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**DEVELOPMENT AND DIVERSIFICATION  
OF RURAL INDUSTRIAL ACTIVITIES  
IN DEVELOPING COUNTRIES**

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**DEVELOPMENT AND DIVERSIFICATION OF RURAL  
INDUSTRIAL ACTIVITIES IN DEVELOPING COUNTRIES**

**1. Conceptual and definitional considerations**

1.1 In discussing rural industry or 'rural small industrial enterprise' (RSIE) or in proposing its promotion, it is important to be clear what we mean by it.

1.2 Small and medium industry may be defined on the basis of either employment or capital (i.e. inputs), though for reasons of data availability, especially, numbers employed is the most common. The boundaries selected in terms of numbers employed vary widely, however, among users. A common denominator is probably:

- 0-9 Micro-enterprise (enterprises in this category are, as it happens, concentrated in the range 0-4)
- 10-49 Small industry or enterprise
- 50-99 Medium industry or enterprise
- 100 and over Large industry or enterprise

'Small industry' is sometimes taken to encompass micro-enterprise establishments as a sub-category. The above categories are based solely on the criterion of scale, and may be rural or urban.

1.3 We may refer generally to SSEs (small scale enterprises) or specifically to SSIEs (small scale industrial enterprises). The former includes enterprises in trade (wholesale and retail), catering (hotels, cafes, bars, restaurants) and services (including transport), as well as other sectors such as mining and construction. Non-manufacturing SSEs may account for 70-85 per cent of the total, with trade accounting for as much as 50 per cent in some cases. Hence if we are concerned with creating employment, it would be a mistake to focus only on manufacturing SSEs, and promotional programmes should be much wider and appropriate in nature to the different requirements of each sector.

1.4 Rural industry may be either small (including micro), medium or large scale, so we may refer specifically to RSIE (Rural Small Scale Industry). The term 'rural industry' refers only to location: it is different from agro-industry or agro-allied industry which may be located in rural or urban areas. Rural industry is also a wider category than rural agro-industry since it embraces non-agriculture-linked industries. Agro-allied industry may also be small, medium or large scale.

1.5 It may be divided into agro-based industry and agro-oriented industry. The former includes agricultural processing industry and other forward linkages from agriculture, livestock and fisheries. Forest-based industries are sometimes also included under this head but should probably be included separately as resource-based industry along with those derived from mining or from quarrying, including the production of bricks and tiles. A large part of rural industry is agriculture-based or natural resource-based.

1.6 Agro-oriented industry refers to backward linkages from agriculture, involved in the manufacture of agricultural inputs, such as animal feed or fertiliser, and agricultural implements, including their repair.

1.7 In trying to estimate the importance of rural non-farm enterprise, statisticians have collected data relating to rural household income, separating this into farm and non-farm income, the latter derived from non-farm activities. Frequently confusion arises between 'off-farm income' and 'non-farm income', While the latter could include income from wage employment on other people's farms, non-farm income should include only income from self-employment outside farming or wage employment outside agriculture or other primary activity.

1.8 There is sometimes ambiguity regarding what is subsumed under the heading of non-farm activities. For example, frequent reference is made to the positive experience of the Grameen Bank in Bangladesh in extending credit for non-farm activities. The activities supported in fact include cow-fattening, fishpond cultivation and gardening, which would not fall under this head. Rural credit institutions targeting female-headed or other poor rural households may well find that these activities do represent the most suitable ones to assist: it is entirely appropriate that such institutions define their goals as aiming to support viable activities, whether farm or non-farm.

1.9 Non-farm activity may be in manufacturing or, as already indicated, in trade, services or catering. Manufacturing activities will be smaller components of the total, compared with non-manufacturing.

1.10 Non-farm employment may consist either of part-time or full-time household or cottage industry, carried on in or near to the household, or of employment in independent small enterprises, located in rural market centres or towns.

1.11 Since development plans and action programmes frequently assert a desire to promote rural industry, and consequently limit eligibility for assistance under such plans and programmes to enterprises which are judged to fall under this head, it is important to decide what is 'rural' in this context. A U.N. definition specifies as 'rural towns' those with populations up to 20,000 people, and this has been adopted by others: however, the recent UNDP/GON/ILO/UNIDO report (1988) takes as RSIE that which is located in towns below 20,000 in size or in bigger towns 'if these retain the characteristics of smaller towns'. A recent IFAD mission to Kenya found that small scale enterprises in much larger towns than this were closely related to the surrounding rural areas in a number of ways.

## 2. Data needs and problems

2.1 Most efforts to formulate proposals for the development of

rural, small scale or cottage/household industry or enterprise as a whole encounter a general lack of the required statistical information.

2.2 What has been collected often suffers from failure to make or follow clear definitions or distinctions as above, sometimes rendering the data unusable or misleading.

2.3 Coverage is a particular problem. Surveys of enterprises usually are based on enterprises found at market centres and leave out dispersed rural manufacturing activities, particularly those based on natural resources such as saw-milling or brick and tile production, or, if they are surveys of non-manufacturing enterprises also, construction and transport activities. Household enterprises will usually be omitted or seriously underestimated. For these reasons estimates of non-farm employment and income based on household survey data generally diverge from those based on enterprise surveys.

2.4 Cost limitations generally lead to a number of surveys, often covering limited areas, with very different coverages and sampling frames.

### 3. Structure and characteristics of rural industry

#### (a) Quantitative importance

3.1 Given the many categories of non-farm activities, manufacturing and non-manufacturing, rural and urban, small and large scale, household and non-household, just described, it becomes quite difficult to find systematic and unambiguous data detailing the precise quantitative importance of each.

3.2 Rural households depend to a very large extent on non-farm as well as farm income. Referring to a sample of five representative countries (N. Nigeria, Sierra Leone, Taiwan, Thailand and Korea) (Table 1), for instance, Kilby concludes that the non-farm sector may amount in importance, as far as income is concerned, to as much as a half or three quarters of that of the farm sector.

3.3 What is often forgotten is that a large part of non-farm income, as in this case, consists of trade, services, including catering, and other non-manufacturing activity. Also included is non-farm income obtained outside farming but as a secondary activity. Figures showing the proportion of the labour force engaged outside agriculture as a primary occupation are still significant, between 18 and 33 per cent (Table 2A), suggesting proportions of the rural labour force engaged in manufacturing, however, of perhaps 6-10 per cent (Table 2B). More recent data collected by Islam supports this (Table 3). These suggest percentages of the rural labour force engaged in non-farm activity of 20-28 per cent in Africa and 20-50 per cent in Asia, with participation in manufacturing of 3-8 per cent in Africa and 5-15 per cent in Asia, that is, a ratio of total non-farm activity to manufacturing of between 3 and 5 to 1.

3.4 A striking feature of both urban and rural SSEs, manufacturing and non-manufacturing, is the predominance of micro-enterprises. The recent UNDP/GON/ILO/UNIDO review, commenting on the composition of RSIEs specifically, notes that the 'overwhelming bulk of enterprises employ less than 5 persons, with less than 10 per cent in the small industry category, defined here as with 5-25 employees. Data collated by Liedholm and Mead (1987, Table 4) equally show the bulk of employment being provided either by medium/large firms with 50 or more employees or by micro-enterprises. Evidence from the Middle East (UNIDO, 1990, forthcoming) is similar.

(b) Efficiency and growth in the small scale manufacturing sector

3.5 A further feature which has been observed (Livingstone, 1984) is that employment in the sector expands very largely through an increase in the number of micro-enterprises, still employing no more than 2 or 3 persons, rather than through any increase in size of existing establishments, the sector representing, in effect, a form of self-employment. Different data put together by Liedholm and Parker (1989) indicate similarly that micro-enterprises generally do not expand in size over the years. Thus a re-survey in 1980 of manufacturing micro-enterprises enumerated in 1974 found that none of the establishments in the villages (in Northern Nigeria) had expanded at all, 13 per cent of those in rural towns had, and 31 per cent of those in urban centres had taken on more workers. This indicates some growth of firms, but in urban areas only.

3.6 While the majority of micro-enterprises do not grow in size, it remains possible that those small-scale industrial enterprises which do exist have emerged from their ranks. This does appear to have happened to a significant extent, much more so in Asia, and in India particularly (Table 5), where 66 per cent of a sample of firms now employing 11 or more employees started as micro-enterprises [1]: not so much in Africa (see also World Bank, 1987), though the Nigerian figure is nearer to that of, for example, the Philippines, reflecting the weaker dichotomy between formal and informal sectors in that country.

3.7 In addition to this potential, it is also the case that, even if the size of the individual establishment does not increase, employment in the sector based on one or two-person establishments can still expand in impressive fashion. This is demonstrated in Kenya (Table 6), one of the few countries which maintains a regular statistical series covering informal sector enterprises. Over the period 1985-86 employment in small-scale manufacturing enterprises grew at an annual average rate of 15 per cent.

3.8 There is an important issue here, which needs to be considered in the context of individual countries. Should the main promotional effort be directed towards micro-enterprises or to 'modern' small industry, or both, taking into account that the nature of any assistance required in the two cases is likely to be quite different? Farbman and Lessik (1989), for instance, recommend that for micro-enterprises an 'incrementalist' promotional approach should be pursued while for small enterprises a 'business development approach'

is possible, with survival activities at the bottom end of the informal sector requiring a 'community development approach'.

3.9 Governments are more likely to associate development with at least minimum-sized firms and thus to concentrate their efforts here, as has certainly been the case: the rate of return to such efforts may be lower, in fact, and some countries, such as Kenya, which have experienced this are beginning to re-orient their policies. In Bangladesh considerable interest has been directed in recent years towards providing credit for the rural informal sector, as discussed below.

(c) Backward and forward linkages

3.10 An important part of the case for emphasising rural industries is their potential linkages with each other and with other sectors - particularly in comparison with, for example, import-substitution industries. Many rural industries, and other non-farm activities, cater for the local rural population so that, even without direct input-output linkages, they are demand-linked, their level depending directly on the level of agricultural incomes.

3.11 As noted previously those with direct input-output linkages with agriculture may be either agro-oriented or agro-based. These can be quite rich: in Pakistan, for example, agro-oriented industries, including fertilisers, tractors, agricultural implements, threshers, tubewells and surface pumps, account for 10 per cent of the total value of manufacturing output in 1986-7. Agro-based industries include grain-milling, sugar manufacture, leather tanning, cotton textiles, carpets and rugs, oil, especially cottonseed extraction, fruit processing, beverage-making, fish processing, guar gum and tobacco products (Choudhury, 1988): accounting for some 40 per cent of manufacturing output. Reviewing agro-industry in Pakistan, India and Malaysia, Choudhury observes that all types of agro-industries - not just small-scale - constitute a basic segment of manufacturing industry in all three countries.

