RURAL NON-FARM EMPLOYMENT: PROBLEMS, ISSUES AND STRATEGIES

by

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RURAL NON-FARM EMPLOYMENT: PROBLEMS, ISSUES AND STRATEGIES

Introduction

Employment in non-farm activities has become an important aspect of the lives of a large number of people in the rural areas of Sri Lanka as in several other developing countries. While this is basically an economic phenomenon, it has an important social aspect because those affected are mostly the rural poor. For the growing numbers of these people who are not being absorbed fast enough in agriculture or in urban-based industry, and are actually obliged to leave the land partially or fully, non-farm activities are perforce a part of their personal survival strategies. The pattern of employment that has so resulted is as complex as the conditions and factors that have given rise to this variety of activities. Analytically, the resultant employment situation signifies structural impoverishment and current trends point to its possible deepening. It is in this setting that rural non-farm (r n - f) employment has emerged in Sri Lanka, as in certain other developing countries, as a theme around which study, analysis and action can be organised. Yet, a fuller understanding of the issues has been hampered by a paucity of data and a failure to develop appropriate perspectives.

This paper which is structured in seven sections attempts to develop some useful perspectives, to provide a better understanding of the issues by assembling and interpreting a wealth of data found scattered in numerous sources, and to present a strategy for the promotion of r n - f employment. Sections one and two, which focus on the macro-level issues, analyse the evolution of the r n - f sector and forecast its likely course in terms of its underlying factors. Sections three and four move on to the micro and household levels to observe how the r n - f sector currently operates by analysing patterns of activities, their determinants and the characteristics of family labour participation in the sector. Section five analyses structural patterns and focuses on structural changes and trends over time, while section six delves into the critically important demand-side issues. Section seven works towards a demand-led development strategy, which is theoretically well-grounded and practically feasible, for the r n - f sector.

I

FACTORS UNDERLYING THE RURAL NON—FARM SECTOR AND ITS EVOLUTION

Sectoral Absorption of Labour

Factors in the evolution of the contemporary rural non-farm (r n - f) sector are to be found in the sectoral pattern of absorption of a rapidly expanding labour force. The relevant data for the last four decades reveal the following pattern. In the period 1948 - 81, total population increased

at high rates, ranging from 1.8% to 2.8% per year which are characteristic of the economic-demographic transition experienced by the country. Emanating from this and also from the steep rise during the last three decades of the female labour force participation rate under the impact of various social and economic changes, the expansion in the total labour force was at high rates, from 1.5% to 3.3% per year. As against this, employment in agriculture could grow only at the much slower rate of 1.3% per year. The consequent gap in rural employment was filled by rural non-agricultural employment which increased much faster at the dramatic rate of 4.5% per year. These differentials in sectoral employment growth rates have significantly changed the rural employment structure. Rural non-agricultural employment pushed up its share in total rural employment from 37% in 1963 to 43%* in 1981. These data point forcefully to the rapidly expanding "wedge" of r n - f labour force which has grown to about 63% of the all island non-agricultural labour force.

What the foregoing provides is an overview of the basis on which r n - f activities have developed and grown in importance. The broad order of mangitudes and trends in sectoral labour absorption under labour supply pressure in rural areas depicted there needs to be disaggregated and investigated separately in order to understand the underlying causes. To these investigations the analysis will now turn.

Labour Absorption in Agriculture. The first investigation should be into labour absorption in agriculture, comprising plantation and domestic agriculture, because it is its much slower expansion in relation to labour force growth that is at the centre of the drama of the r n - f sector's evolution. The plantation sub-sector, which in the mid-country and low-country areas provided some part-time and even regular employment for village labour, offered expanding employment opportunities until the 1950s. Thereafter, mainly because its extent declined, its labour absorption capacity weakened and, as suggested by census returns, its employment actually fell by about 23% between 1953 and 1981. Considering the fixity of factor proportions in this sub-sector and the virtual exhaustion of the land area suitable for its crops, no expansion in its employment could anyway have been expected. The investigation into labour absorption in domestic agriculture, with its chief crop, paddy, dominating rural agricultural employment by accounting for a share of over 55%, needs to be carried out in terms of the quantity as well as the quality of employment offered by it.

(i) Quantity of Employment Offered — There was an expansion in the paddy area at about 2.6% per year in 1953 - 71, accompanied by an increase in paddy employment at the high rate of about 5.8% per year. This was a significant achievement by the paddy sub-sector, recording an increase in both employment per acre and output per worker and a high employment income (value added) elasticity of 0.826 as estimated for 1963 - 71 (Wickramasekera, 1979). In the subsequent period 1971 - 81 however, paddy cultivation ceased altogether to absorb more labour. Its area did expand although more slowly, at about 2% per year but, despite this expansion in area and rapid growth in production at about 5% per year, employment continued to fall. These varying experiences in labour absorption in paddy in the last four decades are reflected in the employment per acre which starting from a level of 0.36 in 1953, rose gradually to 0.45 in 1971 and then fell back in 1981 to its original level.

The decline in employment in paddy was due mainly to a decline in the share of unpaid family workers in total farm labour from 16% to about 10%. Apparently, the children of paddy farmers have sought more education or work outside at the expense of work in their family farms.

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* All estimates are based on census returns for the different years.

The significant drop in padddy labour intensity partly embodied this fact and derives from a decline in labour-using methods and an increase in labour-saving methods. Such trends are reflected in the decline in transplanting with the trend towards short-aged new high-yielding varieties (NHYV), the decline in hand weeding due to the rapid spread of chemical weedicides, the limited use of organic fertilizer (its use confined to some high-value crops) due to the growth in chemical fertiliser use, and the high level of farm mechanisation, which is capable of displacing about 10-15 man-days per acre without adding anything to productivity or cropping intensity (ILO - ARTEP, February 1986). Also, the difficulties faced especially by small farmers in adopting the NHYV technology package due to institutional problems have prevented a fuller realisation of its labour absorption potential.

Intensification of cropping in paddy is a means of increasing the quantity of employment to counter the problem of monsoon-determined seasonal unemployment.* Double cropping, however, occurs only in about 43% of the paddy acreage because, although 63% of it is irrigated, only 38% enjoys an assured water supply from major irrigation works. But even in these lands there is less double cropping than expected because of low efficiency in water management and in maintenance These problems afflict the minor irrigation works with even greater severity. Thus the double cropping intensity index has long stagnated at a level of around 142 (Wickramasekera, 1984), despite an increase in the irrigation ratio and a rapid expansion in the sown area. From the foregoing investigation into the past trends in the three variables in the quantity of employment in agriculture, viz. cultivated area, labour intensity in farming and cropping intensity, it is evident that domestic agriculture (paddy) has played little or no role in absorbing any part of the increase in the rural labour force.

(ii) Quality of Employment Offered : The Farm-Size Factor — If the quantity of employment opportunities offered by domestic agriculture was restricted, what of the quality of employment offered by it in terms of incomes to the operators? The answer may be found against a background of the trends in the land-man ratio. This ratio in paddy farming has declined sharply during the last four decades when population grew around an annual rate of 2.5% while the paddy acreage could expand at a rate of only 1.9%. The accompanying process of land fragmentation and subdivision was aggravated by the prevailing property inheritance system. A repeat survey of the land-man situation in the same densely populated nine villages in a wet zone area has brought out this process very clearly. It is mostly the medium-sized paddy farms in the 2-5 acre group that have been subjected to subdivision and the average paddy extent per owner cultivator has declined from 0.71 to 0.51 acres, a 28% decrease over 25 years (Paranavitana, 1985). What has resulted countrywide therefore is a proliferation of mini-holdings and marginal farms that can neither fully absorb the labour of the operator families nor produce enough income for their subsistence.

In 1982, 44% of the paddy holdings were below one acre in size, (C of A, 1982), whereas the minimum size considered adequate for a family's subsistence is two acres. It is such small-sized farms that reveal food deficits or subsistence gaps. In two wet zone hill country villages the sub-subsistence gap in paddy farms below one acre amounted to Rs. 500-700 representing 16-30% of family consumption expenditure (Khan et al. 1974). In three villages in the low country, 43-71%

* A time-lag of about two months between peak agricultural operations in the wet and dry zone areas offers an opportunity for seasonal migration of labour and thus for reducing seasonal unemployment. Such migration, under the parameters set by the differentials in space, time and population density, has so far involved only about half of the rural hired labourers in three of the wet zone districts.

of the paddy cultivating households had to buy rice to meet their requirements (Moore et al, 1980). A similar trend of diminishing size has been observed for total agricultural holdings as well, with agricultural land per agricultural family falling from 3.31 acres in 1946 to 1.94 acres in 1982. In 1982, 43% of the operational holdings in the small-holdings sector were below one acre whereas a minimum-sized viable unit would range from 2 to 5 acres depending on agro-climatic conditions. Thus for many farmers it is underemployment in the time duration sense and disguised unemployment in the income sense. Both create compulsions for them to seek non-farm income to supplement their farm income.

(iii) Other Compulsions in Farming Situations to Seek Outside Income — Besides the size of farms there are several other factors in farm income situations which have compelled operators to have recourse to outside sources of income.

(a) The share-cropping tenants' position has worsened during the last decade. Their burden of rents has increased and insecurity has risen in the general context of greater competition for tenancies and in the special contexts of the suspension of the law that had protected them and of the statutory increase in the landlord's share from 12 to 15 bushels per acre (Gooneratna et al. 1984).

(b) With the shift to the use of purchased inputs for the newly introduced HYV technology and the subsequent escalation in their costs, the small farmers, lacking both a substantial marketable surplus and access to institutional credit, have been particularly affected by a shortage of working capital in the form of cash. A survey of selected districts revealed that a 140% rise in the cost of production in 1972-79 has made it especially difficult for small farmers to manage their cash flows, and that they were offering their labour for outside work rather than cultivate their farms (Economic Review, June 1980). The advantage small farmers once enjoyed of a cheap and ample supply of labour is now eroded by the rise in the importance and cost of purchased inputs.

(c) In the context of increasing population pressure on land, many have been driven to farming on lands which though not small in size are low in productivity and income. This is seen in encroachments on marginal lands for shifting or rainfed cultivation. Others having no alternative have clung on to their low-productivity lands as in the case of farmers under minor irrigation schemes or rainfed conditions in the dry zone.

These factors that have tended to depress incomes from farming, namely, diminishing farm size, widening subsistence gaps, increasing tenurial disability, extension of farming into or continuation of farming in marginal lands and growing difficulties of managing farm cash flows, have all tended to propagate part-time farming and its obverse, non-farming activities.

(iv) Landlessness — A concomitant of the processes associated with the decline in the land-man ratio was an increase in landlessness. In 1982, 11% of the operators in the small-holdings sector had no land and 39% were almost landless, having only home gardens averaging 0.6 acres. In this context there has been an expansion in the rural hired labourer category drawn from the landless and the marginal farmers and estimated in 1975 at 15% of the total labour force of the country. They have to make a living by taking on any available work, be it farming or non-farming. The casual and irregular nature of their work and the sale of their labour in a buyers' market have depressed their earnings to among the lowest in the villages.

Absorption of Rural Labour by Industry. The investigation must now turn to the issue of rural labour's absorption by industry. The manufacturing sector, which started with a very narrow base of a 9.7% share in total employment at the time of the 1953 census needed to expand at a very rapid rate to absorb a sizeable portion of the incremental labour. But this did not happen; 28 years later at the 1981 census, the share of manufacturing in total employment was still around the same low level of 10%. Apparently, the average annual rate of 1.5% in employment growth achieved by this sector during the last three decades was enough only to maintain its relative share as an employment provider. The country's industrialisation efforts have been guided by capital-oriented growth policies. These were directed primarily to high output and only secondarily to employment. The modern industry sub-sector so established has failed to achieve its growth objective at the expected level. Its internal growth mechanisms, centering around productivity, surplus generation, re-investment and vertical structural balance, remained weak, and hardly any self-generating growth took place. Instead, it displayed a persistent under-utilisation of capacity and failed to raise productivity or to lower production costs : the tell-tale symptoms of its deeper malaise. While a cumulative expansion in employment through its internal growth was aborted in this way, its direct employment effects remained restricted because its technologies, factor-mix and even product-mix were not employment-oriented (Hewavitharana, 1986). So the employment created by modern industry, as represented by the data available for the "organised" industry sector,* accounted for only 3% of all employment. This proportion did rise appreciably to 3.9% in 1981, with a 42% increase in the number employed. But in absolute numbers, the new jobs created during this 10 year period were enough to absorb just 38% of one year's increment to the labour force.

Siphoning Off of Rural Population by the Urban Sector. There has been no significant rural-urban migration. The various land colonisation and rural infrastructure development programmes alongside the slow expansion in urban industry helped to maintain a remarkable rural-urban balance. This is reflected in the fact that, even with figures that tend to exaggerate the true extent of the country's urbanisation, the rural sector's share in the total population has declined by only 9.7% over the last 80 years.**

Out-migration of Rural Labour. Finally there is the question of out-migration, which in the early 1980's in its annual gross flow equalled one half of the annual increment to the labour force (ILO - ARTEP, 1985). How has it impacted on the rural labour situation? It is to be noted that the two urbanised districts of Colombo and Gampaha jointly accounted for 60% of the migrants in 1981 while five predominantly rural districts with a high incidence of rural poverty jointly accounted for only 8.2% (Korale, 1985). The reasons for this skewed distribution are that the rural areas are poorly served with information on overseas job opportunities and that the high costs associated with migration put off the rural poor. There are no data on the rural/urban distribution of the migrants but, going on a distribution in a sample of migrants to the Middle East (Marga Institute, 1986), it can be conjectured that the off-take of rural labour in 1981 via migration was equal to 13% of the annual increment to the rural labour force. Impressive though this figure is, it cannot be regarded as a true reflection of the impact that migration would have had on the rural employment situation.

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* The estimates prepared by the Central Bank from its annual mail questionnaire findings. They lack in comparability due to variations in the coverage.

** Even with their high rural-urban migration rates, several developing countries have continued to experience rapid expansions in their rural non-agricultural labour forces (ILO, 1983).

This is because, as observed in the sample, 55% of the rural migrants were females who are normally not participants in the labour force. Excluding them, the rural migrants in 1981 would amount to 8% of that year's increment to the rural labour force.

Survival of Rural Labour Unabsorbed or Only Partially Absorbed by Agriculture

From this analysis of sectoral labour absorption it is clear that there has been neither a shift of labour from agriculture to industry as envisaged in the orthodox two-sector labour surplus models, nor a rural-urban migration as hypothesised in recent "employment-migration" models. What then happend to the members of the rural labour force who perforce continued to live in rural areas in ever-increasing numbers yet did not find employment in agriculture or were only partially employed in it? They are seeen to be "piecing together" a living from both farming and non-farming activities or from wholly non-farming activities. This amorphous field of activities represents an application by the rural poor of some of their own survival strategies. As such this section of the r n - f sector can be expected to contain a proliferation of last resort activities, or those of a residual nature or "distress adaptations" characterised by low productivity and low returns or wages.

The factual information available is fragmentary, but highly illustrative. Beedi wrapping, pursued under either the putting-out system or on the basis of wages by a large number of women who account for 1% of the r n - f workforce, yields an income of Rs. 58-70 per month, as it was estimated for 1969. These are among the lowest of earnings, much lower than the lowest earnings in agriculture as represented by the wages of farm labourers. The same is true of earnings (Rs. 63 per month) in own account weaving, which is another activity pursued by a large number of women (SES, 1969), and also of domestic service, considering the wages paid. In a low country village, the young and old females who wind the thread on to bobbins using an old bicycle wheel earn just one rupee for a whole day's work. It "generates more work than income" (Morrisson et al. 1979). In a hill country village, as observed by a Peradeniya undergraduate, women in the 15-30 year age group making joss sticks earn Rs. 6 for a full day's work at the rate of Rs. 2 per 1,000 sticks. Incomes from some craft activities such as basket and mat weaving using rushes, reeds and leaves and lace making are 20 - 40% of the daily wages of agricultural labourers (Liyanage, 1978). Among the main occupations of some of the poorest of households or those in absolute poverty in some villages are coir spinning, lace making, cadjan weaving, land clearing, fetching, carrying, digging, gathering items, petty trading, domestic service, mat and basket weaving, sewing and rudimentary manufacturing (Marga Institute, 1978). An investigation into some training-cum-production centres in the small industry sector revealed "a high degree of female participation" (for the sake of the pittance to be earned), and "low level of efficiency and productivity and an air of genteel poverty, lethargy and depression" (Jayaweera, 1979). There are other types of survival activities undertaken by some poverty-stricken communities which, however, cannot be included in national accounts — brewing of illicit liquor, stealing (often from each other), thuggery on hire, and prostitution (Morrisson et al. 1979).

Low labour productivity can conceivably characterise both farming and non-farming activities where there is such a duality of work involvement by the poor. A negative correlation between total family income from all sources and the number of employed persons per family observed among such households (Khan et al. 1974) implies that the per head earnings of operators of mini-holdings and small-holdings are low in their farming as well as non-farming activities. They are caught in a low-level trap because low income and low reinvestible surpluses from their two involvements constrain further growth in either of them.

Conceptualising the Manner of the Evolution of the R N–F Sector

The question may well be asked, if economic development involves the twin processes of specialisation and diversification, then why should the two trends of a declining or stagnating agricultural workforce and an expanding r n - f sector as described above be a cause for concern. But what has taken place can hardly be described in terms of those processes. Whatever expansion the r n - f sector or one section of it has experienced has resulted from a sustained squeezing out of labour from the agricultural sector. Conceptualising in terms of "supply push" and "demand pull" factors, it is clear from the analysis that the past evolution of a section of the r n - f sector has resulted generally from a push "out" of agriculture and "into" the r n - f sector. The "push" factors in rural poverty were unemployment, seasonal unemployment, disguised unemployment and landlessness associated with increasing population pressure on land, declining land holdings, a stagnating effective irrigation ratio and a proliferation of marginal farms with their operators at risk of losing or having to relinquish what land they have. This situation has resulted in a very low supply price of labour which, as the illustrations reveal, has impacted more widely and readily on the weaker segment of the rural labour force, the female labour of the rural poor.

The demand-side issues of the r n - f sector will be subjected to a deeper investigation later in this paper, but it is already evident from the income and productivity data given in the illustrations that the expansion of this part of the sector could not have been the result of any "demand pull". The sector's expansion did not result from any vigorous growth that would have in itself made it act as a magnet to draw the rural population away from farming. This manner of evolution of Sri Lanka's r n - f sector contrasts with that observed in two East Asian countries, Japan and Taiwan. Both "push" and "pull" factors were at work in them, but it was the "demand pull" by the r n - f sector that played the leading role (Ho, 1983; Shand, 1983). It is clear from this analysis that those who cannot be absorbed in agriculture are not in a transition to new or expanded employment in different types of non-farm activity but to activities with lower productivity and incomes. This signifies structural impoverishment for a section of the r n - f sector, a theme which emerges as a *leitmotif* of the present study. Any further expansion of this section would indicate a deepening of structural poverty.

II

THE LIKELY FUTURE COURSE OF THE R N - F SECTOR

The future course of the r n - f sector will depend on the future trends of the same factors as those that underlay its past evolution. We may look at the broad order of prospects.

Future Labour Supply Pressure. On the mounting rural labour supply pressure, hardly any relief is to be expected in the medium term. Although the population growth rate is declining, it will not make much difference to the labour supply because the future entrants to the labour force are already born. The available projections suggests that the labour force will grow at rates above 2.2% up to the end of the century. There is also still room for further increases in female labour participation and continued upward movement in its rate is likely with improved access to higher education, rise in the age of marriage, decline in marital fertility and social change. Cognizance should also be taken of the fact that the level of female labour force participation would have been higher if not for the "discouraged worker effect". When jobs suitable and acceptable to females get created,

that would induce an increased participation. Also, if the diminution of farm size and the spread of landlessness continue unabated, progressively more small farmers and landless persons will be constrained to seek non-farm sources of income. In a broad sense, therefore, labour supply in the rural sector is likely to exert more or less the same order of pressure as in the past.

