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WORKING GROUP ON INDUSTRIAL CONTRIBUTION

TO RURAL DEVELOPMENT

ACC TASK FORCE ON RURAL DEVELOPMENT

RURAL INDUSTRIES AND POVERTY ALLEVIATION

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FINDINGS AND RECOMMENDATIONS

The following points have been extracted from the text:

Characteristics of rural poverty

1. Poverty target groups include a proportion of poorer smallholders, the landless/near-landless, pastoralists, the 'ethnic indigenous, small/artisanal fishermen, refugees/displaced persons, woman-headed households, and youth. The poverty of these groups is most directly connected with lack of access to resources.

2. Poverty is also associated with regions or parts of countries.

3. Poverty is measured most directly by the extent to which proportions of the population are lacking in basic needs, particularly food, shelter, health and education. Rural industry can contribute to basic needs directly as well as by generating income and purchasing power.

4. The impact of projects, programmes and policies on the poverty groups should be systematically monitored, through properly established reporting systems where possible, taking into account both direct and indirect effects.

5. Self-selecting programmes not of interest to the non-poor represent an appropriate means of targeting the rural poor.

Rural industry and non-farm activity

6. Survey data collected on non-farm activity and various types of rural industry frequently suffers definitional confusions and inconsistencies, sometimes rendering the data unusable or misleading. The international agencies can make a contribution by bringing these problems to the attention of national and international statistical services so that they can be taken account of in formulating data collection plans,

7. A definitional issue of practical consequence is what is to be considered 'rural' and thus within the scope of rural poverty programmes. Dogmatic adherence to boundaries of interest as defined by location should not be maintained, and the rural economy should be seen as combining interdependent rural and urban areas.

8. There is a comparatively low rate of 'graduation' in size among micro-enterprises but the sector expands through an increase in the number of establishments. An

uncertain question is whether the expansion of the micro-enterprise sector or non-farm sector has been evolutionary or involutionary, with diminishing marginal product.

9. Monitoring systems for rural development programmes and projects need to be established, and need specifically to monitor their distributional impacts.

10. Target groups can benefit directly or indirectly from rural development programmes and promotional assistance need not be confined to 1-2 person establishments and can also encompass larger RSIEs. The aim should be to maximise employment in efficient rural non-farm activities through a mix of rural industry types.

Measures for the promotion of rural small scale industry

11. Policy measures at the macro level and at the sectoral level are often contradictory in their relation to SSI.

12. One effect of the pursuit of import-substituting industrialisation policies has been to produce, in Africa particularly, a bimodal structure in manufacturing with a 'missing middle' in respect of 'modern' small scale industry.

13. Rather than the conventional small industry development organisation (SIDO), what is needed is an organisational set-up designed to promote a number of different types of small scale urban and rural manufacturing, concerned with a range of policy measures towards SSI, including technology and promotion through NGOs, and involved at both national and district levels.

14. It may be better to improve services in spontaneous agglomerations of informal sector workshops than to create SSI industrial estates artificially.

15. However small estate facilities providing simple lockable premises which are appropriately designed and located to accommodate clusters of informal sector establishments can allow enterprises to economise scale funds.

16. There is need for caution, however, in assuming that capital is the principal constraint in small scale enterprise, some evidence of excess capacity in rural small scale enterprise especially suggesting market demand may be an overriding factor in some cases.

17. The attempts in different countries to establish programmes along the principles of the Grameen Bank need

to be followed and analysed closely. Experience so far appears mixed.

18. The involvement of NGOs in credit distribution often disguises rather than reduces loan administration costs. Nevertheless, cooperation and division of labour between banks and NGOs does offer the genuine possibilities of reducing risks and supervision costs and need to be explored in the context of each situation.

19. Credit guarantee schemes have not in all cases been successful, but have underused potential in respect of rural women, in particular.

20. Efforts at developing appropriate technologies capable of practical implementation have been slow in bearing fruit, but there are now quite a range of successful examples which have had wide impact. Other isolated cases of independent innovation by small scale entrepreneurs indicates very positively the possibilities for producing low-cost capital goods in the informal sector.

21. However, in no country is there any institutionalised search capacity established with the directive of finding items which could be simply copied but produced more cheaply, using local scrap and other materials.

22. An important question is how best to achieve some degree of technological upgrading in the micro-enterprise sector of manufacturing. The metal products sector, especially if linked to agricultural development, appears to have the greatest potential of extension and diversification.

23. There exists also an international 'shelf' of appropriate technologies on which countries can also draw. For this purpose, individual countries need to set up a search capability, a domestic institutional mechanism, 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.

24. A 'market approach' to the dissemination of appropriate technologies could be based on agglomerations or clusters of informal sector producers, which could serve as important vehicles for promotion of the sector, in ways which are detailed in this paper. Striking success in promoting effective grass root producer organisations

has been achieved in Rwanda.

25. Information exchanges should be developed as a means of promoting subcontracting between large firms and RSIE.

26. Teaching of 'entrepreneurship', management skills and bookkeeping is not very appropriate for RSIEs. Skills training for the entrepreneur should have a clear objective and preferably be focused on a specific product or technique which has demonstrated potential.

27. Less emphasis should be placed on schools and vocational training institutes and more on the promotion of existing informal apprenticeship systems.

28. Both entrepreneurial and apprenticeship training may need to be linked with credit provision for the purchase of relevant equipment and tools.

29. Subcontracting appears to be a potentially quite important mechanism for facilitating the dispersal of suitable industries into the areas and could be explored in more than the limited number of countries in which it is presently operational. It does, however, require specific favourable circumstances. Associations of producers and specifically clusters of producers in one location, are likely to be helpful.