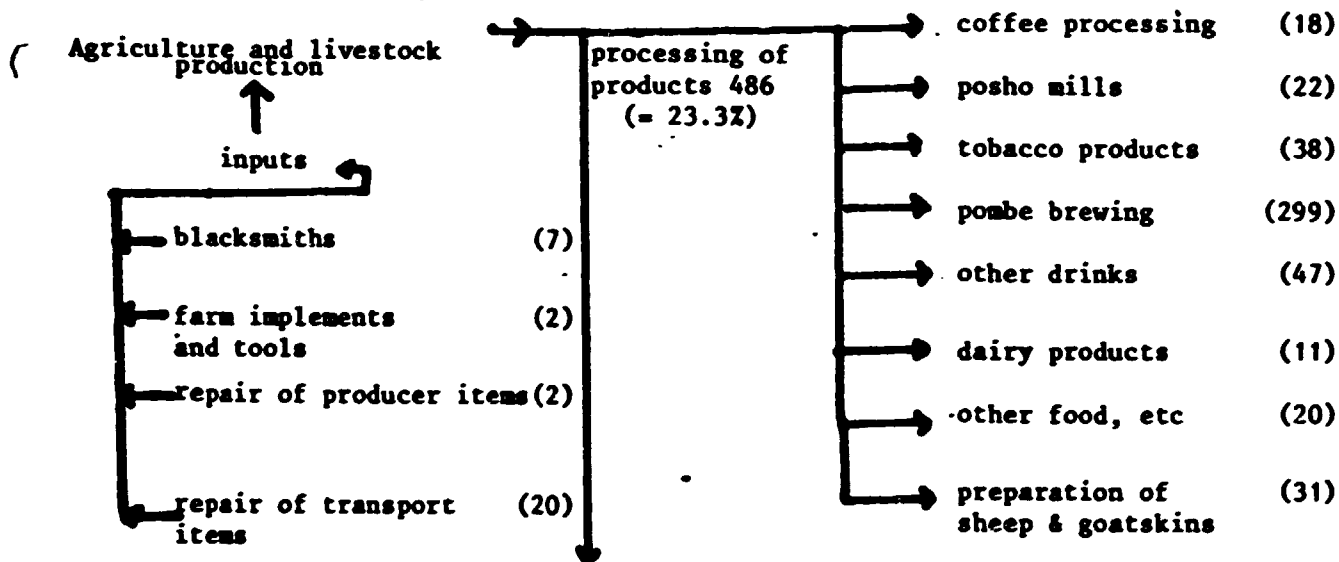
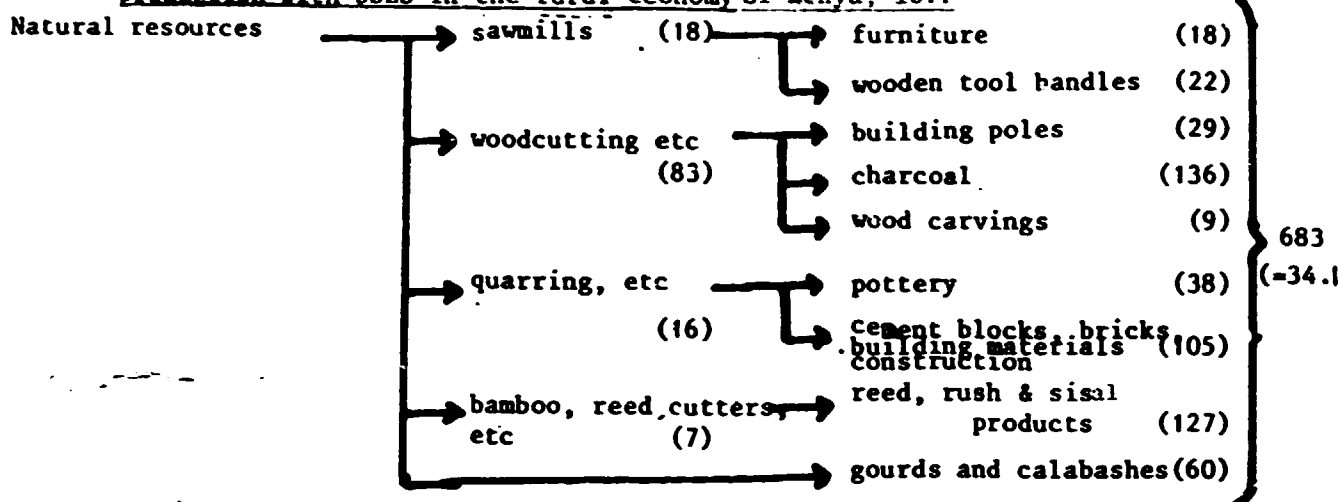
3.12 Household or cottage industry exhibits the same kind of linkages, including demand linkages, and one should note again the complementarity on the side of labour, where household labour can usefully combine farm and non-farm activities to even out seasonal or part-time labour demands.

3.13 The extent of backward linkages, at least, appear very much weaker in Africa than in Asia. This can be seen quantitatively by reorganising the information in Table 7, which itself gives a useful picture of the structure of rural non-farm activities in Kenya, as in Figure 1. Backward linkage activities account for only 1.5 per cent of the total. Forward linkages from natural resources and from agriculture and livestock production are significant, amounting to 58 per cent [2], while demand-linked consumer goods and services, including wholesale/retail trade and catering, account for 33-37 per cent of the total.

3.14 To explain the limited extent of backward linkages from



Figure 1. Backward and forward linkages of natural resources and agricultural/livestock production with SSES in the rural economy of Kenya, 1977



(backward linkages)  
31 (1.5%)

Agricultural Incomes

- transport operators (51)
- business (22)
- other services (62) not specified

Manufacture of consumer items

- tailors (27)
  - knitting, weaving (69)
  - shoes (4)
  - metal household items (18)
  - Services repair of consumer goods (107)
  - consumer/community services (116)
  - water carriers (22)
  - accommodation, catering (94)
  - wholesale/retail trade (208)
- } 665  
(= 33.3%)

Total activities cited in sample, all categories, excl. fishing, hunting, gathering = 2000

Source: derived from CBS, IBS Rural Nonfarm Activity Survey, 1977

agriculture in Kenya, we can refer to information from the Rural Household Budget Survey of 1981-2, which showed that, for example, only 12 per cent of rural households owned even a plough. In Asia there is widespread use of irrigation pumps, for example, while the transport sector, in the form of trucks and buses, is more developed, generating an elaborate network of metal and welding workshops throughout the rural areas. Thus "in Bangladesh, even in small villages, they employ a remarkable number of lathe machines, drilling bores and electrical welding equipment, representing an enormous potential for further development of small enterprises." (Haan, 1989, p 11).

3.15 We can conclude from this that in general, forward linkages from agriculture are much more significant in employment and income terms; that non-production linkages from agricultural development (storage, trade and transport) are important; and that as regards backward linkages it is the development and level of technology in agriculture which is important. In respect of technology, the wide use of fertilisers and pesticides is not a factor relevant to the development of rural small-scale industry, but rather other technologies. Intensive agriculture, with high valued cash crops, is also likely to generate many more backward linkages than extensive agriculture with low-valued crops.

3.16 Development of rural workshops serving the agriculture, transport or other sectors will in turn be constrained or facilitated by the extent of rural electrification, which must therefore be another significant factor. This can also be decisive in determining the possibility of rural small-scale as opposed to urban large-scale production.

#### 4. The macro-economic policy environment affecting rural and/or small-scale industry

4.1 Insofar as a large proportion of rural industry is composed of small enterprises, rural industry will benefit from promotional measures and policies for SSIEs as a whole. We shall review here policies for SSIEs and specifically for RSIEs, assessing those which have been or are likely to be most successful, before seeing how these can be put together to provide a more or less coherent strategy for the development of rural industry. Some of the key issues which need to be considered in deciding on the details of such a strategy in a particular country are then listed (see summary).

4.2 Most commonly promotion programmes have comprised a variety of supply-side measures, offered singly or as a package: credit, industrial estates providing infrastructural facilities, entrepreneurship development, skills training, and so forth, aimed at removing constraints on the production side.

4.3 In recent years, partly as a result of unfavourable experience with many of these components, it has been realised that supply-side initiatives on their own may be ineffective in the absence of favourable demand-side conditions and of macro-economic policies which provide the 'enabling environment' for small scale rural

enterprises.

4.4 It is fairly usual, for instance, that, while small industry development programmes exist, in Africa particularly, the basic industrial development strategy being pursued is one of import-substituting industrialisation (ISI). This usually centres upon large scale capital-intensive industry, often foreign-owned, with imported technologies of a 'turn-key' type. Very often this large scale manufacturing sector exhibits substantial excess capacity and can exert influence and pressure to secure protection and other support measures, including duty-free importation of capital goods, privileged access to whatever foreign exchange is available, and artificially low rates of interest on capital. Such industries do not use local materials to the same extent as rural or small scale enterprise and thus generate fewer linkages. The adoption of 'turn-key' technologies also reduces the possibilities for subcontracting to SSEs.

4.5 One effect of the pursuit of ISI has been to produce, in Africa particularly, a bimodal structure in manufacturing with very little between large modern factories, albeit with excess capacity, and vast numbers of micro-enterprises. This phenomenon has been described in Kenya as the problem of the 'missing middle' (World Bank, 1987) but this intermediate layer of small/medium industry is almost lacking in African countries generally.

4.6 Apart from a general strategy of ISI which may be being followed, most of the major instruments of public policy are directed, in many developing countries, in favour of large rather than small scale production.

4.7 Thus, as a means of stimulating industrial instrument, capital goods are frequently importable duty-free, encouraging capital-intensive industry rather than small industry, which is labour-intensive.

4.8 This also inhibits the development of domestic capital goods production which might well have been small scale and rural-oriented: the production of agricultural equipment and tools, for instance. This makes it difficult to develop progressive linkages between sectors or between large and small enterprises.

4.9 One type of negative impact on RSIE out of tariff policy stems from the way in which goods sometimes are classified, due to following conventions appropriate to industrial countries: thus Sierra Leone imposes a 35 per cent tariff on outboard motors and on sewing machines, as though these were consumer goods rather than capital equipment for fishing and tailoring, while Burkina Faso applies a 72 per cent duty on hand tools, under similar assumptions (Haggblade et al, 1989).

4.10 Tax policy frequently carries a similar bias through special depreciation provisions which have the effect of subsidising the cost of capital. Such provisions are common in Africa but are also important in Asian countries such as Thailand and the Philippines.

According to calculations by Bautista (1988), such provisions in the Philippines reduced the user cost of capital by some 50-70 per cent. The repercussions of the measures were to reduce employment in non-exporting firms by some 35 per cent, and in exporting firms by 7 per cent.

4.11 This is reinforced again by interest rate policy. Formal sector interest rates in most developing countries are generally fixed at standardised levels within a range of, perhaps, 8-16 per cent, irrespective of the level of inflation or the real scarcity of capital in the economy, as reflected by going rates in the informal sector. Thus real formal sector rates may even be negative and average only 3 per cent (Table 8) compared with real informal sector rates of nearly 60 per cent, and over 100 per cent in Africa. Where the rate of interest is maintained at an artificially low level like this the effect will be to produce a dualistic capital market in which bank credit is rationed out amongst large scale private or public enterprises, leaving rural and other small scale enterprise to depend entirely on personal savings or expensive informal sources.

4.12 Overvalued exchange rates also subsidise capital by cheapening imported capital goods relative to labour. In 1983, out of 28 developing countries exchange rates were overvalued by 10 per cent or more in 22, (18 out of 19 in Africa, the Caribbean and Latin America) and by more than 40 per cent in 8 out of 28 (Table 9).

4.13 Such rates also discriminate against exports which are generally agricultural or are products of labour-intensive RSIE, including processing. Reduced agricultural growth and incomes will affect demand-linked RSIE and, again, retard the development of other rural linkages. Several country studies of the negative effects of such policies have been carried out, for instance in Thailand, the Philippines and Tanzania (Stewart, 1989).