Labour Absorption Prospects in Agriculture. In the agricultural sector there is a prospect of increased labour absorption through the **area expansion** programmes now being implemented. These will increase the paddy acreage by about 25% during a period of 15 years, creating about 160,000 new farms, nearly twice the number of farms created during the preceding four decades. They have the capacity to absorb the equivalent of 4-5 years' increment in the country's labour force. These programmes will also push up the proportion of lands served by major irrigation works to 55%, enabling a proportionate increase in double cropping and reduction in seasonal unemployment. On these grounds some relief can be expected for rural labour supply pressure. However, this will be only for the short or medium term because these are not programmes that can be replicated easily. They are constrained by a narrowing land margin, prohibitive capital costs and a dependence on foreign aid. Also, a realisation of the full labour absorption potential of the new farms cannot be taken for granted. It is very much contingent on the trend towards labour-saving methods being arrested and on achievement of efficient water management (Hewavitharana, 1987a).

In *intensification* and *diversification* there are two other avenues for agriculture to increase its labour absorption. There is no doubt that much scope exists for these, considering the past trend towards a saving on labour and the underutilised potential in domestic agriculture. Pointing to the example of very high labour intensity in pre-1956 Japanese farming, K. N. Raj and S. Ishikawa have commenced explorations into ways of raising labour-use levels in South and South East Asian agriculture. The motivating assumption here is that "a large part of the additional employment needed has to be generated within agriculture itself" in the "medium term" (Ishikawa, 1978). This is not to anticipate the findings of this ongoing research but it needs to be remarked that, unlike in pre-1956 Japan, farmers in Sri Lanka today have a much wider technological choice, especially in labour-saving technologies. It is necessary to recognise that there are severe limitations on the crop sector's ability to absorb labour on the scale and within the time-frame envisaged in the above assumption. Recent studies for Bangladesh and Nepal have brought out very forcefully the limitations to such labour absorption in their agricultural sectors (Islam, 1983). For Sri Lanka, as estimated from an in-depth study of two locations, it is seen that the additional workdays that could possibly be created out of a full exploitation of the local farm intensification and diversification possibilities would be not more than 33% of the additional workdays needed to eliminate unemployment and underemployment in those locations (Wickramasekera, 1983). The balance workdays will have to be supplied by r n - f activities. This study shows that the additional agricultural work that could get created can effect only a 15% increase in the per capita incomes of the two locations. While noting the limitations of intensification and diversification in creating more employment, it should also be recognised that for these two processes to make any substantial progress they would require the stimulation and facilitation rendered by a robust r n - f sector.

Forecast on Industrial Employment Expansion. Modern factory industry, in which the industrial sector's capital is heavily concentrated, is showing a declining trend in its employment creation capacity. The manufacture of garments, its one time leading employment generator, has reached saturation point. The newly emerging lines such as the ISIC 38 group*, on the other hand, show very high capital/labour ratios, three to ten times higher than in the garments group. Given such capital intensities, this sector's capital will have to grow at very high rates to generate any appreciable employment. If that fails, the pressures will be all the greater for the rural and traditional sectors to absorb the surplus labour through a proliferation of marginal farming and non-farming activities in the manner noted above. The case here is that the increase of both marginal employment and unemployment in the rural/traditional sectors is linked inversely to the growth of employment in the modern sector.

What prospects does modern industry hold out for not producing such adverse effects on rural employment? This can be checked up by examining the contribution that modern industry could possibly make to an effort of the non-agricultural sector to hold the agricultural workforce constant. To achieve this, the workforce in non-agriculture should grow at a rate determined jointly by the rate of increase in the total labour force and the percentage share of the non-agricultural workforce in the total workforce. On the basis of current data, this task would require the non-agricultural workforce to grow at about 4.4% per year initially (Hewavitharana, 1986). The contributory industrial growth rate should at least equal this. For the industrial sector in general this is too high a rate to sustain by the country's historical standards, and it may be compared with the rate of 2.6% projected for industrial employment for planning purposes in the early 1980s (MOFP, 1981).

Future Urban Expansion and Out-migration. The prospects for the urban sector to siphon off rural labour can also be checked up. Given the present proportion of urban to total population and the projected total population growth, urban centres will have to grow at about 7.5% per year to absorb just the incremental population, not to speak of reducing the backlog of rural unemployment. This may be viewed against the rate of only 1.2% in urban population growth achieved in 1971 - 81. If the urban areas fail to attract a substantial portion of the excess rural labour, the already wide divergence between the growth paths of the rural labour force and of the agricultural workforce will continue or even become wider. However, it should not be thought that the role to be expected of urban centres is simply one of easing the pressure on the r n - f sector by siphoning off rural labour. Towns of small and medium size situated in predominantly rural areas should be regarded as agents that facilitate an expansion in r n - f employment. It is so visualised in the theory of the role of "growth poles" in integrated rural development. What is envisioned is a two-way process. While rural towns provide the necessary base for an expansion of r n - f activities, a concentration of such activities stimulates their own growth. This can, however, be realised only in the context of a well-planned, integrated rural development strategy. Although the peak of Middle East demand for expatriate labour has passed, the demand for the type of labour exported by Sri Lanka, namely, unskilled and semi-skilled labour mainly for domestic services, may not, as currently projected, suffer a major decline (ILO - ARTEP, 1985). Also, Sri Lanka may be able to increase its share in this market now that India and Bangladesh have banned the emigration of women for domestic service.

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* e.g. electronic equipment.

Overall View of R N–F Sector's Future

On the foregoing examination of likely trends, the evolution of the r n - f sector is likely to continue to be governed by "supply push" factors, perhaps with some reduced severity in the short term. Structural impoverishment could therefore possibly continue to deepen. Compared to other countries in the region, the current situation and immediate prospects of Sri Lanka's r n - f sector seem to lie in a middle position between countries like Malaysia and Thailand where the "pull" factors are dominant and the land-poor and densely populated countries like Bangladesh and Java where the "push" factors dominate (Hewavitharana, 1987b).

Basic Policy Implications

The following basic policy implications and planning considerations emerge from the foregoing macro-level analysis and diagnoses.

(a) Issues in rural employment cannot be separated out for treatment from issues in poverty because both concern the same group (the rural "working poor"), originate in the same causes and therefore need to come under the same focus with a view to being integrated in a multi-dimensional policy framework.

(b) Explicit recognition should be given to the r n - f sector as another and important dimension of rural development and its progress should be the subject of a conscious policy focus.

(c) Employment policies need to be formulated *without* relying wholly on agriculture and *with* a focus on r n - f activities.

(d) Policies and strategies are needed to steer the r n - f sector away from a possible path of ever-increasing distress to a development-oriented path.

Before taking up strategies and programmes for the development of the r n - f sector it is necessary to understand its features and characteristics at micro level, how it now operates and its trends. The succeeding four sections aim to fulfil this need.

III

THE INCIDENCE, DETERMINANTS AND PATTERNS OF R N - F ACTIVITIES

Definitions An absence of a clear and consistent definitional framework, as is evident in the few recent studies in Sri Lanka and elsewhere on r n - f problems, hampers discussions and analysis of the issues. These inadequacies in part reflect the relative neglect of this sector as an issue in economic development and planning. Basically, the identification should be by type of activity as recommended by an ILO committee (ILO, 1983). These are of a non-farming nature and can be taken as excluding work of any sort in agriculture either on own account or for others as hired workers on their farms.*

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* The terms "non-farm" and "off-farm" may well overlap in their respective ranges of meaning but the latter necessarily has as its reference group, those who already have farm holdings of some sort. An implication of this is that "off-farm" activities include hired work on others' farms by this reference group.

It is thus a residual category : what remains when agricultural activities are separated out. It encompasses households or persons engaged in both farm and non-farm activities and those wholly in non-farm activities. In the Sri Lankan context, the non-crop farming activities such as livestock and inland fishery can advisedly be brought under the r n - f sector because these activities are not integrated with crop farming.

The Incidence and Estimates of R N– F Activities

Caveats are necessary on the available data on the incidence of r n - f activities. Impressive as these estimates are, as in the case of the estimate of 43% for rural non-agricultural employment given earlier, the figures may yet underestimate their magnitude and the degree of reliance currently placed on them by households. They should in fact be treated as minimal estimates. This under-estimation bias in the data on r n - f activities arises for three reasons. First, r n - f activities, due to the great diversity of tasks that the rural poor undertake for their livelihood, embrace a large, amorphous and complex field. They cut across systems of classifying activities in terms of formal/ informal or in terms of conventional sectors. This poses indentification difficulties which are aggravated by the definitional inadequacies mentioned above.

Secondly, the censuses and the labour force surveys on which these estimates are based distinguish only primary employment and leave out secondary or supplementary employment, casual or periodic engagements in non-agricultural work, and most of women's activities. Thus, most unrealistically, persons may be described as farmers when they may also be unskilled construction workers at the same time or at different times of the year. Though women and unmarried children contribute to the shaping of family labour allocation patterns and total household incomes, through regular or intermittent work, they do not get categoriesd as labour force participants if they are not seekers of formal employment. Employment having such characteristics is of importance especially among the poorer classes in rural areas. An idea of the extent of underestimation that could be caused by these omissions and of the true degree of independence of households on r n - f activities can be gained from the following evidence from a few detailed case studies and micro-studies.

In a study of five villages, 6-17% of the females and 9-39% of the males were engaged in part-time, non-farm, income-generating activities, with the great majority of them devoting more than one third of their time to such activities (Wijayaratna et al. 1978). In a study of three villages it was observed that only those women who had wage or regular employment reported themselves as employed. On this basis the proportions employed were 12%, 19% and 58%. Further probing, however, revealed that some of the self-styled "non-working" were supplementing their family incomes by engaging in home-based income-generating activities even though working hours were irregular and limited. Inclusive of them the percentages of the employed rose to 16%, 47% and 68% respectively (Jayaweera, 1979). The true extent of dependence on r n - f activities cannot be gauged from just the proportions of households or of persons engaged as are given by almost all the available sources. For that, we need to know about the engagement in such activities by individuals in terms of the actual time allocated for them. In-depth studies in two villages of man-days allocated for different activities revealed non-crop activities to account for 44% and 46% of total employment (Wickramasekera, 1983). The proportion of income from r n - f activities in total household income would be another indicator of dependence on such activities. In two densely populated land-poor villages, r n - f incomes accounted for 38% and 40% of household income (Khan et al. 1974).

The third reason for an underestimation of the extent of the r n - f sector is that census and survey enumerations follow administrative definitions of urban/rural which may in certain instances not correspond to a socio-economic definition of the communities. Political considerations have often influenced the granting of urban status to areas although they may not possess several urban characteristics. If all the towns which should substantially be classified as rural are included in the rural sector, the relative importance of r n - f activities would be proportionately greater. An attempt to derive the true extent of urbanisation through a correction factor based on the population size of the areas shows the rural population to be 84% of total population in 1971 and not 78% as shown in the census returns for that year : a rise by 8% in the percentage share of rural population in total population (Gaminiratna, 1977).

CONDITIONS AND FACTORS DETERMINING THE INCIDENCE AND PATTERNS OF R N - F ACTIVITIES

Rural non-farm activities are largely the result of the attempts of persons and households to diversify their employment patterns according to the needs and compulsions felt by them and subject to the resources and opportunities available. What then emerges is a complex pattern of activities with persons/households placing widely varying emphases between farming and non-farming and, as it is especially and necessarily the case with the poorer ones, trying to diversify their employment "as and when they can". Thus the r n - f sector is diverse at the local level and variable spatially. The conditions and factors which give rise to this variety and diversity are as complex as the pattern of r n - f employment itself. These involve such issues as agro-climatic differences, socio-economic regional differences, size of farms, tenurial conditions, availability and productivity of land, sociological factors and education. The analysis will now turn to a detailed examination of these influencing conditions and factors with a view to understanding the varying role of non-farm activities among different types of rural households and, more specifically, who face what r n - f problems, where and why. It will lead to an identification of target groups or sub-groups and particular regions or sub-regions affected by r n - f problems, which is useful for policy formulation.

Agro–climatic Differences. Broadly, there are the different agro-climatic zones. The dry zone paddy areas are characterised by large holdings, less time to spare for other work where paddy is combined with *chena* cultivation, monocropping on lowlands and a lack of raw materials. Agriculture predominates here, claiming more than 80% of the labour force in some areas (ARTI, 1979). Farming is the main focus. The contrast between the dry and wet zones is seen in the fact that 32% of the paddy farmers in the dry zone district of Hambantota depend solely on paddy income as compared to 4% so dependent in the wet zone district of Colombo (ARTI, December 1975). There is very little occupational diversification and non-agricultural jobs are undertaken mainly to fill slack seasons. Access to irrigation, the farming system practised and its productivity are three factors that determine the degree of dependence of particular communities on r n - f activities and also their activity profiles. On this basis, two types of communities in the dry zone, out of its several types, can be identified as those having special problems in r n - f employment. There are the small-tank-based traditional villages where the water supply is uncertain, and the inhabitants are socially and economically backward and which are virtually pockets of poverty. A survey of such communities in nine dry zone districts shows the share of non-agricultural employment in total employment to be around 14% in six of the districts and 23%, 27% and 37% in the remaining three (Gunadasa et al. 1980). The low figure of 14% perhaps is the true reflection of the degree of dependence of these communities on r n - f activities because it receives confirmation from certain other micro-studies (Sirisena, 1986). This low

dependence is due to the scarcity and narrowness of the range of r n - f activities in these areas. In six of the districts the whole or the bulk of r n - f employment was government employment and in the others it was mostly casual labour.

The other type of dry zone community consists of farmers in rainfed dry farming or *chena* cultivation. A survey of four such communities shows 17-48 % of their labour forces to be in both farming and non-farming activities. It is a very mixed picture that these communities present because their farming systems are at different stages of transition. Those communities which have shifted to high value crops also derive high non-farm incomes from the investments they have made out of farm profits. Those in remote and isolated areas exploit the locally available opportunities for gemming and illicit logging. (ARTI, Feb. 1986). As for the ordinary backward *chena* communities, the reliance on r n - f activities is minimal because of a lack of opportunities.

The proportion of part-time farmers is higher in the wet zone, reflecting the high density of population, scarcity of land, highly fragmented nature and smallness of paddy holdings, low productivity of paddy lands, as in the low country districts of Galle and Matara, and the greater availability of alternative opportunities. Paddy farming here is not the focus of great attention and small-holder production is considered only second best to other sources of income. In many areas within this zone, as micro-surveys reveal, farming is reduced to a "customary family and subsistence affair" (Morrison et al. 1979), pursued as a "safeguard against total unemployment" (Khan et al. 1974), while non-farm employment is sought after as a source of cash income. Poorer farmers will naturally be reluctant to relinquish their own small plots of land until more secure non-farm employment is available and they are able to perceive that their food security can be assured without working on the land itself. In a land-poor densely populated wet zone mid-country area, 41 % of the labour force was found to be in non-farming work, with three fourths of them on a full-time basis (ARTI, 1975). The agro-climatic zonal differences regarding reliance on r n - f activities become very clear even within the same district (Kurunegala) where all the three major zones are present. In this district the proportion of households in non-agricultural activities declines from 63 % in the wet zone to 47 % in the intermediate zone and to 39 % in the dry zone (ARTI, 1981).

Socio-Economic Regional Differences. The socio-economic regions in many respects and to certain extents overlap the agro-climatic zones. The Kandyan areas, especially the central province, contain a large reservoir of traditional skills in handicrafts while the relatively modernised and diversified west coastal belt and the Jaffna peninsula have a potential for semi-industrial crafts. These are the three main areas for craft/cottage/small industries. Regional differences in the level of socio-economic development and extent of modernisation get shown in the degree of dependence on r n - f activities. In the districts of Colombo and Kandy, which are more advanced in these respects, the proportions of farm household members in non-agricultural activities (part-time and full-time) are 39 % and 25 % respectively, while in the less advanced districts of Anuradhapura, Hambantota and Polonnaruwa, these proportions are much lower at 17 %, 15 % and 18 % respectively. The proportions of farm household members in non-agricultural activities only follow a similar pattern (ARTI, Five Districts Survey).

This pattern of dependence on r n - f activities is not the outcome solely of socio-economic regional differences but of these in combination with some of the zonal characteristics. This is because for a given area, the incidence of r n - f activities is influenced not only by the income from farming as determined by the zonal characteristics pertaining to size and productivity of farms but

also by the availability of non-farm employment opportunities and access to them which are conditioned by the level of socio-economic development. This is brought out in a study of six villages, all with a scarcity of land but classified as affluent, medium and poor according to indicators of their social and economic development. In the two affluent villages, very high proportions of the households, 85% and 97%, were in non-agricultural activities, part-time and full-time, although the proportions of households without adequate farm land were low at 18% and 30%. On the other hand, in the two poor villages the proportions of households in non-agricultural employment were comparatively low at 70% and 66% although the proportions without adequate farm land were comparatively high at 55% and 61% (Wickramasekera, 1977).

Socio-economic regional differences are also reflected in the composition and quality of r n - f employment. Wider ranges of r n - f activity are observed in the more advanced regions. Much of r n - f employment in the less advanced areas tends to be in relatively low paid and insecure jobs, while in the more advanced areas there is a high incidence of higher paid, higher quality jobs. Thus in the Colombo and Kandy districts, white collar and skilled jobs account for 67% and 64% of the non-agricultural employment of their farm households while, in the less advanced districts of Anuradhapura and Hambantota, the corresponding figures are 40% and 47%. Again, while non-agricultural labour accounts for 39% and 49% of r n - f employment in the two less advanced districts, the corresponding figure for the two more advanced districts is 17% (ARTI, Five Districts Survey).

The Size of Farms. The role and importance of r n - f activities vary for the different households according to the size of their farms. Operators of smaller farms as compared to those of larger ones would tend to rely more on non-farm activities to compensate for the reduced size of their farms. This basic relationship between farm-size and reliance on r n - f activities may be observed in the differences between the operators of larger farms and those of smaller ones in their respective source-wise compositions of income, structures of employment by types of activity, family labour allocation patterns and time use patterns. For Sri Lanka, the evidence points to the presence of all these four manifestations of the basic relationship. The available micro-studies of different locations show that, as the size of farm increases, there occurs

(a) a decrease in the percentage share of non-farm income in total farm household income (Herath, 1983; Kahan et al. 1974),

(b) a decline in the percentage share of non-farm employment in total employment (ARTI, 1981),

(c) a decrease in the average number of workers per farm in non-farm activities (ARTI, May 1974) and

(d) a fall in the proportion of non-farm work man-days to the total man-days of work of a household (Wickramasekera, 1983).

The last-mentioned relationship, which is in terms of the actual time allocated, brings out more convincingly the inverse relationship between farm size and reliance on r n - f activities. These different inverse relationships substantiate the hypothesis advanced earlier of the push "out" from agriculture and "into" the r n - f sector. Operators of small and mini farms rely more on employment

in and income from the r n - f sector and allocate more labour time and family labour units to these activities than the operators of larger farms. This relationship, however, fails to stand out very clearly in some Sri Lankan locations as compared to other countries in the region. In those locations the share of non-farm employment is not much diminished for the households with larger farms. The explanation for this may be found in the roles of education and tree crops in the rural economy. What can be deduced from such instances, however, is that there are two different objectives and two different types of participants in the r n - f sector. The families with smaller farms pursue r n - f activities in order to supplement their meagre farm incomes and to survive. The families with larger holdings seek non-farm employment as a subsidiary source of income to better their condition.

It has been observed that the importance of wage employment or hired labour work in non-farm activities also varies inversely with size of farm (Wickramasekera, 1983; ARTI, 1981). For the small and mini farmers, hiring out their labour for non-farm work is a higher percentage not only of their total employment but also of their total non-farm employment. Two inferences can be drawn from this phenomenon. First, access to land determines the pattern of r n - f self-employment because, land being the most important asset in the rural economy, access to it is a factor in the asset base needed for self-employment. Secondly, there is a qualitative difference in non-farm employment opportunities open to the "land rich" and to the "land poor". While the former has access to more remunerative opportunities, the latter has to work mostly as low-paid casual labourers. Confirming this is the evidence from at least one village study which shows income from non-farm activities per employed person to be lower for the smaller farms than for the larger ones (Khan et al. 1974). The further inference then is that although non-farm income has been shown to be a vital supplement to the farm income of households with smaller farms and to account for a higher proportion of their total income, in terms of absolute amount, their non-farm income so earned by them could be lower than that earned by households with larger farms. Although direct evidence on this is not available, there is a clear possibility of the size of farm being in a positive relationship with the absolute non-farm income earned by a farm household, the latter diminishing as the former gets reduced.