30. Subcontracting of production to household industry also has possibilities but should not be seen as a general prescription, its appropriateness depending on local circumstances and on the identification of particular products.

Developing sectoral linkages

31. There is a potentially important two-way development process based on interdependence between agricultural development and the development of small scale rural industry.

32. The expansion of rural industry in any region must be based on a strong agricultural development strategy and requires a strong agricultural base. Agriculture is a critical part of the 'enabling environment' for rural industry.

33. Apart from agricultural growth, the distribution of agricultural incomes and assets is important. Highly inegalitarian land ownership structures and incomes, with mass rural poverty, are not likely to generate the rural purchasing power which is the driving force underlying non-farm activities.

34. In order to reach the rural poor, an overall strengthening of the rural economy is required, paying close attention to relations between sectors and activities.

35. Rural industry can play a role in supporting technical change in smallholder agriculture, essential in order to offset the effects of rapid population growth on farm size.

36. An integrated agro-industry approach has been put forward as a strategy: however the real content and practicability of this needs to be carefully assessed.

37. A new way forward for national/rural planning may be based on the 'filière concept' which takes a vertical perspective from the macro to the district level, including the resource base for a specific set of interconnected activities. It may call, however, for interdisciplinary technical assistance, covering technical as well as economic alternatives and possibilities.

38. This approach can provide the basis for 'linkage endogenization' through anticipation of connections and managed supply responses, including training of craftsmen-entrepreneurs in new technologies.

39. The filière approach can provide a vehicle for the incorporation of national level policies and choices into district or area planning by combining horizontal and vertical perspectives.

40. The approach could be important in dealing with problems of sustainability by identifying actual or prospective shortages of basic materials which call for action.

41. It is perfectly designed to take care of poverty concerns, at every stage identifying areas of conflict in which the small scale, the rural and specific target group interests may be disadvantaged.

Rural housing and construction as a focus for linked activities

42. In assessing possibilities for promoting rural industry and non-farm activities, one important connection is seldom made: that with rural housing and construction.

43. A focus on housing and construction, covering also municipal and other buildings, may be a more effective means of developing the separate activities of carpentry and metalworking, through a demand-led rather than supply-side approach.

44. Positive rural construction policies are important as a basis for the planning of low-income settlements and rural growth centres as stimuli for rural development, involving more general externalities.

45. A rural housing and construction programme can be justified as a component of poverty alleviation policies both in terms of the basic needs provided and the employment it generates.

46. Widely varying situations exist in respect of rural housing quality even between different parts of the same country, making it more important that these needs be systematically assessed in each place.

47. The scale of the rural housing problem makes a participatory, community-oriented approach mandatory.

48. A demand-led approach depends upon mobilisation of own savings and the availability of credit. The adoption of an evolutionary or step-by-step approach to rural housing improvement can bring programmes within the ambit of even very poor households.

49. Small scale enterprises are more related to the shelter needs of the low-income population and ideally suited to operate in the self-help and low-income housing sector.

50. The filière approach to planning is most appropriate for housing and construction.

51. Few integrated rural development programmes have included housing as a component, housing being regarded only in terms of its social value, ignoring its production linkages.

52. In order to pursue a rural housing/construction filière, an appropriate institutional structure needs to be established embracing the functions of basic information collection, community-institution building, appropriate technology R and D and dissemination, and training, coordinated at both national and local levels.

53. Some low-cost housing schemes have generated interesting positive responses in terms of informal sector production, services and markets for materials.

54. Considerable progress has been made in respect of appropriate building materials and technology, but dissemination still remains comparatively limited. Too often efforts are stopping short at the stage of publication and distribution of descriptive manuals.

55. NGOs have been playing a practical role here, although there is a question whether NGO-based projects can achieve a significant enough coverage of the huge target rural populations involved.

56. In relation to rural housing/construction, a basic component of an 'enabling environment' would be the identification of a wide range of the raw materials required by local entrepreneurs, self-help builders and building cooperatives through land-use maps pinpointing suitable deposits or wood species.

57. Measures for granting concessionary rights may need to be simplified. For renewable resources such as building poles, measures to encourage local small-scale private commercial production may be needed.

58. A prerequisite is the adoption of a core housing or construction programme by national planners. To date, hardly any governments have comprehensive strategies for the construction industry or coherent rural shelter policies.

59. Once these are in place, the broadest possible impact can be achieved by participatory self-help approaches, reliance on informal sector, small-scale entrepreneurs and use of indigenous materials, supported by group credit and savings mobilisation, technical assistance for the introduction and development of appropriate technologies, and training.

60. UNCHS, together with the other international agencies, needs to press national governments to clarify their policies and establish clear strategies and programmes in respect of rural housing and the rural/national construction industry, drawing their attention to the associated potential in terms of linked activities.

61. Inter-agency country missions could usefully be established to cover different dimensions such as macro/sectoral policies, appropriate technologies, community participation, credit and training.

62. Funding agencies should be made alive to the possible incorporation of housing/construction related activities into funded area-based development programmes, including those in refugee-affected areas.

63. It can be questioned whether UNCHS itself has been sufficiently alive to the needs of the rural as opposed to the low-income urban sector.

Women in household and rural small-scale industry

64. Rural small industry is of considerable importance to rural women in developing countries.

65. Much of household industry is resource-based and resource availabilities can be of great importance.

66. The 'putting out' system has been severely criticised for its exploitative aspects and it is important to investigate and monitor the conditions under which any such system operates to ensure fairness and eliminate abuses. It is possible, however, for home-based activities to contribute in an important way to rural household viability and to poverty alleviation.

67. The household or small workshop mode of production has specific opportunities in relation to craft goods. The most common problem has been marketability. Prior assessment of the market potential should be a prerequisite for launching even pilot projects.