4.14 Where exchange rates are permitted to diverge so sharply from an equilibrium rate the foreign exchange which is available tends to be allocated through administrative channels, inevitably favouring large-scale enterprises, which are more easily able to make application to the Central Bank, as well as parastatals. Micro-enterprises will depend on whatever imported materials percolate downwards through the wholesale and retail trade, and often on recycled materials.

4.15 Provision of market information, technical advice and other support and assistance in the establishment and maintenance of an enterprise are also biased in favour of medium or large enterprises. Such assistance, whether from government officials, development agencies or commercial institutions, is generally more readily available to large enterprises in metropolitan areas than to RSIEs in the districts.

4.16 Large enterprises can more readily afford investing in research and development, as well as being able to import ready-made technologies. Appropriate technologies for small scale enterprises can less easily be developed at the level of the enterprise and,

while an international 'shelf' of possible technological innovations can be drawn upon to some extent, mechanisms do not exist in most developing countries for systematic identification, development and dissemination of appropriate technologies for application in the rural sector.

4.17 In many cases statements of intent in the support of rural industrialisation and small industry development exist, for instance in development plans, together with institutions for promotion and various incentive schemes, but are not effective whether because the institutions lack authority or the incentive schemes are not specific to RSIE and are more readily taken advantage of by larger enterprises. [3] What is important, therefore, is the degree of commitment by government towards creating what has been referred to as an 'RSIE-friendly economic environment' (UNDP/GON/ILO/UNIDO, 1988).

4.18 Central to this must be policies which will contribute to agricultural growth capable of generating demand and other linkages. Such policies will include land reform, agricultural intensification through high-valued cash crops and other farm activities, agricultural input supply and research, price and marketing policies. Taiwan represents perhaps the most successful case of the promotion of dispersed rural industry, with the reform of agrarian structure, yielding high agricultural productivity and a high degree of rural income equality playing a key role. Its success has been contrasted with performance in the Philippines which has not carried through similar reform (Ranis, 1989).

## 5. Structural adjustment and RSIE

5.1 From what has been stated so far one would expect the impact of structural adjustment programmes to be generally positive, certainly in the medium or long term. An immediate objective of SAPs is to reduce overvaluation of exchange rates, while another is to reduce protection which, as indicated above, generally favours large-scale, urban-based manufacturing. The positive effects on agriculture and on exports should be positive in turn for small-scale and rural based enterprises, which may also find problems of foreign exchange shortage and scarcity of imported materials eased.

5.2 It is possible, of course, that protection in a particular country has been extended to small scale enterprise and to cooperative or cottage industry, benefiting also from product reservation policies. These could be adversely affected by requirements to abandon reservation policies and by freer importation of cheap goods from abroad.

5.3 Structural adjustment will often involve reduction of public spending, with a generally deflationary effect on the economy, and curtailment of government activities. The latter may have a positive effect on the scope for small industry if it means the hold of large enterprises, including parastatals, on many markets is loosened (Teszler, 1989, p 31).

5.4 In general the impact of an SAP will depend on the mix of policies relative to large and small or urban/rural industry in place in the country concerned. Overall, the impact is likely to be favourable. In Kenya, for example, where comparatively good annual figures of numbers of informal sector enterprises are maintained, these showed strong positive growth throughout the period of structural adjustment in the second half of the 1980s. Structural adjustment in Tanzania in the same period is also reported to have had positive effects as far as small industry is concerned.

## 6. Demand-side promotion measures

### (a) Product reservation schemes

6.1 Product reservation schemes represent a demand-side intervention, in that the available market is specifically set aside for the benefit of the small scale or household sector. Their use in India for the protection and promotion of such industry has been extensive and indeed the number of items reserved for small scale industry production in India was considerably increased during the second half of the 1970s.

6.2 This policy can be supported on income distribution grounds, even at some cost in terms of efficiency, particularly where substantial numbers of people are already dependent for employment or supplementary income on the activities involved.

6.3 In contrast with direct subsidies and even tariff protection, which is not usually absolute and totally exclusive of competition, the absolute exclusion of other enterprise here is artificial. It is likely to prevent organic growth of enterprises which would otherwise have graduated out of the protected category and create a lopsided industrial structure, with very little between the large enterprises at one end and household/cottage workshop enterprises at the other, accentuating the problem of the 'missing middle' referred to earlier. Even the social benefit has been questioned in the Indian case, with reference to the textiles, sugar and light engineering industries (Little, Mazumdar and Page, 1985). In general more positive policies towards household industries are needed, based on efficiency and competitiveness.

### (b) The encouragement of subcontracting

6.4 Another demand-side initiative, more capable of playing a significant role in a dynamic industrial development strategy, is the encouragement of subcontracting. This can be considered with reference both to household industry and small industry development.

6.5 In Thailand, subcontracting to households is widely practised in some rural areas, particularly around Chiang Mai and in certain specific trades: silk and cotton weaving, ready-made garments, furniture-making, and wood carving. Parent firms in the towns provide materials, sometimes tools and equipment, and pay on a piecework basis. The advantages to the workers are that they are able to work at home, utilising spare time between other activities,

including farming, and are provided with working capital. If the skills required for the activity concerned already exist, substantially, in the region, it will obviously be much easier for parent firms to find suitable producers for this kind of dispersed production rather than establishing its own factory production line. Subcontracting may be helpful to household producers in securing market outlets in urban areas, especially, and even more in securing export markets for their products. Parent firms may have a role, moreover, in product identification or development, identifying products which might sell in overseas markets or new designs which would develop sales.

6.6 In some cases it may be useful for households to form themselves into cooperative groups or associations to facilitate dealings with parent firms or communication with extension officers in relation to production techniques or product design and quality (technological upgrading). An example where such an approach might be relevant is honey production in Kenya where there is wide potential but development even for the national market, quite apart from the international one, has been handicapped by poor quality and the absence of approved national qualities.

6.7 Subcontracting of production to household industry should not be seen as a general prescription. Its appropriateness depends on local circumstances, on the identification of particular products and on household skill capacities.

6.8 Subcontracting by parent firms to independent small-scale enterprises is of a somewhat different nature and is much more extensive, particularly in urban areas. It has played and continues to play a significant role in Japanese industry but positive examples in other countries, for example the garment industry in the Philippines, carpet production in Pakistan, rattan furniture in Indonesia and shibori silk production in Korea, all these in rural areas (Nanjundan, 1989, p 54), may be cited.

6.9 This appears to be a potentially quite important mechanism for facilitating the dispersal of suitable industries into the rural areas. It is likely to be dependent upon the existence of good rural infrastructure, particularly roads, without which the costs of decentralised production would be excessive, and electric power (depending on the nature of the production process). Again associations of producers are likely to be helpful, and specifically clusters of producers in one location.

6.10 China has gone furthest in organised decentralisation of production into the rural areas through the so-called 'one dragon' relationship between urban and rural industrial enterprises, where the 'head' is located in the city and 'body' in rural township enterprises. Here the urban enterprises provide raw materials and product designs to township enterprises within the same sectors, while the latter carry out the required processing against a processing fee (Choudhury, 1988, p 51).

## 7. Supply-side promotion measures

## (a) Small industry development organisations (SIDOs)

7.1 The most common response of governments in the past, as they have come to realise the need for some kind of development effort in respect of small scale or rural industry, has been to establish what might be described as 'general purpose' small industry development organisations (SIDOs) or SMIDAs (small and micro-industry development agencies). They are general purpose in the sense of combining, for example, infrastructural provision through industrial estates, extension and a credit component.

7.2 While some of these have certainly made some progress, their general performance has been disappointing. The most important reason for this, undoubtedly, is that the macro-economic framework within which the organisations operate have not been consistent with a strategy in which small industry promotion can play a major role, major incentives and other policy instruments being heavily weighted in a contrary direction, towards large scale enterprise.

7.3 In addition the organisations tend to be centralised and bureaucratic, and to exhibit a strong urban bias, focused as they are at a limited number of points where industrial estates have been established.

7.4 A substantial element of subsidy is often involved and the programmes are usually highly dependent on donor funding, with problems therefore of sustainability. They are usually government or parastatal-organised, without direct involvement by commercial banks or non-governmental organisations, leading on to common difficulties from non-repayment of loans, arising out of the assumption by borrowers that government funds can be treated as grants. (UNDP/GON/ILO/UNIDO, 1988 p xxi).

## (b) Credit and finance

7.5 The first thought of governments or development agencies when deciding upon small industry promotion is to offer credit. Two questions need to be asked, however, in any given country situation: is credit really a limiting constraint on the growth of small enterprise and, if so, to what extent and in what respects? Secondly, if some credit would be helpful, what is the most effective way of delivering such credit, using what existing or new mechanisms?

7.6 Factors which are suggestive of a constraint include, first of all, the fact of almost total dependence of small enterprises, urban and rural, on personal savings (derived usually from agriculture, trade or past wage employment), friends and relatives. For example, a ROFEAP survey [4] carried out in 1980 in rural Thailand found that over 95 per cent of industrial enterprises in rural towns had never had long term credit from any financial institution. In this and other cases, entrepreneurs are forced to seek high interest loans in unorganised markets (Akrasanee, 1983). Choudhury (1988 pp 42-3), reviewing the positions in Malaysia, India and Pakistan, refers to small rural agro-industries being dependent on their own savings, on



friends and relatives and on the informal credit market, while working capital constraints limit the level of operation of these small establishments. Similar dependence is reported in the Gulf States (UNIDO, 1990, forthcoming).

7.7 Use of commercial bank credit by such establishments is generally no more than 1 per cent (Page, 1979, p 21). Obstacles are insistence on collateral or equivalent guarantees; time-consuming and urban-based procedures which are particularly daunting for small enterprises; and perhaps an inherent conservatism on the part of banks, given also the comparative ease of earning bank revenue on large loans. Formal banks have a very limited rural network, especially in Africa, as well as highly centralised loan approval procedures.

7.8 Industrial (Development) Banks may be just as biased, or more, towards medium and large enterprises, as recently discovered in an analysis of loan portfolios in the Gulf States (UNIDO, 1990, forthcoming). The Industrial Finance Corporation of Thailand, similarly, has argued that the 'high cost of administering small loans is inconsistent with its profit obligations' (Akrasanee et al, 1983).

7.9 Despite these a priori reasons for supposing that access to credit must be a major problem for small firms, there is need for caution in making this deduction. Lack of capital is universally mentioned by small scale enterprises in questionnaire surveys as their most important need, under all kinds of circumstances, responses which should not be taken at face value.

7.10 Government agency efforts to remedy a supposed capital shortage among small enterprises have generally met with poor results, with low loan repayment rates, often due in part to an assumption by loan recipients that there is no real need to repay. This has led a number of observers to conclude that lack of capital is not the main problem.

7.11 A recent IFAD mission concerned with the development of rural small industry in Kenya observed a substantial net flow of savings from rural to urban areas, based in part on savings societies, which might have been expected to provide loans for rural investment if rural enterprises looking for finance were able to offer a favourable return. This points to the need to assess closely rates of return in the rural industrial activities being promoted.

7.12 It should not be ignored, also, that part of the reluctance of commercial banks to extend credit to small enterprises reflects a quite appropriate assessment of the real costs of making large numbers of small loans, both basic administration costs per loan and special supervision costs associated with the extra risks of lending to entrepreneurs not well known to the banks and who lack collateral.

