harvests (Scudder and Vimaladharm 1989). For some of the poorest sections there are concerns about the gradual expansion of the areas of particularly low incomes (Wanigaratne 1987). A major aspect of the development concern, which is one which applies to much of rural Sri Lanka, has been that in the absence of the development of private non-farm employment opportunities there would be a growing concentration of people on farms and homesteads with fragmentation of holdings, a declining per capita value of agricultural production, and heavier pressure on the physical resource base by continual *chenu* cultivations and incursions into forest and other reserve areas (CDIE 1994).

4.8 **Paddy economies.** The economies of the areas are dominated by rice production. Although the areas have irrigation infrastructure designed mainly for rice production, the weather remains the most reliable indicator of year-to-year income changes. Because of the uncertainty of the rains in the upper catchment areas and other factors (system design, operational management, farmer practices), adequate water for two cultivation seasons (Maha and Yala) is assured on a regular basis only in most of system B. With rice yields throughout Sri Lanka having plateaued by the mid-1980's (after increases due to the introduction of high yielding varieties in the late 1960's and to productivity increases in the 1970's) and with rural population continuing to increase, it has been widely recognized that sustainable increases in rural welfare depend primarily on diversification into higher value (than rice) crops and the generation of non-farm employment opportunities.

4.9 The major income generator in the areas is settler farmer paddy production. With yields stagnant or falling, the weather and the changing relationships between the cash costs of production and the farmgate prices, in real terms, are the major factor influencing the changing levels of real disposable income and the level of demand for the products and services of the non-farm enterprises in the areas. While there is a variety of types of farmers and farming conditions and methods in the areas, a useful indicator of these changing relationships is the situation of Maha production by a small farmer under irrigated conditions in Kalawewa and Polonnaruwa, areas for which the Division of Agricultural Economics and Planning of the Department of Agriculture monitors and reports on farmer cultivation costs and returns. Net cash returns per acre for this farmer declined in nominal prices at the average annual rate of 6% (Kalawewa) and 7.7% (Polonnaruwa) over the 1990-93 period and net returns per family labor day declined at the rate of 15% and 17%. These declines in cash returns per acre represent annual average reductions on the order of some 18% to 20% per year in real terms in farm incomes.<sup>6</sup>

4.10 **Non-farm enterprises and the development of the dry zone.** From a review of literature on colonization (settlement) in Sri Lanka's dry zone it appears that the early settlement efforts focused on agricultural production and on relieving population pressures in the wet zone (Wimaladharm 1982). Views on non-farm enterprises in settlements were dominated by concerns about *boutique*-keepers and *mudalalis* (moneylenders) exploiting the peasants, about successful settler farmers investing in enterprises of "doubtful economic or social value", and, on the other hand,

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<sup>6</sup>Annex V includes a table with details of the returns per acre and per family labor day.

concerns about rural underemployment and a recognition that successful farmers, prevented under the Land Development Ordinance from accumulating additional farm lands, would seek and indeed require a destination for any capital surplus generated by their farms (Farmer 1957). Non-farm enterprises and employment do not appear to have been very studied prior to or after earlier settlements, including, for instance, Gal Oya (Kariyawasam *et al.* 1986).

4.11 **Accelerating non-farm employment generation.** More recently, certainly since the late 1970's, rural non-farm enterprises have been viewed from policy and bureaucratic perspectives in ways which have tended to be more consistently positive, and the need to encourage their formation was discussed in the pinning of the Mahaweli settlements. Measures were taken to facilitate the generation of the sufficiently high farm family incomes and the agglomeration economies which were considered necessary conditions for non-farm enterprise development. These measures included: (i) the grouping together in the same area of a sufficiently large number of settler farms, (ii) the allocation of sufficient land to each farm (usually 1 hectare of irrigated land), (iii) the setting aside of lands for larger "commercial farm" agricultural production, (iv) the development of a planned series of hamlets, villages and town centers with sites for commercial, industrial and service enterprises and (v) the establishment of the EIED as a specific organizational unit responsible for promoting enterprise development in the areas.

4.12 **Labor force and non-farm private employment.** The economically active population (defined using a broad rural labor force definition as the 10 years and older age group) is estimated at 300,600 (53% of population), the employed population is estimated at 258,600 (86% employed rate), and the proportion engaged in non-farm private employment is estimated at 13.3% in the areas. If the employment on medium and large enterprise commercial farms and on small commercial livestock units were excluded from the calculation of private non-farm sector employment, the contribution of the sector would be reduced by less than one percent. The balance 36.7% of the employed population in the areas is predominantly in agriculture, including casual laborers, and, to an important but much lesser extent, the public sector. Some residents work outside the areas in regional centers (for instance, residents within the areas in H may work out of the area in Kekirawa). Also, many of the 13.3% of those employed in non-farm private enterprises are also employed in the farm sector.

	self employment		microenterprises		small enterprises		medium and large		totals	
	units	jobs	units	jobs	units	jobs	units	jobs	units	jobs
Kotmale	330	670	168	699	14	170	3	356	515	1895
B	1134	1976	373	1196	38	549	5	284	1550	4005
C	1491	2791	464	1555	32	440	9	1720	1996	6506
G	617	1044	162	617	22	297	3	514	804	2472
H	2601	4686	773	2236	94	986	14	2110	3482	10018
Walawe	1753	2982	827	2602	59	742	13	3217	2652	9543
<b>Totals</b>	<b>7926</b>	<b>14149</b>	<b>2767</b>	<b>8905</b>	<b>259</b>	<b>3184</b>	<b>47</b>	<b>8201</b>	<b>10999</b>	<b>34439</b>

	per 100 farms	per 100 jobs								
Kotmale	n.a.	10.3	n.a.	10.8	n.a.	2.6	n.a.	5.5	n.a.	29.2
B	7.9	1.7	5.9	2.8	2.9	1.3	1.7	0.7	18.4	9.5
C	8.7	5.3	6.0	2.9	1.8	0.8	8.1	3.3	24.6	12.3
G	17.1	8.8	12.4	5.2	6.4	2.5	12.7	4.3	48.6	20.9
H	12.6	6.9	7.4	3.3	3.5	1.4	8.6	3.1	32.1	14.7
Walawe	11.0	3.9	11.8	3.4	3.6	1.0	17.9	4.2	44.4	12.4
<b>Totals</b>	<b>10.6</b>	<b>5.3</b>	<b>7.9</b>	<b>3.4</b>	<b>3.1</b>	<b>1.2</b>	<b>9.3</b>	<b>3.1</b>	<b>31.0</b>	<b>13.3</b>

4.13 The 13.3% share of private non-farm employment in total employment in the areas is compatible with the 1980 finding of 14.2% for the Minneriya settlement, using apparently similar definitions although at that time the largest enterprise (a textile factory) was not counted in this category as it was in the government sector. Minneriya was at the time fifty years old and was considered one of the most successful settlements in terms of non-farm employment (Wimaladharmas 1982). It is also compatible with the findings of other studies which considered non-farm employment in Mahaweli (Gunewardena 1991) and other dry zone areas. In this context, non-farm enterprise development in the areas would appear to be proceeding at an adequate or better pace. However, this level of development is low if one compares it with the situation in most wet zone areas. This reflects one of the distinctions between non-farm employment in the dry zone, where it is usually a secondary occupation of farming families and, on the other hand, in the wet zone areas, where it is usually the major occupation (Hewavitharana 1990). At the national level, it has been estimated that private non-farm employment in rural areas comprises 35.7% of total employment (ILO internal reports 1991). At approximately 61 persons employed in self-employment and microenterprises per 1,000 inhabitants, the level of employment in these units is similar to that in other dry zone areas in Sri Lanka and lower than the densities in the wet zone; it is comparable with

the densities reported by several studies on non-farm sectors in low income African countries (Liedholm and Mead 1993).

**4.14 Expected levels of non-farm enterprise development.** Drawing from experiences with settlement in other dry land areas in Sri Lanka, in which the development of non-farm employment was considered slow and inadequate, and in other countries (Weitz *et al.* 1978; Bell and Hazell 1980), it had been suggested during the early phase of Mahaweli settlement that non-farm employment generation could achieve a level in the areas at the ratio of one non-farm job per settler farm (Scudder 1979) or one per each farm job (Wimaladharmasiri 1982). These non-farm jobs would be generated in the main in response to the consumption related multiplier effects of smallholder agricultural production. The non-farm employment related benefits have been expected to accrue during the third phase of the development of settlement areas, that is, after initial physical development of the land, settlement of the farm families and the initiation of the basic agricultural production. Later, it was reportedly officially estimated that "at full development" there would be 2.5 non-farm jobs for each farm job (World Bank 1988).

**4.15 Current levels of non-farm enterprise development.** Currently, the estimated ratio is three private enterprise full-time equivalent jobs for each ten settler farms in the five irrigated areas, after adjustments for non-paid workers, part-time workers and proprietors who are not engaged full-time (the result being to count gross self-employment positions at .65, microenterprise positions at .8, small enterprise positions at .85 and medium and large enterprise positions at .98). Whether the areas are generating the one non-farm job per settler farm family which it was suggested was possible, however, is unclear, partly for definitional reasons. It is not clear whether the target was to be achieved within the areas, or whether it was to be achieved within the larger regional areas, which would include the nearby and regional centers. This is an important point as clearly the continued development of, for example, Dambulla, Kekirawa, and the whole of Embilipitiya town, are processes being supported by the expansion in population and output in the Mahaweli areas, although the non-farm enterprises and jobs being created in these centers are not accounted for in this report. Secondly, it is not clear whether the target of non-farm jobs included public sector employment. This also is not the subject of this report (the ratio of public sector jobs in the area to settler farms is on the order of one to ten). Thirdly, it is not clear whether the jobs were to be full-time jobs of non-farm families or whether jobs of members of farm families should be counted when these are part-time, or non-paid, or not the primary job.

**4.16 Unemployment.** Unemployment (in which the "usual status" of the person is being without paid employment, available for work and actively seeking work) in Sri Lanka is concentrated in the 15-24 year old age group, which in 1990 had 60% of the total unemployed but only 26% of the labor force (Kelly 1992); many of these are first time job seekers. Unemployment in Sri Lanka, is estimated, rather notionally (Korale 1992), at 14% for rural areas. In the Mahaweli areas, while precise estimates are not available, the unemployment rates are higher in the Uda Walawe, H, Kotmale and G areas and lower in B and C. Using labor day requirements for agriculture, for instance, surplus farm labor in the major agricultural production sector in Uda Walawe averages 36% of the total days available, which is indicative of the problem, although it can not be construed as the unemployment rate and is complicated by the seasonal peaks at two points (the Yala harvest and the Maha planting) at which the rate falls to as low as to 6.5% due to the short-term seasonal labor demand (see, Annex III; JICA 1993).

**4.17 Structural unemployment.** Based on field experiences there appears to be an element of structural unemployment in the areas, in the sense of a labor market mismatch between the type of work available and the work individuals are willing to accept (Gunatilleke 1992). This appears, for instance, in the difficulties experienced in continuing the expansion of contract outgrower based schemes producing high value export crops. The competitiveness of the schemes are dependent on low cost hand labor, but there is a comparatively weak interest on the part of many younger, educated second and third generation individuals to engage in this work. While these crops and other "other field crops" offer higher returns per hectare than rice production, with very few exceptions they offer no significant added returns per labor day (World Bank 1992). This structural mismatch in the labor market may contribute to the explanation of the slowness of crop diversification in the areas and the reported labor shortages (and thus the difficulty in diversifying into more labor intensive crops) amid reported unemployment.

**4.18 Underemployment.** Underemployment in rural areas in Sri Lanka and elsewhere in rural areas in low income countries often is considered a persistent condition (Farmer 1957; Jazairy *et al.* 1992). This is normally defined as visible (e.g., part-time workers who wish to work longer hours) or invisible (more difficult to identify but usually involving underutilization of skills, low output and incomes, with often different measures used for urban and rural areas). In the non-farm sector in the areas, underemployment is indicated by the 10.9% of the employees who work part-time, the 14.6% who are non-paid family employees (Table 14), and the low levels of business incomes.

**4.19** However, these indicators of underemployment should be handled carefully for several reasons: certainly not all the part-time workers are involuntarily in that status; certainly not all the non-paid family workers would be available for work outside the household unit; and, the low wages and incomes in the sector, for at least some of the individuals, reflect the costs of learning and training prior to their moving on to other jobs. Finally, many of these individuals who may be classified as underemployed will in fact be engaged in productive or "indirectly productive" activities which are not normally captured in the types of surveys on which employment estimates are based (Perera 1989).

**4.20 Rural wages on farms and larger enterprises.** There appears to have no increase in real terms in rural wages, not including the garment factories, over the 1989-93 period, as nominal wage rates have risen on the order of an annual average rate of 12%, while inflation (although decelerating to the 11% - 13% range over the last three years of the period) marked an average annual increase of an estimated 22%. Meanwhile, unorganized sector wages in Colombo and the developed areas, including for unskilled construction labor, achieved increases at above the rate of inflation (World Bank 1993).

**4.21** While it is difficult to compile fully comparable wage data for the areas, a number of partial sources are available. The system with the largest nominal increase in wages is reportedly System B, where male agricultural labor rates rose from Rs50 in 1989 to Rs100 in 1993 (PMU 1993). This would represent an annualized increase of 18.9%, less than the inflation rate (see, para. 3.26). The Division of Agricultural Economics and Planning reports that per day rates for paddy labor on small farms were Rs 60 (Kalawewa) and Rs 65 (Polonnaruwa) in Maha 1989/90, compared with Rs 93 and Rs 92 in 1992/93, representing an annualized nominal increases of 15.7% and 12.2%. From the records of the one firm which has been established in System B over the five year period 1989-94, the basic agricultural field worker daily rate in August rose from Rs40 and Rs30, tea included, in 1989 to Rs75 and Rs 65 in 1994 for men and women, respectively, representing annualized increases

of 13.4% and 16.7%. Combining data from the PMU report, field experiences with clients, and an October, 1993 study sponsored by USAID's the Center for Documentation, Information and Evaluation, which inquired of sampled companies the male and female wages paid in Yala 1991 and Yala 1993, a list has been compiled of 25 enterprises with a minimum of three full time employees in the year of the initial observation and in the year of the last observation. The average annualized rate of wage increase of these enterprises was 12.2%. Although there is wide dispersion among the rates reported, with differences between areas and within areas, the information available supports a finding that wage rates in the areas have not risen in real terms.<sup>7</sup>

4.22 Wages for skilled and unskilled workers in the unorganized sector in Colombo (an indicator of alternative wages in the urban and semi-urban areas of the wet zone) in 1990 were not significantly different from those reported in System H (Central Bank 1993). By 1993, however, it appears that wages in the Mahaweli areas in the non-farm sector were lower those in the urban areas. In general, it seems that the faster rate of growth in the urban areas, particularly in construction and industry sectors, has been drawing labor from the areas, although it may be that the rural labor surplus is sufficient and sufficiently mobile to largely offset any tendency for real wage increases.

4.23 The declining real returns per family labor day in paddy production suggests that the growth in the self-employment and microenterprise units in the Mahaweli areas may be resulting from labor being pushed out of agriculture. The context also includes the real wage rates in the areas which have at best kept pace with inflation, and may have declined over recent years, while, on the other hand, real wages have increased in the unorganized sector in Colombo and other areas. This suggests that for many of the individuals involved, self-employment and microenterprises are transitional steps to a movement out of the area, the latter, given the mobility of individuals, particularly females, from the rural to the urban labor markets in the free trade zone and other more developed areas.

4.24 One effect of the falling real returns per family labor day and the stagnant real wage levels has been to dampen the tendency for the composition of the non-farm economic activities to shift in the direction of an added share of higher value activities. While there are indications of such a shift, for instance, in the start-up of beauty salons and photo studios and the expansion of light engineering enterprises into better quality metal furniture which are higher value than the more traditional small rice mills, bakeries, and confectionary making, field experiences indicate that this compositional change is occurring quite slowly. On the other hand, the rise in nominal rural wages has apparently been greater than agricultural productivity increases, which likely explains the increased interest in on-farm mechanization, which in turn has increased the demand for light engineering and other related services. Also, it appears that the dynamics create a situation, in some observed client cases, in which marginally productive lands (e.g., paddy lands which may not be assured of sufficient water for a Yala crop) go out of production as families search for higher incomes from the non-farm sector. Given the low returns in agriculture, uncertain rains and the limited capital available to purchase inputs, there are instances of paddy land being leased over as the farm family devotes its time solely to non-farm enterprise activities.

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<sup>7</sup>Annex V contains a table on wage rates.

**4.25 Inflation.** Inflation in Sri Lanka ranged from 30% in 1989 (IPS 1992; PMU 1993a) and 21.5% in 1990 to 11.4% in 1992 (World Bank 1993). Inflation in the areas during the period 1992-93 is estimated at to have been at an annual rate 13%, down from as high as a reported annual 30% in 1988-89. The exchange rate during averaged Rps 49 - US\$1.

**4.26 Egalitarian land distribution may hinder and help non-farm enterprise development.** The egalitarian distribution of the below command farm lands in the areas, more than 99% of which are allocated in irrigated plots of approximately the same size (one hectare) to small farmers, as well as of the highland homesteads, and the absence of large scale farming units in the areas has implications for the development of the non-farm sector. In several ways this distribution hinders the growth of non-farm enterprises and employment. The low incomes of the families based on small farms may not be sufficient to generate the consumption linked multiplier effects needed to create a thriving non-farm sector. In the original planning, for instance for System H, it reportedly had been intended to establish a farm size which would produce a net farm income equivalent to that of an urban middle class family (Seudder 1979), an income level which during the 1990's remains well beyond the reach of farm families in the areas. Secondly, while the expectation generally is that there is a higher demand for non-farm sector services in irrigated than in non-irrigated areas, the small farms create limited demand for mechanization and related services which could be supplied by business units. They also cushion, at least temporarily, any push effect of low agricultural incomes on labor by absorbing family labor through underemployment in ways that larger, commercial enterprises working on the basis of marginal costs and returns would not. However, as the population grows with successive generations and the labor absorption capacity of the small farms comes under increasing stress it would be expected that the development of the non-farm sector would be stimulated by a growing movement of surplus labor out of agriculture.

**4.27** The wide access to land resources provides many individuals with a starting point for accumulating the minimal capital necessary to start-up a business. Were the access not so wide, land reform would likely be suggested as an initial step in a sustainable growth strategy (Chenery et al. 1973). In fact, a major aspect of the relatively recent settlements of the dry zone has been land reform, with former landless families of the areas, encroachers, small landholders and large landholders of the *purana* villages, as well as settlers from the wet zone, all being provided roughly equal size lots. In the case of System H during the 1970's, which may have been the initial case in which land reform was a large factor, 60% of the settlers have been from the *purana* villages. Lands were acquired and then redistributed and settled, whereas in earlier schemes the private lands were included within the schemes without acquisition and redistribution (Abeywickrema 1982). Although the egalitarian distribution pattern has broken down to some extent, with various forms of extra-legal transfers and accumulation, an estimated 70% of the allotments remain with the settlers or their families. Secondly, this land distribution pattern also provides many with the sense and semblance of permanence in the area, which may be part of the explanation for the apparently high rate of access of self-employment and microenterprise units to institutional sources of credit. Thirdly, the wide distribution of the land resource tends to increase the consumption multiplier of agricultural sector incomes in the area and hence the demand for non-farm enterprise products and services, more so than would a more concentrated pattern (Stewart 1987).

## Background on Entrepreneurs and Enterprises

**5.0 Nature of rural non-farm enterprises in the areas.** In the areas, 84.1% of the individuals employed in the self-employment and microenterprise sub-sectors are either working proprietors (by definition, not necessarily full time), unpaid family labor (technically defined as unemployed own account workers) or part-time workers (technically defined as underemployed if they are willing to work more hours). For the broad non-farm private enterprise sector, 61% of the employed individuals are in these categories (Table 14).

**5.1 Own account workers and entrepreneurs.** In the self-employment and microenterprise units, 75% of the employed individuals are own account workers (Table 1). This proportion may appear high, as it is often considered that wage employment comprises roughly half of the non-farm employment in rural areas in South and South-East Asia (Dunham 1989) and others have estimated that own account workers in Sri Lankan rural enterprises comprise 35% (ILO internal reports 1991). The difference may be due in part to definitions. The difference also, however, reflects the low per capita incomes in the areas and hence the low market demand context. The 75% ratio is, however, similar to that reported by studies of other low income countries (Liedholm and Mead, 1993).

**5.2** For many of these individuals, working as proprietors or as non-paid family workers is an alternative to or supplementary to on-farm economic activities (again, likely underemployment given low farm incomes) while entering the labor force and while continuing to seek wage employment. And thus developments in the agricultural and, on the other hand, the wage paying sectors of the labor market are strong influences on the movement of individuals into or out of self-employment and microenterprises and, more generally, on the dynamics of non-farm enterprise and employment formation.

**5.3 Intact family units and enterprises.** Most of the non-farm enterprise units in the area are integral elements of intact family household units, usually farm based. The strengthened role of the nuclear farm family has been observed as one of the effects of the recent settlement experiences in Sri Lanka (de Silva 1982), although it also has been suggested that the provisions of the Land Development Ordinance restricting subdivision have fostered serious tensions within families (Harris 1984). However, the survival of the farm family household unit can, in fact, depend on diversification into non-farm activities, particularly for the poorest households which can not afford to hire labor. For these units, locally based non-farm economic activities are important for the income which they provide and for ensuring the continued availability of second generation members at times of peak agricultural labor input (McMillan *et al.* 1990).

**5.4** At the same time, the survival of the non-farm enterprise can be dependent on the continued coherence of the family unit and the continued availability of family members to carry out enterprise related tasks. The effective overlapping of the enterprise and household units increases the effect of non-pecuniary factors based on values and attitudes in the decision making of the enterprise,

making them less susceptible to labor market or firm-type analyses based solely on income related hedonistic assumptions.

5.5 This complex nature of many of the units at the self-employment and microenterprise levels, of being own account workers in the labor force, enterprise units in the enterprise structure, and families, is a key and defining feature of the units.

5.6 While this complexity is frequently recognized, the tendency in much of the recent materials on microenterprises is to treat the units as small firms within the enterprise sector, analyze them in terms of efficiency and design strategies regarding them from the perspective of the knowledge available on the functioning of entrepreneurs and firms, even in cases in which this complexity is acknowledged (Boomgard 1989). In treating them as firms, there is also a tendency to blur the distinctions between small and large firms, although it is well-established (Storey *et al.* 1987) that small firms are unusual in that they are normally operated by individuals whose decisions about, for instance, the reinvestment of profits in the business or for personal consumption will be made on differing criteria from those of larger firms. As a general approach, an entrepreneurial or firm level perspective, with strategies such as "transformation lending" (Reed and Befus 1993), may be appropriate for the units with paid employees, either at start up or through expansion, and for those units for which the opportunity costs of the entrepreneur are higher (as indicated, for example, by higher education and skill levels) than prevailing wage levels.

5.7 However, a labor market perspective may be more appropriate for many of the others, particularly for those units operated by own account workers who are prospective wage employees (Aronson 1991). As an example of the difference in the context of a unit's decision whether to engage an employee: from a firm level perspective, a proprietor is interested in the marginal costs and returns from hiring an extra employee. From a labor market perspective, he or she is more interested in the comparative average costs and returns, normally from engaging another family member in the self-employment or microenterprise unit from which the returns are shared by the family, as opposed to that family member's engagement in alternative economic activity. Another example: from a labor market perspective, the units may be performing useful functions such as providing an initial, low cost transition channel for new entrants to the labor force and allowing individuals to work at low opportunity cost times which are compatible with family responsibilities; from a firm level perspective, the workers may be comparatively unproductive, with low investment in technology contributing to low labor productivity.

5.8 Finally, from the perspective of the units as families within the household sector, they are institutions with widely differing forms of internal organization, which are not always clear to non-family members, and in which "business" decisions may be made on the basis of unobservable factors in line with family strategies for risk spreading and consumption smoothing. Often for the self-employment and microenterprise units in the Mahaweli areas, these strategies include using family based rather than market based arrangements, for instance in raising and allocating capital for the enterprise unit.

5.9 While in this report the discussion is organized around entrepreneurs and "enterprises", the alternative perspectives of own account workers in the labor force and, on the other hand, of multiple member, multiple activity, usually farm based, family households, likely would have been equally as informative and useful in providing an understanding of the behaviour of the economic agents involved. This is not a trivial point, as how one conceptualizes the sector will influence, as

much as the goals one may have, the types of interventions (or non-interventions) which one might suggest.

**5.10 Education.** Most of the enterprises are operated by educated proprietors, with 74% having at least nine years of education. This is not unexpected, given the average level of education in the areas (a 1992 household survey in System B found 68% of all individuals had at least nine years of education, PMU 1993a), and the wide spread of educational services in Sri Lanka.

**5.11 Settlers.** 90% of the proprietors classify themselves as local residents, with most being settlers or children of settlers.

**5.12 Premises.** Most businesses are located at the home or adjacent to the home of the proprietor. This includes those businesses operated on commercial sites by individuals selected to come into the area for the purpose of establishing businesses. With few exceptions, these entrepreneurs have not been allocated housing sites and thus the family resides at the same location as the business premises. It was observed during the planning of the settlement areas that these businesses, which tend to be the larger of the small scale ones, would be constrained in reinvesting profits in the areas unless they were offered housing sites. Field experience indicates that this is in fact the case, with businesses appearing to use profits generated in the areas for investments outside.

**5.13 Sources of capital and access to institutional credit.** The main source of capital for the businesses is, of course, own sources of the proprietors. However, a large proportion, 26% of the self-employment and 31% of the microenterprise units ( $\pm 2\%$  at 5% confidence level), had formal financial sector loans outstanding at the time of the survey. The proportion with access to institutional credit is actually higher than this, as there would be an additional proportion of enterprises which would have had previous loans.<sup>8</sup>

**5.14** This situation reflects both the wide dispersal of the major asset (land) and the high degree of spread and penetration of the formal financial sector in rural Sri Lanka. It also reflects the recent history of directed credit and other priority credit programs in the rural areas. According to the banks, there are major recovery problems with many of these programs. The survey results do not reflect the proportion of the enterprises with institutional credits were current on their repayments. There were 37 bank branches in the Mahaweli areas in 1990; in mid-1994 there are 51. A 1990 study of rural non-farm enterprise credit in the areas found the number of bank accounts to be higher than the number of families (Panditha and Peters 1990). A 1994 survey of system B found three times more private deposit accounts than families (PMU 1994).

**5.15** In addition to own sources and institutional credit, client experiences indicate that advance payments in kind or cash are important for certain types of businesses (for instance, custom tailors and light engineering workshops) and delayed payments to suppliers are important for others, although neither are considered sources of capital or credit by the microentrepreneurs.

**5.16** An additional 11% of the self-employment and microenterprise units had non-institutional loans outstanding at the time of the survey, which is not unexpected given the practice of small

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<sup>8</sup>For comparison, it has been estimated that 50% to 66% of UK small businesses never borrow (*The Economist*, November 13, 1993).

businesses generally to seek capital from family, friends, suppliers and other non-formal sources. Remittances from family members working abroad are also a factor in some enterprise units, particularly at start-up. The experience with clients indicates that the funds provided by family members are sometimes regarded as coming from "own sources", reflecting the quasi-equity nature of these resources, with the amount and nature of repayment dependent on the performance of the enterprise. Such "implicit contracts" among family members are ways of diversifying risks with a view to smoothing family consumption levels, particularly in areas in which unpredictable weather is a major factor influencing family income (Rosenzweig 1988).

5.17 **Low levels of business incomes and wages in small scale units.** It is notoriously difficult to collect valid financial flow information from businesses at any level using survey methods, and from own account workers and sole proprietor or family based microenterprises using any method, with household and enterprise surveys giving yielding different results for enterprise incomes (Vijverberg 1991). Persistent problems include reporting and valuing (i) the personal use of business stores and assets (e.g., the confectionary maker who uses the business's flour, oil, etc in the home kitchen) and (ii) the production for own use (e.g., the battery charging business which charges the family's own batteries). There are also problems of valuing the capital of the business, including the physical assets and the goodwill, and of accuracy on the part of those providing the information. Data were collected during the 1992 census and the 1993 survey data on the value of gross sales and assets and of the capital in the business from different sources. However, after a review, the data were considered not reliable and it was decided for the analysis in this report to rely upon field experiences.

5.18 For most of the self-employment and microenterprise units, net cash flow available to the proprietor and family after all cash expenses (not including drawings by the proprietor and family), based on client experiences, during 1993 ranged generally from Rs1,000 to Rs2,000 per month. A 1993 survey carried out during a CDIE study in the areas found that microenterprise unit incomes in the area were less than Rs 2,000 per month. As there is on average one non-paid family employee for every two proprietors, the monthly net income on a per capita basis (proprietor plus non-paid family) ranged from approximately Rs350 to Rs700 per month. If this income were the only income of the household, based on a 1990-91 household survey of the Department of Census and Statistics (Rassas *et al.* 1993), it would appear to place the family in the lowest 20% of Sri Lanka families by income.

5.19 For non-family employees in most of the microenterprise units, wages (including value of food provided) ranged from Rs55 to Rs75 per day during 1993. The rates are comparable with, but in many cases lower than, the agricultural wage levels on the commercial farms. They are generally lower than those in other medium and large scale enterprises such as rice mills and light engineering works. The agricultural wage is the reference wage in the areas, and may be assumed ultimately to be based on some notion of the minimal nutrition requirement of a worker. In those cases in which the microenterprise wage levels are lower than those for agriculture labor, it suggests that the productivity of these activities is less than this basic level and provides a standard of living which is less than the minimally adequate.