68. For women's income-generating projects generally, very few project documents include even a rudimentary feasibility study of the activities to be promoted.

69. Some women's projects have focused on peripheral activities. It is preferable to 'mainstream' women by adopting major programmes which benefit both men and women and by adopting policies and programmes which benefit women in large numbers and in significant activities.

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

71, Where obvious opportunities for village or household-based manufacturing by women do not exist, it may make more economic sense to concentrate on 'auxiliary agricultural production'. Such activities may be of particular relevance to the near-landless to women-headed households, and to households in semi-arid areas.

72. Attempts to promote new manufacturing activities among rural women may fail if they are not consistent with household labour availabilities and women's multiple roles. Collection of basic information on labour availabilities should be a prerequisite for any new project.

73. Partial success has been achieved in a few countries in respect of new sources of energy such as biogas and solar energy and efforts in this direction need to be redoubled and factors affecting replicability carefully considered.

74. The fact that developments are mostly still limited to the experimental stage after a considerable lapse of time reflects the minimal amount of backing, national and international, that these efforts, often left to NGOs, have had.

75. An international workshop to review progress and consider the possibilities for and obstacles to practical implementation of new energy technologies is called for.

76. With respect to water supplies, it may be commitment to people-oriented rural development that is lacking, rather than new technologies.

77. Improved village-level storage facilities should be an integral part of any rural housing programme and could have a major effect in economising women's time.

78. In some circumstances, the introduction of new labour-saving rural technologies can have negative distributional consequences. It is important to assess such possibilities in advance.

79. The most obvious area in which new technologies might be introduced to the benefit of women is in the widespread daily business of food processing.

80. A major factor limiting the introduction of those technologies relates to their effective scale of operation, in some cases precluding their employment by individual households, and requiring either group organisation or control by individual larger entrepreneurs.

81. Given the dramatic savings in labour productivity achievable with new food processing technologies, it is important to ask why the different types of equipment have not become the norm.

82. In the case of specially designed appropriate technologies, the existence of a 'missing link' between designers and manufacturers has been suggested.

83. Many of these items of equipment are not difficult to fabricate and could be produced in rural informal sectors. Systematic assessment is required at the

national level of what real, marketable opportunities exist, followed by a much more active promotion of their production and distribution through the informal sector.

84. With respect to projects involving the promotion of group organisation around new food processing technologies, there appears to be little systematic follow-up over a period of years. It is suggested that regular reviews of potential and experience with new technologies, covering technical and organisational aspects, be carried out through appropriately-designed regional institutions which should have strong national government support and involvement. Such institutions could serve as vehicles for the injection of expertise from the appropriate international agencies.

85. More R & D and stronger dissemination efforts should be applied where improved technologies, including hand-operated equipment, can be managed by individual women or small groups.

86. Women's groups have a number of very evident advantages in bringing assistance to women, with the progress of credit and thrift societies particularly encouraging. They are particularly important in being able to pull in the poorest sub-sets within the community.

87. A limitation is the level of savings and credit which can be mobilised. A group's access to funds can be substantially expanded if supporting agencies can offer credit guarantees to allow them to acquire further fixed or working capital.

88. Groups have generally been able to provide only for working capital, and this often for trade rather than rural industry as such. An immediate question which should be considered is whether more progress could be made in incorporating rural industry projects among group-supported activities.

89. More women should be trained as credit officers in order to develop such possibilities.

Income-generating activities for refugees

90. Given the mainly rural background of refugees, one should look first to the agricultural sector for their absorption and the possibilities for providing refugee families with at least a minimum of land. It would in any case be difficult to absorb a large proportion of the refugee population into non-farm activity, due to demand constraints.

91. Woman-headed households form a significant proportion within refugee populations, pointing to an emphasis as regards non-farm activity first on 'auxiliary agricultural production' and then on marketing and service sector activities, perhaps assisted by women's group loans. Other on-going non-farm activities in the region may offer the best clue.

92. For men, training or other assistance towards becoming established in carpentry, metalworking or masonry may be the most obvious, but again raising questions of market demand and competition from existing local producers. Assistance in funding wage employment may be a more effective means of absorbing large numbers of male refugees outside agriculture.

93. However, some of the general lines of action recommended for non-farm activity promotion e.g. housing-related activities, may be capable of application in refugee areas.

94. NGOs have a particularly important role to play in development assistance to refugee-affected areas, in association with participatory and self-help programmes.

95. UNHCR must, of necessity, be concerned first with short term survival and alleviation measures. The necessity for an area-based approach, across sectors and activities, specifically requires injection of different types of expertise from different UN agencies and an area development plan which may be beyond the capacity and terms of reference of UNHCR. How best to achieve coordination among the relevant agencies at different stages of planning and implementation should be a matter for discussion.

96. Coordination is also needed to influence the distribution of financial and development effort by UN or multilateral/bilateral donor agencies in such a way as to recognise the extra claims of refugee-affected areas.

97. Where the position is one of established development programmes or projects, there may be a need to introduce a specific refugee dimension, perhaps 'piggy-backing' refugee components to existing projects.

98. The initiative here is most directly with UNHCR, and it may be considered whether HCR has the necessary capacity at present.

<u>The role of the UN agencies</u>

99. The promotion of rural industry, particularly with

reference to poverty alleviation cannot be dealt with by focusing on a 'rural industry sector' in isolation. Since the development of rural industry depends on a number of inter-sectoral linkages and also generates development in other sectors, a number of UN agencies must all be concerned with its development.

100. As a result, also, rural industry promotion is well suited to an area-based development approach. At present only IFAD is involved in (local) area-based assistance to any extent, in addition to bilateral donors, and other agencies mostly in project-based work. The latter should consider how their expertise could be better utilised within integrated area-based programmes or in planning them, here with reference to rural industry.