7.13 Notwithstanding these provisos, there does appear to be scope for a balanced but enterprising approach to the provision of credit and/or finance to small scale industrialists. Programmes for

extending small short term loans of \$50-150 at market rates of interest to groups and individuals to cover working capital have been successfully implemented by BKK in Indonesia and ACCION/AITEC in Latin America (Haan, 1989, p 24). The best known scheme for extending rural credit without insistence upon collateral, to landless householders, particularly women, is the Grameen Bank in Bangladesh.

7.14 Given the deficiencies of government loan schemes already referred to, it seems desirable, if possible, to involve commercial banks in rural credit distribution. To induce commercial banks to become involved in a positive way, three approaches may be adopted, singly or in combination: (a) transactions costs can be reduced by making use of intermediaries in the form of non-governmental organisations, whose activities at the local level in identifying and screening potential loanees can be spliced on to the commercial system; (b) banks' margins may be increased by allowing a higher rate of interest on small or unsecured loans, or making available a special, subsidised loan fund to the banks, reserved for small enterprise loans; (c) banks' risks can be reduced by providing credit guarantees or insurance.

7.15 A number of Asian and African countries are examining closely the experience of the Grameen Bank and experimenting with adaptations of the approach. It should be kept in mind that the circumstances and manner in which the GB was initiated and has been developed are rather particular and also that it has not altogether dealt with the problem of high administrative and supervision costs for small loans. Nevertheless it is an example which merits study with a view to replication of at least some elements of the approach.

7.16 The recent UNDP/GON/ILO/UNIDO document (1988) argues that credit for RSIE and small industry generally should be made available in as decentralised a form as possible, making more use of non-bank financial intermediaries where possible. As just indicated, these are generally well represented at the local level and have a comparative advantage relative to the commercial banks in having closer knowledge of individual loanees' circumstances and thus in identifying and screening candidates. An advantage which they share with the banks is of not being viewed by producers as part of government.

7.17 Reliance on NGOs does not immediately solve all problems, however. Very often, because of having independent sources of funding, they disguise rather than reduce loan administration costs. Where, as is usual, economic objectives are secondary to social objectives, as for instance in providing for youth employment, an efficient, economic approach may not be adopted. Moreover their staff may lack experience in relation to economic activities, being trained rather in social and community work. Nevertheless the cooperation and division of labour indicated between banks and NGOs does offer the genuine possibility of reducing risks and supervision costs and needs to be explored in the context of each situation.

7.18 An important ingredient in the Grameen Bank success has been

its use of groups (in the GB case groups of five people, either male or female groups) to serve as mutual guarantors (the group being responsible in case of individual default), thereby reducing supervision costs. This principle could be applied to groups of artisan-entrepreneurs and workshop-enterprises within informal sector manufacturing, as will be discussed again presently.

7.19 It should be possible also to encourage savings and loan associations (SLAs) or group savings associations, which are widespread, in Africa especially, to become more involved in short loans for business purposes, including manufacturing, rather than consumption loans of various kinds. One form of these is the Rotating Savings and Credit Associations (RoSCAs) in West Africa in which loans are paid out to each member in turn and which essentially constitute a system of pooled savings. SLAs also reduce lender's risk by selecting only members in which the group has confidence, and could reduce borrowers' transactions costs involved in travel time and loan request preparation. Their potential, particularly in relation to productive investment, has been very largely neglected by researchers and policy-makers.

7.20 Credit guarantee schemes in which government or donor funds are used to offer a degree of insurance to commercial banks or other credit agencies are being introduced in a number of countries. An advantage of these is that they involve only 'lubricating' commercial lending institutions rather than replacing them in making loans to SSEs, and need only involve actual use of funds to the extent that there is incomplete repayment by clients.

7.21 Simply providing guarantees, however, does not deal with the problem of screening clients and of the risks of lending to large numbers of small entrepreneurs; nor does it guarantee, for this reason, that commercial banks will respond to the incentive provided. Thus the credit insurance scheme in Indonesia, ASKRINDO, under which all loans to small borrowers were guaranteed by government to the extent of 75 per cent, led to heavy government financial losses; while a Credit Guarantee Scheme in Malaysia, under which banks were to provide unsecured loans to small industries up to M\$ 30,000 and to reserve 5 per cent of their loan portfolios for agricultural loans, was still not able to reach a sufficient number of small borrowers (Choudhury, 1988, p 58).

#### (c) Industrial estates

7.22 Many small industry promotion programmes, following the pattern of setting aside 'industrial areas' for the benefit of larger enterprises, have centred upon the establishment of industrial estates. This has been the case in Anglophone African countries such as Nigeria, Kenya and Tanzania particularly.

7.23 Because of their fixed locations - unrelated to the distribution of specific resources - they are not obviously suited to agro-industries or resource-based industries generally, except to the extent they provide access to scarce land, power or water supplies.

7.24 Nor have they generally been well-designed to meet the needs of micro-enterprises: workshop design has been inappropriately fancy for the needs of the informal sector, leading to unrealistic rent levels; common facilities are often provided with an inappropriate advanced level of equipment, leading to a low degree of utilisation; and the estates have often been inappropriately located, ignoring the need for proximity to markets. This was very much the experience in Kenya for example, where small estates formed the basis of a Rural Industrial Development Programme (RIDP) in the later 70s.

7.25 In the Gulf States of the Middle East industrial areas were developed mostly with large enterprises in mind. When estates for small or 'craftwork' industries were established later, the objectives were not always clear, whether, for instance, these were developmental or merely environmental, a means of reducing environmental pollution and noise in central urban areas (UNIDO, 1990, forthcoming).

7.26 In Malaysia estates developed with reference to large enterprises, again, may be utilised also by the largest of the SSEs. However no provision is made for the very small establishments, 'often the ones in most need of assistance as they usually operate in unsatisfactory makeshift structures on land which is rented at high rents with no security of tenure' (Choudhury, 1988, p 60).

7.27 What emerges from this is that it is essential to design provision of this type separately to suit each category of industry, for large, medium and micro-enterprises. For micro-enterprises allocation of land for construction of own structures may be appropriate, where land is scarce. Very often there is spontaneous development of 'informal sector' agglomerations of workshops and enterprises of different kinds, and it may be better to improve services in these areas - water, power and sewerage, for instance - rather than attempt to create estates artificially.

7.28 Where small estate facilities are appropriately designed and located to accommodate clusters of 'informal sector' manufacturing establishments, a particular advantage which has emerged, in Kenya and Tanzania for example, is that dealers and other customers come to the cluster to make purchases, attracted by a concentration of workshops providing competition and choice of products. A particular advantage of providing simple lockable premises for rent or progressive purchase is that they directly assist the large proportion of 'open air' establishments and more generally allow enterprises to economise scarce funds, using the limited amount they have for working capital, without the problems of repayment associated with cash loans.

#### (d) Infrastructure

7.29 Industrial estates are often seen as a means of providing electricity and other infrastructural needs of large or small industry. These are clearly less suitable for rural industry, which is usually dispersed: here rural electrification, which makes electric power widely available, is clearly important, and particularly important if it is desired to eliminate special disadvantages which rural industry has compared with urban. The development of metal workshops in rural Asia in particular has been

assisted by rural electrification. Even here there are major differences between countries: thus in 1975 just over 26 per cent of rural households in the Philippines were supplied with electricity, compared with almost total coverage in Taiwan (Stewart, 1989, p 82). In Africa coverage would have been 1 or 2 per cent at the most.

7.30 Choudhury (1988, pp 39-40), commenting on the high concentration of agro-industries in urban areas, argues that in Asia there has been migration of rural and agro-industry, especially of large enterprises, to the urban areas, as a result of the lack of adequate infrastructure in rural locations. China is taken as a major example of the adoption of a strong, positive strategy in this regard, achieving effective dispersal of industries to rural areas through the development of township enterprises.

(e) Technology and product development

7.31 In our discussion of the macro-policy environment affecting large and small industry it was mentioned that for different reasons research and development is likely to be very much biased towards, if not limited to, large scale enterprise. Evidently it is important that measures be taken to redress this balance.

7.32 But the urgency is wider than this, because of the interdependence between agriculture and rural industry development. While the latter is directly dependent upon the level of agricultural development and incomes, the need, particularly as rural population density increases, is in turn to raise agricultural productivity by upgrading rural technologies, with the help of rural industries.

7.33 Rural technologies here relate to a number of rural sectors - agriculture and livestock production and processing, energy (e.g. biogas), transport, construction and the production of domestic hardware and other utensils, all of which offer possibilities for rural-based SSI production. A first need, in each economy, is to assess the possibilities existing for the development of appropriate technologies.

7.34 While regional circumstances and possibilities will vary, there also exists an international 'shelf' of appropriate technologies on which it is sensible to draw first. For this purpose individual countries need to set up a search capability, that is a domestic institutional mechanism, with international back-up, capable of identifying possibilities and testing their relevance and adaptability to local requirements. There are just a few appropriate technology institutes in the developing countries, and these are often peripheral, for reasons of staffing and finance.

7.35 Once the products to be manufactured have been identified, the next task is to secure their effective production, that is, the dissemination of new productive opportunities. Again, in most countries little or no institutional infrastructure exists for the dissemination of technological knowledge to support small scale industry production. This is in direct contrast with what is attempted towards peasant producers through agricultural extension and, in the area of welfare support, through community development. As Carr (1989) notes, there are very few examples of rural industrial

extension services.

7.36 What is needed, therefore, is some analogue to the agricultural extension service. As in the case of the latter, of course, it is important that the service has a directly useful, practical 'message' to offer.

7.37 It has been suggested (Haan, 1989, p 56) that a 'market approach' to appropriate technology dissemination be adopted, under which the introduction of new technologies takes place via the producers of the equipment or product. Small scale entrepreneurs here are provided with designs and technical assistance during initial production runs, as well as credit, assistance in marketing, etc. This ought to avoid any persistence in 'pushing' AT products which, however interesting, are not practical and therefore are non-marketable.

7.38 Once macro-economic biases against the expansion of small scale industry are removed, it is important that the small enterprise sector is able to respond, so that the boundary between what is produced in larger and in small enterprises is shifted in favour of the latter sector, to widen its scope. An issue here is how to achieve some degree of technological upgrading of the sector to secure such a response.

7.39 While many 'informal sector' micro-enterprises have a very low level of capital and technology, the position is not uniform and it is possible to find individual entrepreneurs already turning out more advanced products, including custom-built capital goods of various kinds, in the rural sector. The challenge is to introduce such products, and indeed additional ones to be identified, to a more substantial section of producers.

7.40 Many rural manufacturing activities do not have much potential for upgrading. It is a matter of selecting those sectors which have the greatest potential. The manufacture of metal products, especially if linked to agricultural development, appears to be capable of the greatest extension and diversification.

7.41 Development of furniture making and other forms of carpentry appears closely linked to quality: while rural market demand for rough, low quality furniture may become saturated, improvement in product quality and design can allow enterprises to tap into higher income markets otherwise served by urban factory production. This raises the question, again, of training and extension related to improvement of products.

(f) Small producers' associations

7.42 Extension using the market approach could be based on agglomerations or clusters of informal sector producers. A recent IFAD mission to Kenya has identified these as a potential major vehicle for promotion of the sector. Despite the extensive literature on the informal sector, little or no comment has been made regarding the tendency of informal sector producers to cluster in this way, in cities but also in rural towns, sometimes in their hundreds, though it is a phenomenon common to Africa, Asia and Latin

America. The fact that this clustering is spontaneous, and very often divided according to particular trades and specialisations, is indicative of externalities perceived by small producers, just as externalities lead to concentrations of large enterprises.