5.20 As expected, the self-employment and microenterprise wages at the upper end of the scale are in line with the lower level of wages available in the non-farm medium and large enterprise sector in the areas. In short, as elsewhere, workers in these enterprises receive lower average wages than do workers in the larger, more formally organized firms in the areas. In the areas this is a

reflection of the integration of the self-employment and microenterprise units in the local rural economy, and hence their wage levels tend to be linked to farm income levels. The larger enterprises, however, are more integrated into the formal sector economy of Sri Lanka and the formal regulatory framework. Establishments employing less than 15 workers are exempt or not included under the Labor Codes. In the more rapidly developing areas of Sri Lanka, this and other aspects of regulations on formal sector labor markets, as well as the different skills required in the formal and informal sectors (in which the self-employment and microenterprises may be classified in terms of the Labor Codes), limits the movement of individuals from self-employment and microenterprise directly into medium and large enterprises. (Most small scale units operating under a "business name" are formal in the sense of being registered, through a simple process and payment of Rs500, with the local council. In the areas, an estimated 60% were registered in 1991 and the proportion has been increasing. Banks formerly required registration prior to approving loans above Rs25,000, but now often require it for smaller loans. However, few self-employment or microenterprise units pay BTT - business turnover tax - or make EPF and ETF payments for their workers.)

5.21 These low business income and wage levels reflect the low family income levels of the areas, the low capitalization and low productivity of the self-employment and microenterprise units and the low volume, low margin, highly competitive nature of the major sectors (trade and basic agricultural processing) in which the units participate. Most of the business units are in the retail trade segments of groceries and non-durable miscellaneous goods, segments with very low gross profit margins.

5.22 There is a small but significant group of units, particularly in the microenterprise group, with net incomes which are much higher, in the range of Rs15,000 to Rs20,000 per month. This wide variation is expected, as the international experience is that the range of earnings levels in self-employment is wider than that in wage employment.

### **Spatial Aspects of the Distribution of Enterprises and Employment**

6.0 **Spatial planning.** Most of the areas have been planned spatially with an ascending series of hamlets, village and townships as geographic centers of services and trade. This was done in part as a element of regional planning based on the notion of agglomeration economies. This pattern may be an additional factor conducive to the formation of businesses in the small scale sector. There are 28 rural town centers in the Mahaweli areas, with an average in 1992 of 103 business units per center, with the largest having 402 units and the smallest 24 units.

6.1 **Regional planning.** However, not so well planned are the relationships between these centers and the broader economic regions within which they are located and, specifically, their relationships with the pre-existing nearby centers (e.g., Mahiyangana alongside C, Kaduruwela alongside B, Kekirawa and Dambulla alongside H, the temple lands in Embilipittia town) and regional centers (Anaradhapura, Batticaloa). The new and pre-existing centers, with overlapping markets, are competing growth points for small enterprise development, a concern frequently noted (Scudder 1979; Wanigaratne 1985), with possible result of not achieving sufficient growth in many of the planned centers to generate the expected agglomeration economies. The growth of businesses in planned towns such a Girandurukotte (in between Mahiyangana and Dehiattakandya) or Kotmale New Town (off the main Kandy - Nuwara Eliya bus route, and the buses do not stop) clearly suffers due to this regional effect.

6.2 As expected, the largest concentration of self-employment and microenterprise units are in the areas which are more densely populated, have been settled longer (G, H and Uda Walawe) and the headworks area of Kotmale (Tables 3 and 4). Somewhat surprising is the relatively low, on a per capita basis, number of self-employment units in the Uda Walawe area, given that it is the area with the lowest income level and the most severe land problems, as indicated by the large number of encroachers. However, Walawe has a significant number of medium and large enterprise wage jobs which likely have drawn from the pool of individuals who might otherwise have initiated self-employment or microenterprise units.

6.3 Most enterprises (69% of all units) and jobs (61%) are located in the rural interior areas rather than in the rural town centers (Tables 5 and 6), reflecting the low level of economic activity of most of the enterprise units and their character as home based units producing family income, which in the newer systems in particular complements farm income. The more recently settled of the dry zone systems have a larger proportion of enterprises located in the interior than do the older systems: 77% of the units in C and 74% in B are in the interior areas, compared with Walawe, which with its large number of non-settlers and of encroachers, has 50% of the units in the centers.

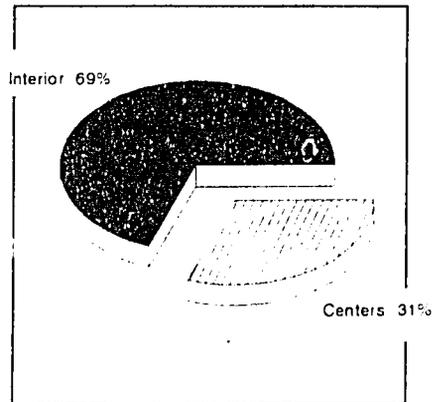


Figure 1 Enterprise locations: rural interior areas and rural centers

6.4 Manufacturing activities have a larger share of the enterprise structure in the rural interior areas than in the centers, a pattern found in many low income countries with large rural populations. This large share reflects the importance of agricultural processing industries in the manufacturing sector structure. 83% of all manufacturing units are located outside the centers.

6.5 The smaller the business unit, the greater the tendency to be located in the interior areas as opposed to a center. 74% of the self-employment units, 58% of the microenterprises and 46% of the small enterprises are in the interior areas. The pattern does not hold for the medium and large enterprises, 67% of which are located in interior areas. The latter are mainly commercial farms, rice mills and garment factories.

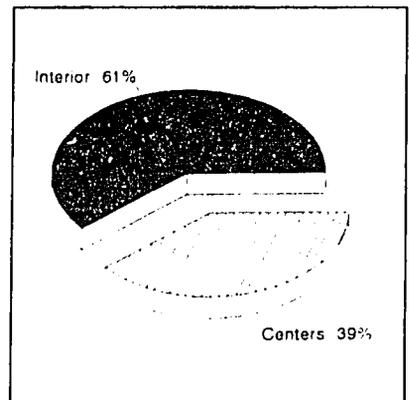


Figure 2 Enterprise jobs: rural interior areas and rural centers

6.6 Businesses in the interior or hinterland areas tend to be smaller and are less likely to be in trading than are the units in the rural town centers. In the interior areas, 78% of the businesses are self-employment units and 19% are microenterprises; while in the centers, 63% of the businesses are self-employment units and 32% microenterprises. In the interior areas, 54% of the enterprises are engaged in trading and 24% in manufacturing, while in the centers, 66% of the units are engaged in trading and 12% in manufacturing.

6.7 In the interior areas, 39% of those employed are engaged in trade, 28% in manufacturing and 16% in agricultural enterprises. In the rural town centers, 51% of the employment is in the trade sector, with 25% in manufacturing and 11% in services.

6.8 Of course, the field experience is that other than for natural resource based industries or certain agricultural processing units, business in interior areas which are located close to growing commercial centers, which may be within or outside the Mahaweli areas, or on major transportation routes, tend to perform better than those which are more isolated.

**Table 5 Enterprises: spatial, size and sector distribution**

Size	Self-employment 72.1% of units		Microenterprises 25.2% of all units		Small enterprises 2.4% of all units		Medium and large 0.4% of all units		Total enterprises	
	Units %	Interior %	Units %	Interior %	Units %	Interior %	Units %	Interior %	Units %	Interior %
Agric	6.3	91.8	17.6	90.5	20.6	95.0	40.0	83.3	9.6	91.3
Manu	19.2	85.4	22.8	77.0	20.6	72.5	36.7	63.6	20.2	82.8
Trade	63.8	70.3	44.0	41.5	28.9	19.6	0	0	57.8	64.9
Serv	9.8	58.7	10.8	25.1	8.2	18.8	0	0	10.0	49.9
Other*	0.8	90.4	4.9	67.8	21.7	21.4	23.3	42.9	2.4	62.8
% total	100.6	73.6	100.4	57.7	100.0	46.4	100.0	66.7	100.1	69.4

\* Other sectors include mining and quarrying, construction, transport, and financial and business services. "Interior" refers to the proportion of the units located in the interior areas rather than in the town centers.

**Table 6 Employment: by spatial, size and sector distribution of enterprises**

Size	Self-employment 41.1% of all jobs		Microenterprises 25.9% of all jobs		Small enterprises 9.2% of all jobs		Medium and large 23.8% of all jobs		Total employment	
	Jobs %	Interior %	Jobs %	Interior %	Jobs %	Interior %	Jobs %	Interior %	Jobs %	Interior %
Agric	5.7	90.0	14.3	91.3	27.0	86.6	25.4	67.6	14.6	80.1
Manu	19.4	83.0	25.2	73.6	21.2	75.2	65.8	42.6	32.1	64.8
Trade	66.2	65.9	45.0	35.3	23.6	15.5			41.0	56.1
Serv	7.9	51.6	10.3	24.0	5.6	15.7			6.4	38.3
Other*	0.8	89.1	5.6	70.6	22.7	16.4	8.9	73.8	6.0	51.1
% total	100.0	69.6	100.0	53.9	100.0	47.6	100.0	50.0	100.1	61.0

\* Other sectors include mining and quarrying, construction, transport, and financial and business services. "Interior" refers to the proportion of the units located in the interior areas rather than in the town centers.

### Size Distribution of Enterprises and Employment

7.0 Enterprise units in the areas are overwhelmingly small, with 72.1% being self employment units and 25.2% being microenterprises. For every three business units without a full-time employee other than the operator, there is one with employees. Only 2.8% of the units have five or more employees.

7.1 This high proportion of units with no or few employees limits the multiplier effects of non-farm sector economic activities. It is fairly typical in developing countries to have a rural enterprise sector size distribution which is concentrated at the small end in this fashion (Chuta and Liedholm 1984). The steep slope of the distribution reflects the lack of strong barriers to entry and the paucity of opportunities available in higher income jobs in these remote rural areas.

7.2 Employment is distributed less typically, with the largest proportion of jobs in the self-employment (41.1%) and significant numbers in the microenterprise (23.5%) and medium and large enterprises categories (25.9%), with small enterprises (9.2%) making a lesser contribution.

7.3 The medium and large enterprise sector share in the employment structure rises to 62% after the figures are adjusted to count only full-time wage jobs.

7.4 **Weakness of the enterprise structure.** This distribution shape, with a very low proportion of units in the small enterprise sector in the middle, gives the enterprise structure a generally weak nature, with limited flexibility and competitive capability and has been referred to elsewhere as the "socialist black hole" (Vaheic and Petrin 1989) or the "missing middle", for instance recently in the case of Indonesia (Berry and Levy 1993). It appears frequently in the dry zone, most strikingly following the 1992-93 insertion of the garment factories under a government supported program. It is a structure which has been observed frequently in situations in which the growth of small businesses is recent and, often, previously had been hindered and in which the importance of the larger enterprises as the result of inward investment is not balanced with the growth through the size distribution of the locally engendered units into the medium and large size categories.

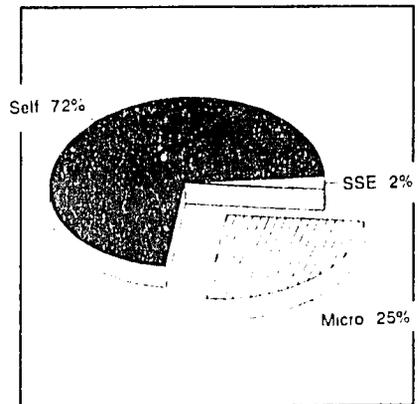


Figure 3 Distribution of enterprises by size

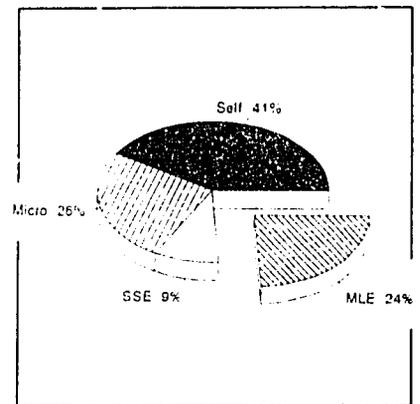


Figure 4 Distribution of jobs by enterprise size

## Industrial Sector Distribution of Enterprises and Employment

8.0 The non-farm enterprise sector is dominated (57.8% of total units) by trading activities, mainly retail *boutiques*, with a small proportion of restaurants and wholesale units. Manufacturing (20.2%) and community and personal services (10%) are the other two significant sectors. With a combined total of 67.8% in trade and services, the distribution is similar to that reported for Minneriya after 50 years of settlement and System H after seven years (Bandaragoda 1988).

8.1 The trade sector is dominated by self-employment and microenterprise units. The majority (58%) of all non-farm enterprise units are in the trade sector. The self-employment category itself is dominated by trading activities (63.8% of the units) while the sectoral distribution is more balanced in the micro and small enterprise category. The medium and large enterprise sector has no units in the trade and community and personal services categories, and is dominated by agricultural and manufacturing sector units.

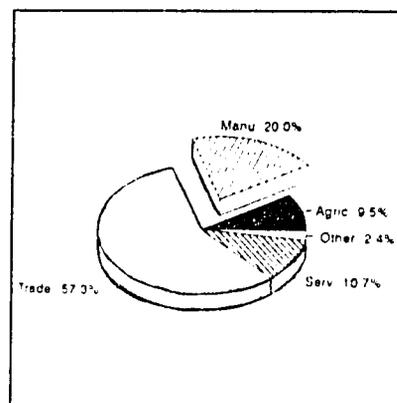


Figure 5 Distribution of enterprises by sector

8.2 The concentration of non-farm private economic activities in the trade sector, which is the sector most sensitive to seasonal variations in demand, in self-employment and microenterprise units, which are the scale of business units most prone to dissolution, underscores the weak capacity of the present enterprise structure to contribute to increases in growth and efficiency or to generate reliable business and family incomes.

8.3 The manufacturing sector is composed mainly of non-factory units in the self-employment and microenterprise categories, which with few exceptions produce technically simple consumer products (e.g., candies, bread, wood and metal furniture, handicrafts, and milled, ground and powdered agricultural products) and agricultural implements and accessories (e.g., basic tools for field work, tractor carts, chicken feeders) for the local and regional markets. There are some cases of production by small units under sub-contracts with larger firms (e.g., of field sprayers) for sale and distribution more widely, but these are very few and have, to date, been tentative. Many units produce homogeneous products (i.e., rice, milled paddy, packeted chillie powder) for very competitive markets with low margins. There is little production of intermediate or higher quality products. The manufacturing units in the small enterprise categories are mainly rice mills, bakeries, tailoring workshops and light engineering workshops.

8.4 The non-farm enterprises in the agricultural sector comprise mainly services such as repairs to tractors and agricultural equipment, animal husbandry units in the microenterprise category, which recorded a considerable increase over the 1992-93 period, and commercial farms in the medium and large enterprise category. The commercial farms and other larger agribusinesses in the areas, have appeared to offer the prospect of significant development impacts through strong multiplier linkages and technology transfer effects on the small scale agricultural production sector. However, based

upon the 1990-94 reports of semi-annual EIED field reviews of the 150 commercial farms which were approved for establishment in the areas over the 1986-94 period, this is a most elusive prospect. By mid-1994, no more than 12 of the farms are operating at a minimally sustainable commercial level. Most of the employment in the commercial agricultural sector is casual or temporary.

8.5 Employment is less concentrated in the trade sector due mainly to the lumpy effect of the garment factories. Of total private non-farm jobs, 41% are in the trade sector, 32% in manufacturing, 14.6% in agriculture and 6.4% in community and personal services.

8.6 Multiple sector enterprises. The sectoral distribution of enterprises and employment should be interpreted with considerable caution. Many of the enterprises and individuals combine several non-farm activities (e.g., chillie grinding, paddy milling, clothes making or other manufacturing activities may be combined with retail trade).

8.7 Secondly, many of the enterprises are effectively family based economic units in which the family combines non-farm and farm activities. This is the case with most of the 42% of the units located on officially assigned farm homesteads, and with many of the 6% of the units which are on encroached land. The individuals in these units have been viewed elsewhere as part-time farmers (Meyer 1983). Also, most of the enterprises located on commercial sites are home based, with the family residing on the site. As a rule, housing sites have not been allocated to non-settler entrepreneurs to whom commercial sites have been alienated (a situation which appears to deter the reinvestment of profits in the area).

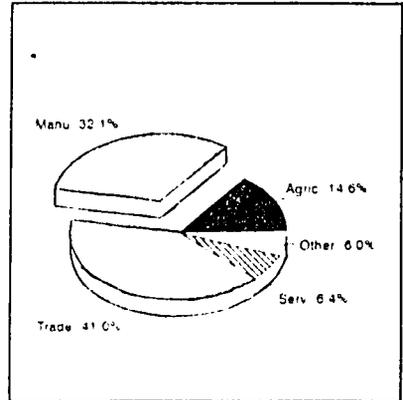


Figure 6 Distribution of jobs by sector

**Gender Distribution of Enterprise Ownership and Employment**

9.0 As noted earlier, the role of most of the enterprises as units within a family household can confound analyses based on conventional labor market or firm-type frameworks. For instance, while the "ownership" of a self-employment unit may from some perspectives (the firm, the labor market) clearly be the operator, in practice it may be more a matter of household based decision making over questions of consumption and investment.

9.1 Family businesses. It is estimated that 20% of the self-employment and microenterprise units are effectively owned and

Table 7 Family enterprises

	% all units with only family jobs	% family jobs of all jobs
self	92.7	95.8
micro	15.9	47.1
small	1.6	12.5
medium/large	0	0.3
total	68.6	45.1

operated as family businesses. The survey data identify 17.4% of the self-employment and microenterprise units as family businesses or as having joint male and female proprietors. However, client observations indicate that a higher proportion are operated in practice as family businesses with ownership, operation and benefits diffused, including many of the 42% of the enterprises located on homesteads in which the family, with few exceptions, also cultivates or has access to paddy land.

9.2 In the survey areas, 69% of the units employ only family members. Of the employment positions in the self-employment and microenterprise units, 96% and 47%, respectively, are held by family members, including the operator. Of all private non-farm enterprise employment positions, 45% are held by family members.

9.3 **Female and male ownership and employment shares.** The number of surveyed enterprise units reporting one female owner is limited (9.4% of total owners), reflecting the low female share of the jobs in self-employment, the sector with three out of every four units. The 1993 survey results indicate that in the five dry zone systems, the female ownership ranges from 7.3% (system B) to 10.7% (Uda Walawe), while in the headworks area of Kotmale, females comprise 9.7% of owners. Female ownership declines as the size of the business unit increases, from 10.9% of the self-employment units to 6.8% of the microenterprises and 1.6% of the small enterprises, and none of the medium and large enterprises (which apparently are all legal entities). The largest proportion of female owners are in the trade sector (11.1% of total owners), followed by agriculture (8.7%) and manufacturing (7.5%). It has been reported recently that 9% of small scale industrial units in India are female owned.

9.4 In employment, in the medium and large enterprise sector, the proportion of jobs held by females is high, while in the self-employment, microenterprise and small

enterprise sectors the proportion held by males is high. Females hold 69% of the jobs in medium and large enterprises, 28% in the self-employment units, and 18% in the micro and small enterprise units. This pattern is somewhat unusual as studies in most countries find high proportions of females in the small scale units, particularly in the household and cottage sectors.

9.5 Females hold most (61%) of the 12,780 wage jobs in Mahaweli areas which are not family based, reflecting their high share of jobs in the medium and large enterprise, the sector which has most (62%) of the non-family wage paying jobs. This also is an unusual aspect of the employment

Table 8 Female shares (%)

	jobs		ownership	
	1992	1993	1992	1993
Self	28	28	10.4	10.9
Micro	15	19	7.7	6.8
Small	15	18.1	4.6	1.6
Medium/Large	64	69	0	0
Agriculture	24	51	7.4	8.7
Manufacturing	42	61	8.9	7.5
Trade	29	25	11.4	11.1
Services	07	7	2.8	4.4
Others*	14	14	2.1	5.9
Total	27.4	38.8	9	9

\* Other sectors include mining and quarrying, transport, construction and financial and business services.

structure in the areas, as reports of studies of microenterprises in other countries indicate findings of high male shares and low female shares in total wage employment (Downing 1990).

9.6 The total female:male employment ratio in the private non-farm sector shifted from 27:73 in 1992 to 40:60 in 1993 as a result of the opening of more than 4,000 jobs for females in the medium and large enterprise garment factories.

9.7 There are more males than females in the labor force in the areas, particularly in the younger working age years. A 1992 survey in B found a female:male ratio of 43:57 for the 15-29 year old age group. Nationally, there is a higher number of males than females, and it appears that the difference is wider in the Mahaweli areas. Nationally, over the period 1980-91, annual male births ranged from 1,041 to 1,053 per 1,000 female births (Department of Census and Statistics 1993).

9.8 The segmented labor markets, with most medium and large enterprise wage jobs in the areas being garment factory positions reserved for females and with relatively frequent opportunities for females to move to positions in other areas (a reported preponderance of the jobs generated in the free trade areas are for females), may contribute to the high male shares in jobs and ownership in the self-employment and microenterprise sectors in the Mahaweli areas. Construction sector jobs, reserved mainly for males, have expanded in Colombo and other areas, but these are often temporary.

**Table 9 Employment: gender distribution of employment types, by enterprise size**

Size of enterprise	self employment		micro enterprise		small enterprise		medium/large		total	
	male	female	male	female	male	female	male	female	male	female
Working Proprietors	52.0	14	24.0	05	06	01	00	00	28.5	7.2
Paid Family Labor	00	00	05	02	02	01	00	00	1.5	0.6
Unpaid Family Labor	15.0	14	05	04	01	01	00	00	7.7	7.0
Full Time Employees	00	00	27.0	05	54.0	09	11.0	86.0	14.6	22.6
Part Time Employees	04	00	21.0	03	18	06	00	03	8.8	2.0
<b>Total</b>	<b>71.0</b>	<b>26.0</b>	<b>82.0</b>	<b>19.0</b>	<b>81.0</b>	<b>18.0</b>	<b>11.0</b>	<b>89.0</b>	<b>61.0</b>	<b>39.5</b>

### Growth in Non-farm Employment in Garment Sector

10.0 The bulk of the net increase in non-farm employment in the areas over 1992-93 occurred in the medium and large scale enterprises (Table 12), mostly as a result of the national program to establish garment factories in rural areas employing a minimum of 500 workers each in rural areas, using the allocation of quotas under the Multi-Fiber Agreement and other incentive instruments.

10.1 Of all jobs in medium and large enterprises in the areas, 54% (4,437 jobs) are in 13 garment factories, seven of which were established under the national program. Based on reports from the factories, the jobs are 90% or more female, normally meeting profile requirements of not being married, no children, under 30 years of age and with high school education. Field experience

indicates that a portion of this increased female employment is a result of an increased participation rate of females in the labor force, due to the proximity of the factories to their homes, rather than a direct reduction in the unemployment rate. There is no comparable source of local wage income in the areas for males.

10.2 The field experience indicates that this sharp rise in wage employment in the garment sector has had a number of effects on the business environment in the areas. It has contributed a stream of new wage income to the aggregate demand levels for the goods and services of microenterprises, smoothing slightly the seasonality of demand in these agriculturally dominated areas. The demand stimulus effect, however, is very limited, for several reasons. The factories are not linked to the agricultural production sector, thus severely restricting any multiplier effects. Secondly, the wages paid during the initial periods of up to six months employment have been at trainee levels (less than Rs1,000 per month) rather than at the minimum level for garment workers in the areas (Rs2,000 per month). Thirdly, part of the increased income generated by the factory wages is replacing incomes that would have been available without the factories. In the alternative of the factories not being established, many of the individuals would have moved to Colombo or its environs to take up positions in garment or similar factories, many of whom, as is the practice, would have remitted to their families a portion of their earnings. In some instances, women from local families have returned from garment factories in the Colombo area to take jobs close to home.

10.3 The garment wages contribute to increases in family incomes, the savings from which are normally a major source of start up capital for self-employment and microenterprises. As with the demand stimulus, however, this effect is very limited. Data is not available on the proportion of the jobs in the factories held by residents of the areas. Certainly in at least one factory in system C, a good portion of the employees are not residents; on the other hand, some area residents, for instance in the northern end of H, travel daily to jobs in garment factories located near but outside the areas.

10.4 The factories carry the potential of contributing to the longer term structural change of the economies of the areas. However, any suggestion along these lines would be hesitant at this stage, given the weak linkages of the garment factories with the rural production economy of the areas and uncertainty over their capability of sustaining their operations in these areas.

### **Agricultural Sector Performance**

11.0 The agricultural sector performance is the major factor in determining the aggregate demand for the products and services of non-farm self-employment, microenterprise and small enterprise business units in these areas. With 80% of the families being farm families (including settlers and others), and an estimated 70% of farm family income derived from agricultural production, the demand for consumption goods is most influenced by agricultural sector performance. Reflecting this, most enterprises report that demand for their products and services is heavily seasonal, rising often by multiples of two or three in line with the harvests. Nonetheless, given the low level of farm family incomes in the areas and the expenditure of, say, 50% of family income on food (up from estimated 20% - 30% in dry zone areas in 1950 - Farmer 1957), the linkages between the agricultural sector and the non-farm sector are not sufficiently strong to establish major multiplier effects. In 1989, it was estimated that farm family disposable incomes, net of paddy production costs, were Rs 28,000, of which 73% was expended on food, not including rice, with the balance on other "basic

needs" items, and that disposable income levels would require to be doubled to achieve major multiplier effects (Scudder and Wimaladharmma 1989).

11.1 Recent agricultural performance has been sluggish. The main indicators of agricultural sector performance in the areas are paddy and chillie production. The most reliable indicator, given the fairly stable yields and vagaries of the rains, is the per capita area cultivated to paddy and other field crops over the medium term. The area cultivated in paddy increased 8% (from 112,852 hectares to 122,084) over the 1990-93 period; the area cultivated in other field crops in 1993 was the same as in 1990 (24,700 hectares).<sup>9</sup> This compares with an '8% increase (including new settlers) in population over the same period.

11.2 The survey took place during September - October at the end of the successful 1993 Yala (short rains) season, which in turn followed a successful 1992/93 Maha (long rains) season; during these 1993 seasons the combined value of the production of paddy and chillie, the main other field crop, rose 56% in current prices.<sup>10</sup> However, 1992 had been a particularly poor agricultural year, in Sri Lanka (World Bank 1993) as a result of poor weather. In the areas it has been estimated that real per capita income in the areas dropped by 22% in real terms, although there are other reports which show an increase in System B (PMU 1993a and 1993b).

11.3 High value crops are being introduced in Mahaweli areas, but to date their contribution to total agricultural sector income is modest. Increases have been attained through the commercial production of higher value cash export crops through outgrower arrangements. During 1993 these continued to increase, rising to 6,200 growers from an estimated 3,400 in 1992 and from 770 in 1989. Most grow gherkins or tobacco on small plots complementing the production of paddy and other field crops. In spite of this rapid growth, with an estimated 7.5% of the farm families involved in outgrower contracts (6,500 outgrowers), gaining an additional Rs 10,000 per family as the net increased benefit as compared with paddy production, the income contributions from these schemes are not as yet of sufficient volume as to have a significant impact on aggregate demand for non-farm enterprises.

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<sup>9</sup>These gross figures incorporate significant increases in paddy production in B and C (due mainly to increased acreage as result of new settlement) and decline in H, and significant increases in OFC production in B and H and declines in C and G.

<sup>10</sup>Paddy production in 1993 covered 83% of the cultivated area, varying from 70% in H to 93% in B. Chillie, the second main crop, covered an estimated 7%. Source: PMU, MASL.

**Table 10 Performance of rice and chillie production, 1992-93**

	paddy			chillie			Total value of paddy and chillie Rs m
	ha. cultivated	mt produced	value Rs m	ha. cultivated	mt produced	value Rs m	
1992	101293.9	403076.4	3009.2	3879.0	4305.4	425.1	3434.3
1993	121358.0	511447.6	4256.3	10392.0	11358.2	1111.7	5368.0
Increase	20064.1	108371.2	1247.1	6513.0	7052.8	686.6	1933.7
% increase	19.8	26.9	41.4	167.9	163.8	161.5	56.3

Source: Based on MASl, data of MEA and PMU for Systems B, C, G, H and Uda Walawe

11.4 The good 1993 agricultural sector performance, based on client experiences, created a surge in seasonal demand for the non-farm sector. It also would have generated some household surplus, which potentially would be available for, among other possibilities, increased investments in the non-farm sector. For existing businesses, client observations indicate that families with both paddy land and non-farm businesses, which is the most common case, will in some instances take revenue generated by a paddy or chillie harvest and invest it in the non-farm business, reflecting presumably a higher productivity in the non-farm sector. Based on client experiences, this is likely, for instance, in cases in which the non-farm business provides a steady, albeit low level, income stream (say, a small bakery) sufficient to cover most of the subsistence needs of the family, with the harvest income being more lumpy and less predictable.

11.5 To close this section, over the medium term increases in contributions from the agricultural sector to aggregate demand have been weak, as reflected in declining per capita areas under cultivation and, as discussed in an earlier section, declining returns to family labor and per acre for paddy, the main crop. However, for 1993, it appears that as a result of increased paddy and other field crop production, in response mainly to good weather, there was an increased seasonal demand for and investment in non-farm enterprises, which likely contributed to the growth of non-farm enterprises and employment. However, in the absence of the introduction of new rice technologies or significantly higher rice prices, neither of which is anticipated in the medium term, significant higher levels of future contributions from the agricultural sector to demand will depend upon the opening of new lands (limited scope), expanded diversification into other field crops (present trends are not encouraging), continued expansion of contract outgrower arrangements (recent study indicates this is problematical, Rassas 1994) and good weather.

### Business Formation

12.0 There was an estimated 4% net increase over 1992-93 in the number of enterprise units in the areas.

12.1 **Who creates the enterprises?** The majority, more than 99% of the gross new enterprises in the areas, are opened by local entrepreneurs rather than by people coming into the area. These are normally second and third generation settlers, seeking income sources to complement their family farm incomes, or encroachers who have been in the areas for extended periods. Inward investment in terms of numbers of units is extremely limited.

12.2 **Start ups and "new qualifiers".** An important source of new enterprise units are the self-employment and microenterprise units formed by local residents who previously were engaged in the same or a related activity on an initial, very low level basis, for example, preparing food items occasionally for sale or fabricating woodwork items on a spare time basis.<sup>11</sup> This new qualifiers group comprised 39% of the total number of start ups of enterprise units over the period 1992-93 in the survey areas. Kotmale had the highest rate (56%) of new qualifiers as a percentage of total start ups, reflecting the lack of paddy land or other on-farm opportunities in that headworks area; the average contribution of new qualifiers to total start ups for the dry zone systems was 37%.

12.3 Of all enterprise start ups (including the new qualifiers) in the survey areas, 77% were self-employment units; 20% were microenterprises (Table 16).