101. This project planning has been top-down, non-participatory and the subject of strong recent criticism, particularly in terms of its impact on poverty alleviation.

102. A major gap is evident between research and development into technologies and their introduction on a national basis in any recipient country and between pilot projects in a few villages and major resultant programmes achieving national coverage. Hence a great deal of high quality work and important ideas generated within the UN technical organisations fall into the sand of non-action.

103. Part of the reason for lack of practical implementation, very often, is lack of national commitment by developing country governments. This might be improved if closer coordination among the UN agencies led to national governments having on offer fully integrated programmes in different areas, here rural industry or rural housing, rather than piecemeal offerings.

104. Elucidation of integrated approaches may call for (a) inter-agency workshops covering particular subject areas and (b) inter-agency missions to assist national governments in establishing appropriate strategies and programmes, who might also work on a more continuous rather than one-off basis with national planning institutions.

105. In respect of rural industry, the UN agencies could together press national governments to adopt integrated rural development approaches, 'filière' planning perspectives, and scale bias-free macroeconomic policies. In many countries national planning capabilities will need much more support if these are to be taken on board.

106. Some of the UN agencies, particularly UNCHS and UNIDO, may need to allocate a greater share of their operational activities towards the rural sector, in order to contribute more to the immediate needs of poverty alleviation.

107. The provision of a focus in the form of a combined rural farm/non-farm development strategy with a broad poverty alleviation objective could contribute to providing a response to the criticism that the UN system has failed to exercise efficient coordination of external assistance to any given country. This focus could provide a framework within which specific, periodic UN inputs can be made in a coherent manner.

108. There is a general gap in the mobilisation of existing data and information and their incorporation by UN agencies into a 'state of the art' on which recipient countries can draw with confidence. This gap extends to the present subject area.

109. There is a need for more involvement in national macro- and sectoral (or filière?) planning by the UN agencies, as compared with project work. This is turn indicates the need for more cooperation between the agencies involved in broader diagnostic and analytical studies, such as the ILO, and those dealing more directly with technical nuts-and-bolts projects, such as the FAO.

110. The inter-sectoral relationships identified in respect of rural industry development show that the possible spheres of interest of the different UN agencies can overlap, so that there is also scope for competition and confusion. This points to the need for strengthening existing coordinating mechanisms between the agencies, perhaps around problem oriented foci such as this one in order to anticipate and defuse potential conflict.

WORKING GROUP ON INDUSTRIAL CONTRIBUTION
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RURAL INDUSTRIES AND POVERTY ALLEVIATION

I. CHARACTERISTICS OF RURAL POVERTY

1.1 We need not attempt to duplicate or even summarise here much fuller recent reviews of the state and causes of rural poverty in developing countries, such as those carried out by the World Bank (1990), IFAD (1992) or FAO (1991), or some recent academic descriptions (Iliffe, 1987 and O'Connor, 1991). In considering the role and potential contribution of rural industries in relation to poverty alleviation, however, it is necessary to have first a profile of the rural poor, of the different groups requiring assistance, and of the different circumstances under which it could be hoped that non-farm incomes and specifically incomes from rural industry would help to reduce poverty.

1.2 The size of the poverty problem in rural areas is shown in Table 1. This shows 939 million people in the rural areas below the poverty line in 1988, more than one-third of the rural population. In Sub-Saharan Africa the proportion was estimated as just above 60 per cent, and in the least developed countries 68 per cent.

Table 1: Rural Population Below the Poverty Line in 114 Developing Countries, 1988

Region	Population Total (millions)	Rural (millions)	Rural Pop as per cent of total population	Rural Pop below poverty line Millions	%
Asia	2713	2019	74	633	31
Asia (excluding China & India)	812	567	70	262	46
Sub-Saharan Africa	462	337	73	204	61
Near East & North Africa	208	106	51	27	26
Latin America & the Caribbean	425	123	29	76	62
Total 114 countries	3809	2584	68	939	36
Total 112 countries (excluding China & India)	1908	1132	59	569	50
Least Developed Countries	418	343	82	234	68

Source: IFAD (1992)

1.3 Within these rural populations different target groups have been identified. A broad category sometimes distinguished is that of smallholders. In fact, even within the smallholder sector there is usually considerable stratification, and in richer agricultural areas incomes at the upper end can be quite high compared with average incomes even in the cities. It is at the lower end of the smallholder sector that we should look for the rural poor, those with very small holdings and especially the landless and near-landless. The very high proportions of landless and near-landless in many Central and Latin American and Asian countries are shown in Table 2. Evidence is that these numbers in many countries are increasing at a rate of some 3 - 5 per cent per annum overall, in some places quite rapidly (IFAD, 1992, p 74).

Table 2: Landless and Near-Landless Rural Households - Selected Countries, mid-1970s (Per cent of rural households)

Country/Region	Near-Landless	Landless	Combined
Dominican Republic	48	44	92
Guatemala	47	38	85
Ecuador	52	23	75
Peru	46	29	75
Brazil	10	60	70
Philippines	34	35	69
Colombia	24	42	66
El Salvador (a)	-	65	65
Honduras	46	18	64
Bangladesh (a)	33	29	62
Costa Rica	11	44	55
India	13	40	53
Mexico	33	18	51
Malaysia	35	12	47

Source: IFAD (1992)
(a) Data from late 1970s to mid-1980s

1.4 In some countries, on the other hand, there are poor regions, poor especially for reasons of climate and soil, usually the drier or semi-arid portions of a country, and sometimes a semi-arid country in its entirety. Here most small farmers would constitute the rural poor. Within semi-arid regions, there is the special category of pastoralists.