7.43 On the face of it, these could make the task of dissemination of new products and technologies much easier, since once introduced within the cluster, a demonstration effect is likely to be effective in productivity or market terms. Once introduced in large agglomerations in rural towns, an innovation is then likely to be more widely diffused among more dispersed rural producers.

7.44 Within these clusters, small groups or associations could be specifically encouraged, to develop as spontaneously as possible, on the basis of mutual trust. These might bring advantages, including some hitherto the preserve of large enterprises, such as trade discounts on purchases of materials, bulk orders from wholesalers or from institutional buyers such as schools (a major disadvantage of large numbers of small, independent producers is their inability on their own to fulfil such orders, especially of standard design and quality), receipt of sub-contracts from large firms, collective savings schemes, and so on.

7.45 Their existence is likely to facilitate also the development of apprenticeship schemes: indeed they could provide a very useful environment for training within a market environment.

7.46 More generally, they could provide for articulation of the felt needs of small producers, negotiating on infrastructural requirements, licensing arrangements, problems of harassment, and even national policy instruments where large enterprises presently have substantial influence.

7.47 Some countries have already moved in this direction. In Francophone West Africa, for example, Chambres des Metiers have been established in a number of countries. Maldonado (1989) refers to an ILO project for the organisation of sectoral small producers' groups in Mali, Togo and Rwanda initiated, starting with urban areas, in 1982. In Rwanda 71 grassroot associations had been organised, 8 intermediate trade federations and a confederation (KORA) in the capital, Kigali. These had negotiated for formal recognition, and an end to police raids, initiated collective savings schemes to provide credit (in Kigali the movement established its own bank), set up raw material schemes and organised training along the lines of established apprenticeship schemes. A major (46 per cent) increase in incomes among the involved micro-entrepreneurs in Kigali is reported. Maldonado (p 82) comments that

the participatory approach has proved more effective than the traditional spoonfeeding methods, not only because its effects are more durable and the activities it launches can be continued by those directly concerned, but also because the cost per beneficiary is lower and hence the returns on investments are higher.

7.48 With respect to subcontracting from LEs to SSEs and RSIE, the UNDP/GON/ILO/UNIDO study of 1988 argues (p xxii) that information exchanges are likely to be more effectively operated by industry

associations than extension agencies. Where no previous organisational basis exists, however, some catalytic intervention is likely to be desirable.

7.49 The same report comments (p 32) with reference to Pakistan, where irrigation and mechanisation equipment production is based in the large enterprise sector, on a complementary development among RSIEs, organised in clusters, both large and small, in the prosperous agricultural areas of Punjab and the North West Frontier Province, producing agricultural tools and machinery. As already noted, repair and service workshops for tractors and other equipment are even more widespread, constituting an important backward linkage from agriculture.

(g) Training and entrepreneurship

7.50 As noted by Haan (1989, p 36) 'entrepreneurship' may be said to encompass two distinct elements, (i) the ability to perceive profitable business opportunities and (ii) the capacity to coordinate and control the work which is being done. With respect to the first ability, it is doubtful whether this can be 'taught' or in any way developed through training. What is important is to secure the right macro-economic framework or 'enabling environment' under which small enterprises can thrive, as already discussed. Identification of product possibilities and their dissemination, particularly through SSE 'clusters', represents more direct intervention. This involves entrepreneurs perceiving opportunities through a 'demonstration effect'.

7.51 Many of the most successful small entrepreneurs in developing countries learned their skills as formal sector employees before deciding that there were opportunities in self-employment or small enterprise, while those engaged in trade have through their dealings observed shortages or gaps which presented opportunities for manufacturing. This indicates the advantage of a broad policy towards SSEs, encouraging trade and other non-manufacturing SSEs also.

7.52 As regards the second element, of management skills, these are not appropriate to most urban and rural SSIEs. The presumed value of bookkeeping for this category of enterprise has been strongly criticised (e.g. Harper, 1988) and there is no evidence that those enterprises which do keep books perform better than others (McKenzie, 1989).

7.53 It is often assumed that unemployment in developing countries is the result of education which de-emphasises practical skills and, conversely, that training in blue-collar skills will lead straightforwardly into opportunities for practising crafts through self-employment. The UNDP/GON/ILO/UNIDO study observes here (p xix) that training centres have mostly been ineffective as promoters of RSIE and, apart from being urban-oriented, 'usually attract, with doubtful results, new entrants rather than those engaged in RSIE'. In Kenya young graduates of village polytechnics have actually been found less acceptable to informal sector entrepreneurs as recruits than those without prior training.

7.54 Rural skills training centres often show overconcentration on



one or two blue-collar skills, such as carpentry, leading to local market saturation. Tracer studies of leavers, which would indicate the rates of return attached to such training, are generally scarce. It seems evident that only a minority succeed in achieving effective self-employment in micro-enterprise.

7.55 A more effective approach, again, may be to build on what is there, by developing existing informal apprenticeship systems which exist - but are not evenly developed - in all countries and play a key role in skill formation. Evidence provided by Fisseha (1985) showed that the proportions of SSE proprietors who had themselves been apprentices were in Jamaica 78 per cent, Honduras 52 per cent, Egypt 28 per cent, Bangladesh 25 per cent and Sierra Leone 90 per cent.

7.56 The above does not imply the adequacy of informal apprenticeship systems. Their effectiveness is subject to the limits of what the master craftsman himself knows. Moreover, with apprentices often leaving at the end of the training period, frequently to set up in direct competition with the owner, there are disincentives to the provision of such training which may not be compensated by fees charged.

7.57 As regards skills training for the entrepreneur himself, or herself, this should have a clear objective and preferably be focused on a specific product or technique which has demonstrated potential. Both entrepreneurial and apprenticeship training may need to be linked with credit provision for the purchase of relevant equipment or tools.

#### (h) Raw material constraints

7.58 As was observed with reference to Kenya (Figure 1), a significant proportion of rural industry comprises agro-based or, more broadly, resource-based industry, including those based on forest products. Availability of basic materials may affect SSIEs at particular times of the year: Choudhury (1988, p 39), for instance, notes with reference to Asia that due to seasonalities in agricultural production, 'serious constraints are sometimes faced in raw material procurement'. In fact raw material supplies may be such as to restrict expansion, while depletion of resources may pose a major threat to even existing activity in the future. Seldom, however, is the supply situation, present or imminent, affecting RSIEs closely gauged.

### 8. Integrated agro-industry initiatives

8.1 Some recent studies have argued strongly for an approach based on 'integrated agro-industrial development' [5]. Like 'integrated rural development', this appears tautologically a good thing: 'unintegrated rural development', for instance, is not likely to be put forward, one might think, as an alternative strategy [6]. The real content of such an approach, therefore, needs to be carefully assessed.

8.2 A particular case which is comparatively easy to define and accept is where a new crop or activity is introduced to an area. Here

crop production and processing/marketing arrangements may need to be introduced together since, on the one hand, small producers cannot be expected to take up the crop if they do not immediately see where or how it can be processed or marketed and, on the other, processors cannot be expected to invest in productive capacity without reasonable assurances that adequate throughput will be forthcoming.

8.3 Choudhury (1988) gives the example of integrated sericulture development in Anantapur District, Andhra Pradesh, India. Here the Sericulture Department, following an integrated and comprehensive development plan for mulberry, identified suitable sites for cultivation, with good sources of water, within the drought-prone areas, developed an elaborate extension system and, through a District Rural Development Agency, identified poor rural families who could be assisted to produce silkworms. Over a 10-year period acreage under mulberry expanded from 2,700 acres to 54,000 acres. This is a rather particular case where it has been possible to identify a totally new development and to address the opportunity in a very systematic manner.

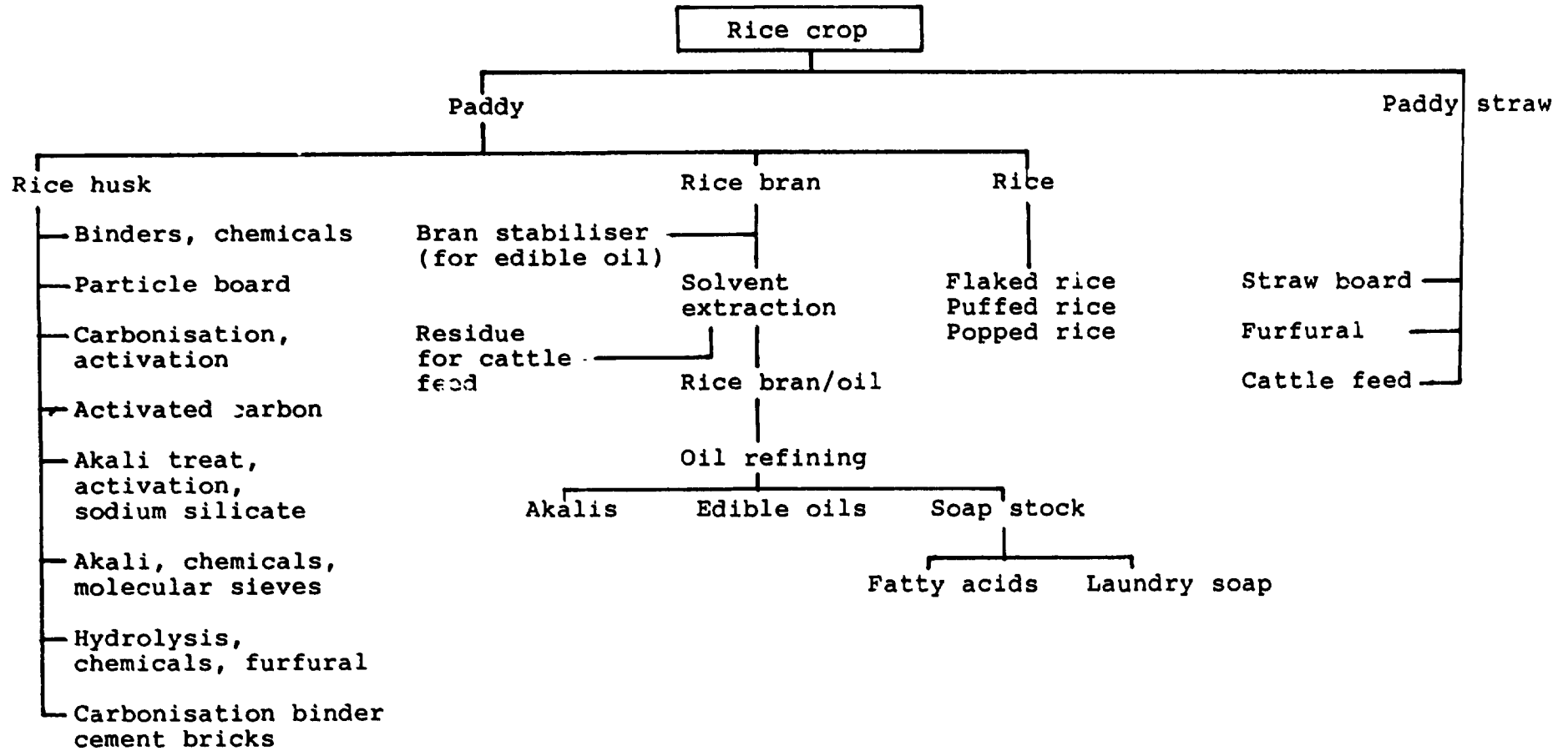
8.4 We may classify differently the case where this kind of integrated approach is applied across the board to a range of crops within an agricultural region. An example put forward by Choudhury here is that of the Farmers' Organisation Authority (FOA) in Malaysia, based on 202 farmers' cooperatives and 1039 agro-based cooperative societies, 'involving a diverse range of activities from crop production to small-scale processing'. Although the FOA was mainly involved in supplying inputs and marketing produce it had success with a limited range of programmes relating to agro-based enterprises. Choudhury asserts (p 73) that this 'brings out the importance of the linkages from production through to processing and distribution necessary to ensure the development of viable small scale enterprises'.