It is clear from the foregoing that for the peasants involved in a duality of work, i.e. farming and non-farming, the main source of variation in income and economic status between income groups is actually farm income. The failure of the households with smaller farms to make their non-farm incomes fully compensatory to the reduced size of their farms is mainly attributable to the very fact that the low returns to land and labour in their farming give them no support to develop their non-farm employment. In turn, their weak non-farm employment is of hardly any help to them in improving the productivity of their farming. Thus, as observed earlier, they are caught in a low-level trap with low per capita incomes in both the farming and non-farming wings of their employment and with these two wings being mutually non-supportive. The main thrust in rescuing them from this trap therefore should be to assist them to raise the productivity of their farms and to make agricultural development a stimulant to non-farm activities. It could trigger off a mutually supportive process of interaction between the two employment wings of small farm households. This should become a consideration in planning a strategy for promoting the r n - f sector.

Forms of Land Tenure. The different forms of land tenure determine the pattern and structure of r n - f activities in several ways. Because the share-cropping tenants have to give nearly a half-share of the output to the landlords, they have, in order to derive the same income, to cultivate double the extent of land that owners cultivate, and also spend twice as much time as owners in farming. They can expand their income by leasing in additional land but only up to the limits set by the availability

of family labour. In addition to this basic "tenurial disability", they suffer from a lack or inadequacy of highland or home garden holdings, as has been observed to be the case with most tenants.* These circumstances compel tenants to seek supplementary income from r n - f activities.

A survey of five districts show that the percentage of farm households with some family members in non-agricultural employment, part-time and full-time, is at its highest for the tenants as a broad group everywhere, and in some districts at much higher levels than for the owner category (ARTI, Five Districts Survey). Confirmation of the greater reliance of tenants on non-farm employment comes from other area studies which show them having the highest percentage share of non-farm income in the total income of an employed household member (Khan et al. 1974). In terms of the average number of persons per family in non-farm employment, however, the tenants fail to take the lead over owners except in one district. Possibly, the owners, who are economically stronger than tenants, have diversified their family employment for the betterment of their family economies while the tenants, due to the heavier farm work-load their family labour has to bear, have not been able to spare much of it for non-farm work except in the slack seasons.

In the two districts where they are present, the encroachers as a tenurial group surpass or equal owners in their dependence on non-farm work, as measured in terms of both the percentage share of r n - f activities in their employment and the average number per family in such work. Encroachers are of two kinds and they are in two different r n - f employment situations. There are the immigrant encroachers in areas served by major irrigation schemes, as in Polonnaruwa district, who engage in trading and money lending but bide their time to foreclose on land or to acquire land in some way or other. They generate non-farm employment. We may call them the "Polonnaruwa type". The other type of encroachers consists of the children of villagers or settlers who have encroached on surrounding lands and piece together a living with some reliance on casual labour work as is observed in the Anuradhapura district. They may be called the "Anuradhapura type". The tenurial proviso in the colonisation schemes restricting succession to an allotment to one nominee of the allottee has become an indirect determinant of the pattern of r n - f activities. This is because, as has been observed by a Peradeniya undergraduate, the allottee family would set aside a part of its farm income to enable the sons excluded from succession to set themselves up in some kind of r n - f self-employment.

Cross-classifying the data on different r n - f occupations and the different tenurial groups reveals much as to who pursues what type of non-farm occupation and with what remuneration. The tenants and tenant-owners** are in a wider variety of non-farm jobs as compared to owners. White-collar jobs and, in some areas, skilled jobs form the most important type for owners and their share in this type of occupation is the highest among the different tenurial groups. Non-farm unskilled labour work, which is of very little importance to owners, is the most important one for tenants everywhere and for the tenant-owners in the Anuradhapura district. For tenants everywhere, white-collar and skilled jobs are of little importance. Tenants are at the lower end of the scale of incomes derived from non-farm work, their average receipts from non-farm work being much lower

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* Highland holdings and even individual trees are even more fragmented and subdivided in ownership than paddy holdings. Also, unlike in paddy, the usual methods of leasing in or entering into share cropping arrangements can hardly be used to expand a highland holding.

** Defined according to the relative importance of the leased in and the owned portions of a holding.

than those of owners. This pattern has been observed for the Kandy and Hambantota districts and also for other areas according to some micro-studies (e.g., Khan et al. 1974). It is very clear that the owner households with adequate land generally have more stable, socially acceptable and better remunerated non-farm jobs, while most of the tenants are in low-paid jobs as non-farm labourers and are thus in their economic and social status at the bottom of the scale among paddy farmers. The tenant-owner group does somewhat better than the tenants in the quality of their non-farm employment in the Colombo, Kandy and Hambantota districts, but the "Anuradhapura type" encroachers are in the same plight as tenants. The non-farm employment situation of the tenants as depicted here has many parallels in that of the households with smaller farms as analysed earlier. The observations made then on the several aspects of their employment and income including the two mutually non-supportive employment wings and the policy implications that were set out are of relevance in the tenants' situation too.

Landlessness. Landlessness is a classic determinant of the structure of r n - f employment because from among the different socio-economic groups it is the landless who have the fewest options. The landless and the near-landless are found mostly in the wet zone and pockets of them can be easily identified in the numerous "colonies", nicknamed "Koreas", which have sprung up from the various land distribution schemes, especially the village expansion schemes. In these, the population overflowing from congested villages has been accomodated on small homesteads, sometimes 1/8 of an acre in size. The number so settled had amounted to 643,200 by 1970 (Moore et al. 1979). These "colonies" contain unproductive land, are situated in poorly served areas, and are settled by the poorer villagers, often by undesirable elements and fairly often by members of low castes. Marginalised socially and economically, they will undertake any job that comes their way and in some instances even criminal and anti-social activites. The employment structures of three such "colonies" (Morrisson et al. 1979) and of a sample of the landless in the Kurunegala district (ARTI, 1981) show that 40% to 85% of the employment was in casual types of hired labour, mostly in non-farm work. Unlike the small farmers who are tied down to their land, the landless possess some degree of spatial mobility which offers a prospect for a diversification of the r n - f sector.

The Caste System. The caste system is a cornerstone of the structure of r n - f activities because many of the traditional craft and service occupations are caste specific. It also indirectly promotes a multiplication of non-traditional r n - f activities. This is because the low castes, being non-farmer castes and, therefore not much land-based, do not have many farming options and, when a caste occupation does not expand sufficiently to absorb the incremental member population, have no option but to get into non-traditional r n - f activities. Thus in a low-caste community which derived 38% of its employment from r n - f activities, the traditional caste occupation accounted for only 6% of the employment (Morrisson et al. 1979). The caste barriers which prevent entry into or sometimes withdrawal from caste occupations have far-reaching implications for occupational mobility and allocation of labour in the r n - f sector. Thus the drummers' occupation is supposedly overcrowded while the lacquer craft suffers from a shortage of labour. Under the hereditary skills system in caste occupations, the workers do not get fully trained because, as has been observed by Peradeniya undergraduates for the lacquer craft, the older craftsmen hold back from their trainees a critical part of the skills as their *guru mushti*. The system is equally detrimental to a diffusion of skills over a wider group. As demonstrated very clearly in the pottery industry, the very survival, let alone the development, of some of these crafts has come under a severe threat with the younger generation refusing to participate in them mainly because of the social stigma attached to such occupations.

Education. Education has impacted on Sri Lanka's r n - f sector most significantly and in a manner unique in the Asian region. This can be seen in the fact that 35% of rural non - agricultural employment, representing 16% of the rural labour force, is in the white-collar category. This is the result of several decades of free education and of easy access to improved educational facilities in rural areas. The poor, who also have benefited from these, though not in proportion, have used their educational qualifications to secure employment. The rural areas have also experienced an expansion in government activities in the fields of administration and social and economic development. This is another distinguishing feature in Sri Lanka. Education along with this fact has made government employment an important type of r n - f employment even in the rural interior. As seen earlier, in areas with undiversified economies, it is government employment that is the most important, if not the only, form of non-farm employment.

Several Factors in Combination. So far in the analysis, the factors of farm size, tenancy, landlessness, caste and education have been treated separately as determinants of the r n - f employment structure. Some of these, however, are correlated to or associated with each other and many of the effects they have on the r n - f sector are produced through combinations. We may now observe the structures and patterns so produced with the usual caveats on generalising from the findings of micro studies and area surveys which furnish the necessary factual information. Some of the structures and patterns are :— small farms associated with low educational attainments of farm family members and that with low quality non-farm employment;— larger farms associated with higher educational attainments and that with better quality non-farm jobs (Morrison et al. 1979);— tenancy as compared to ownership of adequate land associated with low educational attainments or a lack of skills and that with low-paid non-farm jobs as labourers (ARTI, May 1974 and Feb. 1974; Herath, 1983);— landlessness associated with better quality non-farm jobs (Morrisson et al. 1979); — tenancy as compared to ownership of adequate land associated with low educational attainments or a lack of skills and that with low-paid non-farm jobs as labourers (ARTI, May 1974 and Feb. 1974; Herath, 1983); — landlessness associated with low educational attainments, as observed by Peradeniya undergraduate in a "colony", and that with low quality non-farm jobs. There are several interesting patterns arising from caste being associated with other factors. There is an association of landlessness or near landlessness with low caste. This is not surprising for the reasons given earlier. The association of some "colonies" of the landless with low caste was earlier noted. In a study of land distribution in a Kandyan mixed-caste village, land was seen to be concentrated in the high-caste families. The incidence of tenancy was high among low-caste families following from this land distribution pattern, but it was seen to be declining, following a general trend in the country, rendering more low-caste families landless. Thus there has been a strengthening of the association between landlessness and low caste in recent times. Next, landlessness and low caste are individually associated with low educational attainments and that, as only to be expected, with low quality non-farm employment. Thus in the distribution of non-farm occupations in this mixed-caste village, all forms of hiring out labour are exclusively low-caste occupations while white-collar jobs are exclusively a high-caste preserve. In another location, whereas for the high caste, white-collar jobs were 35% of their employment, for the low caste, these accounted for only 3% of their employment. Casual labour work, which amounted to only 12% of the employment of the high caste, was as high as 85% of the employment of the low caste (Morrisson et al. 1979).

IV

CHARACTERISTICS OF HOUSEHOLD PARTICIPATION IN R N - F ACTIVITIES

Organisation of Activity

Whether the employment in r n - f activities is on own account or for wages varies according to the type of activity. Livestock keeping and petty trading are almost always characterised by self-employment. The same is true of caste-based traditional handicrafts and of artisan production which seldom use wage labour and depend mostly on family labour. In a survey in 1984 of household economic activities, rural households engaged in non-agricultural activities on own account and not hiring any labour regularly were 9% of all rural households engaged in own account economic activities. Two thirds of the workers in these activities were own account workers while one third consisted of unpaid family workers (SHEA, 1984/85). Several of the skilled groups, especially those in the different trades and those rendering personal services, are in self-employment. The question of whether it is self-employment or wage-employment in the rural small/craft industries and in the neo-traditional and non-traditional industries depends much on their size and scale. The average size of rural small industries based on a survey of three districts is 3.4 persons and about 38% are one person enterprises (ILO-ARTEP, 1987). Since only a minority of the units has over two persons including the head, much of the wage employment is provided by a few relatively large enterprises. Their contribution to employment is evidently significant because more than half of the employment in rural small industries is wage employment (Sethuraman et al. 1963). At the village level, as shown by micro-studies, the importance of non-farm wage employment can be as high as 77% and 81% of total non-farm employment of the households (Wickramasekera, 1983). It was earlier seen that for the small farmers and tenants it is wage work that is the more important form of non-farm employment. For the landless and some of the low castes the great bulk of non-farm employment is in wage work. In a "colony" of landless low-caste families wage employment was 86% and self-employment 12% of their non-farm employment; while these proportions in the adjoining high caste village were 22% for wage employment and 43% for self-employment. Besides these, there is also employment under the "putting out" system. Many of the activities conducted under it, for example, beedi wrapping and joss-stick making, as noted earlier, are of low productivity and the lowest in remuneration. Thus this system is often characterised by an exploitation of the cheap labour of unskilled females and children who, lacking in spatial mobility and in options, form the weakest segment of the rural labour force. The foregoing evidence leaves no doubt that wage-employment exceeds self-employment in importance in the r n - f sector. Wages and wage rates in this sector emerge as a crucially important area for policy focus and institutional measures.

FAMILY LABOUR SUPPLY AND ALLOCATION AND PARTICIPATION PATTERNS

In the earlier part of this study the supply of labour for r n - f activities was examined and understood in terms of its broad magnitudes and trends. Now it is the turn to examine at micro level the emanation of labour supply from households and the allocation of family labour among different activities in the context of the relevant household decision-making processes, household objectives and their fulfilment, the parameters and the constraints bearing upon the participation of family labour and intra-family adjustment. Although the unit of reference in the following analysis is, for the most part, the family labour force, the emerging patterns of labour allocation would also reflect the flows of the labour of the rural sector as a whole across production sectors and activities.

Household Decision Making in Supplying and Allocating Labour

For the rural low-income household, labour is the only or principal productive asset and its allocation to different activities is therefore of central concern in its decision making. It is through and by this exercise of allocating the family labour that a household implements its strategies for achieving some of its percieved objectives. One objective is to maximise or increase total family earnings which may have to be through a combination of several different activities for the family labour force, including various supplementary or subsidiary activities. This is the chief objective and it is common to all types of households. However, those households which are also in farming either on own account or for wages have several additional objectives which derive their rationale from the context of the seasonality of agricultural operations. These households need to allocate their family labour in such a way as to :—

(a) avoid clashes in time between farming and non-farming activities so that family income from both is maximised;

(b) minimise seasonal fluctuations in family employment and income so that total family income is sustained at a stable level through the year, and

(c) minimise lags in the cash flows of household receipts and expenditures so as to avoid deficits in the cash required for day to day household expenditure.

Each household must achieve these broad objectives in accordance with the opportunities and constraints found in its circumstances. By way of methods or strategies for achieving them each household must carry out the following measures :

(a) maximise its family labour force participation;

(b) diversify its family employment structure in both its farming and non-farming wings;

(c) allocate family labour to self-employment activities and among daily/weekly/monthly-paid activities with an eye to household cash-flow management.

(d) allocate the family labour units and time judiciously, with appropriate timing, between farming and non-farming activities, making them complementary to each other, and

(e) allocate judiciously the family labour units or labour time to different specific tasks in farming and non-farming activities in appropriate combinations.

The adoption of these methods or strategies has to be subject to the parameters of size of family and the age, sex and skills of family members and also to such considerations as their personal inclinations and ideologies and any social conventions and customs bearing on their participation in activities. The analysis will now turn to the several issues in the actual adoption of these methods and strategies and their achievement.

Family Labour Force Participation

There is no doubt that the rural poor endeavour to maximise family labour force participation because it is a necessary part of their survival strategy that everyone who can should contribute in an economically useful way. Among the landless, two to three family members working as labourers is normal. As noted earlier in some detail, there is quite a substantial participation by females and unmarried children through home-based subsidiary or supplementary work, which, does not, however, get captured in official estimates of participation rates. The labour mobilisation efforts of the rural

poor include their children. It was observed on the basis of survey data for the late 1960s that the children of the rural poor tend to participate less in the school system and to drop out of it earlier. It was such children in the 10-14 year age group who showed the highest rate of labour force participation among the different socio-economic groups (Visaria, 1979). Still, the true extent of their participation would be much higher than what is suggested by this survey. Surveys tend to under-report on this aspect, especially since they fail to capture instances of indirect participation, as when young girls take over household chores to enable their mothers to participate in economic activities, and instances of part-time work, as when children of the poor engage in productive work even while at school (see Moore et al. 1980). Children's contribution in farm and non-farm work and also in household chores must be seen in the context of releasing adults from their working time to seek more remunerative employment in other activities.

Complementarity Between Farming and Non–farming Activities

A comparison with the experiences of other countries can be made here to know how this method has fared in Sri Lanka. For Thailand it has been observed that "engagement in cottage industries is the mirror image of engagement in agriculture following seasonal variations, reducing underemployment, dampening fluctuations.....", and for Bangladesh that "seasonal pattern of employment in agriculture and non-agriculture move in opposite directions" stabilising employment levels (Hossain, 1987; Romijn, 1987). No such achievement can be claimed for Sri Lanka. We may examine the reasons for this failure and its consequences. In rural small industries, according to a survey of three districts, 80% of the units operate throughout the year, 13% operate irregularly and only 9%, mostly in light engineering, bricks and brassware, operate seasonally due to seasonal factors in demand and in materials supply. In these same industries, 78% of the workers are on a full-time basis while only 8%, mostly women, work on a casual or part-time basis. As for the operators of the small industries, their enterprises are the major, often the only, sources of income for them and only a very few of them have anything to do with agriculture (Sethuraman et al. 1983; ILO-ARTEP, 1987). Thus, unlike in other countries, the rural small industries in Sri Lanka do not constitute a secondary activity from the income and employment points of view, nor a part-time activity*. This is also true for several lines of artisan production. Pottery, though it possesses an element of seasonality, needs the continuous attention of the entire family labour-force and cannot be done on a part-time basis. Potters, brass-smiths, blacksmiths and several others in certain non-traditional lines neither have the time for farming, for they are occupied 30 to 36 hours per week in their crafts, though with low remuneration, nor have any interests in farming, having given up whatever agricultural assets they had (Hesselberg, 1980). There are, however, several Kandyan crafts whose workers, as observed by a Peradeniya undergraduate, take time off to cultivate their ancestral fields. While complementarity with farming is not generally to be found in the categories of small and craft industries, it cannot be the same with numerous other activities of an industrial nature which get left out of these two categories owing to definitional reasons or fail to get captured in surveys owing to deficiencies in their design. These activities include some handicrafts, cottage industries and rudimentary processing which are usually home-based and carried out mostly by women intermittently or as part-time activity. On these there is very little information but, given their nature there should not be any difficulty in fitting them into an year's cultivation calendar or even to a season's schedule of cultivation operations.

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* Sugar cane crushing-jaggery making which was one of the few rural small industries that offered employment during the slack seasons for chena and paddy is now on the decline.

There are many non-farm occupations of the non-manufacturing type which are complementary with farming. A study of two villages shows that all those having r n - f activities as their primary occupation, viz. trade, masonry, carpentry, government employment, driving and sawing, had farming as their secondary occupation. They had no problem in combining their main regular activity with the secondary activity of seasonal farming. In these same villages however, only 29% of those reporting farming as their main occupation had non-farm activities as their secondary occupation and that too mainly in casual labour and miscellaneous jobs (Wickramasekera, 1983). Casual labour in non-farm work is the main complementary non-farm activity for the small farmers and operators of large farms in the dry zone (ARTI, Feb. 1975). Such work being of limited availability, much time is lost looking for work and the proportion of non-working days due to the non-availability of work can be as much as 55% in some localities (Perera et al. 1980). The consequences of an inadequacy of good complementary non-farm employment opportunities can be disastrous to small farmers with subsistence gaps, i.e. those with holdings less than one acre in size. Spending much time looking for work reduces the attention and time they could give to their farms. Hence they end up with low farm incomes due to low farm productivity and also low non-farm incomes (Khan et al. 1974).

Subsistence Constraint — Cash Flow Management

The need to reduce or eliminate lags in the pattern of cash flows of household receipts and expenditures with a view to averting possible deficits in the cash required for day to day household expenditure arises because household consumption expenditures are continuous while household income receipts are characterised by discontinuity. This discontinuity is most marked in farming but is also found in enough measure in monthly paid and even weekly paid non-farm work to cause hardship and anxiety to a poor household. The pressure of meeting day to day consumption needs on poor rural families, which normally have six to seven children, can be readily appreciated. There is evidence that such compelling need, which may be termed a subsistence constraint, influences family labour allocation. Thus in a cluster of villages in the dry zone where *chena* cultivation is practised, some families would postpone their cultivation of chillies, a high value crop bringing in high incomes, if casual labour work was available. This shifting of labour from self-employment in farming to wage-employment in non-farming is partly due to the attraction of immediate cash receipts. In two mid-country villages another variant of family employment diversification has been observed. Some families in these villages have opportunities of monthly paid work in road construction. Although this work is better paid and also regular, some of them would prefer daily paid casual work, despite its lower rewards, because they could not afford to wait till the monthly pay day. To have the best of both worlds some families would send one family member for the monthly paid road work and another for the daily paid casual work (Wickramasekera, 1977).