1.5 The latter are one of a number of groups identified as constituting the 'peripheral poor', marginalised groups 'at the periphery of the development process', 'eking out their existence in a highly isolated and alienated

state' (IFAD, 1992): others being small artisanal fishermen and 'ethnic indigenous', such as the Amerindians of Latin America and the 'tribals' of Asia. The distribution of these groups in 64 developing countries in 1988 is estimated in Table 3, which shows, for example, 324 million landless and, surprisingly perhaps, more than 50 million small and artisanal fishermen.

Table 3: Functionally Vulnerable Population in 64 Developing Countries, 1988

Functionally Vulnerable Groups	Population (000)	Percentage of Total Vulnerable Population
Smallholder farmer	713141	64.3
Landless	324177	29.2
Nomadic pastoralist	9875	0.9
Ethnic indigenous	58930	5.3
Small and artisanal fishermen	51596	4.7
Refugees/displaced	8349	0.8
Total (1)	1109496	100.0
Among women-headed households	221653	20.0

Source: IFAD (1992)

(1) Total may not add up due to overlap

1.6 The poverty of these groups is most directly connected with lack of access to resources, particularly cultivable land, as a result of land pressure associated with population growth, unequal land distribution, exacerbated in some cases by discrimination, or access to only dry, low productivity land or remote hill areas. In the case of pastoralists there has been progressive alienation over the years of the best rangelands for cultivation or development projects.

1.7 Another category, overlapping with some of the above, is that of women-headed households, which in Table 3 is estimated at 20 per cent of the total vulnerable population. In many individual districts within African countries the proportion of rural households which is woman-headed is as high as 50 per cent. These often subsist on very small holdings or in drier low-productivity agricultural areas, and may be handicapped as much by lack of or limited family labour accompanied, due to poverty, by lack of agricultural equipment or draught power with which to increase their low farm output. Table 4 gives estimates of the numbers of rural women in poverty by region, and of the woman-headed households.

Table 4: Proportion of woman-headed households among rural households and total number of rural women in poverty, 1988

Region	% of woman-headed households (most recent estimate)	Total no. of rural women in poverty (mn)
Asia	9	363
Asia, excl China & India	14	150
Sub-Saharan Africa	31	130
Near East & North Africa	17	18
L America & the Caribbean	17	43
Total 114 countries	12	554
Total 112 countries excl China and India	20	341
Least developed countries	23	138

Source: IFAD (1992)

1.8 It is worth mentioning separately youth, young men and women, even if they may be members of the households already counted, since these may suffer from disguised unemployment within the rural household, where they would in other circumstances have moved on to their own landholding, or may be openly unemployed in market centres, rural towns or in cities, due to lack of income-earning opportunities.

1.9 Finally, the category of refugees and displaced persons, whose numbers are more closely specified in a later section, are quite often faced by lack of access to resources of any kind.

1.10 Before asking the question, how can rural industry help to alleviate poverty for these groups of people, it is necessary to point out that the extent and nature of poverty is not well measured by GNP per capita figures. Poverty is measured most directly by the extent to which proportions of the population are lacking in basic needs, particularly food, shelter, health, and education. Rural industry can contribute to basic needs directly as well as by generating income and purchasing power. Some of the lines of actions reviewed or recommended in this paper would do just this: rural food processing activities, using improved technologies, rural housing programmes aimed at generating jobs and incomes in rural construction but also improving shelter and health among the poor, and access to education for youth in disadvantaged households. These are not discussed here simply as means of supplying the consumption needs of the poor, but as means also of economising labour to release it for income generation elsewhere, for raising productivity in agriculture, and for creating income-earning opportunities outside it.

1.11 Another dimension of poverty is variability of income, whether seasonally or between years as a result of drought, disaster or civil strife. Contributions to evening out such variations or major fluctuations may be of critical importance in alleviating poverty.

1.12 Small industries may contribute to poverty alleviation by direct benefiting of the poverty target groups or by indirect benefits through expansion of employment opportunities offered by rural enterprises. In some cases projects may have a negative impact on the target groups through, for instance, the labour-displacement effects of new technologies. The impact of projects, programmes and policies on the poverty groups should be systematically monitored, through properly established reporting systems where possible, but taking into account both direct and indirect effects.

1.13 Are there particular tactics or strategies of development which ought to be followed in order to realise the kind of results implied above? One tactic which can be followed is to adopt self-selecting programmes, as suggested by the World Bank (1990, p 4), which exclude the non-poor by offering benefits that are of interest only to the poor. This would include the allocation of funds for developmental and conservational measures in poor regions and districts rather than concentrating them in the highest economic return areas. Many of the types of programme discussed presently would fall in this category: measures to economise women's time, or to raise productivity in food processing will benefit women rather than men, and poorer women rather than rich.

1.14 The recent IFAD volume (IFAD, 1992) puts forward the concept of 'authentic development', of which 'the overall objective is participatory and environmentally sustainable growth based on poverty alleviation'. This rejects former paradigms such as the 'trickle down' theories but moves on from a basic needs strategy to a more self-contained or self-reliant concept of development, based on participation, and on sectoral interdependencies within the 'poor economy'. The discussion below of savings mobilisation and credit distribution through women's groups, of area-based development programmes embracing the whole of the local population, including specific target groups, and demand-led employment creation through rural housing programmes are all consistent with an 'authentic development' strategy focused directly on poverty alleviation and measuring its success on that basis.

II RURAL INDUSTRY AND NON-FARM ACTIVITY

1. Definition and scope: what industry are we talking about?

1.1 There are different types of rural small scale industry and different, sometimes confusing definitions are employed. Since different categories call for different policies, some definitional clarification may be useful.