8.5 Schematic outlines of potential 'agro-industrial complexes' based on rice and maize (Figures 2 and 3), among other crops, are put forward by Rao (1988). These indicate potential linkages, but leave out the question of economies of scale, size of local markets and other factors determining economic feasibility and which might make production in urban locations preferable, or even production in the industrial countries, which may provide stiff competition from efficient modern plants. What the schema show is that potential linkages of this type need to be closed explored, taking into account existing experience in other countries. How far rural location of linked industries is possible needs to be considered.

8.6 The promotion of agro-based industries in rural areas formed part of the Seventh 5-Year Plan in India. Some of these (pickles, spices, dals, bread, biscuits, pastry, rice-milling, confectionery, groundnut and rapeseed oil, sago and flour) were reserved for the small-scale sector. Product reservation policies were discussed above. A more positive policy has been the involvement of District Industries Centres at the district level in the promotion of resource-based agro-industries, supported by District Rural Development Agencies concerned more widely in rural development programmes.

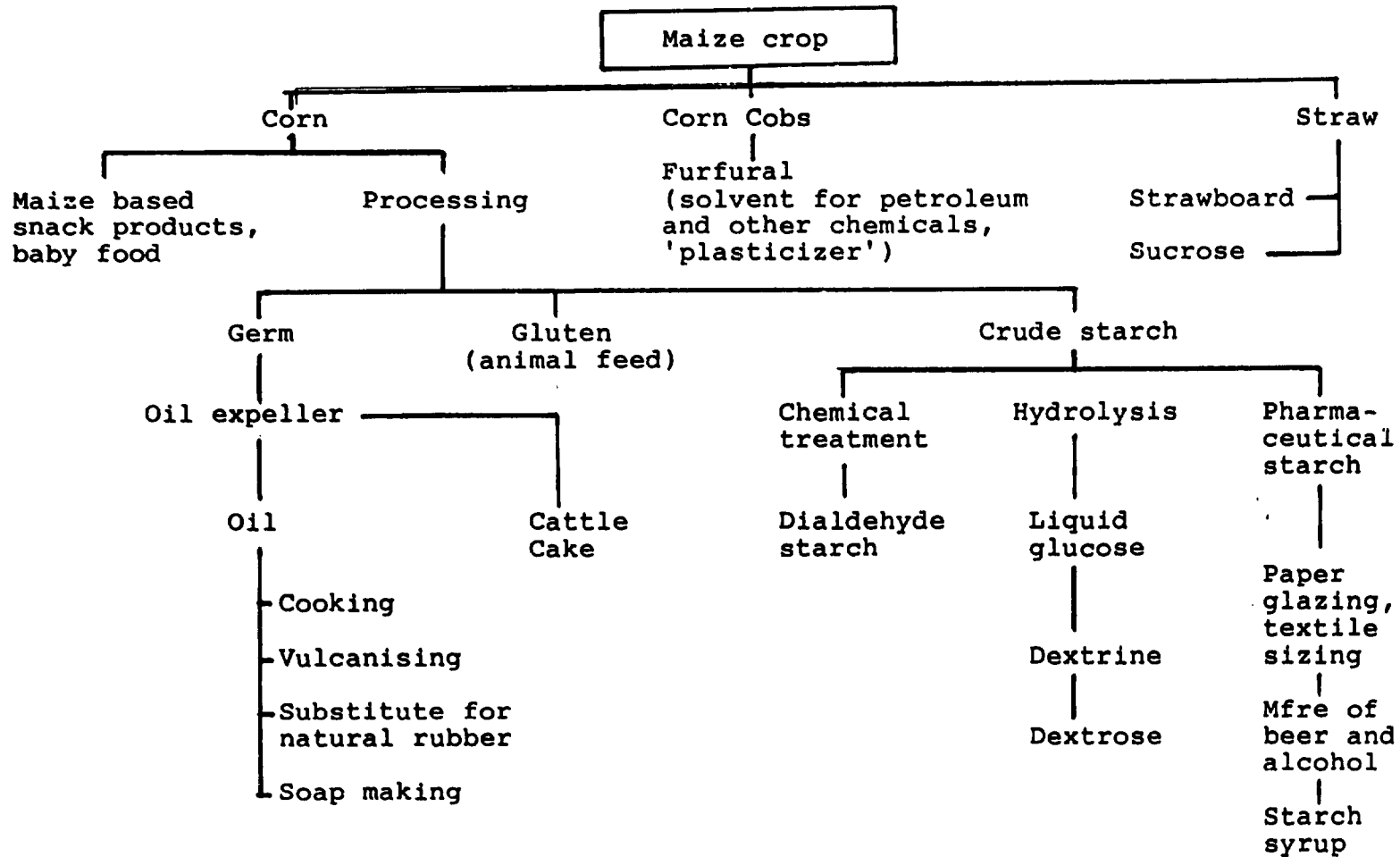
8.7 A more specific and direct approach to integrated

Figure 2: Integrated agro-industrial complex for rice



Source: Rao (1988)

Figure 3: Integrated agro-industrial complex for maize



Source: Rao (1988)

agro-industrial development focused on one crop, is that of contract farming, which is becoming increasingly important. Farmers are supported with seeds, fertilisers, and other inputs by a central processing factory. This could be linked to further by-product industries as above.

8.8 A great deal of planning, policy making and promotional effort, whether directed towards agriculture or industry, is based on a horizontal perspective. For example, rural development planning may be decentralised to the district level with district agricultural officers concerned with promoting the full range of crops grown by farmers. An alternative is the filière approach, which takes a 'vertical' perspective, following the 'thread' or filière from the production of basic natural resource inputs through a whole series of possible linked industries. At each link in the chain appropriate policy questions can be posed, such as whether production can best be developed on a small scale or large scale, whether tariffs or taxes bias this choice, whether complementarities (e.g. subcontracting) between large and small enterprises can be developed, whether urban or rural locations are preferable, whether particular constraints or opportunities exist at specific points, and so on. Possible complementarities between manufacturing and agricultural production - as in contract farming - or natural resource supply are even more obvious.

8.9 The filière approach is particularly relevant to resource-based industry by focusing on the availability and production of the basic resource, as in the case of wood supplies. The approach is also more easily tailored to dealing with the basic needs of the mass of rural consumers, unlike an urban-based import-substituting factory which is looked at in isolation. For example, timber production may lead on to sawmills, rural furniture-making, charcoal making for rural energy, and building poles for rural house construction, as well as a host of other rural producer and consumer items. It may thus form part of a basic needs strategy.

## 9. Promoting household non-farm enterprise

9.1 Household non-farm activity was discussed above. However some discussion of possible policy measures vis-a-vis the sector is required. As can be seen with respect to Thailand (Table 10) a large part of rural household industry is resource-based, important activities here being processing agricultural products, bamboo products, mat-making, and silk and cotton weaving. This picture is confirmed in the data already referred to relating to Kenya (Table 7).

9.2 A survey carried out in Thailand (Charsombut, 1983) found shortages of wood, reeds, clay, charcoal and yarns affecting variously the production of ox-carts, silk, cotton, wood crafts, bamboo products, mats, pottery and bricks. This type of situation would be picked up by the filière approach discussed previously.

9.3 Basic inputs into household industry belong to two categories, local natural resources and agricultural production, and supplies imported from urban areas. These two situations carry very different implications for organisation and development of the industry with,

for example, parent firm/local household enterprise relationships in the latter case. To take two examples from Thailand, the rural furniture industry is heavily dependent upon plywood supplied from Bangkok, while nearly all household enterprises in the ready-made garment industry are dependent on materials bought from Bangkok.

9.4 The same survey of rural Thailand referred to above found, as a second constraint, that there were limited markets and product outlets for most activities. This is a general feature of rural household industry: while costs are low due to the use of cheap labour tied to a household location, another characteristic is that of relatively free entry into any activity, producing competition and low returns, close to the opportunity cost of labour. Just because of this demand factor, and general involvement in marginal or supplementary activities, household industry is the most difficult category to assist. The need here, especially, is to find new activities for urban or overseas markets which might offer improved returns.

9.5 These activities need to be appropriate for production in household enterprises rather than for factory production. While a large proportion of household industry products are of low income goods, a feature of many Asian countries, in particular, is of low-cost factory production of mass market goods with which household industry must compete.

9.6 Promotional action which could be beneficial to household industry includes the encouragement of groups and associations to articulate the felt needs of producers, credit associations in particular, assistance in respect of working capital credit, perhaps through Grameen Bank-type operations, and hire purchase facilities for small capital goods where required.

## 10. Women in rural small scale industry

10.1 Rural small industry is of considerable importance to rural women in developing countries, providing a supplementary source of income for, on average, some 50 per cent of women engaged in agriculture, it is estimated (UNDP/GON/ILO/UNDP, 1988, p xxii). In Asia food processing, garments and crafts (including the production of basic household items such as mats and baskets) are amongst the most common activities, with beer-brewing being very important, also, in Africa.

10.2 Female non-farm activities overlap very much with household-based enterprise, so that much of the discussion of the preceding section applies. These are generally traditional activities with low productivity and profitability. This is not to say that they cannot make a very considerable difference to household income, however. Thus a rural survey of Begumganj, Bangladesh, found that women participating in rural industries received on average an annual income equivalent to US\$ 237, which compared very favourably with a per capita national income in that year in Bangladesh of \$ 140, while the average monthly expenditure of such households on nutritious food items was very much higher than for other families (CIRDAP, 1988).

10.3 Women are subject to a number of specific constraints affecting their involvement in rural enterprises. These relate to location; marketing; labour; technology; social and cultural factors; education and skills; and access to credit.

10.4 The locational factor which stems from the difficulty of working away from the household is a considerable one, which in practically all countries results in a much lower participation in self employment compared with men.

10.5 The marketing problems referred to already in respect of household enterprise activities may be aggravated by being tied to the household, women having little access to markets outside the local area, for this and other reasons. Possible interventions here have already been commented on.

10.6 Labour is a major constraint, particularly in Africa, limiting the capacity of women to undertake non-farm enterprise activity. In particular reference may be made to hours spent collecting water - which may be tackled directly by allocating financial resources to developing rural water supplies - or collecting fuelwood, which requires a rural energy policy. Appropriate technologies may also be developed to economise time in domestic food processing of cereals and other household activities in order, again, to release time for income-generating activities and, despite the comparative neglect of the field in governments' development plans, a number of significant successes have been achieved [7].

10.7 A further category of technological constraint affecting women is the inadequate technology commonly existing within the household manufacturing enterprise itself. The two major constraints to increased productivity mentioned by women engaged in rural industries in Begumganj, Bangladesh, in the field survey already referred to were 'the low level or antiquated technology', cited by 53 per cent and the lack of skills/technical knowledge, mentioned by 57 per cent, the next most important being 'difficulties in getting raw materials', 14 per cent (CIRDAP, 1988, Volume II, p 36). Improvement would appear to call for a combination of identification and selection of appropriate technologies, credit or hire purchase facilities for new equipment, perhaps organised through groups, and training where needed.