12.4 Inward investment was responsible for the start up of an estimated 40 (including 16 of the 17 new medium and large enterprises) new units in all the Mahaweli areas. The dry zone areas in general, including the Mahaweli areas (this, despite the investments in basic irrigation and other physical infrastructure), lack the competitive infrastructure, location and agglomeration economies which most non-resource based inward investors seek, and are not regarded as competitive as areas located closer to Colombo and other wet zone areas more adequately supplied with infrastructure and more conveniently located with regard to international transportation facilities. Of course the inward investment based enterprises which were started (e.g., the garment factories, a shoe factory in Walawe, a false eyelash factory in Kotmale, several commercial farms) have created the majority of new wage paying jobs in the areas.

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<sup>11</sup>Minimum incomes or employment levels, on the order of Rs 200 net per month for non-farm units, were defined for determining whether to classify economic activities as enterprises. A large number of animal husbandry units in the self-employment category earning marginal income and crops at the self-employment and micro-enterprise level (i.e., smallholder settler farms) were excluded by definition.

## Growth in Employment

13.0 There was an estimated 21.6% net growth over 1992-93 in total non-farm employment in the areas, with employment rising from 28,300 to 34,400. Comparing the two static positions, 1992 against 1993, 71% of the net new jobs are in the medium and large enterprises, with smaller shares in microenterprises (23%) and small enterprises (5%). In the static comparison, it appears that self-employment units registered no significant increase. In fact, however, the movement of self-employment units up to the microenterprise group accounted for 59% of the increase of microenterprise units (see, Table 14). The unusual factor was the uncommon increase in the medium and large enterprises, underscoring the impact of the garment factories and the low initial base of jobs (there were none in 1988) in enterprises of this size in the Mahaweli areas.

Table 12 Enterprise employment

	1992		1993		Increase	
	Jobs	%	Jobs	%	Jobs	%
Self	14092	49.8	14149	41.1	57	0.4
Micro	7501	26.5	8905	25.9	1404	18.7
Small	2880	10.2	3184	9.2	304	10.6
MLE	3849	13.6	8201	23.8	4352	113.1
Total	28322	100.0	34439	100.0	6117	21.6

13.1 **Creating jobs - start-ups or expansions?** Gross job creation is the sum of the new jobs created by existing enterprises and the jobs created by new start-ups. Over 1992-93, of all new jobs in the self-employment, micro and small enterprise units in the survey areas, 49% were created by expansions and 51% by start-ups. This compares with a finding of an average of 23% by expansions and 77% by start-up in recent studies in five low income countries (Mead 1994).<sup>12</sup> Of the gross jobs created in this small scale sector, 62% were created by self-employment units (45% of which were by expansions, usually moving to the microenterprise group) and 29% by microenterprises (56% of which were by expansions).

13.2 Net jobs were added, within this small scale sector (not including the medium and large enterprise), mainly by the self-employment sector when one holds the group constant. That is, by observing what the 1992 cohort of each of the size groups created and destroyed.

<sup>12</sup>For comparison, to compress a much debated topic, it is estimated that two-thirds of gross job creation in the US is by start-ups and one-third by expansions. This varies across sectors - more by start-ups in the trade sector, more by expansions in manufacturing - and with the business cycle, job generation by start-ups being countercyclical (SBA 1992).

by 1992 size category, job changes 1992-93	self employment		microenterprises		small enterprises		total	
	jobs	%	jobs	%	jobs	%	jobs	%
start ups	606	55.4	219	43.7	69	43.1	894	51.0
expansions	487	44.6	282	56.3	91	56.9	860	49.0
<b>Gross creation</b>	<b>1093</b>	<b>62.3</b>	<b>501</b>	<b>28.6</b>	<b>160</b>	<b>9.1</b>	<b>1754</b>	<b>100.0</b>
closures	519	62.5	285	58.5	78	45.1	882	59.2
contractions	311	37.5	202	41.5	95	54.9	608	40.8
<b>Gross destruction</b>	<b>830</b>	<b>55.7</b>	<b>487</b>	<b>32.7</b>	<b>173</b>	<b>11.6</b>	<b>1490</b>	<b>100.0</b>
<b>Net creation</b>	<b>263</b>	<b>99.6</b>	<b>14</b>	<b>5.3</b>	<b>-13</b>	<b>-4.9</b>	<b>264</b>	<b>100.0</b>

13.3 Which enterprises destroy jobs? The self-employment category creates the most jobs (62.3% of all creations by expansions and start ups) and destroys the most (55.7%). Taking the small scale sector as a whole, over 1992-93, for every 100 jobs created, 85 were destroyed. For every 100 jobs created by expansions, 70 were lost in contractions. Start ups and closures were almost equal. Most jobs are lost by enterprise dissolution (59%) rather than by contractions (41%).

13.4 Changing composition of employment may indicate dynamism. Self-employment and microenterprise sectors can absorb people into low income jobs as part of a survival strategy in a stagnant economy; often the absorption is of family members. In a dynamic period, we would expect that the structure of employment in the self-employment and microenterprise sectors would shift (through the process of job creation and destruction) away from unpaid family workers, paid family workers, and part-time employees and toward full time wage employees (in microenterprises) and working proprietors (in the self employment units).<sup>13</sup> Over 1992-93, in each of the areas covered, this shift in composition was taking place.

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<sup>13</sup>For comparison, in the Mahaweli areas, the ratio of proprietors to non-paid family workers is 2:1, in the OECD countries, the ratio is approximately 8:1.

Size of enterprise	self employment		microenterprise		small		med/large		total %	
	1992	1993	1992	1993	1992	1993	1992	1993	1992	1993
<b>Working Proprietors</b>	55.5	66.0	32.6	30.4	7.3	6.9	0.0	0.3	39.3	30.4
<b>Paid Family Labor</b>	0.1	0.4	8.0	7.7	0.0	3.5	0.0	0.0	2.1	2.4
<b>Unpaid Family Labor</b>	39.9	29.5	12.1	9.0	2.1	2.2	0.0	0.0	22.2	12.4
<b>Full Time Employees</b>	0.5	0.0	33.7	34.3	73.8	63.3	100.0	96.6	33.2	45.3
<b>Part Time Employees</b>	3.9	4.2	13.7	18.6	16.8	24.1	0.0	3.1	7.1	9.6
<b>Total</b>	100	100	100	101	100	100	100	100	100	100.3

### Churning and Mobility in the Enterprise Structure

14.0 As the discussion of business formation and employment generation have indicated, the annual net increase in enterprise units and employment represents the end position after a year of churning, with businesses starting, expanding, contracting and going out of business, sometimes temporarily, sometimes permanently. This churning is characteristic at the self-employment and microenterprise levels in sectors with modest capital and skill requirements for start-up, operation and dissolution.

14.1 Of the enterprises in the survey areas which existed in 1992, by 1993:

- 23% had gone out of business
- 12% had moved up in employment size category, 11% had expanded in a smaller way;
- 8% had moved down in size category, 2% had contracted in a smaller way;
- 44% registered no change comparing the two positions a year apart (i.e., they may have changed and reversed the change during the year).

14.2 Of course this understates the employment related churning. Changes within the period not reflected in the net change at the end of the period (e.g., a unit which registered no net changes may have varied its employment levels during the year) and changes in jobs within an enterprise (e.g., a unit may have hired a skilled worker and released an unskilled one) are not captured. Also, changes in the individuals holding the jobs are not captured in the data.

14.3 Changes in sector or type of business were recorded for only 5% of the units in the survey areas.

14.4 Important changes are indicated by changes in employment size group (defined by employment levels). In terms of proportions, these tend to be more downwards in size than upwards, with most changes at the lower end of the size distribution. During 1992-93, of the units in the in the survey areas, 13.8% of self-employment units grew into microenterprises and 4.3% of the microenterprise expanded to small enterprises. However, 27.2% of the microenterprises contracted to the self-employment level.

14.5 Most enterprises do not grow. In the survey areas, 23% of the enterprises grew during the year. Of the enterprises existing in 1993, 53% of the self-employment units and 68% of the microenterprise units had added no employees during their life. Of all enterprises which started as self-employment units, less than 1% had grown to the small enterprise (i.e., five or more employee) size group. More positively, some 45% had added some employees at some point during their existence.

14.6 The amount of churning is indicated partially by the following Table 16. It is an estimate of the movement of enterprises in the survey areas over the period 1992-93, incorporating adjustments for underenumeration during the 1992 census. The table shows how the increase or decrease in a particular size group result from the interplay of enterprise dissolutions, movements out of the size group, movements into the size group and start ups, and provides an analytical perspective quite different from a more static one. For instance, while the self-employment sector grew only slightly when one considers the net position (from 1,208 units to 1,223 units), the perspective changes when one considers that 175 units (14.5%) expanded and thus moved up and out of the self-employment size category.

**Table 15 Enterprise shifts**  
% of enterprises of each group which shifted up or down in size category

	Self	Micro	SSE	MLE	Total
Self	0	13.8	0.7	0	14.5
Micro	27.2	"	4.3	0.3	31.8
SSE	7.9	26.3	"	2.6	36.8
MLE	0	0	0		
% all units that shifted					18.2

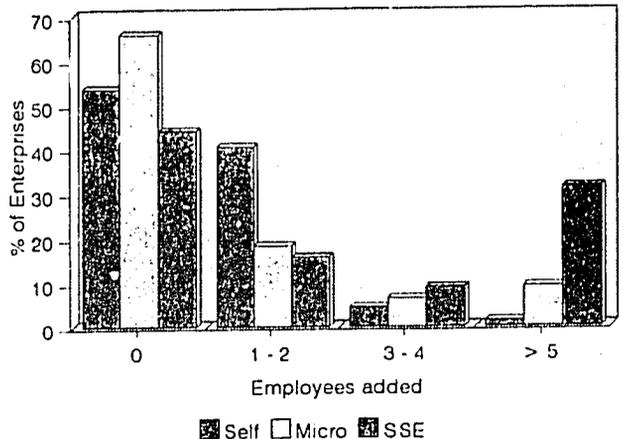


Table 16 Enterprise churning during 1992-93

	1992	close	expand	move up	reduce	move down	no change	move in	start up	1993
self	1208	283	94	175	227	n.a.	750	113	360	1223
micro	434	99	102	20	9	117	198	193	94	485
small	52	5	8	1	8	18	28	29	7	64
MLE	3	1					2	1	5	8
Total	1697	388	204	196	245	135	978	336	466	1780
% 92 base	100.0	22.9	12.0	11.5	14.4	8.0	57.6	19.8	27.5	104.9
% 93 base	95.3	21.8	11.5	11.0	13.7	7.6	54.9	18.9	26.2	100.0

\*Expand\* - units increased jobs but did not move up in size group; \*reduce\* - units contracted jobs but did not move down in size group.

14.7 Kotmale had the highest (32%) proportion of units which increased their employment levels; enterprises in system B had the lowest (16.9%) which increased their employment. About half the surviving enterprises in all six systems have made changes in employment ranging from System C - 56.8%, Kotmale - 56.2%, G - 54.5%, Uda Walawe - 47.7%, H - 47.2% to System B - 47.1%.

14.8 However, in Systems G and B the number of enterprises reducing employment exceeded the number increasing employment while in the other four systems the net position was positive.

### Survival

15.0 Enterprise survival is defined as a unit which does not close, other than seasonally. This definition thus excludes businesses which reopen, and is thus relatively conservative. In the study of survival of U.S. firms, for example, data has been monitored for two years to determine whether a business reopens, before classifying it as closed (Phillips and Dirchhoff 1989). With data from the repeat surveys in hand it will be possible to vary the definition of survival.

15.1 The average one year survival rate for all enterprises was 77%. At this rate of survival, 27% of the units survive for five years; the same five year survival rate is achieved if one applies the varying rates of survival depending on a unit's age (Table 17); which is fairly good given that most units are in the trade sector.<sup>14</sup> In general, the average one year survival rates may vary with the size of the units, although there is no significant difference between the self-employment and microenterprise (76.6% and 77.2%, respectively). The average one year survival rate for the small enterprises was 89.5%. The planned repeat surveys of the same units will give a firmer indication as to whether this pattern, particularly the lack of difference between the survival rates of the self-employment and microenterprise units, is persistent.

<sup>14</sup>This compares with a 10% survival rate over five years for new retail stores in the U.S.

**15.2 Which enterprises go out of business?** For every five enterprises created during the year in the survey areas, four went out of business (Table 16). Not unexpectedly, 25% of all enterprise closures are of 0-1 year old units, 50% of all closures are in the 0-3 year old group (see, Table 15).

**15.3 Why do they close?** One can discuss five groups of explanations for the frequent business closures of young and small enterprises in the areas.

**15.4 Life cycle.** In the first group, the closures are ascribed to aspects of the life cycles of very small business units under market conditions. From this perspective, firm life cycles are often viewed, for instance by bankers, in analyzing the financial requirements and risks of lending to small firms, in four stages - start-up, growth, maturity and renewal or decline. The international experience is thought to be that a high proportion of such businesses fail in their initial years, never having attained the second or growth stage of the cycle. The smaller the unit the higher the probability that it will fail early. Higher age is thought to be associated with a higher probability of survival. This is related to the always imperfect information (e.g., of the competition, the technology, the market) available to an entrepreneur prior to starting a unit. The most efficient method of improving the information base often includes trial and error over time. Banks, well aware of the pattern of high rates of closure of young businesses during the start-up phase and of the imperfect information (e.g., on a new entrepreneur's ability and willingness to repay) available to the bank, generally lend to existing businesses, that is those in the second or third stage of the life cycle.

**15.5** While no conclusions are being drawn on the basis on the survey data covering a one year period and a limited number of observations for micro and small enterprises and for all enterprises past the five year point, the results were unexpected in that there does not appear to be for self-employment and microenterprise units a consistently strong relationship between age and survival (Table 17). The five year survival rate (25%) for self-employment units is slightly less than the overall average, mainly because 30% of the new self-employment units close within their first year of operation.

**15.6** It has also been suggested that the life cycle model is not a valid analytical framework for considering the evolution of enterprises, but rather that a learning model explains more usefully the evolution of enterprises - ideas are tried, growth and then overgrowth may occur, losses and retrenchment follow, recovery sets in, a new idea emerges, and so on (Birch and MacCracken 1981).

**15.7 Labor market function.** As most enterprises are operated by own account workers, for many the shortness of their life span is related to the labor market function of the units and time required by the individual to find other employment. The experiences with Business Center clients is that "taking a job" or moving out of the area in search of a job are frequent reasons for the closure of a unit. This finding is similar to that of other studies of self-employment and microenterprise units in low income countries which have found that business reasons account for, approximately, only half of the closures of such units (Liedholm and Mead 1993). Studies in the U.S. using 20 years of Bureau of Census data have found that unincorporated self-employment units close at the rate on 21%-26% each year to take a job, and that the rates are higher for the units operated by younger workers; the self-employment units opened by unemployed workers close at the rate of some 50% per year (Evans and Leighton 1989).

**15.8 Technical constraints.** The second group of explanations is a series of generalized technical constraints (e.g., the remoteness of the areas, limited local market size, inadequate physical and

social infrastructure) with which the enterprises in the area must contend. These are familiar constraints in rural areas. Policies and programs to address such constraints in rural areas, particularly for the small scale sector, in the midst of industrialization, have been a key element in the rapid growth of the East Asian countries (World Bank 1993). While credit is often grouped in the category of technical constraints, the survey data indicate that enterprises with access to credit had a higher probability of survival than did those who did not have access to credit, and that those who had access to informal credit but not institutional credit had a higher probability of survival than those who had institutional credit.

**15.9 Open, competitive business environment.** The third group of explanations of enterprise closures has to do with the openness of the business environment in the areas, which for small scale units imposes a basic rule of thumb of easy entry, easy exit. However, this relatively barrier free feature also imposes a condition of very active competition, which is intense in both good times and bad, most especially within the sector with the lowest barriers to entry and exit, notably small scale retail trade (boutiques). The constant entry or threat of entry of new units enforces a strict market discipline, resulting in a large proportion of the exits being of young firms.

**15.10 Household survival.** Finally, the function of the units as part of a farm household unit is in many cases a determining feature, with individuals leaving self-employment and microenterprises to continue the household's strategy of diversifying its income base and searching for more remunerative income sources. The unfettered, highly competitive business environment combines with the very low levels of income in the areas to establish the precariousness of young, small business units by ensuring that their operating volumes are low and margins narrow. At the level of a net Rs1,500 per month, the unit meets 70% of the minimum family subsistence requirements (estimated at Rs26,000 per family per year; see living expenses estimates in Annex III). If an enterprise unit is one of multiple economic activities of a multiple member family, it can continue at this low net cash flow level. If it is the sole activity, it is vulnerable to closure as the family members search for more remunerative ways, most likely hiring out as labor, or working to meet subsistence needs.

**15.11** The result of the differing survival rates of the subsectors is an age distribution of existing enterprise units in which some 50% of the small enterprises are more than five year old, compared with 32% of the self-employment and 33% of the microenterprise units.

**15.12** Other than size and age, research in other countries suggests that the enterprises which grow have higher survival rates than ones which do not grow (Phillips and Kirchhoff 1989), although there are some studies which suggest that for the smaller scale units the survivors do not have higher growth rate than the ones which close (Dunne and Hughes 1990). In analysing the data from the repeat surveys in the areas this point will be considered.

**Table 17 Closures of enterprises by age and size group**

Age in years	self employment			microenterprises			small enterprises			total			closed % of total
	1992	closed	%	1992	closed	%	1992	closed	%	1992	closed	%	
1	203	61	30.0	54	14	25.9	6	1	16.7	263	76	28.9	24.8
2	172	28	16.3	53	13	24.5	5	0	0.0	230	41	17.8	13.4
3	117	29	24.8	31	6	19.4	4	0	0.0	152	35	23.0	11.4
4	77	25	32.5	27	4	14.8	4	1	25.0	108	30	27.8	9.8
5	61	10	16.4	18	5	27.8	3	0	0.0	82	15	18.3	4.9
6	48	10	20.8	24	6	25.0	0	0	??	72	16	22.2	5.2
7	37	6	16.2	11	3	27.3	2	0	0.0	50	9	18.0	2.9
8	45	7	15.6	26	5	19.2	2	0	0.0	73	12	16.4	3.9
9	31	7	22.6	7	2	28.6	1	0	0.0	39	9	23.1	2.9
10	20	7	35.0	6	1	16.7	1	0	0.0	27	8	29.6	2.6
10 - 15	71	20	28.2	32	10	31.3	7	1	14.3	110	31	28.2	10.1
15 - 20	36	4	11.1	8	0	0.0	1	0	0.0	45	4	8.9	1.3
20 - 30	40	6	15.0	18	2	11.1	1	0	0.0	59	8	13.6	2.6
> 30	16	8	50.0	9	3	33.3	1	1	100	26	12	46.2	3.9
Total	974	228	23.4	324	74	22.8	38	4	10.5	1336	306	22.9	99.7

**Table 18 Enterprises: age distribution of units, by size, 1992-93**

Years of survival Size	0-5 years		6-10 years		11-15 years		> 15 years	
	1992	1993	1992	1993	1992	1993	1992	1993
Self-Employment	71.1	64.0	16.2	18.8	6.4	8.4	6.3	8.8
Micro	62.9	62.3	19.4	23.7	8.4	6.6	9.3	7.4
Small enterprise	49.5	44.4	19.1	23.8	14.9	22.2	16.5	9.6
Med/ Large	80.0	100.0	10.0	0.0	6.7	0.0	3.3	0.0
Total	68.7	63.3	17.0	20.1	7.0	8.3	7.2	8.4

### Land Tenure Security, with reference to access to credit and other indicators of business performance

16.0 There has been considerable interest in the relationship between security of land tenure and the performance of enterprises in Sri Lanka, including a concern that a possible lack of security of land tenure was or would hinder the development response to the public sector investments in the dry zone irrigated areas in which the MASL operates. While neither the 1992 census nor the 1993 survey were designed specifically to examine the issue of land tenure and business performance, the data collected record the land status of each enterprise and, on the other hand, provide some indications of performance. This section proceeds with a general overview of land tenure, which is then followed by a preliminary review of the relationship between tenure and business performance for 1,778 enterprises in the areas covered as indicated by the available data.

**Table 19 Land tenure: tenure status of enterprises by size category**

*Land tenure status	self-employment		microenterprises		small enterprises		totals	
	units**	%	units	%	units	%	units	%
1	143	11.61	59	12.22	4	6.35	206	11.59
2	413	33.52	110	22.77	11	17.46	534	30.03
3	292	23.70	139	28.78	25	39.68	456	25.65
4	87	7.06	17	3.52	3	4.76	107	6.02
5	105	8.52	41	8.49	5	7.94	151	8.49
6	192	15.58	117	24.22	15	23.81	324	18.22
<b>Totals</b>	<b>1232</b>	<b>100</b>	<b>483</b>	<b>100</b>	<b>63</b>	<b>100</b>	<b>1778</b>	<b>100.00</b>

\*1) Inherited homestead 2) homestead 3) MASL permit 4) encroacher 5) informal purchase 6) informal rental. \*\*Units is the number of enterprises covered in the survey.

16.1 **How secure?** Property "ownership" is a bundle of limited rights (to use, lease, bequeath, sell, etc.), and different types of tenure security embody different sticks of the bundle. The concepts of property, title and ownership are complex. However, in the sense that different types of land tenure accord varying degrees of rights to hold and dispose of the real property concerned, we can for the purposes of this report distinguish six types of land tenure for non-farm enterprises in the Mahaweli areas. These may be ranked according to the degree in which they contain, formally, more or fewer sticks of the property ownership bundle. In order of highest to lowest degree of formal security, these are: homestead, inherited homestead, MASL lease (in fact, an annual permit), informal purchase, informal lease and encroacher.

16.2 In the survey areas, most enterprises are located on sites which have been assigned officially by the MASL, namely, homesteads (42%) assigned under the Land Development Ordinance or on commercial sites assigned with an MASL annual permit (26%) under the Crown Lands Ordinance. The balance 32% are located on encroached state lands or on sites purchased or rented from homestead or permit holders, which are extra-legal tenures as there are no legal provision for such transactions.

16.3 In the case of the commercial sites in the townships, villages and hamlets, for all Mahaweli areas, as of June 30, 1994, of the planned 6,045 sites, 4,014 had been alienated. Individuals are selected and the sites alienated to them through official procedures. The selection process has at times been criticized, and it appears that the process is not dissimilar to the "rent seeking" behaviour criteria found in other aspects of irrigation schemes (Repetto 1986). A large proportion of the original allottees have leased or sold the sites to others. As of June, 1994, such extra-legal transactions had been officially reported for 745 (19%) of the alienated sites.

16.4 None of the businesses in the Mahaweli areas hold what are referred to as "partition titles", that is titles (i.e., ownership rights) which have been recorded in a court decision and hence considered "absolute". (A slight exception to this rule would be businesses in a few areas which were old settlements which subsequently were encapsulated within a Mahaweli area; there may be businesses in such areas holding deeds. )

16.5 However, most entrepreneurs have some degree of "prescriptive title" to their sites. Prescriptive title arises formally from 10 years undisturbed use of the land, a process akin to obtaining ownership in the US by adverse possession, usually for 20 years (Corley and Black 1968). Prescriptive titles may be documented (e.g., in exchanges of letters, in sales documents, in photographs of land use), and their rights may be transferred, but the titles themselves may be challenged and thus are not regarded as secure as partition titles. The clearest prescriptive titles in the areas are held for family lands in the *purana* villages, although from the MASL the family may hold merely an annual permit, and those of homestead holders.

16.6 In the cases of MASL permit holders on commercial sites under the Crown Lands Ordinance, any claim to prescriptive title would appear formally weak, as their possession is "disturbed" by their rent paying relationship with the MASL. However, in practice, these permits are regarded as conferring prescriptive title once the person has occupied and developed the site with a permanent structure. In instances in which the actual permit documents have not been issued, but there is documentary evidence of the official decision to issue the permit, this is normally considered sufficient by officials to confer prescriptive rights. During 1994, the MASL began offering grants to permit holders who had developed and were occupying the site alienated to them. In the cases of enterprises on homesteads alienated under the Land Development Ordinance, the expectation is that as provided for in a 1981 amendment, the settlers will be issued, at some point, *Swarnabhomi* land grants, which are quite similar to freehold titles, although there are restrictions. In the meantime, the settlers on these sites are regarded, in practice although not formally, as holding prescriptive titles.

16.7 Banks accept partition titles as collateral; they accept prescriptive titles as indicative of creditworthiness.

16.8 Encroachers on state land would appear to have prescriptive titles in instances in which they can demonstrate ten years undisturbed occupancy. While such assertions of prescriptive title could be challenged, in practice in the Mahaweli areas it appears that undisturbed occupancy of state lands for even less than ten years (say, for five years) is socially and officially regarded as conferring

prescriptive rights of ownership,<sup>15</sup> although formally it is not possible to accrue prescriptive rights to lands governed by the Land Development Ordinance. In cases in which commercial sites have been encroached, including in cases in which attempts have been made to subsequently allocate the sites to other persons, the MASL appears in practice to maintain the rights of the occupant/user (that is, the encroacher).

16.9 As an indication of the extent of encroachment on commercial lands, of 1,362 planned commercial lots in the Uda Walawe area, 487 (36% of the total lots and 63% of the 772 unalienated lots) were officially reported as having been encroached by mid-1994.

16.10 **Value of different types of tenure.** In terms of market value, partition titles rank the highest, if clear title can be established, because of the ease, certainty and permanency with which they often can be transferred. These are followed by documented prescriptive titles and thirdly by official permits. By their nature, prescriptive titles tend to be strong while the "owner" occupies and uses the land and weaker when the owner departs and these rights are transferred. Normally, when transferring lands which have been allocated by official permits, the permit holder first sells the land, then (and this may occur years hence) formally informs the MASL that he or she no longer has an interest in the land, and the land is subsequently then given on a new permit by the MASL to the person who bought the land. Prior to the issue of the new permit, the arrangements are not officially recognized, that is they are extra-legal, often referred to as "hidden" or "improper". Of course, there would be always some risk that the state would not issue the new permit to the purchaser. Systematic information is not available on the price at which these transfers take place but field experience indicates that, with regard to homestead and permit holders, tenure related price differences are related more to the extent to which the effective prescriptive rights can be demonstrated with documents than to the nature of the tenure as such. Thus a site on which a permanent structure has been erected and occupied for five years has a higher value if the permit document has been issued than one for which only the decision document selecting the individual for the site is available.

16.11 **Secure against whom?** Threats to the security of land tenure come from three sources - the state, other persons or entities, and family. These sources may appear to pose different levels of threat depending upon whether one is considering formal or effective tenure. In reportedly 82% of Sri Lanka, legally the state owns the land and thus in a formal sense the main threat to the tenure of the unofficial occupant on state land would appear to be the state. This also would seem *prima facie* to be the case with lands which have been assigned to a person on an annual permit, most clearly for such sites which have been reassigned extra-legally by the permit holder, as the state reserves the right to not extend the permit. However, in practice that is not the case. There are only the most seldom instances of the state evicting persons from sites for whatever reason, including for failure to pay stipulated rents to the state for sites which have been leased by the state to the occupant. In cases of encroachment without state approval, such persons are regarded as "unregularized". Under MASL regulations all those who occupied the land prior to the end of 1989 are eligible to be regularized. Encroachers, when removed from a particular site, are normally provided alternative land or other compensation, thus tending to confirm the prescriptive rights.

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<sup>15</sup>For comparison, it generally is not possible to obtain title to state or federal lands in the U.S by adverse possession.

16.12 In the second case, that of threats from other persons or entities, there appear to be few instances of tenure as such being challenged from these sources. In spite of the lack of official documentation of temporary and permanent transfers, there is a general social or community knowledge of tenure rights which are recognized and accepted. The issuing of official land documents (permits, leases, grants), whether to officially selected occupants or to others, frequently is the last step in regularizing in a legal way a tenure which has been accorded in fact by the society. Most disputes are boundary disputes arising from the lack in many cases of detailed site documents incorporating survey plans showing boundaries.

16.13 It is from the third source, members of the family, that the main potential threat against tenure security arises. In fact, in Sri Lanka, it appears that the most common challenge to security arises in the cases of absolute freehold title (which appears legally very secure) held by individuals who die intestate or with challengeable wills, leaving the property open for disposal in terms the laws establishing rules of descent and distribution.

16.14 Indicators of "ownership". One indicator of property rights ownership is the transfer of ownership with compensation. At the time of the survey no long term leases or grants, under either the Crown Lands Ordinance or the Land Development Ordinance had been issued to operators of non-farm enterprises and thus none of the "owners" had the formal right of transfer outside of the family (a key stick in the ownership bundle). However, from client experience and reports of studies undertaken in several systems, it is known that a considerable amount, a fair estimate would be 30% or more, of Mahaweli farm and non-farm land, has been transferred temporarily or permanently through market mechanisms (e.g., leased or rented privately) outside of the family. For these market transfer mechanisms to function the ownership must be acceptably secure, although officially the arrangement would be considered "improper". In the case of encroachers, while transfers of sites occur, they do not carry with them the prescriptive title; rather the new encroacher would be required, by establishing possession and use for a reasonable period, establish a new set of prescriptive rights to the site.

16.15 A second indicator of property rights ownership is the level and time horizon of the investments on the site by the "owner". Security of land tenure in land settlement areas has been defined as the condition under which individuals are willing to make permanent investments with confidence that they and their descendants will not lose control of the land (McMillan *et al.* 1990). Investment on site in a business, it may be hypothesized, will depend on the extent of the security of tenure on the site both in terms of having an adequate number of the rights sticks in the ownership bundle and, secondly, on the degree of potential threat to that security from the state, other persons or family. There has been a considerable amount of investment in businesses in Mahaweli areas. This is indicated for instance by the large proportion of enterprises with outstanding loans, although client experience indicates that the loans are in most cases for working capital, mainly for inventory, which is the expected pattern given that most units are retail units in their early stages. Investment is also indicated by the 23% of the businesses which expanded their employment during the 1992-93 period. Field observations of frequent investments in permanent structures and capital equipment indicate a long-term perspective on the part of many "owners".