Allocation of Family Labour to Activities : Parameters, Constraints, Adjustments Sex and Age. Sex, age and skills are the parameters and the organising principles of the family labour force. These are the three primary determinants of the division of labour within a family, of allocation of family labour among different tasks and of rates of participation in the different activities by the different family members. Another organising principle of the family labour force is that men, women and children at the household level play complementary roles albeit with different divisions of labour on the basis of sex and age between farm and non-farm work. In farming, the more risky or strenuous tasks such as felling and clearing in *chenas* and land preparation and sowing

in paddy are the preserve of males. So is threshing but for ritualistic reasons. Weeding, transplanting, harvesting and home-based post-harvest operations are reserved for females. Recent labour-saving techniques have been mostly in the tasks assigned to males. This may have released some male labour for non-farm tasks and in some areas, especially where transplanting is done, caused female labour to surpass male labour in paddy farming. It is suggested by some micro-studies that it is the older women, over 35 years of age, who tend to participate in farming (Wijayaratna et al. 1978). Generally, the participation of females in family farm work is linked with the participation of the male members of their families in such work. It is also observed that the involvement of females in family farm work is greater in the dry zone which experiences seasonal scarcity of labour (Moore, et al. 1980). Where a household combines *chena* with paddy cultivation, it is the younger family members who are deployed for the former, thus avoiding a clash with paddy cultivation. The task of cattle tending is usually assigned to the sons.

In non-farm activities the younger males are spread out over a wider range of activities than the other age/sex groups. It is the unmarried male members of families who usually seek non-farm work at distant places and stay away from their homes for lengths of time. The females in non-farm activities tend to be younger than those in farming. According to census returns, female labour tends to dominate certain r n - f activities, viz., spinning and weaving, dress-making, several handicrafts and domestic service; accounts for the majority share in rural educational services; and is well represented in pottery, tobacco manufacturing and in the rural sector's community, social and personal services. Females form one third of the workforce in rural household non-agricultural economic activities, mostly as unpaid family workers (SHEA, 1984/85). Most craft and cottage industries, e.g. pottery, brass-smithy, blacksmithy, lacquer work and silversmithy, are family affairs with the different family members working at different levels on different tasks. The children during their free time attend to minor tasks and materials preparation, in which and other ancillary activities the females also help, while the more difficult tasks are done by the more experienced and knowledgeable family members. The females also carry out highly skilled tasks in some crafts e.g. brass carving and engraving.

Skills. The possession of non-farm skills does not often entail active participation especially for rural females. Problems mostly in marketing and also in finance and input supplies prevent the use of many of their skills, resulting in a large reservoir of unused skills among females. Thus in two villages with 47 different non-farm skills, 13% and 34% of the women had some skill or other, but of them only 17% and 32% used their skills (Jayaweera, 1980). In five other villages, 26-65% of the total number of women had non-farm skills in a range of 16 major types of skills, but only 3-15% used their skills (Wijayaratna et al. 1978).

Inclinations, Work Preference and Ideologies. These can become constraints on family labour allocation especially with respect to mobilising two categories of family members, namely, the educated youth and the females. The involvement of younger family members has certainly declined in pottery due to their reluctance to continue in it (Hesselberg, 1980). It is to be expected that the minds of youth would be aligned towards modern values and activities as a result of their schooling. This is reflected in their general disinclination to perform manual work, especially farm work. This very unhelpful attitude is found mostly among those who have the threshold qualification of the GCE 'O' level, which allows them to aspire to white-collar jobs. The attitudes of those with lower qualifications, however, seem to be favourable to r n - f activities of the industrial type. Rural youth in this category do dislike farm work, hired manual work and the like, but over 90% canvassed in one

survey (People's Bank, July 1977) and almost all in another (L.F.S. 1968) gave their preference to and sought non-white-collar employment, especially in crafts and in the industrial and production process sectors.

Hindering the participation of females in certain types of r n - f activities and restricting their spatial and occupational mobility are customs and notions of propriety and social status. These in the Sri Lankan context work to limit the range of work acceptable to females and to make them prefer home/village-based work to outdoor/outside-of-village work and family farm work to work as hired labourers. In many caste-based activities, however, these rules do not stand in the way. For example, there are women who work as village blacksmiths. Also, their conceptions of social status vary with the economic status of their families. Females in poor households have only a few reservations about the types of work to be accepted. As their family income goes up, however, they tend to become more conscious of their status and withdraw from outside work (Wickramasekera, 1977). Generally, the females of the poorer rural households are influenced by the ideology of the females of middle class families as a projection of household prosperity. Attitudes so formed can constrain their choice of employment regardless even of any marginal pecuniary sacrifices. Thus a trend has been observed by Peradeniya undergraduates among female workers in hand-loom weaving centres in the Kandy district to withdraw from these centres in order to join the so-called small "companies" that have sprung up in the wake of the liberalised economy plolicy, even at a slightly lower wage rate. The motivating factor is that the handlooms which were established to benefit the rural poor have poverty associations while the name "company" attributed to or assumed by the small firms makes them respectable in terms of middle-class ideology.

Spatial Mobility of Family Labour. There is little or no constraint arising from any lack of spatial mobility with two categories of rural family labour. The unmarried males of the households of the rural poor usually seek non-farm work at distant places, staying away from their homes for lengths of time engaged in such work as sawing, quarrying and construction. The heads of landless households also display a high degree of spatial mobility, absenting themselves from their villages in doing such work as cutting and supplying firewood on contract and odd jobs in towns, and returning to their homes periodically (Morrisson et al. 1979).

Insufficient geographical mobility is a constraint on the mobilisation of two categories of family labour. Unlike the landless, small paddy farmers are much restricted in their geographical mobility, being tied to their land. Hence in many areas with a concentration of mini/small farmers, there is invariably fierce competition among them for the limited non-farm job opportunities available in their localities. This can lower their supply price to levels even below that of landless labourers. Even for certain craftsmen who are in economically depressed crafts their ownership of a small home garden in the village could prove to be a strong deterrent to their moving out of the craft and from the village. (Hesselberg, 1980). This is because whatever little produce obtainable from these small plots and certain cost-free incomes in kind obtainable in the village, supplement their meagre earnings from their craft, enabling them to survive.

Compared with other countries in the region, such as Bangladesh and Pakistan, a very liberal setting prevails in Sri Lanka for female labour force paritcipation. Yet, there are constraints on their spatial and occupational mobility which arise from such socio-economic factors as were observed above, and also for such practical reasons as household chores and lack of suitable lodging facilities

near places of work, rather than from any cultural prescriptions. Thus they prefer home/village-based work to outdoor/outside-of-the-village work. In many areas, however, there is little for them to choose except home-based work under the putting-out piece-rate system which makes them victims of its exploitation via very low payments as noted earlier. Under this arrangment, the control and manipulation of labour is facilitated by the dispersal and isolation of the workforce and the minimal capital investment and overhead costs of the entrepreneur. Yet it is a system with many features well suited to the rural family labour supply and allocation situation. It could be made to serve the interests of r n - f employment promotion if rid of its exploitative features. This may be achieved by replacing the private entrepreneur with such organisational forms as co-operatives or companies with broad-based ownership by the workers themselves.

Intra-family Adjustments in Labour Allocation. Rural households possess some degree of flexibility in adjusting labour allocation and labour supply to meet varying family labour circumstances and labour demand situations. These adjustments are made mainly in its female labour segment. It has been observed that "as females become more involved in field work the more the teenage girls are called on to take the place of their mothers and female elders in domestic work" (Moore et al. 1980). In the dry zone where housewives are more involved in economic activities, the two parents are enabled to go out for work by the grown-up children taking over housekeeping work. In a study of five villages it was noted that in three of them, at least one female member per family was deployed full time in housework. But in the other two villages such work was shared by two to three female members per family. These two villages were characterised by mini farms or poor agricultural conditions, a heavy reliance on non-farm work both on own account and as hired labourers by the males and a heavy involvement of females in farm work as hired workers and in transplanting (Wijayaratna et al. 1978). Under these conditions the families could hardly spare a female for full-time housework and this work was distributed among several females to be carried out during their spare time. Family female labour is also mobilised to fill gaps in labour allocation. Thus when the sons of blacksmiths move away from the village and from the occupation because of their disinclination for the craft, the daughters take their place at the bellows (Hesselberg, 1980). Similarly, when grown-up sons prefer not to work on their family farms as unpaid workers because of their wish to earn independent incomes by working outside, it is the wives and daughters who have to fill the gaps. Apparently, the household heads have greater control over their female labour.

Policy and Planning Implications. It emerged from the analysis that the limitedness of the opportunities structure severely restricts the employment choices for the households, and prevents them from mobilising their family labour and allocating it on the lines of those strategies and methods that are conducive to a maximisation of their several income objectives. Much of this failure is attributable to a lack of suitable industrial activity in the rural areas. There is then the need to develop rural industrial activity of a suitable and appropriate type. These ideas constitute a *leitmotif* of the analysis. For industries to be suitable or appropriate in the present context, they should basically be decentralised or spatially dispersed and small-scale, and offer work opportunities preferably of the self-employment type. This is only a broad description; to become suitable or appropriate in a more specific sense the industries should possess such characteristics as would fit those specific situations that were revealed in the analysis. What characteristics are desirable and what effects they would have on the specific situations can be spelled out as follows.

If these activities were to be located in the villages or within the localities concerned and also made to fit in operationally with the agricultural calendar, it would enable small farmers to stabilise their incomes through the year and to increase their incomes from both their farming and non-farming activities. The latter would become possible due to the several beneficial effects that such industrial development is capable of producing. The widening of employment options would enable the small farmers to shift from their present casual, irregular and low-paid wage employment to regular, part-time and higher-productivity self-employment or wage employment. The increase in their bargaining power in a now strengthened labour market would allow them to obtain higher wages and better terms for their hired labour. The elimination or reduction of the time which is consumed in looking for casual work and is therefore lost to farming along with the attention it needs would pave the way for a rise in farm productivity and incomes.

If such activities were to use locally available skills, it would eliminate or reduce the large reservoir of unutilised skills, enable a fuller use of the presently underutilised skills and thus facilitate a greater participation of family labour at higher levels or remuneration. To make this a reality would require measures on the supply side to improve, upgrade or modernise the skills and to remove the constraints on marketing and input and credit supply.

Small-scale industrial activity generally conforms with the personal inclinations and work preferences of a certain section of rural youth. These industries, however, would have better chances of removing any mismatch between youth aspirations and job opportunities if they were of the neo-traditional and non-traditional types.

If these industries were to be village, home or cottage based, it would greatly facilitate the participation of females while minimising the disruption of housework and eliminating the costs of living away from home. Also, if some of these activities were organised under the co-operative or worker-owned company forms, it would rescue the workers from exploitation under the private entrepreneur's putting-out system.

Generally, the existence of certain rigidities in the rural labour market and of deterrents to the movement of rural people due to social conventions, bondages to native village and certain practical reasons needs to be recognised. The policy here needs to be quite unlike the transfer of labour from the backward to the modern sector under the inducement of an urban premium wage as proposed by Lewis-Fei-Ranis. Instead, efforts need to be made to absorb rural labour *in situ* without geographical movements of people. This can be achieved by providing r n - f employment at a commuting distance by means of dispersing industrial units in rural areas, promoting rural towns and establishing mini industrial estates. Any costs involved in dispersing industries in rural areas would be compensated for by a saving on the costs of spatial labour mobilisation, a reduction in the costs of urban concentration of population and by the above noted possibilities of gains in farm productivity and incomes.

V

STRUCTURAL PATTERNS OF R N - F EMPLOYMENT: THEIR CHANGES AND TRENDS

Types of Activity — Sectoral Distribution of R N–F Employment

Estimating from the 10% sample of the census returns for 1981, one gets the following distribution of rural non-agricultural employment in terms of the conventional production sectors.

Table : *Percentage Shares in Rural Non-agricultural Employment*

Services	25.8	Transport	8.2
Manufacturing	20.4	Construction	6.5
Commerce	16.4	Mining & quarrying	2.5
Not adequately defined	19.0		

When the different types of services are put together they emerge as the leading group of activities, accounting for over one fourth (25.8%) of rural non-agricultural employment. On *a priori* reasoning this is only to be expected because of the high labour-absorptive capacity of tertiary sector activities. Government employment, comprising public administration and educational services and together accounting for 17.5% of rural non-agricultural employment, dominates the services sector. This was anticipated in our earlier discussion. Domestic service, which is in the nature of a residual activity, accounts for 1.2%. But this enumeration is of domestic servants in the rural sector and not of rural persons in this activity. The urban sector holds 61% of all domestic servants, the great bulk of them being rural persons working in urban middle-class homes. Thus domestic service is much more important as an employment avenue for rural persons than the above figure reflects.

Manufacturing employment is not dominated by any particular sub-group but the important ones are food manufacturing, textiles, and wood products and furniture. There are no estimates of employment in rural small scale industries but, going on an estimate for an earlier period (Sethuraman et al. 1983), it may be conjectured that their contribution to rural non-agricultural employment would have been at most 8% in 1981. There are also no estimates for employment in handicrafts. However, the employment in some crafts* included in the "not elsewhere classified" category of occupations accounts for under 1% of rural non-agricultural employment. A cause for concern is that the production and repair of capital goods have not developed to any appreciable proportions in the rural manufacturing sector. Workers engaged in the making and operation of tools and in the fitting, assembly and repair of machinery and equipment** account for only 2.3% of rural non-agricultural employment. This is a glaring structural weakness compared with Vietnam where employment in the production, repair and servicing of tools and equipment is the third largest type of activity, accounting for 18.5% of that country's r n - f labour force***. This is a feature one would wish to see represented in the r n - f sector in Sri Lanka. The reason is that the production and repair of capital goods are potentially fertile sources of dynamic growth for the different rural production sectors because of the likely concentration of technological innovations in such activities, their linkage effects and the forceful externalities they are capable of creating (see Stewart, 1976). A high proportion of rural manufacturing employment is characterised by low value added, low labour productivity and low incomes. A survey in 1986 revealed value added per man-day to be below Rs. 20, lower than the daily wage of rural labourers, for 34% of rural small industries (ILO - ARTEP,

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* The occupations being weavers of baskets, coir and mats; makers of brushes, brooms, coir rope, non-metallic mineral products and others.

** Occupational groups 8-3 and 8-4. These groupings are too broad for the present purpose because they also include operators of machines and equipment. The true figure should therefore be much less.

*** Country study on Vietnam presented at the CIRDAP Conference on Rural Non-Farm Employment, Bangladesh, 1985.

1987). Value added and incomes are at their lowest precisely in those industries like pottery, coir, leather, textiles, tobacoo (beedi) and food processing which employ large numbers of workers. According to a survey in 1969, the income of 75% of the workers in tobacco and weaving was below Rs. 100 per month, and these two industries contained 42% of the total employment in rural manufacturing (SES, 1969).

Commerce takes the third place in importance, accounting for 16.3%, and transport with 8.2% and construction with 6.5% take the fourth and fifth places respectively. A good part of the employment in mining and quarrying given in the table is in gem mining. What is most noteworthy is that the employment of 19% of the rural non-agricultural workforce could not be adequately defined in terms of the standard industrial classification. Under the standard occupational classification, however, the proportion of those in employment who could not be adequately defined, consisting of labourers not elsewhere classified and workers not classified by occupation, is even greater at 27%. Who are these income earners in the rural sector who make up from 1/5 to over 1/4 of the rural non-agricultural workforce and whose economic activities or occupations elude identification and present difficulties in classifying, describing or specifying? Presumably, this large segment of the r n - f sector contains a good part of the non-farm activities of a residual nature and the "distress adaptations" alluded to earlier. A useful pointer to this is that according to the Socio-Economic Survey of 1969, a proportion as high as 93% of the rural employed persons with "unspecified activities" earned below Rs. 200 per month and 62% below Rs. 100 (SES, 1969).

CHANGES IN STRUCTURES AND PATTERNS, TRANSFORMATIONS AND TRENDS

Changes in R N–F Employment Structure

A notable change in the employment structure in the inter-censal period 1971 - 81 is the decline in the share of manufacturing from 23.1% to 20.4%. This took place despite an expansion in its employment by 12%. Much of this decline can be attributed to the trade liberalisation of 1977 which considerably weakened many rural-based industries (ILO - ARTEP, 1986) and brought about a drastic decline in the big employment-provider, handloom textiles. A most disturbing outcome of these same processes is the decline in the manufacture, assembly and repair of tools and machinery group which, as noted earlier, is to be valued for its potential for catalysing rural technology development and spread effects. Its share in employment fell from an already low 2.9% to an even lower 2.3%. The decline in certain other lines was due to a shift of the activities to urban areas as in rural furniture making and in the work of goldsmiths. Responding to the growing challenge from the urban-based, large-scale furniture industry, some rural makers of furniture shifted their workshops to towns while others took up wage employment. The shift of goldsmiths from rural areas to towns was associated with the expansion in the urban jewellery trade stimulated by tourism and an expanding middle-class demand. Production workers in construction materials and construction workers increased sharply in number and substantially increased their share in total employment. These increases should be treated as transient because they were induced by large infrastructure development programmes which can hardly be repeated. Employment expanded in handicraft industries producing decorative and ornamental items, stimulated by the demand from tourists and from the middle classes. Gemming has forged ahead remarkably as an employment-provider, due to the assistance and stimulus provided by government programmes. Public administration and educational services have proved to be the largest single source of employment increase in the rural non-agricultural sector.

Factors in R N – F Occupational Change and Development

From the Traditional Towards the Modern. The pattern of r n - f activities changes with the rise of some new ones and the transformation or decline of some old ones. The characteristics of such changes and the factors behind them need to be understood. As demonstrated by the East Asian development experience, r n - f activities have to grow beyond those involving traditional skills and rudimentary cottage manufacturing or petty trading. One broad way of describing these changes is to speak of a shift from traditional activities towards their modernised versions or to neo-traditional activities and non-traditional activities. Census returns and other sources point to the decline of several traditional occupations such as those of barbers, dhobies, blacksmiths, potters and drummers, and to the expansion of several non-traditional occupations such as those of machine tool operators, metal processors, electrical fitters, plumbers, welders, sheet metal and structural metal preparers and drivers of motor vehicles. Many of these occupations have been stimulated by the expansion in construction activities and rural electrification and the increased import of motor vehicles. The surveys of rural small industries in the districts carried out in 1977 and 1986 attempted to identify "growth sectors" on the basis of age of enterprise, demand for the products, capital and employment expansion. The modern type of industries, using modern materials, e.g. cement and plastics, and oriented to construction and the manufacture of consumer durables, consistently emerged as the expanding ones while some traditional industries, e.g. coir manufacture, brass-smithy, pottery and Kandyan crafts were declining or stagnating (Sethuraman, 1983; ILO - ARTEP, 1987). The recent stagnation in Kandyan crafts can be attributed to the decline in tourism caused by deteriorating national security conditions.

Frictions Within the Caste System. Caste was the organising principle for several occupations and they were sustained by the associated traditional institutions of barter or contractual arrangements and the patron-client relationships between the members of different social groups. The conflicts and frictions that have arisen within these institutions and their resolution form a set of factors in the current change and development of r n - f occupations. Social change, the spread of the market economy and monetisation of the economy have impacted on these institutions, in the process debilitating many occupations. Some gave up, while others, adapting themselves to the milieu of commerce and the market, developed new occupations or transformed their old ones. Thus the erstwhile dhoby became an operator of a laundry business. The very continuance of some of these caste-specific occupations and skills is at stake due to the reluctance of the younger generation to learn these skills or to pursue occupations which not only bear the caste stigma but are also debilitated and not remunerative enough. The result is that these crafts are being denied not just a certain quantity of labour but also more capable and better informed labour in the form of educated youth who, if they were to take an interest, could make specific contributions towards the development of these crafts (Hewavitharana, 1986). In some instances, these conflicts were resolved by the children of craftsmen developing, or branching out into, new activities related to their traditional skills. Thus in a southern craft village the older generation is continuing in brass-smithy but many of the sons have entered the newly started industry of aluminium spoon making. Many sons of brass-smiths and blacksmiths are apprenticed in motor car repair and mechanical work (Hesselberg, 1980). In a Kandyan village the younger generation of brass-smiths has branched out into the innovative craft of cutting numbers for motor car number plates. Hindrances placed by the caste system on occupational mobility and on a more even spatial distribution of craftsmen have impeded the development of these crafts. Such problems are being resolved to some extent under social and economic pressures as illustrated by the

following cases. When a Kandyan village of brass-smiths prospered due to tourist demand, persons from outside the caste were not deterred by the caste barrier from joining the craft. The new and innovative craft of making ornamental pottery, although practised by members of the potters' caste, has become virtually a casteless craft. Under the pressure of local raw materials shortages and competition from urban furniture makers, village furniture makers have resolved the problems arising from their spatial concentration by migrating to towns or by changing their trade by becoming itinerant carpenters.