10.8 Absence of technical skills specifically impedes women's entry into some of the more technologically-upgraded activities which might offer more than marginal incomes. This is true more broadly of restricted access to education, which limits entry to a broader range of activities within manufacturing and also outside it.

10.9 Credit constraints have already been commented upon. They are more severe for women, however, and suggest that a different approach is needed in their case. Since women are more closely tied to household farming activities involving crops and livestock, and in selling and service activities, it is appropriate that credit schemes should encompass a mix of activities and not be restricted to manufacturing. For social and cultural reasons, women lack freedom in operating independent enterprises and find it more difficult to seek credit from formal channels. Women's associations can be valuable here in providing mutual support in relation to initiating

and maintaining business activities and in obtaining credit. Credit guarantees may help them to secure working capital and materials from suppliers.

10.10 Some women's projects, particularly those for young women, have focused on rather peripheral activities, tie-dye, for example in some African countries. These often provide quite marginal incomes for a comparatively small group of people. It seems much preferable to 'mainstream' women by adopting major programmes which benefit both men and women, and by adopting women's programmes and measures which benefit women in significant numbers and in significant activities.

10.11 One example of a successful project is that of SEWA, the Self-Employed Women's Association, in Ahmedabad, India, although this particular project is urban-based. The association has organised some 25-35,000 poor, urban women in a wide range of occupations as petty vendors and hawkers, labourers, service workers engaged in cleaning and laundry, and also home-based industries: producing cigarettes, incense sticks, snack foods, garments, brooms and crafts. The association provides certain services such as credit, training and assistance in marketing, but also serves to articulate the views of women entrepreneurs as a group, in dealing with merchants, the police and municipal authorities, helping to reduce harassment. The project follows the approach just suggested of covering all types of activities and dealing with women's earning activities as they are. It follows a target group approach, in order to help a particular group of people. It is participatory. And it brings out the need to influence policies in order to secure the appropriate environment for successful activity.

## 11. The issue of location

11.1 In the section on conceptual and definitional problems above we raised the issue of definition in relation to what should be regarded as 'rural' industry. The issue really relates to what the geographical scope of an assistance programme aimed at promoting rural development should be, since it is apparent that, because of interdependencies between town and country, urban-located industries may be important in relation to the development of surrounding rural hinterlands and attempts to disperse them or to limit promotion to dispersed small industries may be counterproductive. Given this symbiotic relationship, there should not be over-concern with the precise location of the small and micro-enterprises being promoted.

11.2 What is important here, also, is to avoid or reduce the strong polarisation tendencies which have produced massive over-concentration in capital cities such as Bangkok, in Thailand, and Lagos, in Nigeria, which creates major congestion problems as well as failing to produce the interdependencies above. The most efficient way of achieving this may be the encouragement of small and other industry in secondary or 'rural' towns and smaller urban centres rather than only in very dispersed locations.

11.3 As noted above, in Section 7(f), even in the case of informal sector micro-enterprises, there is a strong tendency to form clusters or 'agglomerations', presumably due to perceived externalities in coming together. Within each agglomeration, subsidiary clusters



incorporating several hundred small establishments may be specialised in particular activities, such as metal-working or furniture-making. Thus even in respect of very small enterprises there may be an efficiency argument favouring location within an urban area, albeit economically interdependent with the surrounding area.

11.4 It may be comparatively easy for rural consumers to find their way into town, using fast and cheap local transport. Producing goods at low cost in the most favourable location may help such consumers by turning the rural-urban terms of trade in their favour. We have also indicated that the development of appropriate technologies and products for the rural economy may be critical to its growth and that agglomerations of micro-enterprises may be, with product development and extension, a useful vehicle for achieving this.

11.5 Finally, in many countries, African and Asian, households are divided between rural and urban employment, husbands or other members of the family obtaining employment in small and informal sector enterprise in urban areas. This makes the definition of a 'rural household' more difficult. In Kenya the proportion of 'female-headed rural households' created in this way has recently been estimated as one-third, (IFAD, 1990, forthcoming) and other African countries probably exhibit the same phenomenon to substantial degrees. Thus the promotion of SSI in rural towns may be important in maintaining rural household viability.

## 12. Elements of a strategy for rural industrial development

12.1 The foregoing discussion can be brought together to form the elements of a strategy for rural industrial development in the developing countries, keeping in mind that the appropriate combination of measures will vary according to circumstances.

12.2 Encouragement of micro-enterprise establishments should form an important part of rural industrial promotion programmes, which have often concentrated more than they should have on 'modern' small scale industry.

12.3 Since the growth of RSIE is directly dependent on agricultural incomes and agricultural development - and can itself contribute in significant ways to the growth of agriculture - promotion of RSIE must run alongside measures to develop agriculture and to increase rural purchasing power through land reform and similar measures.

12.4 Progressive expansion of rural electrification must constitute, within development budget constraints, an important part of a development programme for RSIE. Decentralisation of industry into rural areas is directly dependent on the extent of rural electrification.

12.5 Efforts to promote RSIE are only likely to be successful if the macroeconomic framework, including tariffs, interest rates, tax provisions, exchange rates, and de-emphasis of import-substituting industrialisation based on imported technology, provides the right 'enabling environment' for RSIE.

12.6 Behind this, the degree of commitment by planners to push through policies which are even-handed as between large and small enterprise is critical.

12.7 The possibilities for developing or expanding the extent of subcontracting need to be explored, with respect to SSEs and household enterprise. Its appropriateness will depend on the particular circumstances obtaining.

12.8 The emphasis should be on developing sustainable programmes for SSI encouragement under which dependence on donors can be progressively phased out.

12.9 NGOs should be involved as part of the mechanism for the distribution of credit, where possible, in cooperation with formal banking institutions.

12.10 Credit guarantee schemes offer important possibilities, if properly managed.

12.11 Industrial estates need to be designed differently to suit the different needs of different categories of establishment.

12.12 Greater emphasis should be placed, however, on improving services to spontaneous agglomerations and clusters of micro-enterprises, and on promotional efforts within these.

12.13 The possibilities in each country for the development of appropriate technologies need to be investigated, taking account of the existing international stock of knowledge in this direction, and measures taken to disseminate these. Where individual entrepreneurs have succeeded in taking up more advanced products or better designs, the possibilities for their wider adoption within the SSI sector should equally be assessed. A 'market approach' to appropriate technology dissemination should be adopted under which the introduction of the new technologies and products takes place via the producers themselves.

12.14 Agglomerations or clusters of informal sector producers should be encouraged and assisted and, within them, the formation of associations or groups. These can in turn be encouraged to participate in activities for their joint benefit, including beneficial raw material purchase, bulk orders for products, sub-contracts, collective savings and loan schemes, apprenticeship systems, etc.

12.15 They could also serve as information exchanges for the introduction of new products.

12.16 SSI promotion should be part of a broad policy for the encouragement of SSEs, including those in the non-manufacturing sectors, trade, transport, construction and services.

12.17 In the area of skills training, the emphasis should be on developing and improving informal apprenticeship systems rather than on classroom instruction. Training of established entrepreneurs should be focused on a specific product or technique with demonstrated potential.

12.18 Possibilities for integrated agro-industrial development focused on particular new crops or more broadly on a range of crops need to be investigated, to identify various potential linkages, taking into account the experiences of other countries within the same sectors.

12.19 Contract farming represents one form of integrated agro-industrial development which should be encouraged.

12.20 Both 'horizontal' and 'vertical' or 'filière' approaches to SSE promotion should be adopted. The filière approach should be used to focus on natural resource availabilities, linkages in the chain of production, actual or potential, constraints at different points in the chain, options at different points between large scale and small scale production possibilities, and possible complementarities between the two, such as subcontracting.

12.21 Raw material constraints affecting household industry in particular need to be investigated.

12.22 If household industry is to be promoted, the greatest need is generally to find new activities for urban and overseas markets which can offer improved returns to labour.

12.23 The formation of groups and associations of household producers should be encouraged, including groups for savings and credit. Here purchase facilities for the acquisition of small capital goods may be appropriate.

12.24 Since labour may be a critical constraint in expanding women's non-farm activities, improvement in the availability of rural water and fuelwood supplies may be a prerequisite, while appropriate technologies need to be developed to economise time spent in domestic food processing.

12.25 To increase the returns for rural women's involvement in income-generating activities, technology needs to be upgraded, technical skills developed, and credit or hire purchase facilities for small pieces of equipment made available.

12.26 Distribution of credit through groups, and for a mix of manufacturing and non-manufacturing activities is especially appropriate in the case of women, given the particular constraints which they face.

12.27 A 'mainstreaming' approach to the assistance of women should be adopted under which substantial numbers of women can benefit and in significant ways, rather than dealing with peripheral activities.

12.28 In adopting a policy of rural industrial promotion, the emphasis should be on developing interdependencies between the agricultural and manufacturing sectors without too exact a concern for the precise location of manufacturing enterprise. The most efficient way of reducing over-concentration of manufacturing and other activities in capital cities may be the encouragement of secondary or rural towns, rather than restricting promotional

programmes to micro-enterprises in very dispersed locations. The most effective way to upgrade micro-enterprises themselves may be through agglomerations or clusters of establishments located in urban areas but serving rural consumers and producers in the surrounding areas.

### 13. Institutional framework

13.1 Once an appropriate strategy and set of constituent measures have been selected, the institutional framework required for its implementation needs to be worked out in the context of the individual country. We shall merely indicate some components of that framework which are suggested by the discussion above.

13.2 Given the emphasis on establishing a correct macro-economic environment, there is an assumption that the Planning and Industry ministries have the capacity to provide the required economic analysis and a commitment to reviewing existing policies.

13.3 The Ministry of Industry in particular would need the capacity in economic and technical fields to assess the potential for agro-industrial complexes or specific linked activities. In many cases this will require technical assistance.

13.4 There is a need to establish a search capability for identifying possible technologies for agriculture and other rural sectors. This entails the establishment of a domestic institutional mechanism, with international back-up, to identify the possibilities and test their relevance and adaptability to local needs.

13.5 As a complement to this, there is need for a mechanism for the dissemination of appropriate technologies and products, analogous in some respects to the system of agricultural extension. The nucleus of the system would be at the national level but this would be at the centre of a system decentralised to the local or district level. At the latter level district officials would work in tandem with NGOs, with representation of credit institutions, and at the national level also the institution or committee established would need to bring together officials of all relevant ministries and private sector representatives.

13.6 In determining appropriate policies for the development of particular sectors, following the 'filière' approach, working parties might be established, again with representatives from both public and private sectors, to examine each filière or sector.

13.7 The institutional requirements at the district level need careful consideration. Many of the initiatives suggested here relate to groups based on rural households, to clusters of small-scale industrialists, or to women's groups. The basic approach is a participatory one which requires interaction between promoting agencies and agents and local people.

13.8 Two major questions left open here are (a) how best to establish the organisation to deliver training and improve skills in the system; and (b) how to organise the delivery of credit in such a way as to reach the target groups at an acceptable level of

transactions cost. The Grameen Bank in Bangladesh is only one example of such an approach.

13.9 It has been indicated that NGOs can make a very effective contribution at the district level. A question arises as to what is the best institutional framework within which they should be encouraged to operate and how their fullest potential contribution, often not realised, can be obtained.