16.16 A third indicator of ownership, or rather the lack thereof, would be a strong demand from entrepreneurs for further strengthening of their tenure security. During 1993-94, the MASL program to replace the annual permits of enterprises with long term leases or grant (roughly equivalent to freehold title) documents has been constrained by the weakness of the demand by the entrepreneurs

for such documents. A plausible conclusion to draw from this observed weak demand for documents which formally would confer increased security may be that the entrepreneurs consider that their present prescriptive titles based on permits provide adequate security. In fact, in practice, many entrepreneurs refer to their annual permits as "grants", and assume that the permits convey full rights to them, an interpretation accepted by the community and officials.

16.17 These three indications (active market in land transfers, long term investments on sites, weak demand for stronger tenure documents) of secure land tenure, or at least that the occupants have a sense of security, might appear not to square with the formal position of relatively insecure land tenure as indicated by no person holding more than an annual tenancy permit for a commercial or industrial site and many encroachers.

16.18 A review of survey data related to tenure revealed the following:

- a high rate of access to institutional credit in all six tenure categories, across enterprise size groups; this access which may be related to the egalitarian pattern of land distribution;
- the high average age (6.2 years) and large proportion (33%) of encroachers with institutional credit; encroachers are a self-selected group which is often regarded as highly motivated; other studies have reported that encroachers are in many areas the better farmers.

16.19 Location associated with access to institutional credit. The data also indicate an association between location (rather than tenure status) and access to institutional credit, with access defined as having a loan outstanding from a formal financial institution at the time of the survey. Enterprises located in the rural centers have a significantly higher probability of having access to institutional credit than those situated in the interior areas. This likely reflects the effects of

**Table 20 Proportion of enterprises with institutional credit outstanding, by size and location**

Location	Size	self employment	micro-enterprise	small enterprise	total
Town		31.0%	35.7%	35.6%	32.8%
Interior		21.4%	21.4%	61.1%	22.2%
Total		26.0%	31.0%	42.9%	28.0%

proximity as the bank branch offices are also located in the centers, thus offering relatively lower costs to the banks of acquiring information on the entrepreneurs, their ability and willingness to repay, of monitoring their performance and of enforcement of credit contracts. It may also reflect size, given the tendency of the enterprise units to be larger in the rural town centers than in the interior areas. The self-employment and microenterprise units with annual permits (either the initial holder or the subsequent holder through lease or purchase arrangements) are with few exceptions located on commercial lots in the rural town centers, villages and hamlets. The proportions of these permit holders with institutional credit ranged from 33% to 38%, compared with the units on homesteads and encroached lands (often outside the centers), for whom the range was 19% to 24%. This finding is similar to findings from World Bank internal analyses of small and medium industry credit programs in Sri Lanka, which found that loans were concentrated in the larger centers,

particularly the larger loans. The unusually high (61%) of small enterprise units in rural areas with access to institutional credit is most likely as result of these units being mainly manufacturing sector units with capital asset financing requirements.

16.20 The relatively high access to institutional credit by self-employment and microenterprises units may be explained in part by the large number and wide spread of the bank branches. Institutional credit to these units is effectively credit to households, and as such a bank's perceptions of ability and willingness to repay of the borrowers, and of the guarantors who as a rule are required for such credits, are more important than in the cases of the more collateral based considerations for credits to the slightly larger, more formally organized small enterprise sector.

16.21 The results indicated a stronger relationship between enterprise age and access to formal institutional credit than between land tenure status and access to credit.

**Table 21 Land tenure of business sites,  
by average age, jobs and credit access of enterprises**

*land tenure status	self-employment				micro-enterprises				small enterprises				totals			
	age	jobs	credit %		age	jobs	credit %		age	jobs	credit %		age	jobs	credit %	
			inst.	non			inst.	non			inst.	non			inst.	non
1	7.8	2.1	16	6	6.8	3.2	29	14	15	9.5	25	0	6.1	2.5	19	7.7
2	4.7	1.7	21	11	4.7	3.5	28	15	3.8	13.6	64	27	3.5	2.4	24	12
3	6.2	1.8	35	10	6.7	3.2	36	4	9.2	10.2	44	4	4.8	2.3	35	8.4
4	8.1	1.7	29	10	4.7	2.8	41	6	10	12	67	0	6.2	2.2	33	8.8
5	5	1.9	38	16	5.9	3.3	37	20	4.6	14.8	60	20	3.8	2.6	38	17
6	4	1.6	22	11	3.5	3.0	25	10	4.9	11.5	20	13	3.1	2.2	23	11
Totals	5.6	1.8	25.9	10.5	0.0	3.2	30.9	10.6	7.3	11.5	43.0	11.0	4.3	2.4	27.4	10.5

\*1) Inherited homestead 2) homestead 3) MAEL lease 4) encroacher 5) informal purchase 6) informal rental.  
Age is the average number of years of existence of the units. Jobs is the average number of jobs per unit. Credit refers to the % of units with formal financial sector or non-institutional loans outstanding at the time of the survey.

16.22 To examine the situation more systematically using the available data, the six types of formal land tenure were ranked by degree of formal security and compared with performance as indicated by three dependent variables - the enterprise's age, size and access to formal credit.<sup>16</sup> The null hypothesis was that enterprise performance does not vary with the degree of formal security of land tenure. An alternative hypothesis would be that greater formal security of land tenure is related to performance.

<sup>16</sup>Banks are interested in an entrepreneur's likely permanence on a site as an indicator of creditworthiness. Access to formal credit is in part an independent appraisal of a business's past and future performance. Banks in the areas do not indicate interest in taking small commercial, industrial or residential lots as collateral.

16.23 At this time the results do not reject the null hypothesis. In other words, performance does not appear to vary depending on the type of formal land tenure of the enterprise. Further analysis is to be undertaken based on the data from the 1994 repeat survey.

16.24 If one maintains the assumption that tenure security is related to performance and accepts that the three indicators are reasonable proxies of enterprise performance, one implication of the finding may be that the formal distinctions among the six tenure categories do not reflect effective tenure security. While in almost all cases the tenure may be officially insecure (e.g., based on temporary permits or extra-legal and "improper" transactions), in practice it may be quite secure in the sense of being recognized by the society and officials, resulting in the "owner" having a high sense of ownership. This would appear to reaffirm the client experience that most enterprises in the areas operate with a secure sense of tenure on the site on which they are located in spite of none holding more than prescriptive rights.

16.25 This may suggest that holding formal documents of tenure (e.g., long term leases or grants) may not give a significantly added measure of sense of ownership.

16.26 The analysis dealt only with self-employment, micro and small enterprises in the areas, most of which are operated by local entrepreneurs. Field observations indicate that larger, inward investors are more concerned than are the small, local entrepreneurs to obtain formal documented long term tenure security. However, the medium and large scale units that have entered have done so on the basis of MASL annual permits, indicating that they also put adequate confidence in these documents as providing longer term security. A recent report indicates that those investors who have not come to these areas have been deterred by a series of physical, technical and financial difficulties, in the context of which security of land tenure is not a binding constraint (Goonewardena and de Vaz 1994). However, field experience indicates that many publicly held companies, in considering major investments on site, are constrained by the lack of absolute titles, which limits their capability to leverage equity with borrowed funds and, secondly, because of the fiduciary responsibility of the directors not to put the assets of the shareholders at risk.

16.27 A tentative conclusion is that the land tenure arrangements at present, in the context of the applied law (i.e., not necessarily the written law) are not constraining the performance of the self-employment and microenterprise units. This result is compatible with the reported findings of other studies that the tenure form effects on small farmer paddy productivity are neutral (Ganewatte 1994).

16.28 In the absence of absolute titles, the study did not deal with the effect of holding these as compared with other forms of tenure based more on prescriptive rights, nor with the effect of issuing long term leases and grants as this has started recently and, also, they tend to be given to entrepreneurs after (usually many years after) investments are made.

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## Survey Methodology

### 1. OBJECTIVES

The 1992 MED census of enterprises and employment generated a data series giving the distribution of enterprises in the Mahaweli systems by the main stratification variables - system, block, size, sector and employment pattern.

Using the MED census data as a baseline it is intended to conduct a series of sample surveys to measure and monitor non-farm enterprise formation and job creation in Mahaweli areas.

The specific objectives of this first sample survey (1993) are to:

- 1) monitor two key indicators for estimating growth of enterprises in the Mahaweli region, viz:
  - a) Net increase and rate of increase in the number and type of enterprise units.
  - b) Net increase and rate of increase in overall private enterprise employment.

The sample survey is designed to track the above indicators taking in to consideration that the optimum design requirements vary for the two indicators.

- 2) serve as a post-enumeration survey to estimate the extent of under enumeration in the census and make appropriate adjustments.

### 2. SAMPLE SURVEY METHODOLOGY

The aim of the sample survey methodology is to develop an efficient system of periodic data collection, analysis and monitoring which can be used repetitively to generate a data series for valid comparisons over time of key indicators.

The validity and reliability of the data and the inferences made about the population from the sample estimates will depend to a large extent on the sample design. The fundamental requirements are:

- a) **To obtain a representative sample of the target population**

This is ensured by using a random selection procedure appropriate to the data requirements. The sample can never be exactly representative of the population due to inherent variability and the resulting error is termed the sampling error. The magnitude of the sampling error will depend on (a) the size of sample, (b) the variability of the population parameters and (c) the sampling procedure adopted but it can be statistically estimated for any probability sampling design that is adopted.

**b) To avoid bias and systematic error**

Bias arises because the real life situation in which the survey is conducted will vary from the specified model design. Bias can be introduced at any point in the survey process and strict quality control is necessary to minimise non-sampling errors due to bias.

**c) Non-sampling error**

There is not much point in selecting a sample design of high precision and reducing sampling errors if non-sampling errors are overwhelming and introduce serious bias into the estimate.

In practice precision has to be traded off against cost and administrative considerations. Tight administrative control, intensive training of interviewers, field supervision, and quality control and consistency checks will help to minimise interviewer bias and variability and coding errors, reduce measurement and response errors as well as non-response, all of which can contribute substantially to non-sampling errors and invalidate results of the survey.

**d) To give reliable estimates of population parameters with desired degree of precision**

If non-sampling error is minimised, an estimate of the sampling error (standard error) can be calculated for the sample estimators from any random sampling/method used.

**2.1 Multi-stage Cluster Sampling**

An area sampling scheme had necessarily to be employed to track the indicator I. The existence in the Mahaweli of administrative clusters of "blocks" subdivided further into "units" makes cluster sampling a convenient economical and effective design to obtain an unbiased estimate of the

net increase and rate of increase of new enterprises for each system and for the region as a whole (indicator 1). On the other hand cluster sampling is not as effective a method of tracking the net

increase and rate of increase of overall private enterprise employment (indicator 2).

Since industries tend to be location-specific, the cluster may not be heterogeneous with respect to sector, sub-sector, type or size of industry which are important parameters. Hence it would be difficult to make statistically valid extrapolations for each system and much less so for the region as a whole.

Further if very low concentration units happen to be selected by the random procedure, sample size will be very small and sampling error will increase proportionately.

To mitigate these effects a multi-stage stratified cluster sampling procedure was adopted by stratifying the units into areas of low and high concentration on the basis of information from the census and selecting a unit from each stratum.

## 2.2 Use of Census Data

The following information obtained from the census was used for stratification purposes.

- 1) The majority of enterprises are in the self-employment category (6313) and the micro enterprise category (1852). The number of enterprises in the other two categories, small enterprises (194) and medium/large enterprises (30), are relatively small.
- 2) The distribution of enterprises by employment shows that more full-time and part-time paid employment is generated in the small and medium enterprise categories. Hence they have to be oversampled to get a reliable estimate of Indicator 2.
- 3) The distribution of enterprises by system shows that the majority of enterprises are in System H (2639), Uda Walawe (2112) and System C (1459).

The sample has to be distributed in the six systems in the same proportion to get a representative sample for valid extrapolation to the region as a whole. However, the sample in Kotmale and System G should not be too small if changes in different strata (eg. by sectors, size) are to be monitored. Otherwise small changes could be confounded with sampling or measurement errors.

- 4) Location is another important stratification criterion because the level of infrastructural services provided depends on the level of settlement-hamlet, village or town.

The distribution of enterprises by towns and other blocks indicates that the majority of self-employment (70%) and micro-enterprise (55%) categories are located in the villages.

On the other hand the majority of small enterprises and medium enterprises are located in the towns.

On the basis of the above stratification criteria known from the census, the sample survey was designed in the following stages.

## 2.3 Sample Size

A sample size of 10 percent was indicated for this study, making allowance for considerable variability in the population and the need to monitor changes of different variables in various strata and to make comparisons between different strata-systems, sectors and size.

## 2.4 Stratification by Size

- (1) The main stratification parameter is size. A 10 percent sample from the two categories self-employment (6313) and micro-enterprise (1852) categories was selected.

## Annex I, page 4

Since there are only 224 units in the small and medium enterprises category a 100 percent sample was taken. As a high percentage of full-time and part-time employment is generated in these two sectors a meaningful estimate of indicator 2 could be obtained.

### 2.5 Selection of Primary Sampling Units (PSUs)

Two-stage cluster sampling were used to select the 10% sample from the self-employment and micro-enterprise categories.

The primary sampling units (psus) were the blocks, which were stratified into three categories: a) rural-high concentration of enterprises b) rural-low concentration and c) town blocks.

Primary sampling units were selected according to the following criteria:

Rural Blocks		Town Blocks	
No.of blocks in system	No. to be selected	No.of blocks in system	No. to be selected
8-10	3	6-8	2
6-7	2	<5	1
<6	1		

The blocks were selected with probability proportional to size (pps),using the number of enterprises in each block according to the 1992 census as a measure of size. Selection of town blocks and rural blocks were done separately within each system applying pps.

### 2.6 Selection of Secondary Sampling Units (SSUs)

Once the blocks were selected, the next stage was to select an appropriate number of units from each block, ie. secondary sampling units (ssus).

The units within each selected block were again stratified into two groups of a) high and b) low concentration according to the total number of enterprises in each of them and an appropriate number of units were selected from each group.

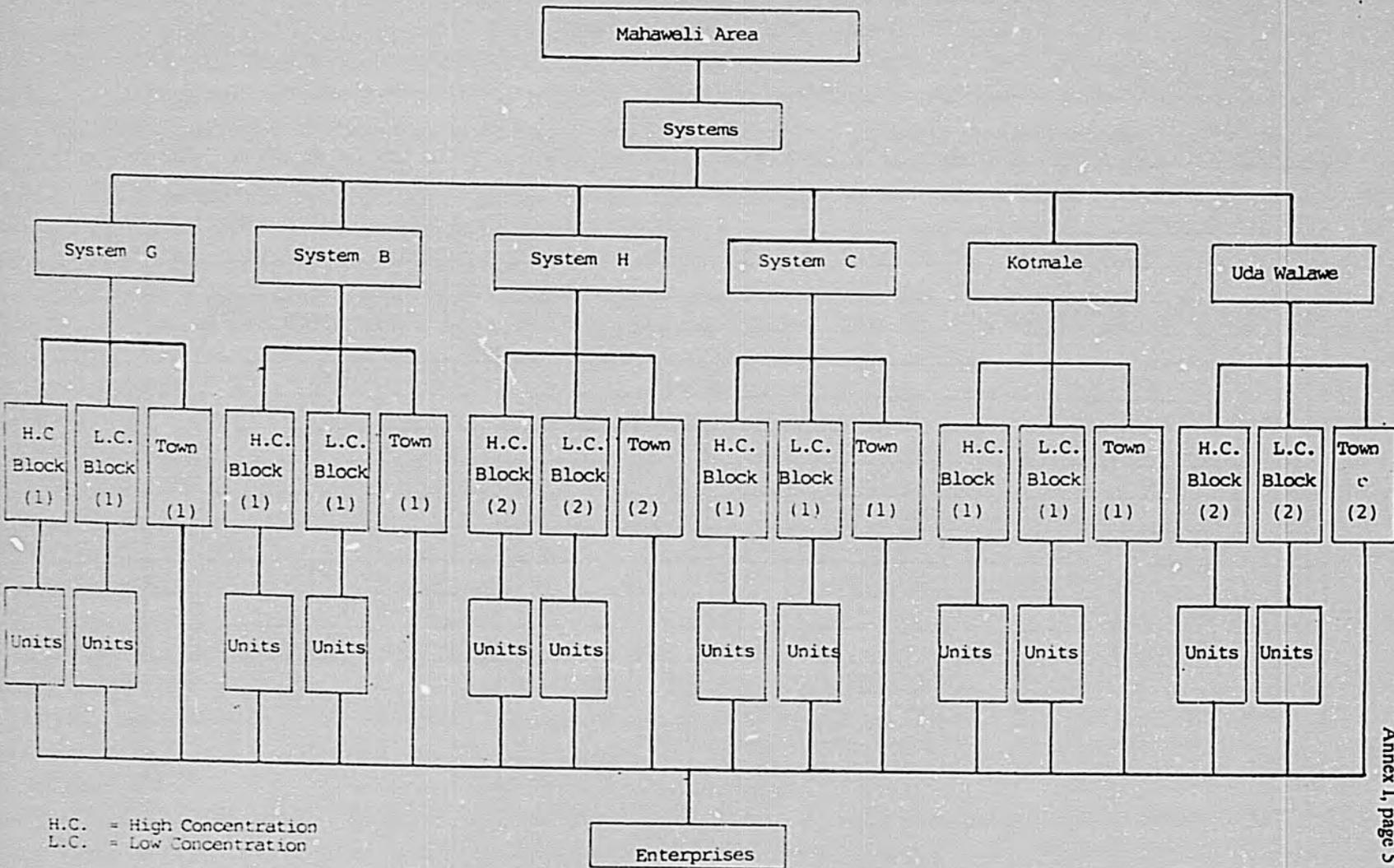
### 2.7 Sampling Plan

A schematic representation of the Sampling Plan is given in Fig.1.

The samples selected from each system according to this plan are indicated in Schedules 1-6.

A complete field enumeration was carried out in the secondary sampling units (ie. the units selected by the above procedure) to get the number of enterprises by size within each selected unit.

DIAGRAMMATIC REPRESENTATION OF SAMPLING PROCEDURE



H.C. = High Concentration  
L.C. = Low Concentration

Enterprises

Figure 1

5

Schedule 1

## SAMPLE SELECTION

SYSTEM G

BLOCKS N = 1	UNITS	No. of Enterprises	Cumulative No. of Enterprises	Selected Sample UNITS		Approx. No. of Enterprises (1992 Census)		TOTAL
				High Conc	Low Conc	High Conc.	Low Conc	
	501	79	79	501		70		70
	502	54	133					
	503	64	197					
	504	71	268					
	505	64	332					
	506	23	355					
	507	49	404		507		41	41
	508	20	424					
	509	14	438					
	510	48	486					
<b>Sub-Total</b>		<b>488</b>				<b>70</b>	<b>41</b>	<b>111</b>
<b>TOWNSHIPS N = 3</b>								
	Bakamuna	91	91	Bakamuna		91		91
	Attanakadawola	64	175					
	Diyabeduma	45	220					
<b>Sub-Total</b>		<b>229</b>				<b>91</b>		<b>91</b>
<b>Total</b>						<b>161</b>	<b>41</b>	<b>202</b>

**SAMPLE SELECTION**

Schedule 2

**SYSTEM B**

BLOCKS N = 8	No of Ent. 1992 Census	Cumulative No. of Ent.	Selected Sample BLOCKS	UNIT Number/Name		Total No. of Units	Selected Sample UNIT		Approx. No. of Enterprises (1992)		
				High Conc.	Low conc.		High Conc	Low conc	High conc	Low conc	TOTAL
Ellewewa	216	216	Ellewewa	Bandanagala Ihala Ellewewa Petatiyawa Kalukele	Pahala Ellewewa Mahadamana Maguldamana Ellewewa	8	Bandanagala	Mahadamana	55	15	70
Dimbulagala	140	356		Millana Bogawewa Dimbulagala Weherapura	Tispanegama Dalukana Manampitiya Kudawewa Binokuna	9					
Sevanapitiya	135	491	Sevenapitiya	Sevanapitiya Mahawewa Giridamana Menikwela Neluwewa	Alutwewa Ridipokuna Mallinda Borawewa Madurangala	10	Giridamana	Bora-wewa	18	4	22
Senapura	89	580		Susirigama Sandunpura Monaratenna	Boatta Magulpokuna Ruhunuketa Malwila	7					
Wijayabapura	167	747		Devagama Pimburattewa Medagama	Galtalawa Madurutenna Ratnaltenna	6					
Daminna	105	852		Daminna Ihalawewa Aluth Oya	Divuldamana Nidanwala Kandegama	6					
<b>Subtotal</b>	<b>852</b>					<b>46</b>			<b>73</b>	<b>19</b>	<b>92</b>
<b>TOWNSHIPS N=3</b>											
Welikanda	62	62									
Aralaganwila exc. Pimburettewa	137	199					Aralagan- wila		111		111
Manampitiya	103	302									
<b>Sub-total</b>	<b>302</b>								<b>111</b>		<b>111</b>
<b>TOTAL</b>	<b>1154</b>								<b>189</b>	<b>19</b>	<b>203</b>

## SAMPLE SELECTIONS

## SYSTEM H

BLOCKS N = 8	No of Ent. (1992 Census	Cumulative No of Ent.	Selected Sample BLOCKS	UNIT Number/Name			Selected Sample UNITS		Approx. No. of Ent. (1992 Cen.)	
				High Conc.	Low conc.	Total No. of Units	High Conc	Low conc	High conc.	Low TOTAL conc.
Madatugama	238	238		102 104	101 103	4				
Galkiriyagama	175	413	Galkiriyagama	201 202	202 204	4	201	203	46	24 70
Galnewa	349	762		01 03	02 04	4				
Meegelewa	222	984		313 314	311 312	4				
Thambuttegama	153	1137		405 408	404 406	4				
Eppawela	117	1254		401 403	402 407	4				
Talawa	191	1445	Talawa	409 411	410,419 420,421	6	411	420	39	21 60
Nochchiyagama	220	1665		412,414 418	413,415 417	6				
Sub-total	1665					36			85	45 130
TOWNSHIPS N = 8										
Madatugama	53	53								
Galkiriyagama	43	96								
Galnewa	96	194								
Meegelewa	71	265						Meegelewa	71	71
Thambuttegama	255	520					Thambuttegama		255	255
Eppawela/Endegala	131	651								
Talawa	115	766								
Nochchiyagama	208	974								
Sub-total	974								255	71 326
TOTAL	2639								340	116 456

## SYSTEM C

## SAMPLE SELECTION

BLOCKS N = 9	No of Ent. 1992 Census	Cumulative No. of Ent.	Selected Sample BLOCKS	UNIT Number/Name			Selected Sample UNIT		Approx. No. of		
				High Conc.	Low conc.	Total No. of Units	High Conc	Low conc	High	Low	TOTAL
Girandurukotte	306	306	Girandurukotte	Milletewa Batalayaya Rotalawala Aluyatawala Viranagama Uthitiya DivulaPeessa	Ratkinda Beliganwewa Aluttharama Teldeniya Hoboriyawa Ginnoruwa Agaia Oya	14	Aluyatawala		Hoboriyawa	26       13 39	
Nawa Medagama	126	432		Diyawiddegama Wewagama Ihalagama Henanigala S.	Kudagama Pahalagama Paranagama Kelegama Wewameddegama	9					
Sendunpura	105	537		Bambarawana Muruthagas pitiya Mawanagama	Lathpandura Henanigala N Uttalapura	6					
Lihiniyagama	134	671		Salpitigama Nagastalawa Sandamadulla Dambannaruwa	Serupitiya Webodagama Wijayapura	7					
Dolakanda	40	711		Dolakanda Ridiella Chandanagama	Selasumgama Kodirapura Panagaswewa Mudunkadawela	7					
Siripura	163	874	Siripura	Bakmeedeniya Ranhelagama Pallegama Hungamala Ratmalkandiya	Medagampitiya Rankethgama Paludeniya Ratmalkandura Meevathpura Mudungama	11	Pallegama		Ratmalkandura	20       08 28	
Nuwaragala	107	981		Nuwaragala Damanawewa Pihitiwewa	Ihela Yakkure Pahala Yakkure Navageha Ela	6					

BLOCKS N = 9	No of Ent. 1992 Census	Cumulative No. of Ent.	Selected Sample BLOCKS	UNIT Number/Name			Selected Sample UNIT		Approx. No. of Ent.(1992 Census)		
				High Conc.	Low conc.	Total No. of Units	High Conc	Low conc	High conc	Low conc	TOTAL
Mawanawela	112	1093	Mawanawela	SooriyaPokuna Samanalatenna Thuwaragala Mawanawela Nikawatte-linda	Pussellawinna Kudagala Muwapetigewe la Sandagalatenn a Bihirisoruwa	10	Mawana-wela	Muwapetigewel a	12	8	20
Weheragala	57	62		Werapitiya Weheragala Kekuluwa	Weeralanda Ulpathwewa Kanichchigala Gal Eliya	7					
<b>Sub-Total</b>	<b>1150</b>					<b>77</b>			<b>58</b>	<b>29</b>	<b>87</b>
<b>TOWNSHIPS N = 6</b>											
Grandurukotte	82	82									
Nava Medagama	28	110						Nava Meda- gama		28	28
Sandunpura	47	157									
Lihiniyagama	44	201									
Dehiattakandiya	79	280					Dehiatta- kandiya		79	79	
Siripura	29	309									
<b>Sub-Total</b>	<b>309</b>								<b>79</b>	<b>28</b>	<b>107</b>
<b>Total</b>	<b>1459</b>								<b>137</b>	<b>57</b>	<b>194</b>

SAMPLE SELECTION

## SYSTEM KOTMALE

Blocks N = 1	UNITS	No. of Enterprises	Cumulative No. of Enterprises	Selected Sample UNITS		Approx. No. of Enterprises (1992 Census)		TOTAL
				High Conc	Low Conc	High Conc	Low Conc	
	01	58	58	01		58		58
	02	24	82		02	26		26
	03	77	159					
	04	36	195					
	05	63	258					
	06	18	286					
	<b>Sub-Total</b>	<b>286</b>				<b>58</b>	<b>26</b>	<b>82</b>
<b>TOWNSHIPS N = 1</b>								
	Kotmale	24	24	Kotmale		24		24
	New Town			New Town				
	<b>Sub-Total</b>	<b>24</b>				<b>24</b>		<b>24</b>
	<b>Total</b>	<b>300</b>				<b>82</b>	<b>26</b>	<b>106</b>

## Schedule 6

## SAMPLE SELECTION

SYSTEM - UDA WALAWE

BLOCKS N = 7	No of Ent. 1992 Census	Cumulative No. of Ent.	Selected Sample BLOCKS	UNIT Number/Name			Selected Sample UNIT		Approx. No. of Enterprises (1992 Census)		
				High Conc.	Low conc.	Total No. of Units	High Conc	Low conc	High conc	Low conc	TOTAL conc
Embilipitiya	164	164		Thimbolketiye Uda Walawe	Gangeyaya Mahapelena Udagama	5					
Chandrikawewa	142	306	Chandrikawe wa	Halmillaketiya Liyagaskale Thoragala	Abeysekera- gama Bingalayaya Therunnanse- gama	6	Halmillareti ya	Therunnanse- gama	35	09	44
Angunukolapele ssa	129	435	Angunukolap elessa	Kanuketiya Jandura Kottakaduwa	Gotaimbara- gama Andupelena	5	Kanuketiya	Gotaimbaragama	48	14	62
Sooriyawewa	168	603		03 01 07	10 08 09 Kiriibban- yaya	7					
Muravesihena	144	747		Barawakumbura Redavinna Muravesihena	Ethbatuwa Deniya	5					
Kiribbanwela	129	876		Kiriibban-wewa Mahagama Hathporuwa	Bahirawa Habaraluwewa Habaragala	6					
Binkama	188	1064		Uswewa Helkada Kohombagaswewa Gopelessa	Pahalagama Binkama Guruwela	6					
Subtotal	1064								83	23	106

BLOCKS N = 7	No of Ent. 1992 Census	Cumulative No. of Ent.	Selected Sample BLOCKS	UNIT Number/Name		Total No. of Units	Selected Sample UNIT		Approx. No. of Enterprises (1992 Census)		
				High Conc.	Low conc.		High Conc	Low conc	High	Low	TOTAL
TOWNSHIPS N = 8											
Embilipitiya	402	402									
Uda Walawe Junction	47	449						Uda Walawe Jn.		47	47
Moraketiya	79	528									
Padiyatalawa/ Kithulgala	83	611									
Thunkana	60	671									
Angunukola- pelessa	131	802									
Sooriyawewa	202	1004						Sooriya-wewa		202	202
Heberettewa	44	1048									
Sub Total	1048									202	47 249
Total	2112									285	70 355

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### **3. FIELD OPERATIONS**

The main field enumeration was carried out continuously within a period of 8 weeks in all 6 systems commencing with System G on 6 September 1993 and ending in Uda Walawe on 30 October 1993. The work plan is shown in figure 2 (p. 14). The synchronisation of data collection in all elements of the sample within a brief period reduced differential effects of seasonal fluctuations and other extraneous time-related factors.

#### **3.1 Field Investigators**

As in the census the selected sample townships were covered by trained, experienced graduate field investigators. They visited every commercial establishment operating within the boundaries of the selected townships.

The selected Units in the other Blocks were covered by carefully selected youth resident in the Unit. Wherever possible one of the local Field Investigators who participated in the original census in 1992 was employed. The local Field Investigators were given an intensive training and an incentive payment for each household visited to ensure full coverage of each selected Unit.

#### **3.2 Questionnaire**

The data collection strategy was questionnaire-based. The questionnaire used in the 1992 census of Enterprises was adopted with slight modifications to ensure comparability of the data. (Attachment 1).

#### **3.3 Repeat Visits**

After the initial round of visits the completed questionnaires were edited, coded and matched with the original questionnaires returned in the 1992 census.

A computer listing of the enterprises in the selected units according to the 1992 census was obtained and the unmatched enterprises selected for re-visits. The number of enterprises which were closed or changed name/ownership were identified by this method. Re-visits were made in October/November 1993.

#### **3.4 Concepts and Operational Definitions**

The concepts and operational definitions used in the 1992 census were adhered to in the sample survey to ensure comparability of data. The definitions are as follows:

##### **3.4.1 Enterprise**

Any income generating activity or service, except traditional crop agriculture, which is market oriented and directed by a single entity, other than a state controlled institution, subject to the following cut-off points.

a) at least Rs. 1000/- a month average income and/or

b) at least Rs. 3000/- total investment in the enterprise

Unit of enumeration - is the enterprise and not the allotment, family, household or building.