The Impact of Education. Several decades of free education, but with a heavy academic bias and little relevance to local vocational needs, have had both negative and positive effects on rural occupational development. The attitudinal changes produced have made the younger generations turn away from traditional activities. In a typical wet zone farming village, the job preference pattern of youth with GCE 'O' level qualifications would be completely at variance with the pattern of distribution of household heads among the different occupations. Such value orientations while being negative in their effect on the traditional activities, have had positive effects on the development of non-traditional ones. Thus, among the educated youth, especially those with qualifications below 'O' level, skilled non-farm work, particularly in small industries, enjoys high preference (People's Bank, 1977). Education and the value orientation it has generated have brought about a remarkable qualitative change in the field of rural small industries. There is a concentration of the younger and more educated entrepreneurs in "modern" industrial activities as compared to traditional ones. The majority of entreprenuers in this sub-sector have over seven years of schooling and the workers an average of 6-8 years (Sethuraman, 1983; ILO - ARTEP, 1987). Both these levels of educational attainments are high compared with those of their counterparts in other developing countries and present a favourable prospect for r n - f occupational development through a transmission of modern skills and know-how. Favouring this trend towards the non-traditional has been the recent migration to the Middle East; this has induced many to acquire such skills either to secure jobs abroad or to fill the jobs vacated by those going overseas.

The Impact of Agricultural Modernisation. The modernisation of agriculture has played a dual role in the change in occupations. On the one hand, it has enabled the modernisation of some traditional activities and ushered in several non-traditional ones and, on the other, stifled or destroyed several traditional ones. Its pattern of development has been such as to generate new kinds of inputs and services which cannot be met through traditional activities. Thus the use of tractors, diesel oil, sprayers, dusters, water pumps, rice mills, sugar cane crushers, synthetic fertiliser and agro-chemicals paved the way for some modern specialised services in the fields of transport, distribution, and the operation, maintenance and repair of equipment. Furthermore, processing, milling, pounding and grinding activities were required to expand when output increased due to new technologies, but often its concomitant was a modernisation; these activities are now being done with the aid of modern equipment and light machinery. In the wake of these developments, however, several traditional activities such as the manufacture and repair of hand-drawn or animal-drawn farm implements, bullock cart transport, care and supervision of draft animals, production of animal feed and manual methods of processing grain were often displaced or relegated to the background. Thus, the black-smiths who once produced farm tools and implements have been reduced to repairing and sharpening those made in factories locally or imported. Their sons, as noted above, are learning to repair tractors. The net result of these twin processes, of the destruction of the old occupations and the creation of new ones, has not been worked out from the standpoint of income and employment generation for the rural people. What seems likely is that when the linkages between farms and

village producers of farm inputs were replaced by linkages with inputs produced or distributed by urban-based enterprises, much of the benefit in terms of employment and income would have accrued to urban rather than rural people.

Changes in Village Economies. There have been many changes in village economies during the past few decades that have acted as catalysts in changing and developing many secondary and tertiary sector activities. These changes may be identified as follows. Paddy has lost its central place in the village economy, especially in the wet zone. The proportion of paddy farming households has fallen in the last three decades; so has the proportion of casual labourers involved in paddy production (Paranavitana, 1985). Some diversification of highland and home garden cultivation, often with a commercial outlook, has taken place mainly in wet zone villages. This has been the trend associated with the development of horticulture, subsidiary and other food crops, minor export crops, animal husbandry and poultry farming. Much investment has taken place in the physical and economic infra-structure in the villages. Thus, during the nine years between two surveys of the same areas, the proportion of rural small industries with access to water and electricity has increased appreciably (ILO - ARTEP, 1987). Interactions between expanding urban centres and nearby villages have reproduced the prototype of an "outward oriented" village. Their r n - f activity profiles have grown out of these village-city interactions. Thus in two villages near Kandy city studied by Peradeniya undergraduates, the villagers acquired their skills in dressmaking and in making artificial flowers and motor car number plates from institutions and other sources in the city. The city supplies the materials needed. The designs for the flowers, and the fashions for the dresses, are those copied by the village women from exhibits in the city and from visiting tourists. The urban middle class and tourists provide the market. Several fathers and sons, who had obtained their training in skills from the city, are employed there as blue-collar workers.

The Nature of the Transformations, Changes and Continuations of R N–F Occupations

There are three issues in the change and development of r n - f occupations that need to be taken up. **First,** what have been the occupational transformations in the sense of changes in products, techniques or markets? Some transformations of occupations have been of the dynamic and progressive type, e.g. decorative handicraft products using new materials and techniques and produced for affluent markets; the brass-smiths branching out into the making of motor car number plates and a spare part for petromax lamps and goldsmiths making boxes for the spare parts of watches. Other transformations have been in the nature of adaptations for survival. The blacksmiths who become mere repairers of tools and makers of cheap, low quality knives for the poor are an example. The case finds a good illustration in the several adaptations of the potters. Faced with a decline in the demand for domestic utensils, some potters took to casual labour, while others took to the newly introduced production of pressed-clay products, which have been pronounced to be cheap and cheap-looking compared to the hand-thrown products. In taking to this line, the potters descended to an even lower level of value added and income and in fact shifted to a poorer segment of the rural market (Liyanage, 1978). This is a classic instance of the deepening of structural poverty alluded to earlier. **Secondly,** what evidence is there of diversification and specialisation which are the classic twin processes of economic expansion and progress? In the last few decades many traditional craftsmen have become full-time artisans having given up whatever part-time farming they earlier did (Liyanage, 1978; Hesselberg, 1980). It was earlier noted that the operators of rural small industries have little or nothing to do with agriculture. While sectoral specialisation is making

such progress, specialisation in manufacturing has weakened in some areas. Thus, for their survival, the blacksmiths have taken to part-time carpentry and potters to part-time labour work. Regarding diversification of occupations, there is no doubt that a great deal has happened as shown in the preceding analysis. **Thirdly,** why do some occupations very low in productivity continue to be unaffected by the progressive changes that are taking place? It is because they are an integral part of the rural structural impoverishment and the retrogressive processes depicted earlier. Their rationale is that the poorest segment of the society has to consume goods at very low cost and these they produce at prices the poor can afford. Thus they are in niches, the "poverty markets", in which the big producers do not and cannot compete. If they were to improve their production they would neither retain their poverty markets, for the products will then be priced out of them, nor gain any richer markets because of the competition from big producers they have to face in such markets. Caught in this low-level trap, they aim not at maximising, as one observer puts it (Hesselberg, 1980), but at satisfying their subsistence needs. This means piecing together a living from various sources including the Lewisian rural institutional wage. Their problems and, indeed, the problems of structural impoverishment cannot be thought of as being amenable to supply side measures alone. For these problems it is the approach from the side of incomes, demand and markets that should gain primacy.

Typologies and Trends

The relative importance of the traditional and non-traditional types cannot be quantified, but on qualitative judgement the traditional and tradition-based occupations seem to dominate the r n - f sector. However, the shift is clearly towards the neo-traditional and non-traditional.

Three broad categories of rural non-agricultural occupations can be identified according to their probable levels of job security and, broadly, their job desirability*. As can be gathered from the table below there has been little or no improvement in recent times in the trend towards generally less skilled and less desirable occupations.

Table : *Distribution of Rural Non-agricultural Occupations* (Percentages)

	1963	1971	1981
Most secure	26	25	26
Medium	54	48	47
Least secure	20	27	27

It is evident from the preceding analysis that a dualism prevails in the evolution of the r n - f sector. This is quite in contrast with the East Asian experience, but is only to be expected because the national economy, of which it is a part, itself is dualistic in a techno-socio-economic sense. This duality is seen reproduced in a marked manner even among rural small industries for they have been observed to contain units at both ends of capital intensity (and labour productivity) in the same group of products. There is a polarisation. Schematically, the r n - f sector can be seen as containing

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* Following a classification adopted for the earlier years in Richards, 1979. The most secure occupations include high level occupations and white-collar and blue-collar employment in the public sector. The least secure occupations include labourers not elsewhere classified and occupations unspecified.

two sections and displaying two tendencies. One section uses upgraded or modernistic technology with relatively high capital components, contains occupations requiring relatively high skills and activities with relatively high productivity, and caters to relatively high income markets. Its pace of expansion is too slow to make much difference to its relative share in the sector. One reason for this is that the use of education to obtain better quality jobs runs up against the limitedness of modern sector opportunities and the inevitable "qualifications escalation" (Deraniyagala et al. 1978) which is frustrating to job-seekers. The other section operates at a lower level in respect of skills, capital use, technology and productivity and caters to markets with low purchasing power. It may tend to expand at its lower end through a proliferation of activities which do not yield sufficient incomes to meet the basic needs of the participants.

VI

SOURCES AND NATURE OF DEMAND FOR R N - F GOODS AND SERVICES : PROBLEMS, ISSUES AND POLICY IMPLICATIONS

Household Consumption Demand

Scope of Demand; Links with R N – F Producers. Viewed from the side of household expenditures in the rural areas there is the promise of a sizeable demand for r n - f goods and services because these households allocate no less than 39% of their total consumption outlays for the purchase of non-food items. Even in the island's two poorest income groups, non-food expenditure accounts for 29% and 33% of their consumption expenditure. These proportions, representing the extension of household consumption demand beyond food items into the output of the secondary and tertiary sectors, are quite impressive even after making allowances for the income supplement effect of food stamps. To what extent and in what ways do the producers and production units in the r n - f sector relate to this demand? There is hardly any information on these aspects of the numerous full-time, part-time or casual producers in the rural informal sector. The information available is for one category of producers, namely, rural small industries, but it is in sufficient detail to shed light on some of the issues. Recent surveys of such industries in a few districts reveal that they are dependant mainly on demand emanating from household and produce primarily for household consumption. While 58% of the rural small industry units had such forward linkages with households in 1977, this proportion had declined somewhat to 41% for rural units and to 47% for semi-urban units by 1986 (Sethuraman et al. 1983; ILO - ARTEP, 1987). Despite this decline, consumption linkages still remain the major factor determining the demand for the goods of these industries and their employment level. The survey of 1977 also reveals that up to about two thirds of the households which use the products belong to the "poor" category. Relating the type, economic status and location of the users of the products to the scale of the producing units, it is further seen that the smaller the scale of the producing units the greater are the linkages with households in general and more specifically with "poor" households, with small farmers and with households in rural locations. The implication is that an improvement in the incomes of the rural poor and of the small farmers would have a favourable effect on the demand for the products of the rural small industries. It is also seen that, unlike in other countries, many rural small industries in Sri Lanka have forward linkages with households in other villages, towns and cities and do their marketing more or less on a national scale. This implies that an increase in household incomes in general would favour many of these industries. Given the high incidence

of rural poverty, the low average incomes which do not allow much to be spared for the purchases of non-farm goods, the development of rural manufacturing is contingent upon income increases which in the rural context have necessarily to originate mainly in agricultural improvements.

Analysis of the Relationship Between Household Incomes, Their Changes, And the Demand/Market for R N – F Goods and Services. While the above conclusion that household income growth would stimulate the r n - f sector through an increase in demand is generally valid, the relationships involved are often neither automatic nor direct and are not always positive. This is because of the several intervening issues that arise from the peculiar characteristics of the demand for r n - f products which may be conditioned by the prevailing policies on industry and trade. The problems associated with these issues need to be adequately resolved before a positive and an effective relationship between increases in household purchasing power and demand for r n - f products could become a reality. In the analysis that follows these issues will be examined under three headings. It will also bring out the policy implications for promoting demand and widening markets.

(a) An Unhealthy "Market Expansion" Associated with a Deepening of Structural Poverty - - Assuming that the "poverty market" analysis presented earlier has wider validity, then the core of the demand for many r n - f goods and services produced by the rural poor may be seen as coming from the landless and the small farmers. This contention gets support from the association through demand for products noted above between the scale of rural small industries and the size of farms of households and their incomes. It follows that the prospects for the demand for such r n - f goods and services in terms of the number of buyers would depend on the pace at which rural population is squeezed out of (or "pushed" out of) agriculture, which implies the rates at which farm sizes get diminished, small farmers marginalised and landlessness created. This suggests the possibility of a proliferation of some r n - f activities as the incomes of rural households decline. These households which are becoming poorer may look to r n - f goods and services but as a group they do not constitute a healthily expanding source of demand. The endeavour obviously should be to rescue the r n - f sector from such a possible path and to direct it on to one in which it expands healthily under the stimulus of increasing household incomes.

(b) How Relevant is the "Inferior Goods" Argument? An Examination of the Hymer–Resnick Model - - For many goods and services produced in the r n - f sector the problem, of demand is not a straightforward one because of the two distinct aspects it possesses. In its first aspect, the problem as noted above is one of a limited market for these products due to low average level of income and poverty. The removal of this demand constraint is contingent upon prior or simultaneous growth in income stimulated presumably by a growth of the farm sector. In its second aspect, however, a rise in household incomes can have a negative impact, or at best only a limited positive effect, on the demand for many of the r n - f sector's products. This is because, as pointed out by some, these products are in the nature of "inferior goods" (and services), and hence as incomes of the poor rural households rise, their preferences will shift in favour of the products of modern and large-scale industries resulting in a decline in the demand for many of such goods. This process is likely to be exacerbated by an opening up of rural areas through a development of infra-structure and transport facilities and by a policy of liberalised import trade. Of the two views of the problem of demand for r n - f products, the latter is indeed the much more pessimistic because what it implies is that the demand while being limited by current levels of income, has little prospect of expanding, and, in fact, faces all the prospects of a contraction, if incomes were to increase.

An early exposition of this "inferior goods" thesis is found in the Z-goods paradigm of Hymer and Resnick presented in their two-sector agrarian economy model (Hymer and Resnick, 1969; Resnick, 1970). One sector is a food producing farm sector while the other is a rural manufacturing sector identified with the so called Z-goods, meaning "inferior goods", which will decline as a corollary of growth. Typical r n - f activities are thus visualised as being mere survivors of a past order and destined to disappear under the impact of modernisation and growth. Rural industries, for example, are seen to be in a disadvantageous position due to their smallness and not being able to compete with technically superior, large scale units of the modern sector. If this thesis is true, it would be a serious impediment to the strategy projecting a circular and interactive process of cumulative growth for the r n - f sector that will be presented later in this paper. If many r n - f production activities were to wither away as envisaged by this thesis, it would also mean a drying up of many sources of expenditure injections into the rural income flow circuit and, therefore, a collapse of the income multiplier mechanism on which the proposed strategy rests. Hence it is imperative to examine how valid and relevant the thesis is in order to know what clear way there is for the strategy.

Since the Hymer-Resnick model is derived largely from *a priori* reasoning it admits possibilities of being revised in the light of empirical knowledge. Empirically, the model's presumption that low productivity is a universal phenomenon in the r n - f sector is incorrect. What obtains is a spectrum in respect of labour productivity which contains the broad duality amongst r n - f activities noted earlier in the analysis. As it was also observed earlier, there is a tendency to a shift from the traditional to the neo - and non-traditional activities under the impact of the several factors which influence the occupational structure and its change. For rural small industries, a survey finding (Sethuraman et al. 1983) is that the "modern"-type rural industries, as compared to the traditional ones, are more capital intensive, more productive in terms of value added per worker and attract younger and more educated persons as their entrepreneurs. However, several traditional industries have also been able to achieve reasonably high labour productivity by developing a high skill content, diversifying their products and improving their technologies. Another survey (ILO - ARTEP, 1987) offers a comparison between truly rural small industrial units and those in semi-urban locations within the rural sector. The characteristics displayed by the semi-urban units may be regarded as what the rural cottage based, artisan and craft industries might achieve if they were to progress to higher stages of development. Thus the semi-urban units in comparison to rural ones in general are larger in size, higher in labour productivity, attract better educated persons as their entrepreneurs and, display features of capitalistic development and commercialisation in respect of capital intensity and the labour process. At the same time, however, there are variations in these characteristics both within the rural and semi-urban groups and between different groups of industries. This evidence points to the incompleteness of the Hymer-Resnick thesis because although some r n - f activities may decline there are others which are dynamic or with a potential for transformation and progress.

Any presumption that the products of the r n - f sector are "inferior" or Z-goods used only by the poor is also not correct. In the absence of data on income elasticities of demand for the various r n - f products, we may use classifications of buyers of these products by their economic status to clarify this issue. As stated by rural industrial producers producing for households in a sample, the products of 12% of them were used mainly by the "rich", of 20% by both the "rich" and the "poor" while 25% were not sure (Sethuraman et al. 1983). From another survey (ILO - ARTEP, 1987) we learn that the products of 27% of the truly rural industrial units were bought mainly by the "rich", though in the relatively limited range of ornamental and decorative type items, while the products of 23% of them were bought by both the "rich" and the "poor". At the same time the

products of 33% of the semi-urban units were bought by the "rich" in a larger range of items, while 20% of them catered to both the "rich" and the "poor". These data warrant the conclusion that while demand pessimism, as it is entertained in the model, may be true for certain categories of products, it may not be so for others.

Even among the r n - f activities which currently cater mainly to the poor, there are many with a potential to expand their markets or shift to new ones by diversifying and qualitatively improving their products. That many such rural industries may well become capable of responding to the changing pattern of demand associated with rising income levels through an adoption of technological and organizational changes has been overlooked in the "inferior goods" thesis. The evidence available on the varying and contrasting characteristics of industrial units belonging to the same activity groups points strongly to the scope for such adaptations. Thus it has been observed that even where it concerns the same activity, there are rural industrial units at both ends of capital intensity and, that labour productivity is higher in the industrial units located in semi-urban areas as compared to the truly rural ones. Alongside these differences there also exist sharp contrasts in the economic status of the buyers of the same-product groups between rural and semi-urban industrial units. In plastics, chemicals and furniture, for example, the truly rural production units cater mainly or exclusively to the "poor" while their counterparts in semi-urban locations not only produce a more diverse range of goods, but also cater mainly to the "rich" (ILO - ARTEP, 1987). Evidently, the differences in productivity, technology and factor-mix between the industrial units have resulted in differences in product-quality and product-mix which in turn are found reflected in the contrasts in the economic status of the customers. These indicate the possibilities for cottage/craft/small industries in the villages to shift to higher level markets through appropriate technological and organizational changes.

The issues in the shift of market would become even clearer if we consider the poor rural manufacturers who have found "niches" for their activities in "poverty markets", and are virtually trapped in them because, if they improve the quality of their products, they would pass the threshold price the poor can afford. The crucial point here is that any technological improvement would be dysfunctional because, in the context of small-scale production, the price of the product would rise necessitating a shift of market which they cannot manage. Thus, as revealed by a micro survey, aluminium spoon makers in a village do not polish their spooons, but sell them in the unpolished state to low income buyers in their localities or, to buyers from Colombo, who do the polishing for further sale in affluent markets. The spoon makers do not take their production process to the higher and the final technical stage of quality improvement for both the reasons, that they cannot afford the requisite investment in equipment, as their profits from current activities are low, and that they are apprehensive of the risks involved in shifting from their present poverty market niches to higher income markets. If, however, in this particular situation, appropriate policy intervention were to provide common centre facilities for the spoon makers to polish their spoons at a time when farm incomes are made to rise through agricultural improvements, it would in one package, solve the capital investment problem, minimise the increases in unit costs of production associated with technological and quality improvements in small-scale production and, facilitate a shift of market. The blacksmiths, who too have found a niche for their survival in the manufacture of low quality and low priced knives and implements for the poor who cannot afford to buy the imported items, also could benefit from similar policy intervention. This could well take the form of a stage-wise technological and organizational improvement programme for village blacksmiths, beginning with assistance in marketing and input procurement to stimulate product diversification and quality improvement and, followed by provision of training, common facilities and new organizational

arrangement, all in the manner attempted by the Divisional Development Council (DDC) programme of 1972 - 77 (Hewavitharana, 1986). Illustrative of the possibilities of adaptation is the case of the potters discussed earlier. For them, there has been a descent to lower grade technology, inferior quality and to a lower income market. If this was a retrogression in response to a worsening of poverty then it should be possible for the same potters to get back to their former markets and to their former levels in technology and quality, or even surpass them, when income levels of the poor rise.