#### 14. Issues for consideration

14.1 Many of the institutional questions just referred to are left as issues for consideration. A resume of some of the other issues which have been raised may be useful. They may be left as questions.

14.2 What should be the balance of promotional effort as between micro-enterprise and 'modern' small scale industry?

14.3 Is there a problem of the 'missing middle' of small scale industrial establishments, what are the underlying causes, what measures need to be taken?

14.4 What is the scope for subcontracting, (a) in relation to household industry and (b) in relation to SSI and especially RSIE? Which products are suitable for such development?

14.5 Is credit a constraint on RSIE? If so, in what respects?

14.6 What is the most effective way of delivering rural credit? How can the transactions costs of making loans to RSIE be reduced?

14.7 What is the potential of savings and loans associations (SLAs) for mobilising savings and directing them towards SSE investment?

14.8 How well designed are existing industrial estates and areas to suit the different needs of large, small and micro-enterprises?

14.9 Should the main approach be based on industrial estates or on reinforcing spontaneously developing agglomerations of micro and small scale enterprises?

14.10 What should be considered as 'rural industry'. Should programmes be designed to encompass development in rural towns or even important secondary towns, or, should they be confined to dispersed rural industry, even if this entails a much reduced coverage?

Notes

[1] 'Town industries' in rural Thailand averaged 5-7 workers per establishment according to one survey (Akraanee et al, 1983, p 107)

[2] This 58 per cent makes no allowance for marketing and transport of processed agricultural products, included under the heading of wholesale/retail trade or separately under transport.

[3] Choudhury (1988) suggests this holds true of Malaysia, for instance, despite the existence of a number of agencies and a Coordinating Council for the Development of Small Scale Industries.

[4] Rural Off-Farm Employment Assessment Project, supported by USAID.

[5] See various references to publications by the Centre on Integrated Rural Development for Asia and the Pacific (CIRDAP), particularly those by Rao (1988) and Choudhury (1988).

[6] In fact just such an approach to economic development strategy was proposed, and by a leading development economist, Albert O Hirschman, in his The Strategy of Economic Development, Yale University Press, 1958, which argues for unbalanced growth as a means of creating positive impulses for change.

[7] For numerous examples, see Local Production of Appropriate Technology for Rural Women, Unit for the Integration of Women into Industrial Development, PPD 142 (SPEC), UNIDO, Vienna, November 1989.

Table 1

## Share of Non-farm Income in Total Rural Household Income

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<u>Country</u>	<u>Year</u>	<u>Percentage</u>
Northern Nigeria (3 villages)	1974	28
Sierra Leone	1974	36
Taiwan	1975	43
Thailand	1976	43
Korea	1980	34

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## Source:

'Size Distribution, Structure and Determinants of Personal Income Among Farmers in the North of Nigeria' (Ph.D dissertation, Cornell University). Government of Taiwan, Taiwan Farm Income Survey of 1975 (Taipei: Joint Commission for Rural Reconstruction, 1976). World Bank, Thailand: Rural Growth and Employment (Washington, 1983). Government of Korea, Report on Results of Farm Household Survey (Seoul: Ministry of Agriculture and Fisheries, 1981). Taken from Kilby (1986).

Table 2

A

Percentage of Rural Labour Force With Primary Employment  
In Rural Non-Farm Activities

Country	Year	Coverage	Percentage of Rural Labour Force Primarily Employed in Non-Farm Sector (%)
Thailand	1970	All rural	18
Sierra Leone	1976	Male rural	19
South Korea	1970	All rural	19
Pakistan	1970	Purjab only	19
Nigeria	1966	Male 3 dist W. State	19
India	1966	All rural	20
Uganda	1967	Four rural villages	20
Afghanistan	1971	Male Paktia region	22
Mexico	1970	All Sinaloa State	23
Colombia	1970	All rural	23
Indonesia	1971	All rural	24
Venezuela	1969	All rural	27
Kenya	1970	All rural	28
Philippines	1971	All rural	28
W Malaysia	1970	All rural	32
Iran	1972	All rural	33

B

Sectoral Composition of Rural Non-Farm Employment  
In Selected Countries  
(Percentage)

	Afghan- istan (1970)	India (1966)	Indo- nesia (1971)	Sierra Leone (1975)	Phil- ippines (1970)	Korea (1970)	Colombia (1970)
Manufacturing	46	39	29	40	34	30	33
Construction	9	14	5	2	11	10	8
Trade	11	14	34	35	15	24	19
Services	10	24	27	23	30	29	33
Other [1]	24	9	5	-	10	7	7
	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>

Notes: [1] Includes utilities, transport and miscellaneous; omits 'other and unknown'.

Source: Chuta and Liedholm (1979)



Table 3

Share of Rural Manufacturing and Non-Farm Activities  
In Selected Countries  
(Percentages)

	Proportion of the rural labour force engaged in	
	Manufacturing	Non-farm Activities
<u>Africa</u>		
Kenya (1970)	-	28.0
Sierra Leone (1976)	7.6	19.0
Zambia (1980)	2.7	22.3
<u>Asia</u>		
Bangladesh (1983/84)	7.7	33.5
India (1981)	6.5	19.0
Indonesia (Java) (1980)	9.5	37.9
Malaysia (1980)	10.5	49.3
Nepal (1977/78)	14.0	n.a.
Pakistan	9.4	32.3
Philippines (1983)	7.0	31.9
Sri Lanka (1981)	8.4	45.8
Thailand (1983)	5.4	n.a.
<u>Latin America</u>		
Colombia	7.6	23.0

Source: Asia: R Islam, (1987).  
Other: (except Zambia) Liedholm and Mead, Small-scale Industries in Developing Countries: Empirical Evidence and Policy Implications (Washington, D.C., USAID, 1986).  
Zambia: Draft Third Five Year Plan, N.C.D.P. (Lusaka, Zambia, 1986).

Taken from: RSIE-Evaluation Study, 1988, Haan, 1989.

Table 4

## Employment in Industry, according to size of firm

Country		GNP per capita (US\$ '82)	Employment (%) according to size of firm		
			Micro (0-10)	Small (10-49)	Large (50+)
India	1971	260	42	20	38
Tanzania	1967	280	56	7	37
Kenya	1969	390	49	10	41
Indonesia	1977	580	77	7	16
Zambia	1985	640	83	1	16
Philippines	1974	820	66	5	29
Colombia	1973	1460	52	13	35
Korea	1975	1910	40	7	53

Source: Liedholm and Mead (1987)

Table 5

## Origins of Modern Small and Medium Private Manufacturing Firms (with 11 employees or more)

Region/ Country	Year	No. of Firms in Sample	% Originated as Micro (<10 employees)	% Beginning with 11 or > employees
<u>Africa</u>				
Nigeria	1965	64	43.7	56.3
Sierra Leone	1975	42	30.1	69.9
Rwanda	1987	28	10.7	89.3
Botswana	1982	20	20.0	80.0
<u>Asia</u>				
India	1979	244	65.6	34.4
Philippines	1978	47	48.9	51.1

Source: Adapted Haan (1989) from Liedholm and Parker (1989) p 26.

Table 6

## Recorded employment, including small scale enterprises, Kenya, 1985-1988

	1985		1988*		Annual rate of growth 1985-88 (%)
	('000s)	%	('000s)	(%)	
<b>All Sectors</b>					
Public & private wage employment	1174.4	82.2	1311.0	79.1	3.6
(Private sector only)	(599.8)	(42.0)	(650.1)	(39.2)	(2.7)
Small-scale enterprises	254.5	17.4	346.2	20.4	11.1
Self-employed & family workers	33.4	2.3	43.9	2.6	9.6
<b>Total</b>	<b>1462.0</b>	<b>100.0</b>	<b>1701.1</b>	<b>100.0</b>	<b>5.2</b>
<b>Manufacturing</b>					
Public & private wage employment	158.8	78.5	170.3	72.0	2.2
(Private sector only)	(123.6)	(61.1)	(132.7)	(56.1)	(2.3)
Small-scale enterprises	43.5	21.5	66.1	28.0	15.0
<b>Total, not including self-employed &amp; family workers</b>	<b>202.3</b>	<b>100.0</b>	<b>236.4</b>	<b>100.0</b>	<b>5.3</b>

Source: CBS, Economic Survey, 1989

\* Provisional

Table 7

## Inventory of rural non-farm activities, Kenya 1977

Activity	Per cent involved of households %	population %
Total resource extraction	12.1	13.0
Wood cutters etc	3.7	3.5
Hunters	2.6	1.3
Fishermen	2.2	5.2
Other	3.5	3.0
Mfre of food, beverages, tobacco	22.3	16.4
Pombe brewing	13.4	7.7
Dairy products	2.3	1.4
Other drinks	2.1	1.4
Tobacco products	1.7	1.8
Other food etc	2.7	3.1
Mfre of plant & animal fibre products, apparel	12.4	10.9
Reed, rush & sisal products	5.7	5.1
Weaving, knitting etc	3.1	2.2
Tailoring	1.2	2.4
Other products	2.3	1.2
Mfre of wood products	14.0	11.5
Charcoal making	6.1	4.0
Gourds and calabashes	2.7	2.2
Furniture	1.5	1.6
Building poles	1.3	1.4
Other wood products	2.3	2.3
Pottery products	1.7	1.1
Mfre of metal products	1.2	1.0
Construction	4.6	5.2
Wholesale/retail trading	9.3	10.9
Repairing (vehicles, bicycles, machinery, furniture, household utensils, shoes, clothing, watches)	5.4	7.8
Total transport etc	4.1	3.7
Bus, taxi & transport operators	2.3	1.9
Water carriers	1.0	0.9
Other transport etc	0.8	0.9
Accommodation, food & beverage services	4.6	5.7
Financial & business services	1.2	0.1
Community, social and personal services	5.2	10.8
Traditional healers	2.1	2.5
Other community services etc	5.9	8.3

Source: CBS, IRS National Household Survey, 1977

**Table 8**  
Interest rates in the formal and informal  
sectors of developing countries

	Informal Rates (%)		Formal Rates (%)	
	nominal	real	nominal	real
Africa (6 countries)	114	108	9	3
Asia (10 countries)	37	28	12	4
(incl Vietnam)	(48)	(20)	(30)	(2)
L. America (9 countries)	64	54	13	2
Mean, 25 countries	67	57	11	3

Source: derived from Haggblade et al (1986)

**Table 9**  
Degree of currency overvaluation 1983,  
selected developing countries

Overvaluation: (%)	Nil	1-	10-	20-	40-	60-	100-	200-	Total
Africa	1	-	4	2	2	2	-	1	12
Asia	2	3	-	2	2	-	-	-	9
L. America & Caribbean	-	-	3	3	1	-	-	-	7
Total	3	3	7	7	5	2	-	1	28

Derived from Haggblade et al (1986)

Table 10

Number of farm households reporting specified non-farm enterprises in N and NE Thailand, 1982

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Households reporting activity (N = 424)

	Number	% of households
Noodles	30	7.1
Ox carts	6	1.4
Silk-weaving	43	10.1
Cotton-weaving	65	15.3
Wood products	17	4.0
Bamboo products	93	21.9
Hand tools	36	8.5
Processing agric products	109	25.7
Cement products	3	0.7
Mat-making	62	14.6
Pottery	20	4.7
Bricks	12	2.8
Lacquerware	2	0.5
Other products	50	11.8
Commerce	54	12.7
Services	60	14.2

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Source: O Kiatying - Ungsulee (1981)

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