1.2 First of all as regards scale, 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 are most often used. The boundaries selected in terms of numbers employed vary widely, however. A typical classification is probably:

0 - 9 micro-enterprise (enterprises in this category are usually 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, and those concerned with trade 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. Promotional programmes will often need to be wider, and be appropriate 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 RSIEs (rural small industrial enterprises). 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 because it will embrace industries not linked to agriculture.

1.5 Agro-allied industry may also be small, medium or large scale. It may be divided into agro-based industry and agro-oriented industry. The former includes the agricultural processing industries and other forward linkages from agriculture, livestock and fisheries. Forest-based industries are sometimes also included under this heading but should probably be included separately as resource-based industry, along with those derived from mining and from quarrying, such as the production of bricks and tiles. A large part of rural industry is agriculture-based or natural resource-based. Evidently, the place to start in assessing opportunities for new rural industries which might be developed, and existing ones which might be expanded, is the local resource base. This will emerge quite strongly in this paper.

1.6 One may also look at the possibilities for agro-oriented industry which refers here to backward linkages from agriculture, associated with the manufacture of agricultural inputs, such as animal feed or fertiliser, and agricultural implements, including their repair.

1.7 It should be emphasised that many agro-based or agro-oriented industries will be best produced in large scale units and in large towns. They will not necessarily be located in the rural areas themselves and not be 'rural' industries at all, despite their direct linkage with agriculture. This issue of location will be returned to presently.

1.8 In trying to estimate the importance of rural non-farm enterprises, 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.

1.9 It is important that available statistics and statistical analyses make the difference. The amount of agricultural wage employment will be a direct function of the degree of inequality in land holding. Increased rural stratification, increasing the number of landless, is likely to result in an increase in low-paid agricultural wage labour. In Kenya, for instance, the rural household category of divorced or separated women was found recently (IFAD, 1990) to have little by way of income from self-employment (or remittances) and to constitute one of the bottom rungs in the rural labour force as the cheapest agricultural labour.

1.10 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 included cow-fattening, fishpond cultivation and gardening, which would not fall under this heading. Though they use only very little land, they are better described as 'auxiliary agricultural production', as they derived from intensification of farm activities. They may well constitute the most viable and useful activities to be assisted.

1.11 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.

1.12 As Tables 5 and 6 show, rural households depend to a very large extent on non-farm as well as farm income; the former often accounting for more than 40 per cent of the total. Rural household viability depends almost as much, in many cases, on non-farm activities as on farm activities, and for the poorest households the dependence may be greater.

Table 5: Share of Non-farm Income in Total Rural Household Income, 5 countries

Country	Year	Percentage
Northern Nigeria (3 villages)	1974	28
Sierra Leone	1974	36
Taiwan Province of China	1975	43
Thailand	1976	43
Korea	1980	34

Source: 'Size Distribution, Structure and Determinants of Personal Income Among Farmers in the North of Nigeria' (PhD 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).

1.13 What is often forgotten is that a large part of non-farm income consists of trade, transport, services, including catering, and other non-manufacturing activity. The share of manufacturing in total rural employment is only 9 per cent in the selected countries (Table 6), manufacturing accounting for 25 - 29 per cent of non-farm rural employment.

Table 6: Share of Non-Farm Activities and Manufacturing in Rural Employment, Selected Countries

	Year	Share of non-farm activities	Share of manu-facturing	Share of manu-facturing in non-farm employment
		%	%	%
Bangladesh	1983/4	33.5	7.7	23.0
India	1981	19.0	6.5	34.2
Indonesia (Java)	1980	37.9	9.5	25.1
Malaysia	1980	49.3	10.5	21.3
Nepal	1977/8	N/A	14.0	-
Pakistan	1982/3	32.3	9.4	29.1
Philippines	1982	31.9	7.0	21.9
Sri Lanka	1981	45.8	8.4	18.3
Thailand	1983	N/A	5.4	-
Mean value (Asia)		36	9	25
Kenya	1970	28.0	-	-
Sierra Leone	1976	19.0	7.6	40.0
Zambia	1980	22.3	2.7	12.1
Colombia		23.0	7.6	33.0
Mean value (10 countries)		31	9	29

Source: Islam (1987) and Haan (1989)

1.14 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. 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. Often, surveys are based on enterprises found at market centres and leave out dispersed rural manufacturing activities, particularly those based on non-agricultural resources in forestry, fishing or construction. 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. The international agencies can make a contribution by bringing these problems to the attention of national and international statistical services so they can be taken account of in formulating data collection plans.

1.15 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 specifically of

RSIE, 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 collected by Liedholm and Mead (1987) (Table 7) equally show the bulk of employment being provided either by medium/large firms with 50 or more employees or by micro-enterprises.

Table 7: 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
Republic of Korea	1975	1910	40	7	53

Source: Liedholm and Mead (1987)

2. The location issue

2.1 As indicated above, the term rural small scale industry begs the question of what is 'rural'. Since development plans and action programmes frequently assert the desire specifically to promote rural industry, and consequently limit eligibility for assistance to enterprises which fall under this head, this is of some importance. A UN 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'. Recent work by UNIDO and other multilateral organisations on such widely divergent countries like Viet Nam, Niger, Nepal and Uganda shows that small enterprises in even relatively large urban centres retain close relationships with the surrounding rural areas, which serve as suppliers of raw materials and markets for part of their output.

2.2 In considering this in relation to poverty alleviation, we should note that there is a danger in focusing too narrowly on specific target groups defined in part by location. Market centres and rural towns develop important symbiotic relationships with their surrounding rural hinterlands. They are both necessary to the development of the rural economy and thus to poverty alleviation. Their simultaneous development may be the

best means of reducing rural-urban migration to the cities. Moreover, rural area poverty is very easily transferred to rural town poverty if development is slow.