From this analysis emerge two basic implications for the development policy for activities whose products would find it difficult to get markets when incomes start to rise. One is that the timing of intervention should be such that the removal of constraints and promotional measures for these activities will be synchronised with on-going processes of income increases and market expansion stimulated by agricultural development. The other is that the technological improvements should be of the appropriate type and carried out with much caution. This is because of the complex picture that craft/cottage/small industries present. The different industries have varied abilities or potentials for absorbing efforts at improvements, for adapting themselves by diversifying products and changing quality of products and, therefore, for responding to changing pattern of consumer preferences and demand. Hence, when certain new technologies are introduced, production can shift or get transferred from the poor producers to the richer ones who can afford to adopt such technologies. Therefore, from the point of view of raising the incomes of the poor it is important to ensure that the poor producers have sufficient access to the new technologies. This will be facilitated if the technological improvements introduced were to take the form of gradual improvements to traditional technologies rather than an abrupt change to high technology (see Islam, ed. 1987).

From this analysis it appears that higher rural incomes are likely to act as a booster not a damper to the growth of many r n - f activities provided, however, that there is appropriate policy intervention of the types already noted and also to be seen later in this paper. In this context it is pertinent to ask which categories of activities in the r n - f spectrum would perform as dynamic elements or are potentially dynamic. In rural manufacturing there are several dynamic candidates as noted above and, several "growth sectors" and dynamic transformations as observed in the earlier analysis on occupational change. Several rural manufacturing activities have been able to diversify their products, innovate new ones, attain higher productivity and to tend towards larger scale and commercialisation (ILO - ARTEP, 1987). That it would be possible to realise their dynamic potential if they are given the necessary policy support was demonstrated in 1970 - 77 under the favourable policy environment that prevailed then. To the list of potential "growth sectors" should also be added exports of r n - f products that will be examined in some detail in a subsequent section. The features and characteristics of the rural cottage/craft/small industries as they emerge from the foregoing analysis justify two optimistic views about them as compared to the pessimistic view implicit in the Z-goods thesis. First, some of these industries may be viewed as genuine elements in "proto" industrialisation which is a term used by some historians to refer to an early phase of pre-factory industrial development. Industries in this phase are market oriented but traditionally organised and they can develop into modern industries with accompanying organizational and technological change. It is perhaps such a process in the making that is reflected in the differences between semi-urban and truly rural industrial units. Secondly, the prevailing conditions allow rural industrialisation to be viewed as a viable policy option and a feasible transitional stage in the process of the country's industrial development.

Besides rural industries, there is the whole non-traded sector comprising construction, commerce, transport, utilities and government services, which is a very large and a fertile source of many important dynamic candidates. As observed earlier, these activities would constitute anything between 56-76% of rural non-agricultural activities when the category of activities not adequately defined is also taken into consideration. Rural housing construction and improvement are illustrative of the potentialities of the non-traded sector. There is perhaps a threshold income beyond which housing aspirations start to become more actively fulfilled because income elasticity of demand for housing remains at 0.25 within the low-income range but rises to unity within the next higher income range. However, according to field observations, it is not usual for rural housing construction and improvement to result from a lump-sum expenditure on a continuous process to be completed in a short period, but rather from a gradual process of construction or improvement as additional income accrues to the household (Central Bank, 1974). Thus, as observed in two adjacent farming communities, engaged respectively in cash crops and subsistence farming, the former channelled any incremental incomes from their crops into housing, propelled by a strong social motivation and aspirations for cement flooring and other structural improvements (MDB, 1973). Increases in rural househlod income, even in small steps, allow for these aspirations to be translated into effective demand.

The appropriate perspective here is that the r n - f sector at any point of time will consist of activities both with and without comparative advantage; the former by virtue of locational advantages based on orientation to either markets or resources and comparative factor costs. Those with comparative advantage will prosper and grow when so enabled by appropriate policy interventions and development initiatives such as agricultural and infra-structural development while those without comparative advantage will shrink. We may thus visualise a part of the r n - f sector which is more dynamic or potentially dynamic and deserving of demand optimism. Such a sector as suggested by another researcher (Fabella, 1987), could well be a third sector, in addition to the farm sector and the more backward Z-goods sector, to form a three sector model of the rural economy replacing the incomplete Hymer-Resnick two sector model. In this new model as pointed out by Fabella, the East Asian phenomenon of a buoyant r n - f sector and the Hymer-Resnick phenomenon of a shrinking Z-goods sector can coexist and the driving force would be the Ricardian twin processes of diversification and specialisation, rather than inferiority.

(c) **Leakage of Expenditure into Modern, Urban and Export Sectors.**- - The limitations on the "inferior goods" thesis notwithstanding, we still have to contend with the issue of leakages of rural household non-food consumption expenditure out of the rural sector. This is because the technology gap is so large that most goods produced by rural small industries compare unfavourably in one way or another with those made in urban factories; and most goods of an under-developed country, whether made in its villages or in its urban factories, tend to suffer, objectively or not, in comparison with the Western-style goods made in industrialised countries. Many of the non-food items that enjoy high income elasticities of demand, including most of the semi-durables and non-durables, several of the durables and many of the services, are producible in the r n - f sector; however, it is only a portion of this demand potential that can actually be realised by producers in the r n - f sector. In other words, a rise in rural incomes and of demand cannot be expected to result in an increase in the purchases of r n - f goods and services conforming with the expenditure elasticities for the different non-food items. This is because of the leakage of expenditure into modern sector/imported goods which happens to be particularly heavy in the Sri Lankan situation.

To understand this we need to consider the broad framework within which the r·n - f sector and the household consumption function operate. This framework consists of : a skewed distribution of rural incomes; an increasing trend in the concentration of rural incomes as reflected in the rise in the Gini coefficient from 0.37 in 1973 to 0.49 in 1981; a high incidence of rural poverty with about 40% of the households in absolute poverty on the caloric intake criterion; an urban-based modern industry with some of it producing relatively inexpensive consumer goods; and an import sector with liberalised trade. In this setting there is not just one consumption pattern, but several, corresponding to the different income levels in the society. The consumption patterns of the higher income groups are oriented towards western style goods from the modern sector, many of which are imported. Hence the "foreign goods preference of Sri Lankans". The expenditure elasticity of these classes for many of the r n - f products is very low. In the context of a small island with well developed transport, communications and media systems, the demonstration effect on consumption spreads wide and penetrates deep. The lower income groups, who normally furnish the bulk of the market for r n - f products, are substantially influenced by this effect. Non-food expenditure based on their incremental incomes therefore tends to get divided, one part towards the local non-farm sector and the other towards the relatively inexpensive modern sector products or imported goods. Given also their low level of purchasing power and a pre-emption of a portion of their incremental incomes by a substantial expenditure elasticity for food items among them, one can readily see how the r n - f sector will fail to be supported by either broad and popular demand or by buyers with relatively high purchasing power. The support it gets is mainly from buyers with low purchasing power and that too is a divided one. For several r n - f goods and services it would be in the nature of a residual demand emanating from small farmers and the landless who cannot afford the urban factory products or imported items.

Policies for Building Up Demand for R N – F Consumer Goods and Services. The analysis so far of the context and circumstances in which household demand for non-food items acquires its behaviour pattern points inexorably to a need for conscious policy intervention to build up and nurture this demand and to give it the necessary direction. There are four broad issues and corresponding policy implications. First, it is not only the level but also the distribution of rural incomes that is a crucial factor determining the demand for r n - f products and the sector's employment level. If the leakages are prevented, a distribution of incomes in favour of the poor would generate employment multiplier effects because the output-mix normally demanded by them uses mainly labour-intensive technology and has linkages with locally available materials. Thus the result would also be a generation of employment multiplier effects in the r n - f sector. Also, with a more even distribution of incomes there will be less scope for the demonstration effect to influence the pattern of demand. Hence the current increasing trend in the concentration ratio of rural incomes should be viewed with concern and policy measures devised to arrest it and to bring about a more even distribution of rural incomes. Secondly, the nature and extent of the conflict between large vs small and urban vs rural in manufacturing need to be understood and resolved. There is the need to correct the existing policy biases explicit or implicit, in favour of large urban-based industries and to tilt the incentives structure in favour of rural small industries. An important policy implication for resolving these conflicts is to promote sub-contracting and ancillarisation which would break the demand side contradiction between large and small by structuring them in a complementary and mutually beneficial way. This can ensure that the large units will not grow at the expense of the small and the free exercise of consumer choice by the buyers will not be entirely at the expense of the r n - f sector. The problem here is that the industrial base is not sufficiently broad or diversified to provide much scope for such arrangements. Yet, to wait for such a level of industrialisation would be a folly because there is much that can be done

to identify and promote processes that could result in sub-contracting. Thirdly, it is necessary to realise that the situation depicted above has been exacerbated by the import liberalisation. The question is whether in a liberal trade policy environment the r n - f sector can benefit from any increases in the demand for non-food items. What is appropriate here is that policy should not be "neutral" but "equal" providing for the needs of "infant" industries through such measures as reserving certain areas, tariff protection and selective incentives. Fourthly, appropriate and well timed improvements in production technology and in products need to be introduced according to a plan, lest r n - f products suffer the fate of "inferior goods" when household incomes rise.

Intermediate and Investment Demand

Goods and services which are required as inputs for farms and whose production is within the technological capability of the r n - f enterprises constitute the basis of their forward production linkages. But, as seen earlier, with agricultural modernisation these have tended to be replaced by modern sector products and imported items. According to the survey of three districts in 1977, only 7% of the rural small industries produced for farmers and this proportion in 1986 was 6% for rural units and 3.7% for semi-urban units. This very limited forward linkage was with small farmers and was confined to the supply of some hardware, tools and repair services. However, the basic issue here is that all the mechanisation and all the use of agro-chemicals taking place may not really be necessary for maintaining or raising productivity in agriculture. What then becomes evident is that it is a labour-intensive agriculture using appropriate technology comprising inputs, implements and equipment that are locally producible, and growing in productivity, that has the capacity to forge production and investment linkages with a labour-intensive non-farm sector. There has to be this symmetrical balance between the farm and non-farm sectors in terms of their technology, factor-mix and scale. Some of these features are already present. On the side of farms there is some degree of unimodality in respect of scale and size. Much remains to be done to ensure the appropriateness of techniques and tools on the side of farms and to build up the matching production capabilities in the r n - f sector.

The adoption of an appropriate technology policy in farming and non-farming activities is therefore a key factor. Such a policy would result in a building up of demand for r n - f goods and services. This is because of several reasons. It introduces tools and equipment that are producible within the sector. Where an item cannot be produced wholly within it, e.g. a two-wheeled tractor, r n - f enterprises can still participate in its production through sub-contracting and ancillarisation and thus partially tap the potential demand. The production of these items will endow the sector with the much needed dynamic component of capital goods production and contribute to the development of the sector's technical and managerial competence and also of agro-industries in general (see Johnstone et al. 1975). In addition, appropriate tools and equipment can not only be produced in the r n - f sector but also be repaired and serviced in it. In these ways too new lines of demand will get created.

Production linkages among the different units in the r n - f sector based on the intermediate demand for non-agricultural materials are not well developed because the majority of the rural small industries, especially the larger ones, depend on urban centres or imports for their supplies (Sethuraman, 1983; Hesselberg, 1980). However, for production inputs in the form of services, there is a high degree of dependence for supplies on rural households and other r n - f units. This implies that a growth in rural industries will lead to an expansion in the rural tertiary sector.

Foreign Demand

Theoretical limits to the pace and extent of diversification for early societies have been conceived in terms of wages fund or food surplus for sustaining those who are specialising away from farming (see Kaldor, 1954). In practice, however, these limits do not seem to be a major constraint if the diversification is accompanied by a broadening of marketing and trade horizons, especially through exports. Exporting r n - f products would be of critical importance to Sri Lanka for transcending the limits of the national market especially in view of the weakness in local demand. In the Asian experience, except for China whose growth was based on the home market, countries such as Japan and Taiwan derived much support for their growth from expanding export segments in their r n - f sectors. The impressive Indian achievement in the export of rural handicrafts is often referred to as a "success story" in contemporary development experience. In Sri Lanka, tourism has successfully transmitted foreign demand for handicrafts and services to rural areas, as indicated by the striking growth of indirect employment from tourism in recent times. The aforementioned rural small industry surveys also point to a marked shift towards foreign demand. Only 2.5% of the small industry units produced for tourists in 1977, but in 1986 this proportion had risen to 21.4%. Imaginative schemes for forming vertical linkages with r n - f enterprises in export promotion, as in the "export village" scheme, have met with success. R n - f exports qualify to be identified as progressive activities and to be promoted as "growth sectors".

However, the scope for the export of r n - f products should not be conceived, as is sometimes done, in the narrow terms of selling artistic or ornamental items to buyers from affluent countries. There are various products, comprising materials, intermediate goods in processed or semi-processed forms, tools, implements and light equipment, and ordinary utility goods in the form of durables, semi-durables or non-durables for household consumption, which could be made by village producers and rural enterprises using local technologies and materials. Markets for these goods are more likely to be found among underdeveloped countries than in developed ones because of similarities in income levels, comsumer tastes and life-styles. This is a potential that has to be nurtured and developed through multilateral arrangements for production and marketing within a framework of regional trade and economic co-operation. Exploiting foreign markets whether it be the prosperous and discriminating ones of the west through the export of decorative and ornamental handicrafts or those in other under-developed countries through the export of utility items, calls for considerable improvements on the supply side. Unlike in local demand in which the issue, as seen above, is one of creating it or building it up, the question in foreign demand is one of exploiting or attracting demand that is there through supply side measures. Hence the entire thrust has to be on sustained efforts to improve products and production procedures, to adapt designs, to arrange for the distribution of quality materials and credit and to organise marketing channels and systems.

The out-migration of unskilled and skilled labour from the rural areas is one manifestation of foreign demand for non-farm labour. There are three policy implications for exploiting fully the potential in this demand for promoting employment in the r n - f sector. First, there should be arrangements to bring migration costs within the reach of the rural poor, and to provide them with more information about overseas employment opportunities as well as facilities for acquiring the necessary vocational and language skills. Secondly, there have to be arrangements to train sufficient numbers to fill the vacancies created by the departure of skilled and semi-skilled workers. Thirdly, the potential of migrant remittances for promoting r n - f employment should be tapped by chanelling them into direct investments. Domestic servants and unskilled workers who usually save 80% to 100% of their earnings bring home large sums of money but very little of it goes into

direct investment or self-employment creation (ILO - ARTEP, 1985). This is partly due to the fact that such migrants, in respect of both their skills and attitudes, lack capabilities in entrepreneurship of any type (Marga, 1986). There is a need here for schemes and policies to advise, assist, guide and train them to undertake investments.

Rural Public Works (RPWs) as a Source of Demand for Non-farm Labour

It was seen in the analysis that for the small farmers and tenants in the land-poor densely populated wet zone areas, for the inhabitants of traditional villages in the dry zone, for the communities dependent on rainfed farming and *chena* cultivation and for the inhabitants of the "colonies", it is casual labour in earthworks, roadwork and construction sites that constitutes a main form, and in some places the only form, of r n - f employment. Hence rural public work (rpw) programmes based on labour-intensive methods should be regarded as a major policy instrument for generating r n - f employment for critically affected communities and in severely affected areas.

The leading issue is that r p w programmes, while providing wage employment directly and on site to those who need it, should also pave the way for continuing streams of employment for them by creating suitable productive assets through these same works. This envisages a maximisation over time of the direct and indirect employment benefits of these programmes and in that same context a sustained development of activities for the rural poor. Past experience with several such programmes, however, points to a failure to achieve these twin aims or even to perceive them in that form. These programmes have been concerned with providing on site wage employment and have paid no serious attention to the objective of asset creation. The works have been carried out in an unco-ordinated fashion and the physical assets produced have been generally of low quality (Gunawardana, et al. 1981). Similar experiences have been reported for the rural works/employment programmes in certain other countries in the region as well (Muqtada, 1987). The reason is that many of these programmes have been relief oriented or conceived in terms of providing a 'dole' while some others have been mere make-work expediences. Hence the *ad hoc* manner of their implementation. What is necessary is to bring them under a new perspective in which, apart from providing wage employment, they are also seen as creators of assets in the form of infrastructure that will spawn new employment opportunities in the different production sectors. This is because rural infrastructure development, due to its general productivity improvement effects, has the capacity to catalyse a whole host of new employment opportunities in the farming and non-farming sectors. All these need to be worked into a model and a strategy of rural development in which r p ws are integrated into a process of sectoral development. A scenario is as follows : on the one side, r p ws create an array of enabling and supportive infrastructure for agricultural development which stimulates the r n - f sector and the momentum thus gathered brings about a mutually supportive process of sectoral development. On the other side, the wages paid out by r p ws to persons with very low purchasing power reinforce demand and sustain the income multiplier at a higher level. This prospect of wage employment provision and asset creation becoming interlocking elements in the same development process provides a good rationale for the inclusion of r p ws in a strategy for rural employment promotion. Such a strategy is outlined below.

Government Procurements

If the government gives priority whenever and wherever possible to r n-f goods and services in its procurements, it could prove to be a very substantial source of demand for these products. This is particularly so in Sri Lanka with its widespread network of state managed educational and health-care services and the numerous offices, agencies and institutions of the central, provincial and local

governments relating to the administration of development, welfare and public affairs. For the effective implementation of such a programme, it requires decentralisation of purchasing, co-ordination of the production plans of the numerous small producers with the purchase plans of the numerous government agencies, quality control systems and assistance to the producers to overcome supply side constraints.

VII

TOWARDS A RURAL EMPLOYMENT STRATEGY INCORPORATING THE R N - F SECTOR

Policy Perspectives and Prerequisites

The planning exercises and strategies in the past have mostly been oblivious of the need to exploit the r n - f sector's potential. There has been a failure to view its development as a viable policy option and strategy for combating rural poverty. What is needed is to give explicit recognition to the r n - f sector in national employment policies and to adopt its development as an explicit theme through a conscious policy focus on it. It emerged from the analysis that it would be futile to seek solutions to rural employment and poverty problems *solely* within agricuture, relying only on agricultural strategies. Yet, the truth is that continued efforts at agricultural growth *per se* are needed and are of prime importance because it is this that stimulates the growth of r n - f activities. Growth in secondary and teritary sectors cannot go very far without growth in agriculture, and for agricultural growth in turn the direct and indirect support of the r n - f sector is necessary. Thus in the design of employment policy it cannot be a question of one sector or the other. It has to be a judicious combination of both. It emerged from the analysis that the problems of the r n - f sector have their origin in certain deep seated structural and institutional factors. Hence it is necessary to realise firmly that any solutions that are in the nature of palliatives or attempts to focus only on this sector and *ad hoc* measures of direct intervention can be only of very limited use for meaningful development of this sector. Approaches have therefore to be within a broader frame of reference with a comprehensive view of all the issues and a multi-sector perspective.

As a basic perspective it is important to have a vision of the economic life style or the pattern of rural household economic activities to be ushered in for the multitude of small-scale farmers through a programme of r n - f sector development. In this vision the small-scale or even the mini-scale nature of farming can remain unchanged, for it is not absolutely necessary to change the scale by deliberate measures, and it can be left free to change, if it must, under the economic pressures that would be generated by the programme. The novelty would be that livelihoods would be improved for the farm households by lucrative part-time farming being combined with lucrative part-time non-farm activities as it was in the East Asian experience. The term part-time here should be taken in both senses of an individual farmer dividing his time and a family labour force being divided between the two types of activities.

In Search of a Growth Model for the R N – F Sector

Past pre-occupations with two-sector models based on the division into agriculture and industry and with 'employment-migration' models based on the rural-urban dichotomy have prevented due focus on the spectrum of activities in the r n - f sector. The most prominent among these models, which is the Lewis-Fei-Ranis dualistic model comprised of modern and backward sectors, fails to see

any positive role for the backward sector because of an implied primacy of the modern sector in the growth process. The Hymer-Resnick two-sector model of the agrarian economy is based on a demise of rural manufacturing and other r n - f activities as a corollary of growth. Oshima (1971) was among the earliest to have realised the shortcomings in such models when he proposed the development of labour-intensive r n - f activities as a third sector, in addition to capital-intensive non-agriculture and labour-intensive agriculture, to make up a tri-sector framework for development and employment policy. Mellor (1976) has evolved a strategy of growth based on increased employment engendered by an expanding food supply but fails to spell out explicitly any positive and dynamically independent role for the r n - f sector. This model needs to be modified to suit a country like Sri Lanka where there are a large number of landless labourers who do not stand to benefit much directly from any agricultural growth.