If two or more enterprises of different sectors are carried out in the same building by the same proprietor or different proprietors each enterprise was enumerated separately.

### 3.4.2 Categorisation of Enterprises by Size

#### **Self Employment**

An enterprise (income generating activity) where the owner is the principal worker and he/she employs (pays wages or a salary to) no worker or less than one full time worker or the equivalent in part-time workers.

Under this category all crop agriculture and animal husbandry is excluded.

#### **Micro Enterprise**

An enterprise which employs (pays wages or salary to) from 1 to 4 full time employees or their equivalent in part time workers (excluding proprietors).

Under this category animal husbandry is included but all crop agriculture is excluded.

#### **Small Enterprise**

An enterprise which employs (pays wages or salary to) 5- 24 full time employees (excluding proprietors) or their equivalent in part-time labour.

Under this category non-traditional commercial agriculture and animal husbandry are included.

#### medium and large enterprise

An enterprise which employs 25 or more full time employees or the equivalent in part-time labour. All sectors of activity are included except traditional crop agriculture.

### 3.4.3 Sectoral Classification of Enterprises

The following sectoral categories of the International Standard Industrial Classification of all Economic Activities (ISIC) were adopted in consultation with the client in the 1992 census and in sample survey of 1993.

1. Agriculture, Forestry and Fishing
2. Mining and Quarrying
3. Manufacturing

Annex I, page 16

4. Construction
5. Wholesale and Retail Trade
6. Transport, Storage and Communications
7. Banking and Financial Services
8. Community and Personal Services

Several sub-categories were adopted under each category in accordance with the ISIC sub classification to ensure comparability of the data with MED statistics and external data sources. A list of sectoral classifications and sub classifications employed is annexed. (Attachment II).

- 3.4.4 Respondent - It was emphasised that the respondent has to be the principal owner of the enterprise as the data solicited cannot be satisfactorily provided by any one else.
- 3.4.5 Family - Only members of the nuclear family living under the same roof are included as family members. All other members of extended family are excluded under this category.
- 3.4.6 Employment Type

**Working Proprietors** - Owners or part owners who derive income from the enterprise and work at least part time regularly in the enterprise .

**Unpaid family labour** - Family or household members who work regularly in the enterprise either full-time or part-time and receive no direct cash payment for their labour.

**Paid Family labour** - Family or household members who work regularly in the enterprise either full-time or part-time and receive some direct cash payment for their labour.

**Full-time Paid Employees** - Paid labour working on 8 hour x 5 day week other than paid family workers. Even if the employee works more than 8 hours a day or 5 days a week he/she is counted as one employee.

**Part-time Paid Employees** - Paid labour working regularly but either a) less than 8 hours a day or b) less than 5 days a week or c) less than 12 months a year is counted as part-time employed.

Two part-time employees are considered as one full- time employee for the purposes of classification by size.

**Out growers - Sub-contractors**

Settlers or their off-spring who have direct production links with the enterprise under a verbal or written agreement where some inputs are provided and output is purchased by the enterprise.

### 3.4.7 Financial Parameters

#### **Gross Sales**

Revenue received from the sale of products and services supplied by the enterprise. In the case of seasonal fluctuations the average for a month was worked out.

#### **Income**

An approximate estimate of the average monthly net profit from the enterprise after deduction of direct and indirect costs of production of the goods or services.

#### **Investment**

Equity or loan capital used for purchase of machinery, equipment, raw materials, vehicles and buildings used exclusively in the enterprise.

#### **Present Value**

A very approximate estimate of the present value of the enterprise including value of building or part of building and vehicles used exclusively for the enterprise, machinery, stocks of manufactured goods and raw materials.

## 4. CONSTRAINTS & LIMITATIONS

### 4.1 Non-sampling Error

Since there was total coverage of each selected sample unit (as in a census) there are technically no sampling errors and reliability of data will depend on the extent of non-sampling error which can be high due to the nature, variability and spread of the sample survey of Enterprises.

#### 4.1.1 Non-response

Non response which is one of the main causes of non-sampling error, created some problems during the enumeration. Some enterprises were closed during the census operations while in others the proprietors were not present and the employees were reluctant or unwilling to divulge any information. In some cases the proprietors refused to co-operate mainly because they had some suspicion that the Field Investigators could be decoys sent by the Department of Inland Revenue and their fears were not allayed by our guarantee of independence and confidentiality.

A second visit was arranged to track businesses that may have remained temporarily closed or the proprietor was temporarily away at the time of the first visit. Several enterprises which had eluded the statistical net in the first instance were located on the second visit thus reducing bias due to non-response.

#### 4.1.2 Measurement Errors

a) **Induced by measuring instrument**

This was kept to a minimum by designing a simple questionnaire including only basic factual and generic questions.

b) **Induced by respondent**

Most small businesses keep only a minimal set of records and there is a heavy reliance on memory recall in data collection. Memory errors tend to increase with length of recall period and saliency of information requested.

Current stock data such as number and type of employees which relate to the date of the interview do not tax the memory and have a low degree of measurement error.

Flow data relating to the flow of activities over a period, such as annual labour hours, output, gross sales, income, profits etc. are subject to much higher measurement error, since they involve memory recall over a period of time. More-over events that occur infrequently or seasonally may escape the memory.

c) **Interviewer Induced**

As always in surveys there has to be a trade-off between cost and time constraints on the one hand and coverage and precision requirements on the other hand. The emphasis was necessarily on the prime requirement of accuracy of coverage and reliability of basic stock data on sector and size and employment categories which is unlikely to be distorted but rather gain in precision from the networking at village level.

Financial and income related data do not have the same degree of precision and great caution should be exercised in utilising the data for detailed analytical and evaluation studies.

#### 4.1.3 Coverage

Boundary effects assume greater importance in the sample survey than in the census. Some of the enterprises at the borders of the selected Unit had been assigned to an adjacent Unit in the 1992 census and vice versa. It was decided to maintain the original census demarcation for the purpose determining the rate of growth.

#### 4.2 Comparability

In the original census, the operational definition of an enterprise was restricted and cut-off points mutually agreed upon in order

- (a) to keep the census within manageable limits and make it more meaningful.
- (b) to give main emphasis to non-farm enterprises which is the prime target of MED assistance.

The following categories were specifically excluded by definition:

- 1) All traditional agriculture - paddy and OFCs were excluded
- 2) Small-scale animal husbandry projects in the self-employment category were excluded.
- 3) Self-employment enterprises which had neither income level of Rs.1,000/- per month nor an initial investment of Rs.3,000/- did not qualify for inclusion.  
  
Some enterprises which were below the cut-off limits at the 1992 census had reached the cut-off limit during the year. They were included as new qualifiers.
- 4) Non-traditional agricultural enterprises such as gherkins, melons, tobacco were included only if they were beyond the micro-enterprise level i.e. they provided employment to at least five full-time employees or their part-time equivalents.
- 5) Vendors with no fixed address including sellers at weekly markets are excluded in accordance with international practice.

The same operational definitions were adopted in the sample survey to maintain comparability.

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WORK PLAN

Work Item	Duration in Weeks											
	1	2	3	4	5	6	7	8	9	10	11	12
1. PRELIMINARY DISCUSSIONS a. Finalise Questionnaire b. Select Sample	█											
2. FIELD VISITS a. Initial Visits System C System H Kotmale System B System C Uda Walawe  b. Re-visits System C System H Kotmale System B System C Uda Walawe	█			█		█		█		█		
			█	█	█	█	█	█	█	█	█	█
3. CODING & DATA ENTRY System C System H Kotmale System B System C Uda Walawe			█			█			█			
4. ANALYSIS & DISCUSSIONS									█			
DELIVARABLES												

DATE: 10/10/2011  
BY: [Signature]

**LIST OF SECTORAL/SUBSECTORAL CLASSIFICATION**

**CATEGORIES**

1. **Agriculture, Forestry and Fishing**
  1. Commercial Farm Crops
  2. Livestock (Cows, Goats etc.)
  3. Poultry
  4. Forestry
  5. Fishing
  6. Agricultural Services
  7. Others
  
2. **Mining and Quarrying**
  1. Stone quarrying, clay and sand pits
  2. Other
  
3. **Manufacturing**
  - A. Food, Beverages and Tobacco
    1. Manufacturing of dairy products
    2. Canning and preservation of fruits and vegetables
    3. Manufacturing vegetable and animal oils
    4. Grain milling and grinding
    5. Bakery products
    6. Sugar confectionery
    7. Other food products
    8. Alcoholic beverages
    9. Soft drinks
    10. Tobacco manufacture
  
  - B. Textiles, Wearing Apparel and Leather
    1. Manufacturing textiles
    2. Manufacturing wearing apparel
    3. Leather products
    4. Coir and rattan products
  
  - C. Wood Products
    1. Furniture
    2. Wood and wood products

- D. Printing and Publishing
- E. Chemical and Chemical Products (soap & plastic)
- F. Manufacture of Non-metallic Mineral Products (Brick etc.)
  - 1. Pottery, earth-ware
  - 2. Structural clay and cement products
- G. Manufacture of Fabricated Metal Products
  - 1. Machinery and equipment
  - 2. Other manufacturing
- 4. **Construction**
- 5. **Wholesale, Retail and Restaurants**
  - 1. Wholesale
  - 2. Retail (grocers, textiles, fitter)
  - 3. Hotels and Restaurants
- 6. **Transport, Storage and Communication**
  - 1. Road Transport Service
  - 2. Storage and Warehousing
  - 3. Communications
- 7. **Financial and Business Services**
  - 1. Financial Services
  - 2. Business Services (legal, accounting, typing and copying)
- 8. **Community and Personal Services**
  - 1. Educational Services
  - 2. Health Services
  - 3. Recreation and Cultural Services
  - 4. Personal & Household Services (electrical etc.)
    - a. repair services
    - b. laundry
    - c. barber and beauty saloons

**CENSUS OF ENTERPRISES - MAHAWELI REGION**

**QUESTIONNAIRE**

1.	Name of Enterprise .....								
2.	Location of Enterprise:								
	b) Postal Address:								
	.....								
	.....								
		System: .....							
		Block: .....							
		Unit: .....							
		Village/							
		Town: .....							
3.	Project Sector & Type of Enterprise								
	Brief Description for sub-classification								
	(Please study sub-codes given in instruction:)								
	..... Agriculture, Forestry & Fishing								
	..... Mining & Quarrying Manufacturing Construction								
	..... Wholesale & Retail Trade and Restaurants								
	..... Transport, Storage & Communications								
	..... Financial & Business Services								
	..... Community & Personnel Services								
4.	Month & Year of Commencement:								
5.	Total No. of Employees (including working proprietors at commencement)								
6.	Status of enterprise								
	Self employment								1
	Micro enterprise								2
	Small enterprise								3
	Medium Enterprise								4

7. Details of Present Employment

Type	Number of Employees		2nd & 3rd Generation Settlers	
	M	F	M	F
i. Working proprietors				
ii. Family members paid				
iii. Family members unpaid				
iv. Paid workers full time				
v. Part workers half time				
Total				

8. Number of outgrowers/subcontractors (if any)

--	--

9. Gross value of Sales (Turnover) per month

Product/Service	Gross value of services/sales per month (Rs.)
i.	
ii.	
iii.	
iv.	
Total	

10. Total monthly net profit from enterprise:

--	--	--	--

11. Total Investment: Rs.

1. own capital
2. Bank loan - direct
3. Bank loan - through MED savings/credit society
4. MVCC
5. Non-institutional loan
6. Grants
7. Total


12. Value of current assets of the enterprise excluding land value and including cost of buildings, machinery, equipment, furniture and vehicles used in enterprise

13.	Name of Entrepreneur (Principal Owner)	..... (Initials)	..... (Surname)	
14.	Home Address of Entrepreneur	..... ..... .....		
15.	Sex: Male 1	Female 2 (insert code)		<input type="checkbox"/>
16.	Year of Birth: .....	Age in years		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
17.	Marital status:	Unmarried Married Widowed Divorced/Separated		1 2 3 4
18.	Educational Status:	No Schooling Grade 1 - Grade 5 Grade 6 - Grade 10 Passed GCE O/L Passed GCE A/L University or equivalent		1 2 3 4 5 6  1 2 3 4
19.	Status of Entrepreneur	Resident in this System Resident in another Mahaweli system Outsider		1 2 3 4
20.	Type of ownership	Individual proprietorship Family Holding Partnership Private Limited- Liability Company Other (Specify)		1 2 3 4 5 6
21.	Status of Enterprise/ Business Site	Homestead (inherited) Homestead (MASL lease) Business Site (MASL lease) Encroached land Extra legal Purchase Extra legal Rent/lease		1 2 3 4 5 6

Name of Interviewer: .....	Signature .....
Date of Interview: .....	
Time of Commencement of Interview .....	
Time of Completion of Interview .....	Signature: .....
Name of Supervisor: .....	
Name of Coder: .....	Signature .....

PROFILE OF CLIENTS IN DATABASE		
	At initial Contact	At Present
Sector		
Manufacturing	1237	1301
Retail	287	302
Services	285	308
Transportation	10	9
Other	127	283
Sector (not mentioned with aspiring)	541	457
Sector(not mentioned)	918	745
<b>TOTAL</b>	<b>3405</b>	<b>3405</b>
No. of units by age of Firm at initial contact date		
Start-up(less than 1 year)	501	296
1 to 2	217	360
More than 2 years	701	1218
Aspiring	1363	788
Closed	-	185
Other(start-up year and month are not mentioned)	623	558
<b>TOTAL</b>	<b>3405</b>	<b>3405</b>
Number of units by number of Employees		
<2	830	823
2-5	1053	1381
6-10	92	125
11-25	60	67
Over 25	21	36
Aspiring	1349	788
Closed	-	185
<b>TOTAL</b>	<b>3405</b>	<b>3405</b>

## LABOUR BALANCE STUDY

Crop	Extent (ha)	Monthly Labour Requirement (person)											Total	
		Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.		Dec.
<b>Kiribbanwewa Block</b>														
Paddy	1040	9360	46800	24960	46800	17680	17680	2080	46800	0	44720	36400	18720	312000
B. Onion	80	14080	9280	7280	5360	11920	14680	9280	7280	0	0	5360	11920	95840
Vegetable	80	5920	6560	4400	9280	5520	3200	5520	6560	4400	9280	5520	3200	69360
Banana														
Year 1	40	400	360	240	240	960	320	200	200	1560	3240	280	880	8880
Year 2-5	160	6400	3680	3520	6400	3680	3680	6240	3520	3520	6240	3360	3360	53600
Sugar cane														
Plant	20	816	596	48	48	28	132	292	1024	1252	1264	608	408	6516
Ratoon	60	454	1286	1646	1054	926	1500	1629	2117	2349	2349	1406	1063	17779
<b>Total</b>	<b>1480</b>	<b>37430</b>	<b>68562</b>	<b>42094</b>	<b>69182</b>	<b>40714</b>	<b>40592</b>	<b>25241</b>	<b>67501</b>	<b>13081</b>	<b>67093</b>	<b>52934</b>	<b>39551</b>	<b>563975</b>
<b>Av. Labour</b>		<b>74000</b>	<b>74000</b>	<b>74000</b>	<b>74000</b>	<b>74000</b>	<b>74000</b>	<b>74000</b>	<b>74000</b>	<b>74000</b>	<b>74000</b>	<b>74000</b>	<b>74000</b>	<b>888000</b>
<b>Balance</b>		<b>36570</b>	<b>5438</b>	<b>31906</b>	<b>4818</b>	<b>33286</b>	<b>33408</b>	<b>48759</b>	<b>6499</b>	<b>60919</b>	<b>6907</b>	<b>21066</b>	<b>34449</b>	<b>324025</b>
<b>Suriyawewa Block</b>														
Paddy	1180	10620	53100	28320	53100	20060	20060	2360	53100	0	50740	41300	21240	354000
B. Onion	160	28160	18560	1560	10720	23840	28160	18560	14560	480	0	10720	23840	192160
Vegetable	180	13320	14760	9900	20880	12420	7200	12420	14760	9900	20880	12420	7200	156060
Banana														
Year 1	40	400	360	240	240	960	320	200	200	1560	3240	280	880	8880
Year 2-5	160	6400	3680	3520	6400	3680	3680	6240	3520	3520	6240	3360	3360	53600
Sugar cane														
Plant	185	7548	5513	444	444	259	1221	2701	9472	11581	11692	5624	3774	60273
Ratoon	555	4202	11893	15223	9752	8563	13875	15064	19584	21724	21724	13003	9831	164438
<b>Total</b>	<b>2460</b>	<b>70650</b>	<b>107866</b>	<b>72207</b>	<b>101536</b>	<b>69782</b>	<b>74516</b>	<b>57545</b>	<b>115196</b>	<b>48765</b>	<b>114516</b>	<b>86707</b>	<b>70125</b>	<b>989411</b>
<b>Av. Labour</b>		<b>123000</b>	<b>123000</b>	<b>123000</b>	<b>123000</b>	<b>123000</b>	<b>123000</b>	<b>123000</b>	<b>123000</b>	<b>123000</b>	<b>123000</b>	<b>123000</b>	<b>123000</b>	<b>1476000</b>
<b>Balance</b>		<b>52350</b>	<b>15134</b>	<b>50793</b>	<b>21464</b>	<b>53218</b>	<b>48484</b>	<b>65455</b>	<b>7804</b>	<b>74235</b>	<b>8484</b>	<b>36293</b>	<b>52875</b>	<b>486589</b>

**SUMMARY OF PRESENT FARM BUDGET IN THE OLD AREA AND SUGAR REA**

<b>Block</b>	<b>Value Rs/year</b>	<b>%</b>	<b>Block</b>	<b>Value Rs/year</b>	<b>%</b>
<b>Kiribbanwewa Block</b>			<b>Sevanagala (Sugar area)</b>		
Gross Income			Gross Income		
Agricultural Income	34700	77%	Agricultural Income	42400	78%
Other (labour wage etc.)	10300	23%	Other (labour wage etc.)	11800	22%
Total	45000		Total	54200	
Gross Outgo			Gross Outgo		
Production Costs	23500		Production Costs	21000	
Living Expenses	20700		Living Expenses	26600	
Total	44200		Total	47600	
Net Reserve	800		Net Reserve	6600	
<b>Suriyawewa Block</b>					
Gross Income					
Agricultural Income	34800	71%			
Other (labour wage etc.)	13900	29%			
Total	48700				
Gross Outgo					
Agricultural Income	20400				
Other (labour wage etc.)	27000				
Total	47400				
Net Reserve	1300				

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**NUTRITIONAL STATUS OF CHILDREN**

Percentage of children under five years of age classified as undernourished (below 2 standard deviations from the medium of the reference population) according to three anthropometric indices; height for age, weight for height and weight for age by background variables

Background Variable	Height for age	Weight for height	Weight for age	Weighted No. of children
Zone				
Zone 1	18.9	12.2	30.5	342
Zone 2	14.6	11.0	25.3	454
Zone 3	17.7	18.0	34.2	441
Zone 4	25.5	17.4	38.7	596
Zone 5	31.8	12.7	43.6	579
Zone 6	24.1	20.6	44.8	231
Zone 7	30.2	19.6	47.8	380

- Zone 1: Colombo Metropolitan area consisting some urban areas in Colombo and Gampaha districts  
 Zone 2: Colombo feeder areas  
 Zone 3: South Western coastal low lands  
 Zone 4: Lower South Central Hill country excluding districts with a concentration of estates  
 Zone 5: South Central Hill country with a concentration of estates  
 Zone 6: Irrigated Dry Zone with major or minor irrigation schemes  
 Zone 7: Rain fed Dry Zone

## Wages

Changes in daily wage rates, various years, 1989-94						
Item	first year		second year		number of years in period	annualized increase %
	year	rate Rs	year	rate Rs		
male agricultural wage, B	1989	50	1993	100	4	18.92
male agriculture, MLE, B	1989	40	1994	75	5	13.40
female agriculture labor, MLE, B	1989	30	1994	65	5	16.72
male labor, paddy mill, H	1990	70	1994	100	4	9.33
female labor, paddy mill, H	1990	60	1994	90	4	10.67
male labor, paddy mill, H	1990	70	1994	100	4	9.33
female labor, paddy mill, H	1990	60	1994	90	4	10.67
male labor, paddy mill, H	1990	70	1994	100	4	9.33
female labor, paddy mill, H	1990	60	1994	90	4	10.67
male agriculture, MLE, B	1991	75	1993	80	2	3.28
female agriculture, MLE, B	1991	60	1993	60	2	0.00
male labor, rice mill, C	1991	60	1993	85	2	19.02
male workers, light engineering, H	1991	100	1994	150	2	22.47
male agriculture, MLE, B	1991	80	1993	100	2	11.80
male worker, rice mill, G	1991	150	1993	175	2	8.01
male worker, rice mill, G	1991	100	1993	125	2	11.80
male agriculture, B	1991	65	1993	70	2	3.77
female agriculture, B	1991	55	1993	60	2	4.45
male agriculture, C	1991	65	1993	75	2	7.42
female agriculture, C	1991	55	1993	65	2	8.71
male agriculture, C	1991	65	1993	85	2	14.35
female agriculture, C	1991	55	1993	75	2	16.77
male agriculture, B	1991	60	1993	75	2	11.80
female agriculture, B	1991	50	1993	65	2	14.02
male agriculture, B	1991	60	1993	100	2	29.10
female agriculture, B	1991	50	1993	75	2	22.47
Farmgate paddy, UW	1989	5630	1992	9010	3	16.97
Colombo monthly unskilled	1989	1510	1992	2110	3	11.80
Average annualized increase of all Mahaweli wage items - %						12.24
Sources: PMU of MASL for first item; EIED/MED for next eight items; CDIE study, 1993, for the balance items. Census and Statistics Office for the farmgate paddy price and Colombo unskilled monthly rate.						

Family paddy farms: daily labor rates and returns per acre and per family labor day, Maha, 1989-90 and 1992-93				
	1990 rate	1993 rate	years	% change
paddy labor, Kalawewa	60	93	3	15.73
paddy labor, Polonnaruwa	65	92	3	12.28
net cash return per acre, Kalawewa	12291	10180	3	-6.09
net cash return per acre, Polonnaruwa	4477	3517	3	-7.73
net return per family labor day, Kalawewa	455	258	3	-17.23
net return per family labor day, Polonnaruwa	219	133	3	-15.32

Source: Division of Agricultural Economics and Planning, Department of Agriculture

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TABLE 1: NO OF ENTERPRISES BY SIZE AND BLOCK/SYSTEM

System/Block	Size	Self Employment	Micro Enterprise	Small Enterprise	Medium/Large Enterprise	Total
SYSTEM : G						
Sample Blocks						
1. Bakamana						
1.1 Unit 501		59	7			66
1.2 Unit 507		34	4	3		41
Sub Total		93	11	3		107
Sample Town						
Bakamana						
		63	29	4	2	98
Sub Total		63	29	4	2	98
Grand Total		156	40	7	2	205

N.R. = Non Response

TABLE 1: NO OF ENTERPRISES BY SIZE AND BLOCK/SYSTEM

System/Block	Size	Self Employment	Micro Enterprise	Small Enterprise	Total
SYSTEM : B					
Sample Blocks					
1. Ellewewa					
1.1 Bandanagala		16			16
1.2 Mahadamana		50	16		66
Sub Total		66	16		82
2. Sevanapitiya					
2.1 Borawewa		6			6
2.2 Giridamana		25	3		28
Sub Total		31	3		34
Sample Towns					
Aralaganwila					
		76	51	5	132
Sub Total		76	51	5	132
Grand Total		173	70	5	248

N.R. = Non Response

Annex VI, page 4

TABLE 1: NO OF ENTERPRISES BY SIZE AND BLOCK/SYSTEM

System/Block	Size	Self Employment	Micro Enterprise	Small Enterprise	Medium/Large Enterprise	Total
<b>SYSTEM : H</b>						
Sample Blocks						
1. Talawa						
	1.1 Unit 411	54	9			63
	1.2 Unit 420	22	20			42
	Sub Total	76	29			105
2. Galkiriyagama						
	2.1 Unit 201	60	5	1		66
	2.2 Unit 203	25	6		1	32
	Sub Total	85	11	1	1	98
Sample Towns						
	Meegllewa	53	20	2		75
	Tambutthegama	144	106	18	1	269
	Sub Total	197	126	20	1	344
	Grand Total	358	167	21	2	548

N.R. = Non Response

TABLE 1: NO OF ENTERPRISES BY SIZE AND BLOCK/SYSTEM

System/Block	Size	Self Employment	Micro Enterprise	Small Enterprise	Medium/Large Enterprise	Total
<b>SYSTEM : C</b>						
Sample Blocks						
1. Girandurukotte						
	1.1 Hobanyawa	23	1			24
	1.2 Aluyatawela	27	5	1		33
	Sub Total	50	6	1		57
2. Siripura						
	2.1 Ratmalkandura	8	1			9
	2.2 Pallegama	7	6	3		16
	Sub Total	15	7	3		25
3. Mawanawela						
	3.1 Mawanawela	15	2	2		17
	3.2 Muwapetigewela	8				8
	Sub Total	23	2	2		27
Sample Towns						
	1. Dehiattakandiya	29	39	7	3	78
	2. Nawa Medagama	18	14			32
	Sub Total	47	53	7	3	110
	Grand Total	135	68	13	3	219

N.R. = Non Response

TABLE 1: NO OF ENTERPRISES BY SIZE AND BLOCK/SYSTEM

System/Block	Size	Self Employment	Micro Enterprise	Small Enterprise	Total
KOTHALE					
Sample Blocks					
1. Kotmale					
1.1 Unit 1		52	40	1	93
1.2 Unit 2		29	7	6	42
Sub Total		81	47	7	135
Sample Towns					
Kotmale New Town					
		24	4	2	30
Sub Total		24	4	2	30
Grand Total		105	51	9	165

N.R. = Non Response

TABLE 1: NO OF ENTERPRISES BY SIZE AND BLOCK/SYSTEM

System/Block	Size	Self Employment	Micro Enterprise	Small Enterprise	Medium/Large Enterprise	Total
UDA WALAWE						
Sample Blocks						
1. Chandrikawewa						
1.1 Halmillakeliya		37	8			45
1.2 Therunnansagama		26	6			32
Sub Total		63	14			77
2. Angunakolapelessa						
2.1 Kanuketiya		20	8			28
2.2 Gotaimbaragana		15	1			16
Sub Total		35	9			44
Sample Towns						
1. Udawalawa Juc.						
		33	16	2		51
2. Sooriyawewa						
		174	50	6	1	231
Sub Total		207	66	8	1	282
Grand Total		305	89	8	1	403

N.R. = Non Response

TABLE 2: NO OF ENTERPRISES BY SECTOR AND BLOCK/SYSTEM

System/Block	Sector					Total
	1	3	5	7	8	
<b>SYSTEM : G</b>						
Sample Blocks						
1. Bakamuna						
1.1 Unit 501		33	31		2	66
1.2 Unit 507	4	13	22		2	41
Sub Total	4	46	53		4	107
Sample Towns						
Bakamuna		17	64	4	13	98
Sub Total		17	64	4	13	98
Grand Total	4	63	117	4	17	205

N.R. = Non Response

TABLE 2: NO OF ENTERPRISES BY SECTOR AND BLOCK/SYSTEM

System/Block	Sector						Total
	1	3	5	6	7	8	
<b>SYSTEM : B</b>							
Sample Blocks							
1. Ellewewa							
1.1 Bandanagoda		2	14				16
1.2 Mahadamana	9	39	17			1	66
Sub Total	9	41	31			1	82
2. Sevanapitiya							
2.1 Borawewa	1		5				6
2.2 Giridamana	2	8	16			2	28
Sub Total	3	8	21			2	34
Sample Towns							
Aralaganwila		17	79	1	3	32	132
Sub Total		17	79	1	3	32	132
Grand Total	12	66	131	1	3	35	248

N.R. = Non Response

- 1 Agriculture, Forestry and Fishing  
2 Mining and Quarrying  
3 Manufacturing  
4 Wholesale & Retail Trade, Restaurants  
5 Transport, Storage and Communications  
6 Financial & Business Services  
7 Community & Personal Services

TABLE 2: NO OF ENTERPRISES BY SECTOR AND BLOCK/SYSTEM

System/Block	Sector						Total
	1	3	5	6	7	8	
<b>SYSTEM : H</b>							
<b>Sample Blocks</b>							
<b>1. Talawa</b>							
1.1 Unit 411	6	18	36			3	63
1.2 Unit 420	19	6	16			1	42
<b>Sub Total</b>	<b>25</b>	<b>24</b>	<b>52</b>			<b>4</b>	<b>105</b>
<b>2. Galkiriyagama</b>							
2.1 Unit 201	11	10	41			4	66
2.2 Unit 203	9	9	14				32
<b>Sub Total</b>	<b>20</b>	<b>19</b>	<b>55</b>			<b>4</b>	<b>98</b>
<b>Sample Towns</b>							
Meegllewa		17	44	1	4	9	75
Tambutthegama	1	48	173	1	5	41	269
<b>Sub Total</b>	<b>1</b>	<b>65</b>	<b>217</b>	<b>2</b>	<b>9</b>	<b>50</b>	<b>344</b>
<b>Grand Total</b>	<b>46</b>	<b>109</b>	<b>324</b>	<b>2</b>	<b>9</b>	<b>58</b>	<b>548</b>

N.R. = Non Response

TABLE 2: NO OF ENTERPRISES BY SECTOR AND BLOCK/SYSTEM

System/Block	Sector						Total
	1	3	5	6	7	8	
<b>SYSTEM : C</b>							
<b>Sample Blocks</b>							
<b>1. Girandurukotte</b>							
1.1 Hobaniyawa	7	6	10			1	24
1.2 Aluyatawela	1	3	27			2	33
<b>Sub Total</b>	<b>8</b>	<b>9</b>	<b>37</b>			<b>3</b>	<b>57</b>
<b>2. Siripura</b>							
2.1 Ratmalkandura		1	8				9
2.2 Pallegama	2	4	9			1	16
<b>Sub Total</b>	<b>2</b>	<b>5</b>	<b>17</b>			<b>1</b>	<b>25</b>
<b>8. Mawanawela</b>							
3.1 Mawanawela		6	12			1	19
3.2 Muwapetigewela			7			1	8
<b>Sub Total</b>		<b>6</b>	<b>19</b>			<b>2</b>	<b>27</b>
<b>Sample Towns</b>							
1. Dehiattakandiya		3	57	1	7	10	78
2. Nawa Medagama		2	27			3	32
<b>Sub Total</b>		<b>5</b>	<b>84</b>	<b>1</b>	<b>7</b>	<b>13</b>	<b>110</b>
<b>Grand Total</b>	<b>10</b>	<b>25</b>	<b>157</b>	<b>1</b>	<b>7</b>	<b>19</b>	<b>219</b>