2.3 It should be noted, also, that in many LDCs, 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. Many so-called 'female-headed households' are better described as 'divided households', obtaining both urban income (through remittances) and rural income, while households headed by single or divorced women may be substantially poorer. In the former case, evidently, the promotion of SSI in rural towns may be important in maintaining rural household viability.

2.4 With regard to location, even in the case of informal sector micro-enterprises, there is a strong tendency for these to form clusters or agglomerations in urban centres, 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 metalworking 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.

2.5 Such development can still be beneficial to the rural population, including the poor. It is often quite easy for rural consumers to find their way into the towns, using fast and cheap local transport. Producing goods at low cost in the most favourable location may suit consumers by turning the rural-urban terms of trade in their favour. There is scope for trade between rural and urban informal sectors. Beyond this, the town informal sectors, these clusters particularly, may be the best vehicle for introducing and developing appropriate technologies and products for use in the rural economy. One would expect these, indeed, to be the source-point of the appropriate technologies which it is considered might alleviate the problems of the rural poor. It follows, therefore, dogmatic adherence to boundaries of interest as defined by location should not be maintained, and that the rural economy should be seen as combining interdependent rural and urban areas. It may still be, for instance, that IFAD may focus more on rural areas as such, including the introduction of appropriate technologies at the village level, while UNIDO involves itself more in the development of the new technologies themselves among informal sector enterprises wherever these are located.

3. The case for rural industry promotion

3.1 The rural case for small scale/rural industry promotion as a means of dealing with poverty is rather obvious:

a. such industry is invariably labour-intensive and capable of providing employment in the rural areas for the poorest sections, also helping to reduce out-migration;

b. it may be targeted to provide income-generating activities for specific target groups. Non-farm activities are especially important for woman-headed households and afford other women greater economic independence;

c. non-farm activities, including manufacturing, can reduce seasonal poverty;

d. new technologies may reduce labour drudgery among rural households;

e. rural industry increases the supply of cheap, 'appropriate' goods affordable by the rural poor, just as the urban informal sector provides goods catering for low-income urban consumers, including goods related to basic needs provision such as rural shelter;

f. non-farm activities are equity-enhancing, helping to even up disparities in rural incomes by providing employment specially for the landless and near-landless. There is evidence that in many countries, particularly in Asia, the share of non-farm income in total household income increases inversely with the size of the farm holding (Table 8). It should be noted that elsewhere, and this is true in some African countries certainly, the relationship may be more U-shaped, larger landholders having more capital also to invest in non-farm enterprises. For the same reason those with little or no land may be more likely to enter wage employment, including low-paid agricultural wage employment, rather than take up self-employment. Saith (1992) has shown that as regards self-employment, the position is less clear than advocates of the simple inverse relationship generally allow.

g. However, a general tendency is for rural households as a whole to support themselves from a combination of farm and non-farm income, with the latter playing an important role across the board.

Table 8: Size of Land Holding and Relative Importance of Non-Farm Income in Total Household Income

Country	Size of Holding (ha)	Non-Farm Income Share in Total Household Income (per cent)
Korea (1986)	0.0 - 0.5	73
	0.5 - 1.0	49
	1.0 - 1.5	35
	1.5 - 2.0	26
	2.0 - +	19
Taiwan (1979)	0.0 - 0.5	67
	0.5 - 1.0	58
	1.0 - 1.5	48
	1.5 - 2.0	40
	2.0 - +	33
Ecuador (1974)	0.0 - 1.0	40
	1.0 - 2.0	22
	2.0 - 10.0	14
	10.0 - 100.0	10
	100.0 - +	9
India (1970/71)	landless	62
	0.0 - 1.0	34
	1.0 - 4.5	21
	4.5 - 10.5	11
	10.5 - +	3
North Arcot, India (1982/83)	0.0 - 0.1	35
	0.1 - 1.0	23
	1.0 - +	20
Northern Nigeria (a) (1974)	0.0 - 0.99	55
	1.0 - 1.99	29
	2.0 - 2.99	24
	3.0 - 3.99	14
	4.0 - 4.99	17
	5.0 - +	26

Source: IFAD (1992)

(a) Non-farm income estimated by deducting agricultural wage income (1.8 per cent of total earnings) from reported 'off-farm' income.

3.2 The question is not whether small scale/rural industry is socially beneficial, but rather whether it is economic and, in particular, which types of rural industry are economic. To the extent that project and programmes are established to develop rural industry, it is vital to know whether the activities being promoted and sometimes pressed on participants are likely to be

self-sustaining in the long run because they have a fundamentally sound economic basis. Many such projects are not assessed in a sufficiently realistic way.

3.3 The general economic advantages of rural industries can be stated, however:

a. as a component of the rural informal sector, they are able to provide a range of goods competitively at a lower cost than the large scale sector;

b. in a number of ways, to be described presently, large scale formal-sector industry is favoured by subsidy and protection, so that small scale industries would be even more competitive in the absence of such biases;

c. new technologies in agro-processing or other small industry can be applied to increase labour productivity and release labour for more productive alternative uses;

d. they can dovetail with agricultural activities and utilise slack season labour which has no opportunity cost;

e. incomes from non-farm activities can serve as insurance against fluctuations in farm income and even extreme drought and thus have additional security value;

f. being in great measure resource-based, rural industries are strongly consistent with comparative advantage. This also involves linkages with other sectors, particularly agriculture, fisheries, forestry and building materials production;

g. they provide incentives to save, for purposes of investment, and help to retain savings in the rural areas;

h. they increase the availability of 'incentive goods', with possible positive effects on production.