At the conclusion of the Chiang Mai Conference on Off-farm Employment*, the participants agreed on a model which conceptualises the r n - f economy as passing through four distinct stages of growth. Beginning from a first stage of low-level equilibrium with employment in residual activities as determined by labour supply pressure, it passes on to a second stage where agricultural and infrastructural development sets the conditions for a major transformation of the sector that is to occur in the third stage, at which, rising agricultural incomes is associated with diversification and qualitative improvements in r n - f activities. The essentials of the changes are a shift from labour supply determined conditions to those determined by demand and an eventual increase in the share of the r n - f sector in labour. Sri Lanka's r n - f sector characterised by a marked duality does not readily fit in with this framework which has been derived from the historical experiences of the integrated r n - f sectors of East Asian countries. However, a suitable adjustment can be made to integrate the Sri Lankan empirical situation with the stages model by conceptualising the former in terms of the three sector model of the rural economy found to be relevant to local conditions earlier in the analysis. Thus when agriculture develops and farm incomes rise in the second stage, the more dynamic r n - f activities will get activated, labour will shift from Z-goods to farming, which has now become more productive, and the relative importance of the former will shrink. These processes will continue in the third stage when the more dynamic r n - f activities will expand rapidly due to linkage mechanisms between them and agricultural development.

Bearing in mind that the stages are only abstractions from many real world complexities, we may try to find answers to the questions as to the stage reached by Sri Lanka's r n - f sector, and how potentially strong are the key variables (besides the more dynamic r n - f sector) for forging inter-relationships and moving the sector to higher stages. As for the stage reached, there is a clue in the judgement we made in an early part of this paper that as compared to two groups of Asian countries Sri Lanka's r n - f sector takes more or less a middle position in between a 'push' by labour supply pressure and a 'pull' by demand-side attractions. It suggests much better prospects, compared to certain other countries, for Sri Lanka's r n - f sector to shift on to or move through stage two, if it is stimulated by the policies enumerated above for building up and strengthening the demand side. As for agricultural development, a key variable, its prospects seem to be bright enough, if it is properly managed, to engender income increases and to activate linkage mechanisms *a la* Mellor. Considering the on-going ambitious land area expansion programmes and the potential for technology based intensification and productivity increases that await appropriate measures for its fuller realisation,

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1. Conference on Off-farm Employment in the Development of Rural Asia held at Chiang Mai, Thailand, August, 1983.

it would not be wrong to look upon agriculture as a sector poised for growth thus ushering in the second stage (See Hewavitharana, 1978a). Infrastructure, another key variable in stimulating sectoral growth and linkage mechanisms, is currently being strengthened on an ambitious scale under the District Rural Integrated Development Programmes.

The Rationale for a Demand-led Type of Strategy

The analysis at its different stages and in its totality points to the need to adopt demand and the processes of demand generation as the focal area for policy and action in promoting r n - f employment. A case for a demand-centred approach has evolved through the different strands of analyses that feature in this study. From the macro-level (sectoral) analysis of the underlying factors emerged the broad order of magnitudes of, and the fact of an ever-increasing trend in, labour supply pressure in the r n - f sector. Hence in the first round of analysis itself, demand assumes a central role, because by implication the development of the r n - f sector hinges on a shift from its present labour supply determined conditions to a demand determined growth path. In the succeeding micro-level analysis it was observed how the labour entering the r n - f sector in ever-increasing numbers gets deployed among different activities at varying and different levels of productivity and remunerativeness as determined or conditioned by an interwoven complexity of factors : economic, agro-climatic, sociological, educational, institutional, tenurial and land availability. The opportunity structure in the r n - f sector results from this same complexity of factors. It emerged that in the deployment of the increasing labour supply among activities as determined by these factors, the insecure, the low productive and the low income activities fall to the lot of the economically weak, the assetless and the socially less privileged groups in rural society. Continuing with the same micro-level analysis it was observed how the households, try as they might to maximise or optimise certain household economic objectives by allocating their family labour to activities in the context of the highly variable and very complex social, personal and economic factors, fail to achieve either economic security or economic stability for their families. The weakness of the employment opportunity structure that has run through implicitly in these analyses becomes explicitly clear from the succeeding analysis of activity and occupational structures and patterns. The accompanying analysis of the factors in occupational/activity development and change over time has failed to reveal any forces at work to improve the opportunity structure as an integrated whole or even to arrest the deterioration affecting one section of it.

This analysis of the opportunity structure again brings demand to the centre because the reason for the weakness of the structure and the unhealthiness in its trend is found in a lack of effective demand. This fact comes out in sharp relief through the "poverty market" analysis and gets more generally established by the analysis of the different sources and types of demand. It is not only that incomes are too low to generate much demand but also that the demand tends to get diverted to sources of supply outside the r n - f sector. Thus emerging through the complexity of factors and determinants is a juxtaposition of increasing labour supply pressure in the r n - f sector and the weakness of its employment opportunity structure which is mainly due to a lack of effective demand. Past efforts at promoting r n - f activities, especially rural industries, have focussed on assisting production activities in various ways. Implicit in this approach is the belief that the main bottlenecks are on the supply side. The analysis in this study, however, arrives at the opposite conclusion that the main barrier is the lack of effective demand. What is needed therefore is to strengthen demand in the r n - f sector's market for goods and services and its market for labour. Demand needs to be made to increase in its quantity, quality and diversity in order that it may bring about corresponding

volume increases, quality improvements and diversifications in employment. Thus demand takes the central role and it has to be a development led by demand and supported adequately, timely and appropriately by supply side improvements. Promotion of demand requires a stimulation of income generating processes but both are encompassed in the same income/employment multiplier process in which demand streams criss-cross among different production sectors and sub-sectors stimulating incomes and spawning employment. To this interactive process we now turn.

The Interactive Process

At the centre of the proposed strategy for the promotion of rural employment is the interactive process as set out in the accompanying diagram. Briefly, the rural sector is divided into five sub-sectors: food grain agriculture (paddy and other cereals), non-grain food crops (other food crops, subsidiary food crops), non-food agriculture, non-crop farming (livestock, poultry, fishery) and non-farm sub-sector. Households and production units in each sub-sector buy from and sell to their counterparts in the other sub-sector. There are six expenditure streams that connect these sub-sectors in a network of linkages : demand for food grains, demand for other food crops and subsidiary food crops, demand for non-crop farm products, demand for non-food agricultural products, demand for non-farm goods and services, demand for annual and durable inputs for farming and demand for variable and durable inputs for non-farm production. Linkages that are weak should be strengthened and reinforced. Linkages that are strong should be exploited to obtain the maximum power from them for the interactive process. These linkages will then activate the employment/income multiplier and induce mutually reinforcing growth for the sub-sectors.

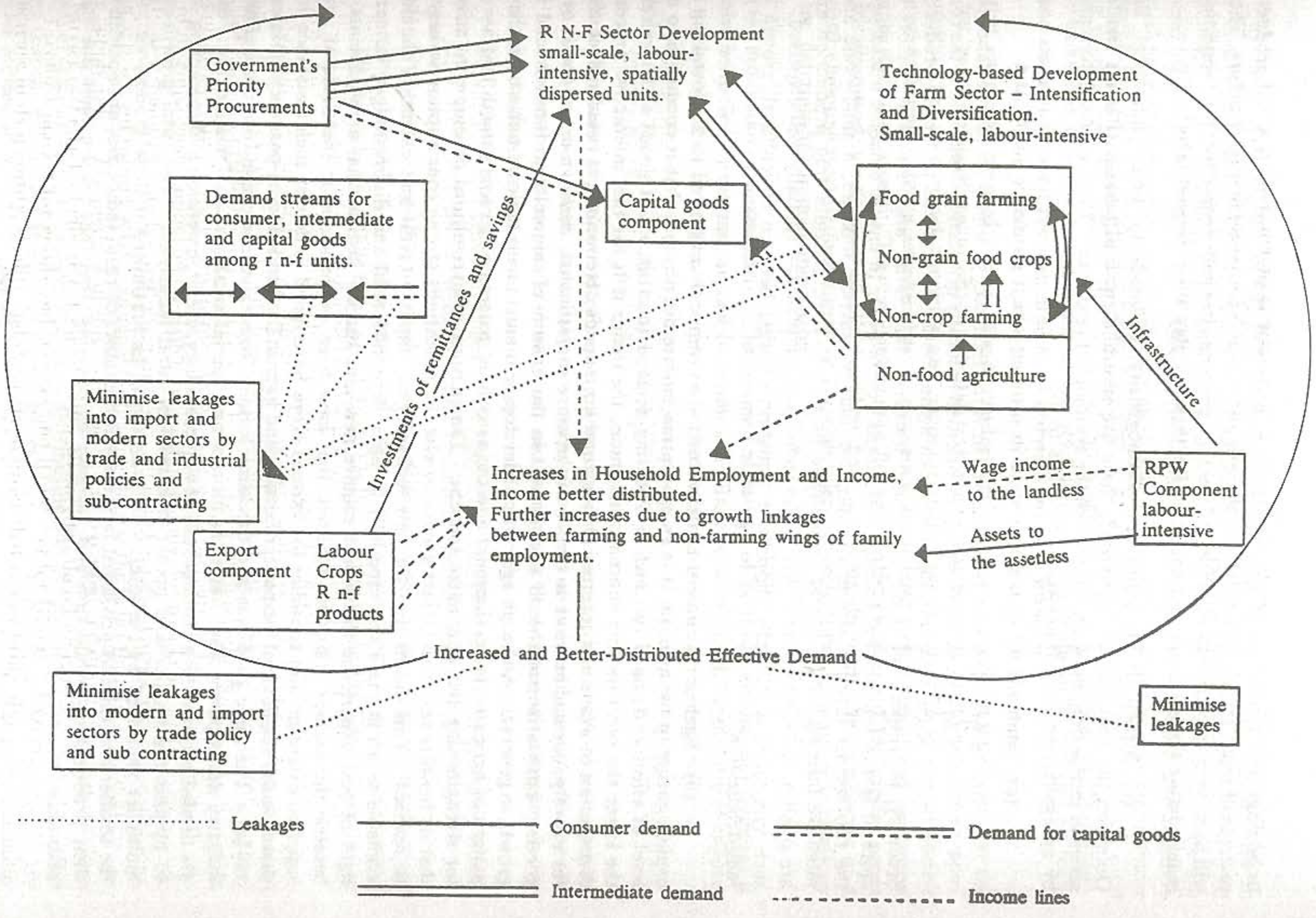
Since agriculture is the dominant activity in rural areas it is farm households that represent a major source of potential demand. Further, as will be seen below, there is great scope for bringing about significant increases in the volume and value of agricultural output. Hence it is the increasing of productivity and production in agriculture that must be the principal driving force or the prime mover of the interactive process and the strategy in general. The direct and, more importantly, the indirect linkages resulting from farm incomes and expenditures can swell the network of expenditure streams relating to food and non-food items of consumption and to production inputs and capital goods for both farming and r n - f activities. In this process there would occur a stimulation of income and employment in many diverse activities in a dynamic, highly interdependent and sequential manner. This would be accompanied by an acceleration of diversification in the range and structure of demand to produce a corresponding diversification in rural occupational patterns. The momentum of incremental demand from farm households would in due course entail occupational specialisation which would require higher levels of skills and bring higher returns to labour. Thus from this scenario is to be expected an occurrence of the twin processes of diversification and specialisation, including qualitative improvements in employment, which are the classic processes of growth and expansion.

Requisites Including Policy Measures for the Success of the Interactive Process

The interactive process can perform in the expected manner only if the milieu in which it operates comprises certain structural features, conditions, components and supportive policies of the appropriate types and conducive to its progress. All these play roles in determining the characteristics of the different variables and factors that can potentially give the interactive process its maximum strength and power. These variables and factors are: patterns of income and asset distribution, patterns of consumption and of incremental expenditures, origins and processes of income generation for the different socio-economic categories in rural society; product-mix, factor-mix,

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technology and techniques of production; size, scale and spatial distribution of production units; patterns of input use, intersectoral transactions and public investments in infrastructure. The analysis will now turn to an examination of certain prerequisites and requisites for conditioning and manipulating these factors and variables for them to play their desired roles.

(i) Structural Prerequisites : Homogeneity, Unimodality and Symmetrical Balance — Going on the East Asian experience*, there are several structural prerequisites for facilitating the series of interactions between sectors and the symbiosis it results in. First, deriving from and ensured by an egalitarian land framework there has to be

(a) unimodality in size and scale in farming which should be small, and

(b) a prevalence of homogeneity in farm technology which should be labour-intensive, in input use which should be oriented to locally producible items, and in the composition of consumption demand which again should be oriented to locally producible items.

Secondly, in respect of their structural features, the farm and non-farm sectors should be more or less in symmetrical balance. It means that in order to ensure dynamic interdependence of the two sectors through strong consumption and production linkages, a small-scale and labour-intensive farming sector should be matched by an r n - f sector containing production units which are small in scale, labour-intensive in the techniques adopted and spatially well dispersed. Through such symmetry, a mutually supportive equation emerges between agricultural growth and rural industrialisation.

(ii) Egalitarian Income Distribution — As implicitly suggested in the foregoing and made explicit earlier in the analysis, it is an egalitarian income distribution that is conducive to raising the level of effective demand for, and to orienting demand towards, r n - f goods and services. Hence the lower the rural income concentration ratio, the better it is for the interactive process. If the distribution of assets and incomes among rural households deteriorates, it could reduce the demand for r n - f goods and services in favour of the more sophisticated, modern/urban goods or imported goods. Egalitarianism should also prevail in the growth of agricultural incomes and in income growth in general. Although agricultural development must be the main stimulant, it is the particular pattern of agricultural development and the associated pattern of income growth that are important for strengthening the interactive process. The pattern of agricultural development must be such that its benefits reach all farmer groups or else the potentially strong consumption linkages may not be realised. This means that the new technologies, inputs, credit and extension should be made available to all farmers and especially to poor, less influential and disadvantaged farmers. In the light of past experience this would require new and special institutional arrangements. This is because the various assistance schemes that have been implemented in the fields of credit, input supplies, extension and subsidies for various crops have failed to deliver such assistance in their due shares to the smaller and the poorer farmers and have in fact tended to by-pass them (Hewavitharana, 1987a). The same problems and the same lessons from experience arise from past efforts at rural industry development also. Here again new and special arrangements for the delivery of assistance are needed because the assistance schemes in technology, credit, extension and marketing have tended to by-pass the smaller and poorer operators of rural industries. The rural growth-employment multiplier generated by the interactive process will be maximised if these groups, viz., the poorer, the smaller and the less privileged farmers and operators of rural industries, are enabled to increase their productivity, production and incomes by ensuring that they receive their due shares of the assistance.

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* As interpreted by Shand 1983, Saith, 1986.

(iii) Minimisation of Leakages — There are two major leakages, via expenditures on non-food consumer goods, variable and durable production inputs and capital goods, that need to be minimised so as to maximise the rural income/employment multiplier effects. One leakage is via expenditures on the products of the modern/urban large-scale sector. This needs the attention of industrial policies designed to encourage, promote and protect rural industries. A compromise that is possible for several industries is sub-contracting or ancillarisation arrangements between rural and urban production units. Such structural features would be a means of reducing the leakage. The other leakage is through expenditures on imported items. This needs to be reduced by trade policies and incentive structures sympathetic to domestic nascent industries.

(iv) A Component of Capital Goods Production — This is a special component that the r n - f sector must possess because of its potentially dynamic role in rural employment expansion. An expansion in the production, servicing and repair of capital goods is helpful to the interactive process in several ways. These activities have the potential to catalyse technological and innovative capability in the r n - f sector. They strengthen the linkages based on demand for capital goods required for farm and non-farm production. They help to create the requisite conditions of a homogeneous labour-intensive technology in farming and a symmetrical balance in technology between the farming and non-farming sectors.

(v) An Export Component — The demand streams can be made all the more vibrant if they can also be fuelled by incomes earned from abroad. Expansion of the different types of exports from the rural sector can be of dynamic support to the interactive process in several ways.

(a) Promotion of r n - f products would enable the r n - f sector to transcend the limits to expansion set by local demand.

(b) Expansion of the export of crops grown by small farmers and small-holders, such as minor export crops, subsidiary food crops and tree crop products, would increase the incomes of the households concerned and strengthen their expenditure streams in the interactive process.

(c) Facilitation and encouragement of the export of rural labour (out-migration) would also produce a similar effect on rural household incomes and demand.

(d) Out-migration of labour could have an additional expansionary effect on employment and demand if special institutional arrangements are made to guide and channel the remittances of out-migrants and the savings of returnees into investments in the r n - f sector.

(vi) R P Ws Integrated Into the Strategy — Agricultural development alone is not enough to increase rural household incomes and to stimulate the interactive process because there are many poor households without land. An r p w programme designed and time-scheduled to integrate with the strategy can offer a solution to this problem while producing three more effects that will also contribute to the interactive process. First, in generating incomes it will play a supplementary role to agricultural development by providing wage employment and incomes to landless labourers who would otherwise lag behind in effective demand. Secondly, it will create or improve the infrastructure needed for the agricultural development that is to take place. Thirdly, r p ws can be made to serve the purposes of egalitarianism in incomes and asset distribution and of providing assets to the assetless by ensuring that the productive assets they create, for example, fish ponds or common pastures, are managed and utilised as sources of income by the very landless worker groups that construct them.

(vii)' The Use of Appropriate Technology — The development of appropriate technology and its widespread use are of vital importance for the success of the interactive process for at least four reasons. First, it is the use of appropriate technology that introduces such capital goods whose production, servicing and repair are within the technological capability and potential of the r n - f sector. Secondly, it is also in the use of such technology that the requisites of homogeneity in technology and symmetrial balance between the two sectors will be fulfilled. Thirdly, the local demand streams for intermediate and capital goods and the linkages arising from them will be strengthened. Fourthly, the development of capital goods which are producible within the r n - f sector would be a very effective way of minimising the leakages of demand into the urban/modern and import sectors.

The Contents of the Agricultural and Industrial Development Needed for the Strategy

Increasing the level of farm incomes is the imperative for the strategy and there is much scope for achieving it through technology-based agricultural growth. . It has been estimated on the basis of yield gaps and the current level of intensity in resource use that the food crops sector performs only at 1/3 to 1/2 of its potential capacity (ILO - ARTEP, Feb. 1986). This potential has to be realised through the twin strategies of intensification and disverification. Intensification involves cropping intensity, multiple cropping, water management, adoption of scientific farm practices such as improved seed and plant varieties, use of both organic and inorganic manure, transplanting, weed control and shifting from labour-saving to labour-using techniques. Diversification involves moving from paddy to other field crops of high value, mixed cropping, intercropping and integrated farming with combinations of crops, livestock, fishery and acquaculture. A major aim of these efforts should be to increase the monetary component of farm income by orienting increasing proportions of small holdings and their production to sales outside. This is of vital importance for widening the market for r n - f products and strengthening intersectoral linkages. Encouragement of cash crops such as subsidiary food crops and minor export crops and the introduction of new ones should therefore receive high priority. There is much scope for commercialisation of farms in this manner because only about one third of the small holdings is reported to be producing mainly for sale (C of A, 1982). Besides raising farm productivity and incomes, the contents of these twin strategies would strengthen both backward (inputs, implements) and forward (materials for processing or manufacture) linkages with industry. They will also strengthen consumption linkages as in the case of a shift to food items for which the expenditure elasticities are high.

Of specific concern for development efforts and particularly for research efforts should be the highland holdings which seem to have lagged behind the lowlands in productivity increases. A case in point is the need for replacement of low-intensive, low-productivity *chena* cultivation by a high-intensive, settled system of cultivation. The development of highland holdings is of critical importance to the strategy of the employment-income multiplier for several reasons. These holdings are very important in small-holder agriculture. Forty per cent of all small-holdings are only home gardens and 75% have home gardens. For the poor and the land-poor their highland portions or home gardens are their most valuable assets. Thus to raise the productivity of these lands is to raise the incomes of the households the strengthening of whose consumption linkages is of crucial importance for the success of the interactive process.

In the Sri Lankan context of a sizeable landless labour force, there is the need for simultaneous intersectoral planning for rural industries as a part of the policy of industrialisation in general. This is because the situation demands that rural industries should be viewed in a perspective wider than one that limits it to the needs and opportunities provided by agricultural

growth. The production constraints arising from finance, inputs, marketing and extension need to be overcome. However, these problems are not independent and should not be treated in isolation. The financial problem in particular is often the cause of the other problems in technology improvement, input supplies and marketing.