N.R. = Non Response

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TABLE 2: NO OF ENTERPRISES BY SECTOR AND BLOCK/SYSTEM

System/Block	Sector						Total
	1	3	5	6	7	8	
<b>KOTHALE</b>							
Sample Blocks							
1. Kotmale							
1.1 Unit 1	24	43	20	1	1	4	93
1.2 Unit 2	15	3	19	2	1	2	42
Sub Total	39	46	39	3	2	6	135
Sample Towns							
Kotmale New Town							
		3	24	1	1	1	30
Sub Total		3	24	1	1	1	30
<b>Grand Total</b>	<b>39</b>	<b>49</b>	<b>63</b>	<b>4</b>	<b>3</b>	<b>7</b>	<b>165</b>

N.R. = Non Response

TABLE 2: NO OF ENTERPRISES BY SECTOR AND BLOCK/SYSTEM

System/Block	Sector							Total
	1	2	3	5	6	7	8	
<b>UDA WALAWE</b>								
Sample Blocks								
1. Chandrikawewa								
1.1 Halmillakeliya	12	3	12	16			2	45
1.2 Therunnanssegama	5		10	14		1	2	32
Sub Total	17	3	22	30		1	4	77
2. Angunakolapelessa								
2.1 Kanuketiya	12		1	14			1	28
2.2 Gotaimbaragama	8		4	3			1	16
Sub Total	20		5	17			2	44
Sample Towns								
1. Udawalawa Juc.								
2. Sooriyawewa								
	2	1	43	146	1	4	12	51
Sub Total	2	1	49	178	1	5	46	282
<b>Grand Total</b>	<b>36</b>	<b>4</b>	<b>76</b>	<b>225</b>	<b>1</b>	<b>6</b>	<b>52</b>	<b>403</b>

N.R. = Non Response

Table 2a: Small, Medium & Large Enterprises outside Sample (1993)  
by Size and Sector

Size	Sector																Total	Grand Total	
	1		2		3		4		5		6		7		8				
	S Ent.	M&L Ent.																	
System G																			
Towns																			
Other					11			1	2			2						15	1
Total					11			1	2			2						15	1
System B																			
Towns					1	1												1	1
Other	20	4			1					8				3				32	4
Total	20	4			2	1				9				3				33	5
System H																			
Towns					14	2	1		17	1	1			12		3		48	3
Other	2	3	5		12	4			3	2				1		2		25	9
Total	2	3	5		26	6	1		20	3				13		5		73	12
System C																			
Towns	1	1			1	1			7					2				11	5
Other	4	1			2				2									5	1
Total	5	5			3	1			9					2				19	6
System Kotmale																			
Towns					1													1	1
Other	2				2	3												4	3
Total	2				3	3												5	3
System Uda Walawe																			
Towns		2			16	2	1	15	1	4			5	2	6			47	9
Other	4	1			2		1											4	1
Total	4	3			16	4	2	16	1	4			5	2	6			51	12
Grand Total	33	15	5		61	10	1	3	55	4	7		23	2	11			196	39

- 1 Agriculture, Forestry and Fishing.
- 2 Mining and Quarrying.
- 3 Manufacturing.
- 4 Construction.
- 5 Wholesale & Retail Trade, Restaurants
- 6 Transport, Storage and Communications
- 7 Financial & Business Services
- 8 Community & Personal Services

TABLE 3: NO OF ENTERPRISES BY SIZE AND SECTOR / SUB SECTOR

Size Sector/Sub sector	Self Employment	Micro Enterprise	Small Enterprise	Medium/Large Enterprise	All
<b>SYSTEM : G</b>					
<b>Agriculture, Forestry and Fishing</b>					
1.2 Livestock	4				4
<b>Manufacturing</b>					
	49	10	2	2	63
3.1 Food Beverages & Tobacco	29	6	2		37
3.2 Textile Wearing Apparel & leather	7	2		2	11
3.3 Wood Products	2				2
3.4 Printing & Publishing	1	1			2
3.5 Chemical & Chemical Products	1				1
3.6 Manufacture of Non Metallic Mineral Products	6				6
3.7 Fabricated Metal Products	3	1			4
<b>Wholesale &amp; Retail Trade, Restaurants</b>					
	50	25	2		117
5.1 Wholesale Trade	2	1	2		5
5.2 Retail Trade (Groceries, Textiles etc.)	85	18			103
5.3 Hotel & Restaurants	3	6			9
<b>Financial &amp; Business Services</b>					
		1	3		4
7.1 Financial Services		1	3		4
<b>Community &amp; Personal Services</b>					
	13	4			17
8.1 Educational Services		1			1
8.2 Health Services	1				1
8.4 Personal & Household Services	9	1			10
8.5 Laundry Services	1				1
8.6 Saloon & Hair Styling	2	2			4

N.R. = Non Response

(continued)

TABLE 3: NO OF ENTERPRISES BY SIZE AND SECTOR / SUB SECTOR

Size Sector/Sub sector	Self Employment	Micro Enterprise	Small Enterprise	Medium/Large Enterprise	All
<b>SYSTEM : B</b>					
Agriculture, Forestry and Fishing	11	1			12
1.2 Livestock	1				1
1.4 Agricultural Services	10	1			11
<b>Manufacturing</b>	40	25	1		66
3.1 Food Beverages & Tobacco	13	3	1		17
3.2 Textile Wearing Apparel & leather	2	4			6
3.3 Wood Products	2	1			3
3.4 Printing & Publishing		1			1
3.5 Chemical & Chemical Products	1				1
3.6 Manufacture of Non Metallic Mineral Products	1	1			2
3.7 Fabricated Metal Products	21	15			36
<b>Wholesale &amp; Retail Trade, Restaurants</b>	98	31	2		131
5.1 Wholesale Trade	9	5			14
5.2 Retail Trade (Groceries, Textiles etc.)	76	18	2		96
5.3 Hotel & Restaurants	13	8			21
<b>Transport, Storage and Communications</b>	1				1
6.1 Road Transport Services	1				1
<b>Financial &amp; Business Services</b>	1		2		3
7.1 Financial Services	1		2		3
<b>Community &amp; Personal Services</b>	22	13			35
8.1 Educational Services		1			1
8.2 Health Services	1	1			2
8.3 Sports & Recreation Services	1				1
8.4 Personal & Household Services	14	5			19
8.5 Laundry Services	2	1			3
8.6 Saloon & Hair Styling	4	4			8
8.7		1			1

N.R. = Non Response

(continued)

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TABLE 3: NO OF ENTERPRISES BY SIZE AND SECTOR / SUB SECTOR

Size Sector/Sub sector	Self Employment	Micro Enterprise	Small Enterprise	Medium/Large Enterprise	All
<b>SYSTEM : H</b>					
<b>Agriculture, Forestry and Fishing</b>	22	23		1	46
1.1 Commercial Crops				1	1
1.2 Livestock	3	16			19
1.3 Poultry	1	6			7
1.6 Agricultural Services	18	1			19
<b>Manufacturing</b>	59	44	5	1	109
3.1 Food Beverages & Tobacco	38	15	2		55
3.2 Textile Wearing Apparel & leather	8	14	1	1	24
3.3 Wood Products	7	5			12
3.4 Printing & Publishing	2	1			3
3.6 Manufacture of Non Metallic Mineral Products		1			1
3.7 Fabricated Metal Products	4	8	2		14
<b>Wholesale &amp; Retail Trade, Restaurants</b>	236	80	8		324
5.1 Wholesale Trade	9	13	5		27
5.2 Retail Trade (Groceries, Textiles etc.)	196	51	1		248
5.3 Hotel & Restaurants	31	16	2		49
<b>Transport, Storage and Communications</b>		1	1		2
6.1 Road Transport Services		1	1		2
<b>Financial &amp; Business Services</b>		4	5		9
7.1 Financial Services		2	5		7
7.2 Business Services		2			2
<b>Community &amp; Personal Services</b>	41	15	2		58
8.2 Health Services	7				7
8.3 Sports & Recreation Services	1	1	2		4
8.4 Personal & Household Services	12	8			30
8.5 Laundry Services	2				2
8.6 Saloon & Hair Styling	8	5			13
8.7	1	1			2

N.R. = Non Response

(continued)

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TABLE 3: NO OF ENTERPRISES BY SIZE AND SECTOR / SUB SECTOR

Size Sector/Sub sector	Self Employment	Micro Enterprise	Small Enterprise	Medium/Large Enterprise	All
<b>SYSTEM : C</b>					
Agriculture, Forestry and Fishing	8	1	1		10
1.3 Poultry	1	1			2
1.6 Agricultural Services	7		1		8
Manufacturing	13	9	2	1	25
3.1 Food Beverages & Tobacco	7	6	2		15
3.2 Textile Wearing Apparel & Leather	4	1		1	6
3.3 Wood Products	1	1			2
3.7 Fabricated Metal Products	1	1			2
Wholesale & Retail Trade, Restaurants	102	49	5	1	157
5.1 Wholesale Trade		3	2	1	6
5.2 Retail Trade (Groceries, Textiles etc )	91	37	2		130
5.3 Hotel & Restaurants	11	9	1		21
Transport, Storage and Communications			1		1
6.1 Road Transport Services			1		1
Financial & Business Services		3	4		7
7.1 Financial Services		2	4		6
7.2 Business Services		1			1
Community & Personal Services	12	6		1	19
8.1 Educational Services		1			1
8.2 Health Services	3	1			4
8.4 Personal & Household Services	8	1		1	10
8.6 Saloon & Hair Styling	1	3			4

N.R. = Non Response

(continued)

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TABLE 3: NO OF ENTERPRISES BY SIZE AND SECTOR / SUB SECTOR

Size Sector/Sub sector	Self Employment	Micro Enterprise	Small Enterprise	Medium/Large Enterprise	All
<b>KOTMALE</b>					
Agriculture, Forestry and Fishing	16	17	6		39
1.1 Commercial Crops	3	12	6		21
1.2 Livestock	10	4			14
1.3 Poultry	2	1			3
1.7 Other	1				1
Manufacturing	30	17	2		49
3.1 Food Beverages & Tobacco	2	2	1		5
3.2 Textile Wearing Apparel & leather	5	1			6
3.3 Wood Products	3				3
3.7 Fabricated Metal Products	20	14	1		35
Wholesale & Retail Trade, Restaurants	53	9	1		63
5.1 Wholesale Trade		1			1
5.2 Retail Trade (Groceries, Textiles etc.)	45	8			53
5.3 Hotel & Restaurants	8		1		9
Transport, Storage and Communications	1	3			4
6.1 Road Transport Services	1	3			4
Financial & Business Services		3			3
7.1 Financial Services		3			3
Community & Personal Services	5	2			7
8.2 Health Services		1			1
8.4 Personal & Household Services	4	1			5
8.6 Saloon & Hair Styling	1				1

N.R. = Non Response

(continued)

TABLE 3: NO OF ENTERPRISES BY SIZE AND SECTOR / SUB SECTOR

Size Sector/Sub sector	Self Employment	Micro Enterprise	Small Enterprise	Medium/Large Enterprise	All
UDA WALAWÉ					
Agriculture, Forestry and Fishing	32	7			39
1.2 Livestock	9	2			11
1.3 Poultry	8	2			10
1.6 Agricultural Services	15	3			18
Mining and Quarrying	2	2			4
2.1 Stone Quarrying, Clay & Sand pits		2			2
2.6	2				2
Manufacturing	47	26	2	1	76
3.1 Food Beverages & Tobacco	26	10	2		38
3.2 Textile Wearing Apparel & leather	8	7		1	16
3.3 Wood Products	2	2			4
3.4 Printing & Publishing	1	1			2
3.6 Manufacture of Non Metallic Mineral Products	2				2
3.7 Fabricated Metal Products	8	6			14
Wholesale & Retail Trade, Restaurants	183	38	4		225
5.1 Wholesale Trade	10	?	1		13
5.2 Retail Trade (Groceries, Textiles etc.)	133	33	1		167
5.3 Hotel & Restaurants	40	2	2		44
5.4 Other		1			1
Transport, Storage and Communications		1			1
6.1 Road Transport Services		1			1
Financial & Business Services		4	2		6
7.1 Financial Services		4	2		6
Community & Personal Services	41	11			52
8.1 Educational Services	2				2
8.2 Health Services	6	1			7
8.3 Sports & Recreation Services	2	1			3
8.4 Personal & Household Services	19	6			25
8.5 Laundry Services	1	2			3
8.6 Saloon & Hair Styling	11	1			12

N.R. = Non Response

Table 3a : TOTAL NUMBER OF SMALL AND MEDIUM/LARGE ENTERPRISES BY SECTOR & SYSTEM (1993)

System	Sector	G			B			H			C			Kotmale			Udawalawe			Total			
		S	M	T	S	M	T	S	M	T	S	M	T	S	M	T	S	M	T	S	M	T	
AGRICULTURE, FORESTRY & FISHING	W				20	04	24	02	03	05	05	05	10	02		02	04	03	07	33	15	48	
	O								01	01	01		01	06		06				07	01	08	
	T				20	04	24	02	04	06	06	05	11	08		08	04	03	07	40	16	56	
MINING & QUARRYING	W																						
	O									05		05									05		05
	T								05		05										05		05
MANUFACTURING	W	11		11	02	01	03	26	06	32	03	01	04	03	03	06	16	04	20	61	15	76	
	O	02	02	04	01	01	01	05	01	05	02	01	03	02	03	02	02	01	03	13	05	19	
	T	13	02	15	03	01	04	31	07	37	05	02	07	05	03	08	18	05	23	76	20	95	
CONSTRUCTION	W		01	01																			
	O									01		01						02	02	01	03	04	
	T		01	01						01		01						02	02	01	03	04	
WHOLESALE & RETAIL TRADE	W	02		02	08		08	20	03	23	09		09				16	01	12	5	04	59	
	O	02		02	02		02	08		06	05	01	06	01		01	14	01	04	22	01	23	
	T	04		04	10		10	28	03	31	14	01	15	01		01	20	01	21	27	05	82	
TRANSPORT, STORAGE & COMMUNICATIONS	W	02		02				01		01							04		04	07		07	
	O							01		01	01		01							02		02	
	T	02		02				02		02	01		01				04		04	09		09	
FINANCIAL & BUSINESS SERVICES	W				03		03	13		13	02		02			05	02	07	23	02		25	
	O	03		03	02		02	05		05	04		04			02		02	16			16	
	T	03		03	05		05	18		18	06		06			07	02	09	39	02		41	
COMMUNITY & PERSONAL SERVICES	W							05		05						06		06	11			11	
	O							02		02		01	01						02	01		03	
	T							07		07		01	01			06		06	13	01		14	
TOTAL	W	15	01	16	33	05	38	73	12	85	19	06	25	05	03	08	51	12	63	106	39	235	
	O	07	02	09	05		05	21	02	23	13	03	16	09	09	08	01	09	107	08		71	
	T	22	03	25	38	05	43	94	14	108	32	09	41	14	03	17	59	13	73	213	47	306	

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TABLE 4: NO OF ENTERPRISES BY SIZE &amp; GENDER OF ENTREPRENEUR SYSTEMWISE

System Gender	SYSTEM : G				SYSTEM : B				SYSTEM : H			
	N.R.	M	F	Total	N.R.	M	F	Total	N.R.	M	F	Total
Self Employment		136	20	156	1	159	13	173	-	316	42	358
Micro Enterprise	5	34	1	40	2	63	5	70	6	147	14	167
Small Enterprise	3	4	-	7	2	3	-	5	9	12	-	21
Medium/Large Enterprise	1	1	-	2					2			2
Total	9	175	21	205	5	225	18	248	17	475	56	548

N.R. = Non Response

(continued)

TABLE 4: NO OF ENTERPRISES BY SIZE &amp; GENDER OF ENTREPRENEUR SYSTEMWISE

System Gender	SYSTEM : C				KOTHALE				UDA WALAWE			
	N.R.	M	F	Total	N.R.	M	F	Total	N.R.	M	F	Total
Self Employment	2	123	10	135	1	56	8	105	4	260	41	305
Micro Enterprise	4	60	4	68	8	35	8	51	11	77	1	89
Small Enterprise	4	9	-	13		9		9	2	5	1	8
Medium/Large Enterprise	1	2	-	3						1	-	1
Total	11	194	14	219	9	140	16	165	17	343	43	403

N.R. = Non Response

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TABLE 5: NO OF ENTERPRISES BY SECTOR AND GENDER OF ENTREPRENEUR SYSTEMWISE

Sector	System G				System B				System H				System C			
	N.R.	M	F	Total												
Agriculture, Forestry and Fishing		3	1	4		12		12	2	42	2	46		10		10
Mining and Quarrying						65	1	66	2	94	13	109		25		25
Manufacturing	2	56	5	63												
Wholesale & Retail Trade, Restaurants	3	99	15	117	2	114	15	131	7	281	36	324	5	139	13	157
Transport, Storage and Communications						1		1		1	1	2		1		1
Financial & Business Services	4			4	3			3	6	2	1	9	6	1		7
Community & Personal Services		17		17		33	2	35		55	3	58		18	1	19
Total	9	175	21	205	5	225	18	248	17	475	56	548	11	194	14	219

N.R. = Non Response

(continued)

TABLE 5: NO OF ENTERPRISES BY SECTOR AND GENDER OF ENTREPRENEUR SYSTEMWISE

Sector	Kotmale				Uda Walawe			
	N.R.	M	F	Total	N.R.	M	F	Total
Agriculture, Forestry and Fishing	1	32	6	39		35	4	39
Mining and Quarrying						4		4
Manufacturing	1	44	4	49	1	69	6	76
Wholesale & Retail Trade, Restaurants	4	53	6	63	10	187	28	225
Transport, Storage and Communications		4		4		1		1
Financial & Business Services	3			3	6			6
Community & Personal Services		7		7		47	5	52
Total	9	140	16	165	17	343	43	403

N.R. = Non Response

TABLE 6: NO OF ENTERPRISES BY SIZE AND EDUCATIONAL STATUS OF ENTREPRENEUR

Educational Status Size	No Education		Primary			Secondary			O/Level		A/Level			University or Equivalent		N.R.		Total			
	M	F	N.R.	M	F	N.R.	M	F	M	F	N.R.	M	F	M	F	N.R.	M	N.R.	M	F	T
SYSTEM : G																					
Self Employment	4			36	2		53	8	31	7		11	3	1					136	20	156
Micro Enterprise				7			8		10	1		7		2		5		5	34	1	40
Small Enterprise							1		2			1				3		3	4		7
Medium/Large Enterprise												1				1		1	1		2
Total	4			43	2		62	8	43	8		20	3	3		9		9	175	21	205
SYSTEM : B																					
Self Employment	5			46	2		68	9	31	2		7		2		1		1	159	13	173
Micro Enterprise				8			30	1	16	3		7		2		2		2	63	5	70
Small Enterprise				1			2					7	1	2		2		2	3		5
Total	5			55	2		100	10	47	5		14	1	4		5		5	225	18	248
SYSTEM : H																					
Self Employment	8	2		53	9		123	11	85	15		40	3	7	2				316	42	358
Micro Enterprise	2			24	3	1	50	3	44	5		17	2	7	1	5	3	6	147	14	167
Small Enterprise							8		3			17		1		9		9	12		21
Medium/Large Enterprise																2		2			2
Total	10	2		77	12	1	181	14	132	20		57	5	15	3	16	3	17	475	56	548
SYSTEM : C																					
Self Employment	6			22	1	1	56	5	23	2	1	13	2	3				2	123	10	135
Micro Enterprise	1			4		1	25	2	15			11	2	4		3		4	60	4	68
Small Enterprise				1			3		1			4				4		4	9		13
Medium/Large Enterprise														1		1		1	2		3
Total	7			27	1	2	84	7	40	2	1	28	4	8		8		11	194	14	219
KOTHALE																					
Self Employment	6		1	36	1		32	2	14	4		8	1					1	96	8	105
Micro Enterprise		1		13	2	2	5	1	12	2		4	2	1		6		8	35	8	51
Small Enterprise				1			3		1			3		1					9		9
Total	6	1	1	50	3	2	40	3	27	6		15	3	2		6		9	140	16	165
UDA WALAWE																					
Self Employment	5	3		62	7	3	106	14	64	12		20	3	3	2	1			260	41	305
Micro Enterprise				14			35		18			8	1	2		11		4	77	1	89
Small Enterprise					1		1		2			2				2		2	5	1	8
Medium/Large Enterprise																					
Total																1		1			1

TABLE 7: NUMBER OF ENTERPRISES BY SECTOR AND EDUCATIONAL STATUS OF ENTREPRENEUR

Educational Status Sector	N.R.	No Education	Primary	Ssecondary	O/Level	A/Level	University or Equivalent	Total
<b>System G</b>								
Agriculture, Forestry and Fishing				4				4
Manufacturing	2	1	15	22	19	4		63
Wholesale & Retail Trade, Restaurants	3	3	28	35	28	17	3	117
Financial & Business Services	4							4
Community & Personal Services			2	9	4	2		17
<b>System B</b>								
Agriculture, Forestry and Fishing			2	8	2			12
Manufacturing			19	31	14	2		66
Wholesale & Retail Trade, Restaurants	2	5	30	51	31	10	2	131
Transport, Storage and Communications					1			1
Financial & Business Services	3							3
Community & Personal Services			6	20	4	3	2	35
<b>System H</b>								
Agriculture, Forestry and Fishing	2		10	24	8	2		46
Manufacturing	2	1	18	42	34	12		109
Wholesale & Retail Trade, Restaurants	7	9	53	105	94	45	11	324
Transport, Storage and Communications					1		1	2
Financial & Business Services	7		1				1	9
Community & Personal Services	1	2	7	25	15	3	5	58

(continued)

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TABLE 7: NUMBER OF ENTERPRISES BY SECTOR AND EDUCATIONAL STATUS OF ENTREPRENEUR

Educational Status Sector	N.R.	No Education	Primary	Secondary	O/Level	A/Level	University or Equivalent	Total
<b>System C</b>								
Agriculture, Forestry and Fishing		1	4	3	2			10
Manufacturing			2	13	6	3	1	25
Wholesale & Retail Trade, Restaurants	3	6	18	67	32	28	2	157
Transport, Storage and Communications						1		1
Financial & Business Services	5			1			1	7
Community & Personal Services			4	9	2	1	3	19
<b>Kotmale</b>								
Agriculture, Forestry and Fishing		2	13	12	5	6	1	39
Manufacturing		5	26	9	4	4	1	49
Wholesale & Retail Trade, Restaurants	3		13	21	20	6		63
Transport, Storage and Communications			2		2			4
Financial & Business Services	3							3
Community & Personal Services				3	2	2		7
<b>Uda Walawe</b>								
Agriculture, Forestry and Fishing		1	15	14	8	1		39
Mining and Quarrying			3	1				4
Manufacturing	2		11	28	22	13		76
Wholesale & Retail Trade, Restaurants	7	5	40	99	57	17		225
Transport, Storage and Communications						1		1
Financial & Business Services	6							6
Community & Personal Services		2	15	17	9	2	7	52
<b>Total</b>	<b>62</b>	<b>43</b>	<b>357</b>	<b>673</b>	<b>426</b>	<b>185</b>	<b>42</b>	<b>1788</b>

TABLE 8: NO OF ENTERPRISES BY SIZE AND SETTLER STATUS OF ENTREPRENEUR

System Settler Status Size	SYSTEM : G				SYSTEM : B					SYSTEM : H					SYSTEM : C				
	N.R.	R	O	Total	N.R.	R	M	O	Total	N.R.	R	M	O	Total	N.R.	R	M	O	Total
Self Employment		152	4	156	1	156	1	15	173		319	4	35	358		103	1	31	135
Micro Enterprise	5	29	6	40	2	61	2	5	70	9	126	7	25	167	3	31		34	68
Small Enterprise	3	3	1	7	2	3			5	9	7	1	4	21	4	7		2	13
Medium/Large Enterprise	1		1	2						2				2	1			2	3
Total	9	184	12	205	5	220	3	20	248	20	452	12	64	548	8	141	1	69	219

R=Resident in System  
M=Resident in Another Mahaweli System  
O=Resident outside Mahaweli System  
N.R. = Non Response

(continued)

TABLE 8: NO OF ENTERPRISES BY SIZE AND SETTLER STATUS OF ENTREPRENEUR

System Settler Status Size	KOTHALE					UDA WALAWE				
	N.R.	R	M	O	Total	N.R.	R	M	O	Total
Self Employment		93	6	6	105	1	274	2	28	305
Micro Enterprise	6	42	1	2	51	11	66		12	89
Small Enterprise		7		2	9	2	5		1	8
Medium/Large Enterprise						1				1
Total	6	142	7	10	165	15	345	2	41	403

R=Resident in System  
M=Resident in Another Mahaweli System  
O=Resident outside Mahaweli System

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TABLE 9: NO OF ENTERPRISES BY SECTOR AND SETTLER STATUS OF ENTREPRENEUR AND SYSTEM

Sector	System	SYSTEM : G				SYSTEM : B				SYSTEM : H						
		N.R.	R	O	Total	N.R.	R	M	O	Total	N.R.	R	M	O	Total	
Agriculture, Forestry and Fishing			4		4		12			12	2	43			1	46
Mining and Quarrying																
Manufacturing		2	59	2	63		64		2	66	2	90	1	16	109	
Wholesale & Retail Trade, Restaurants		3	105	9	117	2	115	2	12	131	8	274	9	33	324	
Transport, Storage and Communications							1			1		1		1	2	
Financial & Business Services		4			4	3				3	7	1		1	9	
Community & Personal Services			16	1	17		28	1	6	35	1	43	2	12	58	
Total		9	184	12	205	5	220	3	20	248	20	452	12	64	548	

R=Resident in System

M=Resident in Another Mahaweli System

O=Resident outside Mahaweli System

N.R. = Non Response

(continued)

TABLE 9: NO OF ENTERPRISES BY SECTOR AND SETTLER STATUS OF ENTREPRENEUR AND SYSTEM

Sector	System	SYSTEM : C					KOTMALE					UDA WALAWE				
		N.R.	R	M	O	Total	N.R.	R	M	O	Total	N.R.	R	M	O	Total
Agriculture, Forestry and Fishing			10			10		36		3	39		36	1	2	39
Mining and Quarrying													3		1	4
Manufacturing			20		5	25		46	1	2	49	2	63		11	76
Wholesale & Retail Trade, Restaurants		3	100	1	53	157	3	50	5	5	63	7	199	1	18	225
Transport, Storage and Communications					1	1		4			4				1	1
Financial & Business Services		5	1		1	7	3				3	6				6
Community & Personal Services			10		9	19		6	1		7		44		8	52
Total		8	141	1	69	219	6	142	7	10	165	15	345	2	41	403

R=Resident in System

M=Resident in Another Mahaweli System

O=Resident outside Mahaweli System

N.R. = Non Response

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TABLE 10: NUMBER OF ENTERPRISES BY SIZE AND STATUS OF LAND

Size Status of Land	Self Employment		Micro Enterprise		Small Enterprise		Medium/Large Enterprise		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
<b>System G</b>										
Homestead Inherited	20	9.8	8	3.9	1	.5			29	14.1
Homestead Mahaweli Lease	54	26.3	3	1.5	1	.5			58	28.3
MASL Lease	17	8.3	9	4.4	3	1.5	1	.5	30	14.6
Encroachment	23	11.2			1	.5			24	11.7
Informal Purchase	13	6.3	4	2.0	1	.5	1	.5	19	9.3
Informal Rent/Lease	29	14.1	16	7.8					45	22.0
<b>Total</b>	<b>156</b>	<b>76.1</b>	<b>40</b>	<b>19.5</b>	<b>7</b>	<b>3.4</b>	<b>2</b>	<b>1.0</b>	<b>205</b>	<b>100.0</b>
<b>System B</b>										
Homestead Inherited	26	10.5	6	2.4					32	12.9
Homestead Mahaweli Lease	71	28.6	25	10.1					96	38.7
MASL Lease	30	12.1	12	4.8	4	1.6			46	18.5
Encroachment	7	2.8	5	2.0	1	.4			13	5.2
Informal Purchase	10	4.0	5	2.0					15	6.0
Informal Rent/Lease	29	11.7	17	6.9					46	18.5
<b>Total</b>	<b>173</b>	<b>69.8</b>	<b>70</b>	<b>28.2</b>	<b>5</b>	<b>2.0</b>			<b>248</b>	<b>100.0</b>
<b>System H</b>										
Homestead Inherited	41	7.5	22	4.0	1	.2			64	11.7
Homestead Mahaweli Lease	138	25.2	40	7.3	3	.5	1	.2	182	33.2
MASL Lease	52	9.5	35	6.4	9	1.6	1	.2	97	17.7
Encroachment	28	5.1	5	.9					33	6.0
Informal Purchase	40	7.3	22	4.0	1	.2			63	11.5
Informal Rent/Lease	59	10.8	41	7.5	7	1.3			107	19.5
Other	1	.2	1	.2					2	.4
<b>Total</b>	<b>359</b>	<b>65.5</b>	<b>166</b>	<b>30.3</b>	<b>21</b>	<b>3.8</b>	<b>2</b>	<b>.4</b>	<b>548</b>	<b>100.0</b>
<b>System C</b>										
Homestead Inherited	6	2.7	1	.5					7	3.2
Homestead Mahaweli Lease	73	33.3	19	8.7	3	1.4			95	43.4
MASL Lease	36	16.4	24	11.0	6	2.7	3	1.4	69	31.5
Encroachment	3	1.4	3	1.4					6	2.7
Informal Purchase	5	2.3	2	.9					7	3.2
Informal Rent/Lease	12	5.5	19	8.7	4	1.8			35	16.0
<b>Total</b>	<b>135</b>	<b>61.6</b>	<b>68</b>	<b>31.1</b>	<b>13</b>	<b>5.9</b>	<b>3</b>	<b>1.4</b>	<b>219</b>	<b>100.0</b>
<b>Kotmale</b>										
Homestead Inherited	27	16.4	15	9.1	2	1.2			44	26.7
Homestead Mahaweli Lease	25	15.2	15	9.1	3	1.8			43	26.1
MASL Lease	33	20.0	19	11.5					52	31.5
Encroachment	3	1.8							3	1.8
Informal Purchase	8	4.8	1	.6	2	1.2			11	6.7
Informal Rent/Lease	9	5.5	1	.6	2	1.2			12	7.3
<b>Total</b>	<b>105</b>	<b>63.6</b>	<b>51</b>	<b>30.9</b>	<b>9</b>	<b>5.5</b>			<b>165</b>	<b>100.0</b>
<b>Uda Walawe</b>										
Homestead Inherited	23	5.7	7	1.7					30	7.4
Homestead Mahaweli Lease	52	12.9	8	2.0	1	.2			61	15.1
MASL Lease	124	30.8	40	9.9	3	.7	1	.2	168	41.7
Encroachment	23	5.7	4	1.0	1	.2			28	6.9
Informal Purchase	29	7.2	7	1.7	1	.2			37	9.2
Informal Rent/Lease	54	13.4	23	5.7	2	.5			79	19.6
<b>Total</b>	<b>305</b>	<b>75.7</b>	<b>89</b>	<b>22.1</b>	<b>8</b>	<b>2.0</b>	<b>1</b>	<b>.2</b>	<b>403</b>	<b>100.0</b>