Characteristics and Potentials of the Linkages

The extent of its theoretically possible employment/income generation that an interactive process can in practice achieve depends on the strengths and potentials of the various demand streams and the linkages derived from them. The analysis will therefore now move from the theoretical to the empirical sphere to examine the nature of the various demand-derived linkages and to assess their strengths. The income elasticities of demand or the incremental expenditure patterns for the different types of goods and services will be examined in order to throw light on the potentials and prospects for their demand streams. From the assessments of the strengths of the various linkages will emerge possible means of forging new ones, strengthening weak ones and reinforcing others.

(i) Linkages derived from demand for food grains — Although the expenditure elasticity for rice is very low, it varies for different income levels as estimated on the log-log quadratic function. Thus in the rural sector it is at 0.45 for the per capita monthly expenditure level of Rs. 75 representing the 20th income percentile as compared to 0.13 at the level of Rs. 200 representing the 90th income percentile (Alderman et al. 1980). Again, the quantity of per capita rice consumption rises by about 70% between the lowest and the lower middle-class income levels according to one survey (LFSES, 1980/81) and by 45% according to another (CFS, 1981/82). These data suggest that the expenditure on grain would rise substantially as the incomes of the poorer classes rise. It will in turn stimulate production by farmers and raise their incomes. Thus changes in the income distribution pattern under the impact of the strategy together with the differences in the consumption behaviour of different expenditure classes will have a feedback effect on the interactive process.

(ii) Linkages derived from demand for non-grain good crops — This group is led by pulses with an expenditure elasticity of 0.61 for the rural poor and of 0.57 for the rural sector as a whole (de Alwis, 1986). Between the lowest income level and the middle class income level in the rural sector, per capita consumption of pulses rises by three times and of fruits by more than three times, but the rise in that of vegetables, except leafy vegetables, is very modest (LFSES, 1980/81). Demand expansion is imperative for increasing the production of the crops known as "other food crops" or "subsidiary food crops" because in the long run the demand constraint arising from low incomes may well prove to be the main obstacle to their expansion. The demand for them could be supported by improving the marketing and distribution channels for these crops which are notoriously weak. New demand for these crops could be generated by encouraging : (a) the intermediate demand for fodder from an expanding livestock industry, (b) the export of these commodities, and (c) the intermediate demand for them from expanding food processing and agro-industries. This sub-sector should be treated as one which has a potential for benefiting incremental expenditures.

(iii) Linkages derived from the demand for non-crop farm products — Meat, eggs, and milk with demand elasticities close to or exceeding unity are "luxury" items in the rural sector. For the rural lower income classes the expenditure elasticities for these commodities are very high making them "super luxuries", and the per capita expenditure on them and also on fruits is either negligible or nil. The incremental expenditure on fish is also high, with an increase in per capita consumption by three times as incomes rise from the lowest to the lower middle class level (LFSES, 1980/81). The potentially buoyant market for these products also implies the following : a good potential for agricultural diversification, a potentially large derived demand for these crops and by-products used for livestock feed and good prospects for rural industries in milk products, edible oils, animal feed, and for bee-keeping and drying of fish.

(iv) Linkages derived from consumption demand for non-farm goods and services — In a preceding section the magnitude of demand for non-food items and the income-classwise pattern of demand for the products of rural industries were observed. High income elasticities of demand for non-food items are normally observed for the rural sector. Housing, clothing and education have elasticities very close to unity while transport services stand to benefit from an elasticity which is greater than unity (estimated by de Alwis, 1986). An increase in rural household income by 150%, representing a movement from a position above poverty line to a position above the lower middle class level, is associated with a 192% rise in the per capita expenditure on non-durables comprising clothing, linen, mats, brooms, carpets, footwear and umbrellas, and with an increase by 217% on laundry services (estimated from CFS, Part II, 1981). The demand elasticity for consumer durables which include such items as radios, refrigerators, sewing machines and bicycles is very high at 3.56. Unfortunately none of these items has any employment potential in manufacture or assembly in rural areas without a very ambitious programme of rural industrialisation. Village-level servicing and repair, however, are a likely possibility for items such as bicycles, radios and sewing machines if supported by a programme for training in the requisite skills.

Studies for India have shown that the impetus rural industries may receive from agricultural development is much more importantly through the indirect linkages of rises in income and demand levels and in investible surpluses than through any direct backward or forward linkages (Papola, 1986). The Indian experience is also that agricultural growth and rising incomes may not necessarily cause an increase in the number of industrial units and in the number employed, but would more likely improve the productivity (value added) of the units and of their workers by causing changes in the size of units, technology, mode of production, product pattern and even in the entrepreneur class. Consumption linkages will have much scope for producing such effects in the Sri Lankan situation, in which rural industries display extremes in productivity and contain industries trapped at low-level equilibrium.

(v) Linkages derived from demand for farm tools and equipment — How the forward linkages of the r n - f sector with the farm sector in the supply of farm tools and equipment have been weakened by the particular pattern of modernisation in agriculture was noted earlier. Yet, with a correct choice of techniques and a development of appropriate technology new linkages based on capital goods can be forged between these two sectors. Farm implements and equipment that would be appropriate under Sri Lankan circumstances are improved ploughs, improved mammoties, two-wheeled tractors for certain areas, portable threshers and winnowing fans, irrigation pumps, hand-operated weeders and other manually operated implements. It is seen that as the size of farms rises from below 2 acres to 3-4 acres, the number of ploughs and winnowing fans per 100 holdings increases by 5 times and of threshers by 3 times (AC, SH, 1982). This scale may be taken as a partial

representation of incremental income related demand for these items with due allowances for the land size effect. It is also seen that the proportion of holdings in the small-holdings sector using these items (weeders, winnowing fans, irrigation pumps and threshers) is below 5% and that users own only a small proportion of these items, except irrigation pumps, obtaining the rest on hire or exchange. There is thus a demand potential for these items which r n - f enterprises may tap wholly by manufacturing them or partially by manufacturing their components under sub-contracting arrangements.

(vi) Linkages derived from demand for intermediate goods and services — The present status of the backward linkages of farms (the forward linkages of the r n - f sector), the demand potentials and the policies needed to reinforce or create such linkages were identified in a preceding section. The forward linkages of farms are also weaker than expected (Sethuraman et al. 1983). Agro-based and processing industries are not extensive. Weak backward and not so strong forward linkages are only to be expected from traditional agriculture. But as agriculture intensifies and diversifies with the implementation of the strategy, new linkages will emerge. The forward linkages will be reinforced by the diversification process, in particular, by the development of highland cultivation and integrated farming systems. Livestock, at present found only in 6% of the small-holdings, has strong backward and forward linkages. Integrated crop-livestock farming in small-holder situations is considered to be a highly viable proposition (Gunasena et al. 1986).

Growth Linkages Between Farming and Non - farming in Support of the Interactive Process

Externalities and Locality Improvements. - - The agricultural development envisaged in the strategy would generate certain growth linkages in the forms of externalities and general impact of improvements to localities. These, however, fail to get meaningfully incorporated in the Leontief type input-output models which attempt to accommodate only the intersectoral or interindustry backward and forward linkages. Such externalities and general localised effects such as improvements in communications, infrastructure, distribution and links with urban areas can help in a significant way, as the Indian experience shows, to raise productivity in the industries in the localities concerned.

Growth Linkages at the Micro or the Household Level Between Farming and Non–farming.—There are some very interesting linkages, actual or potential, between farming and non-farming activities at the household level that can enhance very significantly the dynamism of the interactive process and the rural growth-employment multiplier. In a study of some villages, a correlation was observed between the adoption of high productivity farm techniques by households and the availability to them of secure and remunerative non-farm employment. Although the several small-holder crops offered good prospects of profit and government assistance was available for their development, it was mostly those households that had enough resources derived from r n - f activities to underwrite the risks involved in adopting the new techniques as well as to bridge the waiting period during gestation, that actually utilised government assistance and developed their crops. Most others, who were without the confidence and resources provided by an assured outside income, either neglected to develop their holdings or leaned on to exploitative middlemen who then assumed the risks (Morrison et al. 1979). The two inferences from these findings are that weak family non-farm employment is associated with low productivity in the family farm, signifying a low-level trap situation, and that a strengthening of the family non-farm employment could lead to increased productivity in the family farm.

Variations in the absorption of advanced technology by paddy farmers lend further support to these two inferences. It has been observed that small/mini paddy farmers have failed to realise the full yield potential of the improved technology package because, lacking in resources, they tend to cut down on the necessary but costly inputs. Their lack of resources is partly due to their low productivity farming and partly to the low remuneration from the casual and intermittent non-farm employment that they perforce undertake. Government credit assistance cannot bridge their resource gap because, having defaulted on earlier loans, they are ineligible for any new ones and have been pronounced uncreditworthy. Thus they are in a vicious circle, which in many instances will be broken if they are provided with strong non-farm employment opportunities (Hewavitharana 1986). What the above two cases show is that there is nothing inherently wrong in part-time farming and that its productivity depends much on how strong the non-farm employment component is. Given a strong non-farm employment component, a small mini-farm family can advance its farming and non-farming activities aided by a mutually beneficial interaction between the two. In Thailand agriculture and cottage industries are mutually supportive because surpluses generated in one are ploughed back into the other (Romijn, 1987).

Strategies and Action at the Micro Level

Within the context of the approaches at the macro and sectoral levels outlined above strategies and action programmes have to be devised and implemented at the micro level. But this poses a serious problem. This is because rural non-farm activities, due to the great diversity of tasks that the poor carry out for their livelihood, embrace a large, amorphous and complex field. There is the difficulty of identifying, categorising and delimiting many of them on a national scale for any specific action programmes. This problem is complicated by the compartmentalisation of responsibilities within the government on a sectoral basis and the usual difficulties of inter-departmental dialogue and co-ordination. The problem is even further aggravated by the presence of a bewildering number of ministries, departments and agencies that are in one way or another engaged in rural development and industrial development.

The way to resolve these problems is to delimit the rural non-farm sector development issues on a geographical basis, and to give recognition to them within the framework of District Integrated Rural Development. Within this framework it should be possible to

(a) plan the spatial aspects of development such as the locations for different activities, rural towns to serve as "growth poles" and rural road networks,

(b) plan the development of infrastructure required for the area,

(c) devise intervention and assistance schemes and co-ordinate them among government agencies, financial institutions and NGOs in relation to credit and marketing facilities, supply of materials, technology and skill development, and

(d) promote organisational systems such as group-based non-farm activities which are essential to overcome many of the supply side constraints.

Non-farm activities have to be developed at local level with reference to local needs and with a mobilisation of local resources. This entails the need for setting up local organisations to facilitate the participation of the people of the localities in decision making and implementation.

REFERENCES

AC, SH, 1982, *Agricultural Census, Small Holdings Sector, Colombo*, 1982.

Alderman, H. and Timmer, C.P., "Consumption Parameters in Sri Lankan Food Policy Analysis", *Sri Lanka Journal of Agrarian Studies*, Vol. 1, No. 2, 1980.

ARTI, *The Agrarian Situation Relating to Paddy Cultivation*, Kandy District, May 1974; Hambantota District, Feb. 1974; Anuradhapura District, July 1975; Polonnaruwa District, Feb. 1975; Colombo District, Aug. 1977.

ARTI, *Economic Survey of the Beminiwatta APC Area*, 1975.

ARTI, *The Agrarian Situation Relating to Paddy Cultivation, Comparative Analysis*, December 1975.

ARTI, *An Analysis of the Pre-Mahaweli Situation in H4 and H5 Areas in Kala Oya Basin*, 1979.

ARTI, *Kurunegala District Rural Development Project; An Analysis of the Pre-project Situation*, 1981.

ARTI, *Shifting Farming-Towards Stability*, Febtuary 1986.

Central Bank of Ceylon, *Survey of Economic Conditions of Mahaweli Development Area*, 1974.

C of A — *Census of Agriculture*, Colombo, 1982.

CFS — *Consumer Finances Survey*, 1981/82, Part II, Central Bank of Ceylon.

Deraniyagala, C. et al., *Qualifications and Employment in Sri Lanka*, IDS and NIM, Colombo, 1978.

de Alwis, A.S., "A Comparison of Sector-wise Income and Household Size Elasticities and Demand Projections", *Survey Analysis Series*, Central Bank of Ceylon, August 1986.

Fabella, R.V., "Rural Manufacturing in the Philippines : Contributions and Determinants" in Islam, ed. New Delhi, 1987.

Gaminiratna, K.H.W., "Urbanisation in Sri Lanka", Australian National University, Mimeo, 1977.

Gooneratna, W. et al., "Poverty and Inequality in Rural Sri Lanka" in *Poverty in Rural Asia*, ed. A. R. Khan and E. Lee, ILO - ARTEP, Bangkok, 1984.

Gunadasa, J.M. et al., *Socio-Economic Survey of Minor Irrigation in the Dry Zone of Sri Lanka*, University of Peradeniya, 1980.

Gunasena, H.P.M. et al., ed., *Integrated Farming System*, 1986.

Gunawardana, P.J. et al., "Strategies for Rural Employment in Sri Lanka", Mimeo, 1981.

Herath, H.M.G., "An Exploratory Study of Off-farm Employment and Incomes, Sri Lanka", Paper at the Conference on Off-farm Employment in Rural Asia, Chiang Mai, Thailand, 1983.

Hesselberg, J., *Artisan Production : The Case of Puwakdandawa Village*, University of Oslo, 1980.

Hewavitharana, B., *Industrialisation, Employment and Basic Needs; The Case of Sri Lanka*, ILO, Geneva, 1986.

Hewavitharana, B., "Rural Employment Creation in Sri Lanka : Problems, Programmes and a Strategy for the Future", *Sri Lanka Economic Journal*, April 1987a.

Hewavitharana, B., *Non-farm Employment in Rural Asia : An Overview*, CIRDAP, Dhaka, 1987b.

Ho, S.P.S., "Off-farm Employment and Farm Households in Taiwan", Paper at the Conference on Off-farm Employment, Chiang Mai, Thailand, 1983.

Hossain, M.,- "Employment Generation Through Cottage Industries — Potentials and Constraints : The Case of Bangladesh," in *Rural Industrialisation and Employment in Asia*, ed. R. Islam, ILO - ARTEP, New Delhi, 1987.

Hymer, S. and S. Resnick, "A Model of an Agrarian Economy with Non-Agricultural Activities", *American Economic Review*, 59(4), 1969.

ILO, *Promotion of Employment and Income for the Rural Poor, Including Rural Women, Through Non-farm Activities*, ILO/ACRD, Geneva, 1983.

ILO - ARTEP, *Impact of Out and Return Migration on Domestic Employment in Sri Lanka*, New Delhi, 1985.

ILO - ARTEP, *Sri Lanka : Employment and Development in the Domestic Food Crop Sector*, New Delhi, February, 1986.

ILO - ARTEP, *The Impact of Import Liberalisation on the Small Scale and Rural Industries of Sri Lanka*, New Delhi, 1986.

ILO - ARTEP, *Rural Industries and Employment in Sri Lanka*, New Delhi, 1987.

Ishikawa, S., *Labour Absorption in Asian Agriculture*, ILO - ARTEP, Bangkok, 1978.

Islam, R., "Non-farm Employment in Rural Asia : Issues and Evidence", Paper at the Conference on Off-farm Employment, Chiang, Mai, Thailand, 1983.

Islam, R., ed. *Rural Industrialisation and Employment in Asia*, ILO - ARTEP, New Delhi, 1987.

Jayaweera, S., "Women in the Economy", in *Status of Women in Sri Lanka*, University of Colombo, 1979.

Johnstone, B.F. and P. Killby, *Agriculture and Structural Transformation*, O.U.P., 1975.

Kaldor, N. Chapter on, Characteristics of Economic Development, in *Essays on Economic Stability and Growth*, Illinois, 1954.

Khan, A.R., and J. M. Gunadasa, *Small Farmer Credit*, ARTI, 1974.

Korale, R.B.M., "Middle East Migration : The Sri Lankan Experience", in *International Migration in the Pacific, Sri Lanka and Thailand*, ESCAP, Bangkok, 1985.

LFS — *Labour Force Survey*, 1968, Department of Census and Statistics, Colombo.

LFSES — *Labour Force and Socio-Economic Survey* 1980/81, Department of Census and Statistics, Colombo.

Liyanage, D., *Development Plan for Sri Lanka Handicrafts*, Colombo, 1978.

MDB — Mahaweli Development Board, *Kala Oya Left Bank Socio-Economic Survey, Block* 301, Mimeo, 1973.

Marga Institute, *Analytical Description of Poverty in Sri Lanka*, 1978.

Marga Institute, *Migrant Workers to the Arab World*, 1986.

Mellor, J.W., *The New Economics of Growth*, Cornell University Press, 1976.

MOFP — Ministry of Finance and Planning, *Public Investment Programme* 1981-85, Colombo, 1981.

Moore, M.P., et al., "Land Policy and Village Expansion in Sri Lanka", *Marga*, Vol. 5, No. 1, 1978.

Moore, M.P. et. al., *Agriculture and Society in the Low Country, Sri Lanka*, ARTI, 1980.

Morrison, B. et al., *The Disintegrating Village*, Colombo, 1979.

Muqtada, M., "Evaluation of Special Employment Creation Programmes" in *Rural Employment Creation in Asia and* the *Pacific*, ADB, Manila, 1987.

Oshima, H.T., "Labour Force Explosion and its Relevance for Post-war Asian Growth", *Economic Development and Cultural Change*, January 1971.

Papola, T.S., *Rural Industrialisation and Agricultural Growth*, ILO - ARTEP, New Delhi, 1986.

Paranavitana, C., "Land Hunger, Agrarian Changes and Government Policies : A Comparative Study of Nine Villages in Sri Lanka, 1955-1980", *Marga*, Vol. 8, No. 1, 1985.

People's Bank, "Unemployment, Job Expectations Among Youth", *Economic Review*, July 1977.

Perera, U.L.J. et al., "Hired Labour in Peasant Agriculture in Sri Lanka", ARTI Discussion Paper, Mimeo, 1980.

Resnick, S. "The Decline of Rural Industries Under Export Expansion : A Comparison Among Burma, Philippines and Thailand, 1870-1938", *Journal of Economic History*, 30, 1970.

Richards, P.J., "Basic Needs and Income Distribution in Sri Lanka", in *Employment, Resource Mobilisation* and *Basic Needs Through Local Level Planning*, ILO - ARTEP, Bangkok, 1979.

Romijn, H.A., "Employment Generation Through Cottage Industries, in Rural Thailand : Potentials and Constraints", in *Rural Industrialisation and Employment in Asia*, ed. R. Islam, ILO - ARTEP, New Delhi, 1987.

Saith, A., *Contrasting Experiences in Rural Industrialisation : Are the East Asian Successes Transferable*? ILO - ARTEP, New Delhi, 1986.

SES — *Socio-Economic Survey of Sri Lanka*, 1969-70, Vol. II. Colombo.

Sethuraman, S.V. and P. Bangasser, *Rural Small Industries and Employment in Sri Lanka*, ILO, Geneva, 1983.

Shand, R.T., "The Role of Off-farm Employment in the Development of Rural Asia", Paper at the Conference on Off-farm Employment, Chiang Mai, Thailand, 1983.

SHEA — *Survey of Household Economic Activities*, 1984-85. Department of Census and Statistics, Colombo.

Sirisena, W.M., "Invisible Labour : A Study of Women's Contribution to Agriculture in Two Traditional Villages in the Dry Zone of Sri Lanka", *Modern Sri Lanka Studies*, Vol. 1, No. 2, 1986.

Stewart, F. "Capital Goods in Developing Countries", in Cairncross, A. and M. Puri, eds. *Employment, Income Distribution and Development Strategy*, London, 1976.

Visaria, P., *Some Aspects of Relative Poverty in Sri Lanka* 1969-70, Joint ESCAP/IBRD Project Working Paper, No. 5, Aug. 1979, Mimeo.

Wickramasekera, P., "Aspects of Hired Labour Situation in Rural Sri Lanka : Some Preliminary Findings", Institute of Developing Economies, Tokyo, 1977.

Wickramasekera, P., *Labour Absorption in Paddy Cultivation in Sri Lanka*, ILO - ARTEP, Bangkok, 1979.

Wickramasekera, P., *Expansion of Employment and Income Through Local Resource Mobilisation*, ILO - ARTEP, Bangkok, 1983.

Wickramasekera, P., "An Analysis of Cropping Intensities in the Paddy Sector of Sri Lanka", *Sri Lanka Journal of Agrarian Studies*, Vol. 5, No. 1, June 1984.

Wijayaratna, C.M., et al., *A Study of Income Generating Activities for Farm Women*, ARTI, 1978.