TABLE 11: NUMBER OF ENTERPRISES BY SIZE AND TYPE OF OWNERSHIP

Type Size	Individual Proprietors		Family Holdings		Partner Ships		Pvt/Ltd Liability Company		Other		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
<b>System G</b>												
Self Employment	143	69.8	9	4.4	3	1.5			1	.5	156	76.1
Micro Enterprise	31	15.1	3	1.5	3	1.5	1	.5	2	1.0	40	19.5
Small Enterprise	4	2.0					2	1.0	1	.5	7	3.4
Medium/Large Enterprise	1	.5					1	.5			2	1.0
<b>Total</b>	<b>179</b>	<b>87.3</b>	<b>12</b>	<b>5.9</b>	<b>6</b>	<b>2.9</b>	<b>4</b>	<b>2.0</b>	<b>4</b>	<b>2.0</b>	<b>205</b>	<b>100.0</b>
<b>System B</b>												
Self Employment	147	59.3	25	10.1					1	.4	173	69.8
Micro Enterprise	67	27.0					1	.4	2	.8	70	28.2
Small Enterprise	3	1.2							2	.8	5	2.0
<b>Total</b>	<b>217</b>	<b>87.5</b>	<b>25</b>	<b>10.1</b>			<b>1</b>	<b>.4</b>	<b>5</b>	<b>2.0</b>	<b>248</b>	<b>100.0</b>
<b>System H</b>												
Self Employment	339	61.9	13	2.4	3	.5			3	.5	358	65.3
Micro Enterprise	145	26.5	10	1.8	6	1.1	3	.5	3	.5	167	30.5
Small Enterprise	11	2.0					2	.4	8	1.5	21	3.8
Medium/Large Enterprise	2	.4									2	.4
<b>Total</b>	<b>497</b>	<b>90.7</b>	<b>23</b>	<b>4.2</b>	<b>9</b>	<b>1.6</b>	<b>5</b>	<b>.9</b>	<b>14</b>	<b>2.6</b>	<b>548</b>	<b>100.0</b>
<b>System C</b>												
Self Employment	122	55.7	10	4.6			3	1.4			135	61.6
Micro Enterprise	60	27.4	4	1.8			2	.9			68	31.1
Small Enterprise	8	3.7	1	.5			1	.5	2	.9	13	5.9
Medium/Large Enterprise	2	.9							1	.5	3	1.4
<b>Total</b>	<b>192</b>	<b>87.7</b>	<b>15</b>	<b>6.8</b>			<b>6</b>	<b>2.7</b>	<b>6</b>	<b>2.7</b>	<b>219</b>	<b>100.0</b>
<b>Kotmale</b>												
Self Employment	93	56.4	11	6.7	1	.6					105	63.6
Micro Enterprise	38	23.0	6	3.6	2	1.2	3	1.8	2	1.2	51	30.9
Small Enterprise	8	4.8	1	.6							9	5.5
<b>Total</b>	<b>139</b>	<b>84.2</b>	<b>18</b>	<b>10.9</b>	<b>3</b>	<b>1.8</b>	<b>3</b>	<b>1.8</b>	<b>2</b>	<b>1.2</b>	<b>165</b>	<b>100.0</b>
<b>Uda Walawe</b>												
Self Employment	285	70.7	19	4.7	1	.2					305	75.7
Micro Enterprise	72	17.9	5	1.2	3	.7	1	.2	8	2.0	89	22.1
Small Enterprise	6	1.5							2	.5	8	2.0
Medium/Large Enterprise							1	.2			1	.2
<b>Total</b>	<b>363</b>	<b>90.1</b>	<b>24</b>	<b>6.0</b>	<b>4</b>	<b>1.0</b>	<b>2</b>	<b>.5</b>	<b>10</b>	<b>2.5</b>	<b>403</b>	<b>100.0</b>

TABLE 12: NUMBER OF ENTERPRISES BY SECTOR AND TYPE OF OWNERSHIP

Type Sector	Individual Proprietors	Family Holdings	Partner Ships	Pub/Ltd Liability Company	Other	Total
<b>SYSTEM : G</b>						
Agriculture, Forestry and Fishing	4					4
Manufacturing	56	3	3	1		63
Wholesale & Retail Trade, Restaurants	104	7	3	1	2	117
Financial & Business Services				2	2	4
Community & Personal Services	15	2				17
<b>Total</b>	<b>179</b>	<b>12</b>	<b>6</b>	<b>4</b>	<b>4</b>	<b>205</b>
<b>SYSTEM : B</b>						
Agriculture, Forestry and Fishing	11	1				12
Manufacturing	62	4				66
Wholesale & Retail Trade, Restaurants	109	19		1	2	131
Transport, Storage and Communications	1					1
Financial & Business Services					3	3
Community & Personal Services	34	1				35
<b>Total</b>	<b>217</b>	<b>25</b>		<b>1</b>	<b>5</b>	<b>248</b>
<b>SYSTEM : H</b>						
Agriculture, Forestry and Fishing	37	7	2			46
Manufacturing	100	8			1	109
Wholesale & Retail Trade, Restaurants	301	7	7	2	7	324
Transport, Storage and Communications	1			1		2
Financial & Business Services	1			2	6	9
Community & Personal Services	57	1				58
<b>Total</b>	<b>497</b>	<b>23</b>	<b>9</b>	<b>5</b>	<b>14</b>	<b>548</b>

(continued)

TABLE 12: NUMBER OF ENTERPRISES BY SECTOR AND TYPE OF OWNERSHIP

Type Sector	Individual Proprietors	Family Holdings	Partner Ships	Pvt/Ltd Liability Company	Other	Total
<b>SYSTEM : C</b>						
Agriculture, Forestry and Fishing	10					10
Manufacturing	20	5				25
Wholesale & Retail Trade, Restaurants	141	10		4	2	157
Transport, Storage and Communications	1					1
Financial & Business Services	1			2	4	7
Community & Personal Services	19					19
<b>Total</b>	<b>192</b>	<b>15</b>		<b>6</b>	<b>6</b>	<b>219</b>
<b>KOTHALE</b>						
Agriculture, Forestry and Fishing	36	3				39
Manufacturing	38	11				49
Wholesale & Retail Trade, Restaurants	54	4	2	2	1	63
Transport, Storage and Communications	4					4
Financial & Business Services			1	1	1	3
Community & Personal Services	7					7
<b>Total</b>	<b>139</b>	<b>18</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>165</b>
<b>UDA WALAWE</b>						
Agriculture, Forestry and Fishing	37	2				39
Mining and Quarrying	4					4
Manufacturing	71	3		1	1	76
Wholesale & Retail Trade, Restaurants	198	19	3	1	4	225
Transport, Storage and Communications	1					1
Financial & Business Services			1		5	6
Community & Personal Services	52					52
<b>Total</b>	<b>363</b>	<b>24</b>	<b>4</b>	<b>2</b>	<b>10</b>	<b>403</b>

TABLE 13: NO OF ENTERPRISES BY SIZE AND NO OF YEARS EXISTENCE

No of Years	<1		1		2		3		4-5		6-10		11-15		16-20		21-25		>25		N.R.		Total			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%		
<b>System G</b>																										
Self Employment	7	3.4	19	9.3	16	7.8	18	8.8	26	12.7	30	14.6	12	5.9	8	3.9	11	5.4	9	4.4					156	76.1
Micro Enterprise			1	.5	7	3.4	3	1.5	8	3.9	5	2.4	5	2.4	1	.5	3	1.5	6	2.9			1	.5	40	19.5
Small Enterprise					1	.5					2	1.0	1	.5	1	.5	1	.5	1	.5					7	3.4
Medium/Large Enterprise			2	1.0																					2	1.0
Total	7	3.4	22	10.7	24	11.7	21	10.2	34	16.6	37	18.0	18	8.8	10	4.9	15	7.3	16	7.8	1	.5			205	100.0
<b>System B</b>																										
Self Employment	18	7.3	31	12.5	16	6.5	23	9.3	24	9.7	39	15.7	12	4.8	4	1.6	4	1.6	2	.8					173	69.8
Micro Enterprise	1	.4	10	4.0	4	1.6	10	4.0	9	3.6	22	8.9	7	2.8	3	1.2	1	.4	3	1.2					70	28.2
Small Enterprise			1	.4	1	.4							3	1.2											5	2.0
Total	19	7.7	42	16.9	21	8.5	33	13.3	33	13.3	61	24.6	22	8.9	7	2.8	5	2.0	5	2.0					248	100.0
<b>System H</b>																										
Self Employment	23	4.2	69	12.6	47	8.6	49	8.9	49	8.9	61	11.1	40	7.3	8	1.5	6	1.1	6	1.1					358	65.3
Micro Enterprise	9	1.6	27	4.9	25	4.6	22	4.0	26	4.7	43	7.8	6	1.1	3	.5	5	.9	1	.2					167	30.5
Small Enterprise	2	.4			1	.2	1	.2	3	.5	6	1.1	7	1.3	1	.2									21	3.8
Medium/Large Enterprise			2	.4																					2	.4
Total	34	6.2	98	17.9	73	13.3	72	13.1	78	14.2	110	20.1	53	9.7	12	2.2	11	2.0	7	1.3					548	100.0
<b>System C</b>																										
Self Employment	15	6.8	31	14.2	33	15.1	19	8.7	15	6.8	19	8.7	2	.9											135	61.6
Micro Enterprise	1	.5	19	8.7	14	6.4	15	6.8	11	5.0	7	3.2	1	.5					1	.5					68	31.1
Small Enterprise	1	.5	5	2.3	1	.5	1	.5	3	1.4	2	.9													13	5.9
Medium/Large Enterprise			1	.5	1	.5	1	.5																	3	1.4
Total	17	7.8	56	25.6	49	22.4	36	16.4	29	13.2	28	12.8	3	1.4					1	.5					219	100.0
<b>Kotmale</b>																										
Self Employment	6	3.6	14	8.5	13	7.9	8	4.8	31	18.8	31	18.8	1	.6											105	63.6
Micro Enterprise			7	4.2	2	1.2	1	.6	25	15.2	15	9.1	1	.6	1	.6									51	30.9
Small Enterprise			2	1.2	2	1.2			2	1.2	2	1.2													9	5.5
Total	6	3.6	23	13.9	17	10.3	9	5.5	58	35.2	48	29.1	2	1.2	1	.6			1	.6					165	100.0
<b>Uda Valave</b>																										
Self Employment	26	6.5	29	7.2	39	9.7	27	6.7	47	11.7	51	12.7	37	9.2	25	6.2	13	3.2	10	2.5	1	.2			305	75.7
Micro Enterprise	5	1.2	12	3.0	9	2.2	10	2.5	8	2.0	23	5.7	12	3.0	5	1.2	2	.5	3	.7					89	22.1
Small Enterprise							1	.2			3	.7	3	.7	1	.2									8	2.0
Medium/Large Enterprise	1	.2																							1	.2
Total	32	7.9	41	10.2	48	11.9	38	9.4	55	13.6	77	19.1	52	12.9	31	7.7	15	3.7	13	3.2	1	.2			403	100.0

N.R. = Non Response

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TABLE 14: 1. ENTERPRISES BY SECTOR AND NO OF YEARS EXISTENCE

No of Years	<1	1	2	3	4-5	6-10	11-15	16-20	21-25	>25	N.R.	Total
<b>System G</b>												
Agriculture, Forestry and Fishing		1			3							4
Manufacturing	1	6	7	4	9	16	6	6	6	2		63
Wholesale & Retail Trade, Restaurants	6	13	15	16	19	20	7	2	6	12	1	117
Financial & Business Services			1				1		1	1		4
Community & Personal Services		2	1	1	3	1	4	2	2	1		17
<b>Total</b>	7	22	24	21	34	37	18	10	15	16	1	205
<b>System B</b>												
Agriculture, forestry and Fishing		3	1	6	1	1						12
Manufacturing	4	11	4	8	14	19	4		1	1		60
Wholesale & Retail Trade, Restaurants	12	10	12	15	18	31	12	7	2	4		131
Transport, Storage and Communications						1						1
Financial & Business Services							1					1
Community & Personal Services	3	10	4	4		9	3		2			35
<b>Total</b>	19	42	21	33	33	61	22	7	5	5		248
<b>System H</b>												
Agriculture, Forestry and Fishing	3	16	10	3	2	10	2					46
Manufacturing	8	17	11	20	18	19	13		2	1		109
Wholesale & Retail Trade, Restaurants	19	55	46	44	49	68	25	8	5	5		324
Transport, Storage and Communications						1	1					2
Financial & Business Services	1		2		1	1	4					9
Community & Personal Services	3	10	4	5	8	11	8	4	4	1		58
<b>Total</b>	34	98	73	72	78	110	53	12	11	7		548
<b>System C</b>												
Agriculture, Forestry and Fishing		3	1	3	2	1						10
Manufacturing		8	1	4	6	4	2					25
Wholesale & Retail Trade, Restaurants	15	39	40	25	19	17	1			1		157
Transport, Storage and Communications				1								1
Financial & Business Services		3	2		1	1						7
Community & Personal Services	2	3	5	3	1	5						19
<b>Total</b>	17	56	49	36	29	28	3			1		219

N.R. = Non Response

(continued)

TABLE 14 : NO OF ENTERPRISES BY SECTOR AND NO OF YEARS EXISTENCE

No of Years	<1	1	2	3	4-5	6-10	11-15	16-20	21-25	>25	N.R.	Total
<b>Kotmale</b>												
Agriculture, Forestry and Fishing		6	3	1	17	11	1					39
Manufacturing		5	1	1	19	23						49
Wholesale & Retail Trade, Restaurants	5	9	10	7	18	11	1	1		1		63
Transport, Storage and Communications	1	1	1			1						4
Financial & Business Services		1			2							3
Community & Personal Services		1	2		2	2						7
<b>Total</b>	<b>6</b>	<b>23</b>	<b>17</b>	<b>9</b>	<b>58</b>	<b>48</b>	<b>2</b>	<b>1</b>		<b>1</b>		<b>165</b>
<b>Uda Walawe</b>												
Agriculture, Forestry and Fishing	4	6	3	6	3	4	5	5	1	2		39
Mining and Quarrying		2			2							4
Manufacturing	8	8	9	11	14	12	9	1	3	1		76
Wholesale & Retail Trade, Restaurants	15	23	33	17	28	48	28	16	10	6	1	225
Transport, Storage and Communications							1					1
Financial & Business Services				2	1	1	1	1				6
Community & Personal Services	5	2	3	2	7	12	8	8	1	4		52
<b>Total</b>	<b>32</b>	<b>41</b>	<b>48</b>	<b>38</b>	<b>55</b>	<b>77</b>	<b>52</b>	<b>31</b>	<b>15</b>	<b>13</b>	<b>1</b>	<b>403</b>

N.R. = Non Response

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TABLE 15: NO OF ENTERPRISES BY NO OF YEARS EXISTENCE AND NO OF EMPLOYED

No of Employed No of Years of Existence	1	2	3	4	5	6-10	11-15	16-20	>20	Total
<b>System G</b>										
<1	4	3								7
1	6	12	1	1					2	22
2	7	10	4	1		1			1	24
3	10	8	1	2						21
4-5	11	12	4	3		4				34
6-10	17	14	1	2	1		1		1	37
11-15	4	9	2	1		1	1			18
16-20	3	4	2					1		10
21-25	2	7	3	1		1	1			15
>25	5	5	1	1	2	2				16
N.R.			1							1
<b>Total</b>	<b>69</b>	<b>84</b>	<b>20</b>	<b>12</b>	<b>3</b>	<b>9</b>	<b>3</b>	<b>1</b>	<b>4</b>	<b>205</b>
<b>System B</b>										
<1	6	9	3	1						19
1	9	23	8			2				42
2	6	10	3	1		1				21
3	8	16	3	3	2	1				33
4-5	13	9	6	4	1					33
6-10	23	22	13	1	1	1				61
11-15	5	5	4	3	2	2	1			22
16-20	2	2	3							7
21-25	3	1			1					5
>25	1	1	3							5
<b>Total</b>	<b>76</b>	<b>98</b>	<b>46</b>	<b>13</b>	<b>7</b>	<b>7</b>	<b>1</b>			<b>248</b>
<b>System H</b>										
<1	15	13	4			1	1			34
1	48	28	15	2	1	2			2	98
2	24	29	9	6	3	2				73
3	26	32	9	2	1	2				72
4-5	19	30	14	5	5	4	1			78
6-10	25	42	23	8	5	7				110
11-15	20	18	4	1	2	4	2	1	1	53
16-20	3	5	2	1		1				12
21-25	3	2	3		1	2				11
>25	3	1	1		1	1				7
<b>Total</b>	<b>186</b>	<b>200</b>	<b>84</b>	<b>25</b>	<b>19</b>	<b>26</b>	<b>4</b>	<b>1</b>	<b>3</b>	<b>548</b>
<b>System C</b>										
<1	5	10	1			1				17
1	13	20	8	6	2	5	1		1	56
2	18	17	7	4		2			1	49
3	8	13	6	1	2	4	1		1	36
4-5	5	11	6		1	3	3			29
6-10	8	12	2	3	1		1		1	28
11-15	2					1				3
>25	1									1
<b>Total</b>	<b>60</b>	<b>83</b>	<b>30</b>	<b>14</b>	<b>6</b>	<b>16</b>	<b>6</b>		<b>4</b>	<b>219</b>

N.R. = Non Response

(continued)

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TABLE 15: NO OF ENTERPRISES BY NO OF YEARS EXISTENCE AND NO OF EMPLOYED

No of Employed No of Years of Existence	1	2	3	4	5	6-10	11-15	16-20	>20	Total
<b>Kotmale</b>										
<1	1	4	1							6
1	8	9	1	1	1		2		1	23
2	2	5	5	1	2		2			17
3	4	4	1							9
4-5	13	20	5	5	7	6	1	1		58
6-10	7	20	8	7	2	2	2			48
11-15	1			1						2
16-20		1								1
>25						1				1
<b>Total</b>	<b>36</b>	<b>63</b>	<b>21</b>	<b>15</b>	<b>12</b>	<b>9</b>	<b>7</b>	<b>1</b>	<b>1</b>	<b>165</b>
<b>Uda Walawe</b>										
<1	20	8	2				1		1	32
1	19	16	1	4	1					41
2	16	24	5	2	1					49
3	14	10	7	3	1		1			38
4-5	21	22	4	6		2				55
6-10	29	28	8	4	2	5	1			77
11-15	17	22	5	2	1	2	2		1	52
16-20	13	14	1	1		2				31
21-25	7	5	1	1		1				15
>25	4	5	3	1						13
N.R.		1								1
<b>Total</b>	<b>160</b>	<b>155</b>	<b>37</b>	<b>24</b>	<b>6</b>	<b>14</b>	<b>5</b>		<b>2</b>	<b>403</b>

N.R. = Non Response

TABLE 16 : NUMBER &amp; TYPE OF EMPLOYED BY SIZE OF ENTERPRISE

Type of Size	WORKING PROPRIETORS		PAID FAMILY LABOUR		UNPAID FAMILY LABOUR		FULL TIME EMPLOYEES		PART TIME EMPLOYEES		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
<b>SYSTEM : G</b>												
Self Employment	169	78.2	1	3.7	76	88.4	-	-	16	12.6	262	26.0
Micro Enterprise	41	19.0	10	37.0	10	11.6	21	3.8	69	54.3	151	15.0
Small Enterprise	4	1.9	16	59.3	-	-	48	8.7	42	33.1	110	10.9
Medium/Large Enterprise	2	.9	-	-	-	-	-	-	-	-	485	48.1
Total	216	100.0	27	100.0	86	100.0	552	100.0	127	100.0	1008	100.0
<b>SYSTEM : B</b>												
Self Employment	190	71.7	2	10.0	82	83.7	-	-	26	35.6	300	52.7
Micro Enterprise	71	26.8	16	80.0	16	16.3	74	65.5	45	61.6	222	39.0
Small Enterprise	4	1.5	2	10.0	-	-	39	34.5	2	2.7	47	8.3
Total	265	100.0	20	100.0	98	100.0	113	100.0	73	100.0	569	100.0
<b>SYSTEM : H</b>												
Self Employment	452	71.7	4	10.5	164	79.6	-	-	20	12.7	640	38.2
Micro Enterprise	167	26.5	32	84.2	42	20.4	181	28.0	55	35.0	477	28.4
Small Enterprise	10	1.6	2	5.3	-	-	178	27.6	27	17.2	217	12.9
Medium/Large Enterprise	1	.2	-	-	-	-	287	44.4	55	35.0	343	20.5
Total	630	100.0	38	100.0	206	100.0	646	100.0	157	100.0	1677	100.0
<b>SYSTEM : C</b>												
Self Employment	170	66.7	-	-	71	71.7	-	-	10	15.2	251	21.0
Micro Enterprise	67	26.3	22	81.5	23	23.2	90	12.0	24	36.4	226	18.9
Small Enterprise	17	6.7	5	18.5	5	5.1	92	12.3	24	36.4	143	11.9
Medium/Large Enterprise	1	.4	-	-	-	-	568	75.7	8	12.1	577	48.2
Total	255	100.0	27	100.0	99	100.0	750	100.0	66	100.0	1197	100.0
<b>KOTHALE</b>												
Self Employment	122	69.3	1	4.8	81	68.1	-	-	8	6.0	212	40.0
Micro Enterprise	45	25.6	20	95.2	30	25.2	57	70.4	58	43.6	210	39.6
Small Enterprise	9	5.1	-	-	8	6.7	24	29.6	67	50.4	108	20.4
Total	176	100.0	21	100.0	119	100.0	81	100.0	133	100.0	530	100.0
<b>UDA WALAWE</b>												
Self Employment	337	78.9	-	-	168	88.0	-	-	11	17.2	516	34.5
Micro Enterprise	83	19.4	20	100.0	20	10.5	114	14.4	40	62.5	277	18.5
Small Enterprise	0	.4	-	-	3	1.6	79	10.0	13	20.3	101	6.8
Medium/Large Enterprise	1	.2	-	-	-	-	599	75.6	-	-	600	40.2
Total	427	100.0	20	100.0	191	100.0	792	100.0	64	100.0	1494	100.0

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TABLE 16 NUMBER &amp; TYPE OF EMPLOYED BY SIZE OF ENTERPRISE (Outside Sample Area)

Type of Employed Size	WORKING PROPRIETORS		PAID FAMILY LABOUR		UNPAID FAMILY LABOUR		FULL TIME EMPLOYEES		PART TIME EMPLOYEES		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
SYSTEM : G												
Small Enterprise	15	93.8		-	22	100.0	19	40.4	131	100.0	187	86.6
Medium/Large Enterprise	1	6.3		-			28	59.6			29	13.4
Total	16	100.0		-	22	100.0	47	100.0	131	100.0	216	100.0
SYSTEM : B												
Small Enterprise	13	92.9	11	91.7	14	100.0	215	70.5	249	56.5	502	63.9
Medium/Large Enterprise	1	7.1	1	8.3			90	29.5	192	43.5	284	36.1
Total	14	100.0	12	100.0	14	100.0	305	100.0	441	100.0	786	100.0
SYSTEM : H												
Small Enterprise	67	95.7	10	100.0	16	100.0	540	24.1	136	68.3	769	30.3
Medium/Large Enterprise	3	4.3					1701	75.9	63	31.7	1767	69.7
Total	70	100.0	10	100.0	16	100.0	2241	100.0	199	100.0	2536	100.0
SYSTEM : C												
Small Enterprise	12	75.0	5	100.0	12	100.0	128	24.8	140	15.7	297	20.6
Medium/Large Enterprise	4	25.0					389	75.2	750	84.3	1143	79.4
Total	16	100.0	5	100.0	12	100.0	517	100.0	890	100.0	1440	100.0
KOTMALE												
Small Enterprise	4	80.0			3	100.0	37	9.5	18	100.0	62	14.8
Medium/Large Enterprise	1	20.0	2	100.0			353	90.5			356	85.2
Total	5	100.0	2	100.0	3	100.0	390	100.0	18	100.0	418	100.0
UDA WALAVE												
Small Enterprise	26	92.9	1	100.0	10	83.3	429	17.2	175	24.3	641	19.7
Medium/Large Enterprise	2	7.1			2	16.7	2067	82.8	546	75.7	2617	80.3
Total	28	100.0	1	100.0	12	100.0	2496	100.0	721	100.0	3258	100.0

TABLE 17: NUMBER &amp; TYPE OF EMPLOYED BY SECTOR

Type of Sector	WORKING PROPRIETORS		PAID FAMILY LABOUR		UNPAID FAMILY LABOUR		FULL TIME EMPLOYEES		PART TIME EMPLOYEES		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
SYSTEM : G												
Agriculture, Forestry and Fishing	5	2.3			2	2.3					7	.7
Manufacturing	65	30.1	10	37.0	30	34.9	487	88.2	38	29.9	630	62.5
Wholesale & Retail Trade, Restaurants	129	59.7	17	63.0	50	58.1	23	4.2	81	63.8	300	29.8
Financial & Business Services							30	7.1			39	3.9
Community & Personal Services	17	7.9			4	4.7	3	.5	8	6.3	32	3.2
Total	216	100.0	27	100.0	86	100.0	552	100.0	127	100.0	1008	100.0
SYSTEM : B												
Agriculture, Forestry and Fishing	8	3.0	1	5.0	10	10.2			3	4.1	22	3.9
Manufacturing	62	23.4	5	25.0	22	22.4	27	23.9	44	60.3	160	28.1
Wholesale & Retail Trade, Restaurants	158	59.6	11	55.0	59	60.2	47	41.6	20	27.4	295	51.8
Transport, Storage and Communications	2	.8									2	.4
Financial & Business Services	1	.4					23	20.4	1	1.4	25	4.4
Community & Personal Services	34	12.8	3	15.0	7	7.1	16	14.2	5	6.8	65	11.4
Total	265	100.0	20	100.0	98	100.0	113	100.0	73	100.0	569	100.0
SYSTEM : H												
Agriculture, Forestry and Fishing	59	9.4	1	2.6	35	17.0	7	1.1	60	38.2	162	9.7
Manufacturing	114	18.1	8	21.1	26	12.6	367	56.8	42	26.8	557	33.2
Wholesale & Retail Trade, Restaurants	391	62.1	25	65.8	140	68.0	163	25.2	37	23.6	756	45.1
Transport, Storage and Communications							20	3.1			20	1.2
Financial & Business Services	2	.3					69	10.7	3	1.9	74	4.4
Community & Personal Services	64	10.2	4	10.5	5	2.4	20	3.1	15	9.6	108	6.4
Total	679	100.0	38	100.0	206	100.0	646	100.0	157	100.0	1677	100.0

(continued)

TABLE 17: NUMBER &amp; TYPE OF EMPLOYED BY SECTOR

Type of Employed Sector	WORKING PROPRIETORS		PAID FAMILY LABOUR:		UNPAID FAMILY LABOUR:		FULL TIME EMPLOYEES		PART TIME EMPLOYEES		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
<b>SYSTEM : C</b>												
Agriculture, Forestry and Fishing	13	5.1	4	14.8	6	6.1	5	.7	5	7.6	33	2.8
Manufacturing	30	11.8	3	11.1	17	17.2	531	70.8	19	28.8	600	50.1
Wholesale & Retail Trade, Restaurants and Communications	191	74.9	20	74.1	72	72.7	124	16.5	31	47.0	438	36.6
Financial & Business Services	1	.4					12	1.6			13	1.1
Community & Personal Services	1	.4					46	6.1	9	13.6	56	4.7
	19	7.5			4	4.0	32	4.3	2	3.0	57	4.8
<b>Total</b>	<b>255</b>	<b>100.0</b>	<b>27</b>	<b>100.0</b>	<b>99</b>	<b>100.0</b>	<b>750</b>	<b>100.0</b>	<b>66</b>	<b>100.0</b>	<b>1197</b>	<b>100.0</b>
<b>KOTHALE</b>												
Agriculture, Forestry and Fishing	44	25.0	6	28.6	46	38.7	12	14.8	118	88.7	226	42.6
Manufacturing	47	26.7	8	38.1	43	36.1	42	51.9	6	4.5	146	27.5
Wholesale & Retail Trade, Restaurants and Communications	73	41.5	6	28.6	27	22.7	14	17.3	7	5.3	127	24.0
Financial & Business Services	3	1.7					5	6.2	i	.8	9	1.7
Community & Personal Services	9	5.1	1	4.8	3	2.5	2	2.5	1	.8	16	3.0
<b>Total</b>	<b>176</b>	<b>100.0</b>	<b>21</b>	<b>100.0</b>	<b>119</b>	<b>100.0</b>	<b>81</b>	<b>100.0</b>	<b>133</b>	<b>100.0</b>	<b>530</b>	<b>100.0</b>
<b>LDA WALAWE</b>												
Agriculture, Forestry and Fishing	41	9.6	5	25.0	28	14.7	4	.5	2	3.1	80	5.4
Mining and Quarrying	3	.7					1	.1	7	10.9	11	.7
Manufacturing	78	18.3	4	20.0	41	21.5	666	84.1	34	53.1	823	55.1
Wholesale & Retail Trade, Restaurants and Communications	245	57.4	9	45.0	112	58.6	75	9.5	13	20.3	454	30.4
Financial & Business Services	1	.2					2	.3			3	.2
Community & Personal Services	7	1.6					32	4.0	3	4.7	42	2.8
	52	12.2	2	10.0	10	5.2	12	1.5	5	7.8	81	5.4
<b>Total</b>	<b>427</b>	<b>100.0</b>	<b>20</b>	<b>100.0</b>	<b>191</b>	<b>100.0</b>	<b>792</b>	<b>100.0</b>	<b>64</b>	<b>100.0</b>	<b>1494</b>	<b>100.0</b>

Table 18 : Small, Medium & Large Enterprises outside Sample (1993)  
by Size and Sector

Size	Sector																Total		Grand Total
	1		2		3		4		5		6		7		8				
	S Ent	MSL Ent	S Ent	MSL Ent	S Ent	MSL Ent	S Ent	MSL Ent	S Ent	MSL Ent	S Ent	MSL Ent	S Ent	MSL Ent	S Ent	MSL Ent	S Ent	MSL Ent	
System G																			
Towns																			
Other					11			1	2			2							
Total					11			1	2			2						15	1
System B																			
Towns					1														
Other	20	4			1	1												1	1
Total	20	4			1	1												32	4
System H																			
Towns					14	2	1		17	1	1								
Other	2	3	5		12	4			3	2				12			3		
Total	2	3	5		26	6	1		20	3	1			13			5		
System C																			
Towns	1	4			1	1			7										
Other	4	1			2				2					2					
Total	5	5			3	1			9					2					
System Kormale																			
Towns					1														
Other	2				2	3													
Total	2				3	3													
System Uda Walawe																			
Towns		2			16	2		1	16	1	4								
Other	4	1				2		1						5	2	6			
Total	4	3			16	4		2	16	1	4			5	2	6			
Grand Total	33	15	5		61	15	1	3	55	4	7			23	2	11			

- 1 Agriculture, Forestry and Fishing
- 2 Mining and Quarrying
- 3 Manufacturing
- 4 Construction
- 5 Wholesale & Retail Trade, Restaurants
- 6 Transport, Storage and Communications
- 7 Financial & Business Services

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TABLE 1.9 NUMBER &amp; TYPE OF EMPLOYED BY SECTOR (Outside Sample Area)

Sector	WORKING PROPRIETORS		PAID FAMILY LABOUR		UNPAID FAMILY LABOUR		FULL TIME EMPLOYEES		PART TIME EMPLOYEES		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
<b>SYSTEM : G</b>												
Manufacturing	10	62.5			15	68.2	6	12.8	91	69.5	122	56.5
Construction	1	6.3					28	59.6			29	13.4
Wholesale & Retail Trade, Restaurants	3	18.6			1	4.5	15	27.7	17	13.0	34	15.7
Transport, Storage and Communications	2	12.5			6	27.3			25	17.6	31	14.4
Total	16	100.0			22	100.0	47	100.0	131	100.0	216	100.0
<b>SYSTEM : B</b>												
Agriculture, Forestry and Fishing	3	21.4	1	8.3	13	92.9	150	11.3	12	63.2	165	77.4
Manufacturing	2	14.3	1	8.3			37	27.6	5	25.0	42	19.7
Wholesale & Retail Trade, Restaurants	9	64.3	10	83.3	1	7.1	36	26.3	24	118.2	60	28.2
Financial & Business Services							34	24.7			34	15.7
Total	14	100.0	12	100.0	14	100.0	305	100.0	441	100.0	735	100.0
<b>SYSTEM : H</b>												
Agriculture, Forestry and Fishing	1	1.4					128	5.7	79	39.7	208	8.2
Mining and Quarrying	5	7.1	1	10.0			28	1.2	2	1.0	36	1.4
Manufacturing	29	41.4	2	20.0	8	50.0	1666	74.3	80	40.2	1765	70.4
Construction	1	1.4					5	.2			6	.2
Wholesale & Retail Trade, Restaurants	24	34.3	5	50.0	6	37.5	208	9.3	26	13.1	269	10.6
Transport, Storage and Communications	1	1.4					5	.2			6	.2
Financial & Business Services							170	7.6	71	3.5	177	7.0
Community & Personal Services	9	12.9	2	20.0	2	12.5	31	1.4	5	2.5	49	1.9
Total	70	100.0	10	100.0	16	100.0	2241	100.0	199	100.0	2536	100.0
<b>SYSTEM : C</b>												
Agriculture, Forestry and Fishing	1	3.5			6	50.0	59	19.1	636	93.2	647	15.8
Manufacturing	2	7.1	1	20.0			320	61.9	16	1.2	336	8.3
Wholesale & Retail Trade, Restaurants	7	24.3	4	80.0	6	50.0	14	12.4	25	4.3	119	3.0
Financial & Business Services							34	6.4			34	.8
Total	10	100.0	5	100.0	12	100.0	517	100.0	650	100.0	1167	100.0
<b>POHSALE</b>												
Agriculture, Forestry and Fishing	2	40.0			3	100.0	6	1.5	13	72.2	24	5.7
Manufacturing	3	60.0	2	100.0			384	98.5	5	27.8	394	94.3
Total	5	100.0	2	100.0	3	100.0	390	100.0	18	100.0	418	100.0
<b>UDA MALAWI</b>												
Agriculture, Forestry and Fishing	4	14.3					113	4.5	421	58.4	538	16.5
Manufacturing	10	35.7			5	41.7	1791	71.8	238	33.0	2044	62.7
Construction	1	3.6					205	8.2			205	6.3
Wholesale & Retail Trade, Restaurants	12	42.9	1	100.0	7	58.3	169	6.8	27	3.7	216	6.6
Transport, Storage and Communications							50	2.0	5	.7	55	1.7
Financial & Business Services							130	5.2	21	2.9	151	4.6
Community & Personal Services	1	3.6					18	1.5	9	1.2	48	1.5
Total	28	100.0	1	100.0	12	100.0	2496	100.0	721	100.0	3258	100.0

TABLE 20: NUMBER OF ENTERPRISES BY SIZE AND RANGE OF GROSS SALES

Size Gross Sale (Rs.)	Self Employment		Micro Enterprise		Small Enterprise		Medium/Large Enterprise		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
<b>System G</b>										
Less than 2,500	28	13.7	3	1.5	3	1.5	2	1.0	36	17.6
2,501 - 5,000	56	27.3	5	2.4					61	29.8
5,001 - 7,500	18	8.8	2	1.0	1	.5			21	10.2
7,501 - 10,000	22	10.7	8	3.9					30	14.6
10,001 - 12,500	2	1.0	1	.5					3	1.5
12,501 - 15,000	13	6.3	4	2.0					17	8.3
15,001 - 20,000	5	2.4	4	2.0					9	4.4
20,001 - 25,000	3	1.5	4	2.0					7	3.4
25,001 - 50,000	8	3.9	1	.5	1	.5			10	4.9
50,001 - 100,000	1	.5	4	2.0					5	2.4
100,001 - 150,000			3	1.5	1	.5			4	2.0
200,000 +			1	.5	1	.5			2	1.0
<b>Total</b>	<b>156</b>	<b>76.1</b>	<b>40</b>	<b>19.5</b>	<b>7</b>	<b>3.4</b>	<b>2</b>	<b>1.0</b>	<b>205</b>	<b>100.0</b>
<b>System B</b>										
Less than 2,500	18	7.3	3	1.2	2	.8			23	9.3
2,501 - 5,000	44	17.7	18	7.3					62	25.0
5,001 - 7,500	18	7.3	8	3.2					26	10.5
7,501 - 10,000	26	10.5	11	4.4	1	.4			38	15.3
10,001 - 12,500	14	5.6	2	.8					16	6.5
12,501 - 15,000	18	7.3	5	2.0					23	9.3
15,001 - 20,000	10	4.0	2	.8					12	4.8
20,001 - 25,000	4	1.6	3	1.2	2	.8			9	3.6
25,001 - 50,000	13	5.2	7	2.8					20	8.1
50,001 - 100,000	5	2.0	4	1.6					9	3.6
100,001 - 150,000	2	.8	3	1.2					5	2.0
150,001 - 200,000			2	.8					2	.8
200,000 +	1	.4	2	.8					3	1.2
<b>Total</b>	<b>173</b>	<b>69.8</b>	<b>70</b>	<b>28.2</b>	<b>5</b>	<b>2.0</b>			<b>248</b>	<b>100.0</b>
<b>System H</b>										
Less than 2,500	60	10.9	27	4.9			2	.4	89	16.2
2,501 - 5,000	83	15.1	22	4.0					105	19.2
5,001 - 7,500	30	5.5	9	1.6					39	7.1
7,501 - 10,000	47	8.6	16	2.9	3	.5			66	12.0
10,001 - 12,500	20	3.6	6	1.1					26	4.7
12,501 - 15,000	39	7.1	10	1.8					49	8.9
15,001 - 20,000	15	2.7	13	2.4					28	5.1
20,001 - 25,000	21	3.8	8	1.5					29	5.3
25,001 - 50,000	31	5.7	26	4.7	2	.4			59	10.8
50,001 - 100,000	5	.9	11	2.0	6	1.1			22	4.0
100,001 - 150,000	4	.7	6	1.1	2	.4			12	2.2
150,001 - 200,000			2	.4	1	.2			3	.5
200,000 +	4	.7	10	1.8	7	1.3			21	3.8
<b>Total</b>	<b>359</b>	<b>65.5</b>	<b>166</b>	<b>30.3</b>	<b>21</b>	<b>3.8</b>	<b>2</b>	<b>.4</b>	<b>548</b>	<b>100.0</b>

N.R. = Non Response

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TABLE 20: NUMBER OF ENTERPRISES BY SIZE AND RANGE OF GROSS SALES

Size Gross Sale (Rs.)	Self Employment		Micro Enterprise		Small Enterprise		Medium/Large Enterprise		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
<b>System C</b>										
Less than 2,500	28	12.8	1	.5					29	13.2
2,501 - 5,000	37	16.9	6	2.7					43	19.6
5,001 - 7,500	13	5.9	5	2.3					18	8.2
7,501 - 10,000	11	5.0	5	2.3					16	7.3
10,001 - 12,500	8	3.7	1	.5					9	4.1
12,501 - 15,000	10	4.6	7	3.2					17	7.8
15,001 - 20,000	3	1.4	5	2.3					8	3.7
20,001 - 25,000	5	2.3	3	1.4					8	3.7
25,001 - 50,000	12	5.5	14	6.4	1	.5			27	12.3
50,001 - 100,000	3	1.4	15	6.8	2	.9			20	9.1
100,001 - 150,000	1	.5	4	1.8	1	.5			6	2.7
150,001 - 200,000	1	.5			1	.5			2	.9
200,000 +	3	1.4	2	.9	8	3.7	3	1.4	16	7.3
<b>Total</b>	<b>135</b>	<b>61.6</b>	<b>68</b>	<b>31.1</b>	<b>13</b>	<b>5.9</b>	<b>3</b>	<b>1.4</b>	<b>219</b>	<b>100.0</b>
<b>Kotmale</b>										
Less than 2,500	19	11.5	11	6.7					30	18.2
2,501 - 5,000	35	21.2	7	4.2					42	25.5
5,001 - 7,500	4	2.4	5	3.0					9	5.5
7,501 - 10,000	11	6.7	5	3.0	1	.6			17	10.3
10,001 - 12,500	6	3.6	1	.6					7	4.2
12,501 - 15,000	13	7.9	5	3.0					18	10.9
15,001 - 20,000	2	1.2	2	1.2					4	2.4
20,001 - 25,000	5	3.0	3	1.8	1	.6			9	5.5
25,001 - 50,000	6	3.6	4	2.4	4	2.4			14	8.5
50,001 - 100,000	3	1.8	5	3.0	1	.6			9	5.5
100,001 - 150,000			2	1.2	1	.6			3	1.8
150,001 - 200,000			1	.6	1	.6			2	1.2
200,000 +	1	.6							1	.6
<b>Total</b>	<b>105</b>	<b>63.6</b>	<b>51</b>	<b>30.9</b>	<b>9</b>	<b>5.5</b>			<b>165</b>	<b>100.0</b>
<b>Uda Walawe</b>										
Less than 2,500	68	16.9	8	2.0			1	.2	79	19.6
2,501 - 5,000	37	21.6	13	3.2	2	.5			100	24.8
5,001 - 7,500	13	4.7	14	3.5					33	8.2
7,501 - 10,000	33	8.2	9	2.2					42	10.4
10,001 - 12,500	17	4.2	3	.7					20	5.0
12,501 - 15,000	18	4.5	5	1.2	1	.2			24	6.0
15,001 - 20,000	13	3.2	5	1.2					18	4.5
20,001 - 25,000	10	2.5	2	.5	1	.2			13	3.2
25,001 - 50,000	27	6.7	10	2.5					37	9.2
50,001 - 100,000	7	1.7	9	2.2	1	.2			17	4.2
100,001 - 150,000	3	.7	3	.7					6	1.5
150,001 - 200,000	2	.5	2	.5	1	.2			5	1.2
200,000 +	1	.2	6	1.5	2	.5			9	2.2
<b>Total</b>	<b>305</b>	<b>75.7</b>	<b>89</b>	<b>22.1</b>	<b>8</b>	<b>2.0</b>	<b>1</b>	<b>.2</b>	<b>403</b>	<b>100.0</b>

N.R. = Non Response

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TABLE 21: NUMBER OF ENTERPRISES BY SECTOR AND RANGE OF GROSS SALES

Sector Gross Sale (Rs.)	Agriculture, Forestry and fishing	Mining and Quarrying	Manufacturing	Wholesale & Retail Trade, Restaurants	Transport, Storage and Communications	Financial & Business Services	Community & Personal Services	Total
<b>System G</b>								
Less than 2,500	1		17	11		4	3	36
2,501 - 5,000	3		25	27			6	61
5,001 - 7,500			7	12			2	21
7,501 - 10,000			7	18			5	30
10,001 - 12,500				3				3
12,501 - 15,000			3	13			1	17
15,001 - 20,000				9				9
20,001 - 25,000			2	5				7
25,001 - 50,000				10				10
50,001 - 100,000				5				5
100,001 - 150,000			2	2				4
200,000 +				2				2
<b>Total</b>	<b>4</b>		<b>63</b>	<b>117</b>		<b>4</b>	<b>17</b>	<b>205</b>
<b>System B</b>								
Less than 2,500			5	10		2	6	23
2,501 - 5,000	8		19	13			22	62
5,001 - 7,500			11	13			2	26
7,501 - 10,000	2		11	24	1			38
10,001 - 12,500			3	9			4	16
12,501 - 15,000	1		8	14				23
15,001 - 20,000			5	7				12
20,001 - 25,000			1	8				9
25,001 - 50,000	1		3	15			1	20
50,001 - 100,000				9				9
100,001 - 150,000				5				5
150,001 - 200,000				2				2
200,000 +				2				3
<b>Total</b>	<b>12</b>		<b>66</b>	<b>131</b>	<b>1</b>	<b>3</b>	<b>35</b>	<b>248</b>
<b>System H</b>								
Less than 2,500	20		28	25			16	89
2,501 - 5,000	8		29	44		1	23	105
5,001 - 7,500	2		8	21		1	7	39
7,501 - 10,000	5		14	41			6	66
10,001 - 12,500	2		3	18			3	26
12,501 - 15,000	1		4	44				49
15,001 - 20,000	2		7	17			2	28
20,001 - 25,000			4	24	1			29
25,001 - 50,000	5		5	47		1	1	59
50,001 - 100,000	1		3	16		2		22
100,001 - 150,000			1	11				12
150,001 - 200,000			1	2				3
200,000 +			1	15	1	4		21
<b>Total</b>	<b>46</b>		<b>108</b>	<b>325</b>	<b>2</b>	<b>9</b>	<b>58</b>	<b>548</b>

N.R. = Non Response

TABLE 21: NUMBER OF ENTERPRISES BY SECTOR AND RANGE OF GROSS SALES

Sector Gross Sale (Rs.)	Agriculture, Forestry and Fishing	Mining and Quarrying	Manufacturing	Wholesale & Retail Trade, Restaurants	Transport, Storage and Communications	Financial & Business Services	Community & Personal Services	Total
<b>System C</b>								
Less than 2,500	2		3	21			3	29
2,501 - 5,000	4		4	27			8	43
5,001 - 7,500	1		3	12			2	18
7,501 - 10,000	2		4	9			1	16
10,001 - 12,500			1	8				9
12,501 - 15,000				14		1	2	17
15,001 - 20,000			3	5				8
20,001 - 25,000				6		1	1	8
25,001 - 50,000			3	23			1	27
50,001 - 100,000	1			19				20
100,001 - 150,000			1	4		1		6
150,001 - 200,000				2				2
200,000 +			3	7	1	4	1	16
<b>Total</b>	<b>10</b>		<b>25</b>	<b>157</b>	<b>1</b>	<b>7</b>	<b>19</b>	<b>219</b>
<b>Kotmale</b>								
Less than 2,500	15		7	4		2	2	30
2,501 - 5,000	11		21	8	1		1	42
5,001 - 7,500	2		3	2			2	9
7,501 - 10,000	1		5	10			1	17
10,001 - 12,500	1		1	4				7
12,501 - 15,000	1		6	10	1		1	18
15,001 - 20,000	1			3				4
20,001 - 25,000	1		3	5				9
25,001 - 50,000	4		2	7	1			14
50,001 - 100,000	2			5	1	1		9
100,001 - 150,000				3				3
150,001 - 200,000			1	1				2
200,000 +				1				1
<b>Total</b>	<b>39</b>		<b>49</b>	<b>63</b>	<b>4</b>	<b>3</b>	<b>7</b>	<b>165</b>
<b>Uda Watawe</b>								
Less than 2,500	21		16	29			11	79
2,501 - 5,000	13	1	20	41		2	25	100
5,001 - 7,500	1	1	5	20			6	33
7,501 - 10,000	5		9	23			5	42
10,001 - 12,500			4	13			3	20
12,501 - 15,000			1	21			2	24
15,001 - 20,000			4	14				18
20,001 - 25,000			5	8				13
25,001 - 50,000			7	29			1	37
50,001 - 100,000			2	13		2		17
100,001 - 150,000			1	4		1		6
150,001 - 200,000				5				5
200,000 +			2	5	1	1		9
<b>Total</b>	<b>40</b>	<b>2</b>	<b>76</b>	<b>225</b>	<b>1</b>	<b>6</b>	<b>53</b>	<b>403</b>

N.R. = Non Response

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TABLE 22 : DISTRIBUTION OF TOTAL INVESTMENTS BY SOURCE OF FUNDS AND SIZE OF ENTERPRISE

Size Source of Funds	Self Employment				Micro Enterprise				Small Enterprise				Medium/Large Enterprise			
	No. of Enterprises		Total Invest: (Rs. m.)		No. of Enterprises		Total Invest: (Rs. m.)		No. of Enterprises		Total Invest: (Rs. m.)		No. of Enterprises		Total Invest: (Rs. m.)	
	Rs. m.	%	Rs. m.	%	Rs. m.	%	Rs. m.	%	Rs. m.	%	Rs. m.	%	Rs. m.	%	Rs. m.	%
Own Capital	1167	71.6	46.89	69.5	451	66.9	50.55	58.8	47	56.6	25.72	76.2	3	50.0	4.02	53.4
Bank Loan-Direct	299	18.3	15.76	23.4	141	20.9	30.35	35.3	27	32.5	7.05	20.9	2	33.3	2.50	33.3
Bank Loan-through Med Savings/Credit Society	23	1.4	.66	1.0	10	1.5	1.39	1.6	2	2.4	.24	.7	-	-	-	-
MVCC	5	.3	.37	.5	5	.7	.23	.3	-	-	-	-	-	-	-	-
Non-institutional Loan	122	7.5	3.65	5.4	50	7.4	3.2	3.7	7	8.4	.76	2.3	-	-	-	-
Grant	14	.9	.13	.2	17	2.5	.27	.3	-	-	-	-	1	16.7	1.00	13.3
Total	1630	100.0	67.45	100.0	674	100.0	86.01	100.0	83	100.0	33.77	100.0	6	100.0	7.52	100.0

N.R. = Non Response

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TABLE 23: DISTRIBUTION OF TOTAL INVESTMENTS BY SOURCE OF FUNDS AND SECTOR OF ENTERPRISE

Sector Source of Funds	Agriculture, Forestry and Fishing				Mining and Quarrying				Manufacturing				Wholesale & Retail Trade, Restaurants			
	No. of Enterprises		Total Invest: (Rs. m.)		No. of Enterprises		Total Invest: (Rs. m.)		No. of Enterprises		Total Invest: (Rs. m.)		No. of Enterprises		Total Invest: (Rs. m.)	
	Rs. m.	%	Rs. m.	%	Rs. m.	%	Rs. m.	%	Rs. m.	%	Rs. m.	%	Rs. m.	%	Rs. m.	%
Own Capital	135	62.8	5.78	59.3	4	57.1	.18	52.7	370	70.6	19.94	58.8	957	70.0	68.61	62.3
Bank Loan-Direct	42	19.5	7.67	27.4	-	-	-	-	94	17.9	12.23	36.1	281	20.5	33.22	30.2
Bank Loan-through Med Savings/Credit Society	4	1.9	.22	2.2	-	-	-	-	6	1.1	.13	.4	19	1.4	1.74	1.6
MVCC	-	-	-	-	-	-	-	-	5	1.0	.35	1.0	5	.4	.25	.2
Non-institutional Loan	19	8.8	1.01	10.4	3	42.9	.16	47.3	38	7.3	1.10	3.2	100	7.3	5.14	4.7
Grant	15	7.0	.07	.7	-	-	-	-	11	2.1	.14	.4	6	.4	1.19	1.1
Total	215	100.0	9.75	100.0	7	100.0	.34	100.0	524	100.0	33.89	100.0	1368	100.0	110.2	100.0

TABLE 23: DISTRIBUTION OF TOTAL INVESTMENTS BY SOURCE OF FUNDS AND SECTOR OF ENTERPRISE

Sector Source of Funds	Transport, Storage and Communications				Financial & Business Services				Community & Personal Services			
	No. of Enterprises		Total Invest: (Rs. m.)		No. of Enterprises		Total Invest: (Rs. m.)		No. of Enterprises		Total Invest: (Rs. m.)	
	Rs. m.	%	Rs. m.	%	Rs. m.	%	Rs. m.	%	Rs. m.	%	Rs. m.	%
Own Capital	9	81.8	2.28	65.5	13	76.5	22.92	81.6	180	71.7	7.48	82.8
Bank Loan-Direct	2	18.2	1.20	34.5	3	17.6	5.13	18.2	47	18.7	1.20	13.3
Bank Loan-through Med Savings/Credit Society	-	-	-	-	1	5.9	.05	.2	5	2.0	.14	1.6
MVCC	-	-	-	-	-	-	-	-	-	-	-	-
Non-institutional Loan	-	-	-	-	-	-	-	-	19	7.6	.21	2.3
Grant	-	-	-	-	-	-	-	-	-	-	-	-
Total	11	100.0	3.48	100.0	17	100.0	28.10	100.0	251	100.0	9.04	100.0

Table 24

DISTRIBUTION OF UNDER ENUMERATED (1992) ENTERPRISES BY SIZE

Block Size of Enterprise	G	B	H	C	Kotmale	Uda Walawe	Total
Self employment	1	7	19	9	7	10	53
Micro Enterprise	1	6	16	6	4	16	49
Small Enterprise	-	3	1	1	1	2	8
Medium/Large Enterprise	-	-	-	-	-	-	-
Total	2	16	36	16	12	28	110

Table 25

DISTRIBUTION OF UNDER ENUMERATED (1992) ENTERPRISES BY SECTOR

Block Sector	G	B	H	C	Kotmale	Uda Walawe	Total
Agriculture, Forestry & Fishing	-	1	8	2	2	2	15
Mining & Quarrying	-	-	-	-	-	-	-
Manufacturing	1	6	8	2	2	10	29
Construction	-	-	-	-	-	-	-
Wholesale, Retail Trade & Restaurant	1	5	15	10	7	15	53
Transport, Storage & Communication	-	-	1	-	-	-	1
Financial & Business Services	-	2	1	1	1	1	6
Community & Personal Services	-	2	3	1	-	-	6
Total	2	16	36	16	12	28	110

## MED/EIED PUBLICATIONS AVAILABLE

*Local Market for Pickled Products* (December 1990)

*Non Farm Small Scale Enterprise Credit on Selected Mahaweli Systems*, Geoffrey Peters and M.W. Panditha (December 1990)

*Crop Profiles - Spices, Herbs and Aromatics*, L. Denzil Phillips (July 1991)

*Study of the Tourism Development in the Uda Walawe* (July 1991)

*Potential for Silver Skin Onions in the Mahaweli*, Walter Nueberg (August 1991)

*Nursery Development of Papaya and Mango, Papaya Growers' Guide and Technical Notes for Business Plan for Mixed Fruit Cultivation Investment*, Ben Hatfield (November 1991)

*Dehydrated Fruit Processing Opportunities and Trends in Sri Lanka*, Wanchai Somchit, (November 1991)

*An Evaluation of the Entrepreneur Development Programmes*, Dr. Susan Exo and Hina Shah, (December 1991)

*Aromatics PIP Interim Report on Trials Establishment*, Dr Thomas Davies (December 1991)

*Agro-Business Financing Review*, Dennis De Santis (December 1991)

*Integrated Fruit Drying, juicing, Pulping project - Prep Feasibility Study*, Michael Smedley, Ben Hatfield and Wanchai Somchit (December 1991)

*Cold Chain Requirements for Uda Walawe*, Fredrick E. Henry (March 1992)

*Field Manual for Processing Tomatoes*, Peter Florance (March 1992)

*Processing Tomato Trials in Mahaweli System H*, Peter Florance (March 1992)

*Processing Tomato Trials in Mahaweli System C*, Peter Florance (March 1992)

*Dried Fruit Processing in the Mahaweli*, Dr. Kamal Hyder (September 1992)

*Feasibility Study on Commercial Potential of Snake Venoms in Mahaweli Systems*, Ansem de Silva, (January 1993)

*Census of Mahaweli Enterprises and Employment* (January 1993)

Most publications are priced at Rs.100/-. The publications are available at the MED Office at 8th Floor, Unity Plaza, Colombo 4. (inquiries, Ph. 508682-4)

An EIED publication entitled - "Information Available for the Mahaweli Investor", is also available at the MED Office.

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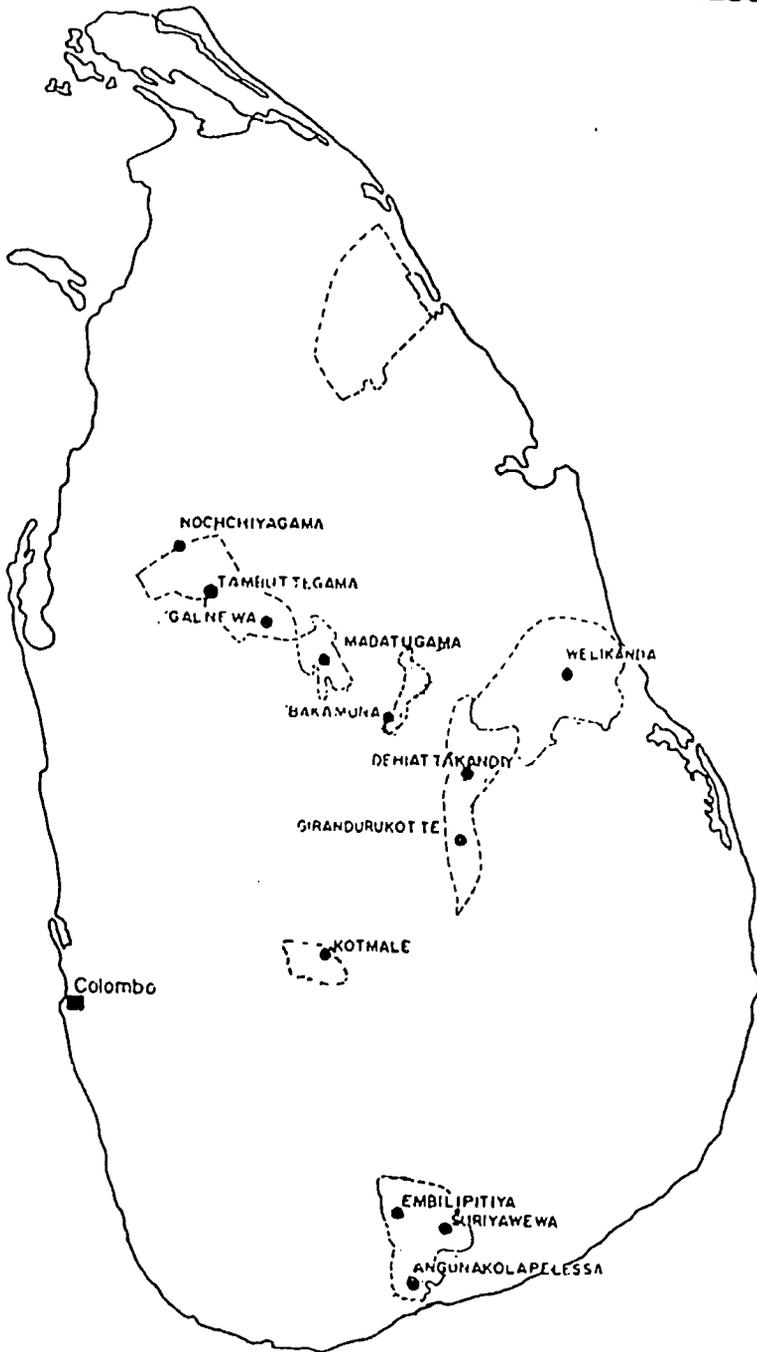
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