3.4 If we focus on the substantial micro-enterprise component of manufacturing and other informal sector activities a feature which has been observed 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 over the years. Thus a 1980 update of a survey 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. In Nepal, during the 1970s, it was actually estimated that the average employment per micro-enterprise had declined, from approximately 3 to 2 persons, probably associated with the fact that the number of micro-enterprises had almost doubled, and their MVA increased by some 78 per cent. The great majority of these enterprises was located in villages or small rural towns (UNIDO, 1991).

3.5 While the majority of micro-enterprises do not grow in size, small scale industrial enterprises do exist which have emerged from their ranks. This appears to have happened to a significant extent in Asia, and in India particularly (Table 9), where 65 per cent of a sample of firms now employing 11 or more employees started as micro-enterprises [1]:

Table 9: Origins of Modern Small and Medium private Manufacturing Firms (with 11 employees or more) in six countries

Region/ Country	Year	No. of Firms in Sample	% Originated as Micro (<10 employees)	% Beginning with 11 or > employees
Africa				
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
Asia				
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.

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.

3.6 Apart from the generally low rates of 'graduation' of informal sector establishments to larger scale enterprises, they also exhibit a quite low survival rate, many disappearing within a few years of having been established.

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1. In rural Thailand 'town industries' averaged 5-7 workers per establishment, according to one survey (Akrasanee et al, 1983, p 107).

3.7 Discussion of the urban informal sector has raised the question whether the expansion of the sector in terms of numbers employed represents evolutionary or 'involutionary' development, that is, absorption of increasing numbers but at diminishing marginal productivity as more and more compete within a limited market. The same question may be put in respect of non-farm employment within the rural areas and rural market centres. The figures referred to above for Nepal imply diminishing marginal product in this case certainly. The fact that the numbers engaged in non-farm activities within the rural areas have been increasing, if not accelerating, are indisputable: this reflects increasing population growth and developing land scarcity, increasing labour participation rates, particularly female, and low rates of labour transfer into the large scale formal industrial and service sectors. While the expansion of the non-farm sector is taken by some as evidence of its progress, it may only reflect increases in labour supply to the sector rather than demand and productivity within it. Saith (1992, pp 7-8) warns that the employment created by rural industry could be generated at exceedingly low levels of productivity.

3.8 An involutionary process would result if rural non-farm employment were severely demand-constrained. A number of empirical studies of the rural industrial sector in Bangladesh (Osmani and Deb, 1986, BIDS/RISP, 1981, and Rahman, 1986) have come out with optimistic prognoses in this regard. Their analysis is open to question, however, (Saith, 1992, pp 48-52). It is clearly of some importance that much more empirical work be carried out in different countries on income elasticities for rural industrial products.

3.9 Despite the observation above that the individual micro-enterprises for the most part do not grow in size, it is still possible for employment in the sector based on one or two-person establishments to expand in impressive fashion. This is demonstrated in Kenya (Table 10), one of the few countries which maintains a regular statistical series covering informal sector establishments. Over the period 1985-88 employment in small scale manufacturing establishments grew at an annual average rate of 15 per cent.

3.10 It is also the case that rural industries and non-farm activities are not a homogeneous category. What is important in promoting a particular programme or project is to assess its own particular economic sustainability.

Table 10: Recorded employment, including small-scale enterprises, Kenya, 1985-88

	1985		1988(a)		Annual rate of growth
	('000s)	(%)	('000s)	(%)	1985-88 (%)
All Sectors					
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 ent'prises	254.5	17.4	346.2	20.4	11.1
Self-employed & family workers	33.4	2.3	43.9	2.6	9.6
Total	1462.0	100.0	1701.1	100.0	5.2
Manufacturing					
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 ent'prises	43.5	21.5	66.1	28.0	15.0
Total, not including self-employed & family workers	202.3	100.0	236.4	100.0	5.3

Source: CBS, Economic Survey, 1989

(a) Provisional

4. Reaching the rural poor through rural industries

4.1 There is considerable uncertainty in any rural development programme regarding its success in reaching the intended target groups. Whether, for instance, rural public works reach the truly destitute has been questioned and even deliberately participatory programmes based on cooperatives have frequently been distorted by the local political process. In addition to checking the economic rate of return, monitoring systems need to be established to monitor closely the distributional aspect of rural development programmes.

4.2 It would be a misconception, however, to think that the rural poor can only be reached by direct targeting. It would be a mistake, for instance, to limit assistance within the rural informal sector to 1-2 person micro-enterprises rather than assist some of these to expand in size and scope. As indicated above, it appears anyway that a comparative minority succeed in this endeavour, not constituting any threat to the majority of small units. Secondly, such expansion is possible usually only through upgrading the product, for instance in woodworking by producing a higher quality

and wider range of furniture. Through such upgrading it may be possible to shift the production boundary, to some extent anyway, in favour of the rural small scale sector and away from the large scale urban sector: a rigid policy of confining assistance to 1-2 person establishments might succeed only in leaving production in the large scale sector. Since there are potentially important possibilities, as will be discussed presently, for developing low-cost small-scale capital goods production within the informal sector, to the benefit of the poorer rural population, this would be unfortunate. Informal sector establishments which do grow in this way up to 9 or 10 employees, or more, often do so as a result of a master craftsman with more advanced skills and some entrepreneurial initiative taking on additional young apprentices. This constitutes an important way in which rural skills are expanded and spread, and may be a better way of providing opportunities for the target group of young men than through formal vocational training institutions.

4.3 Nor should promotion of still larger 'modern' rural small industrial enterprises (RSIEs) be discussed as a constituent part of poverty-focused rural development. These operate in situations of some economies of scale but remain comparatively labour-intensive, contribute as rural-located enterprises to rural surplus retention, often have a number of linkages within the local economy, and in some cases offer part-time employment which can be important for poor households.

4.4 The presumption should be that rural industry whatever scale contributes positively, directly or indirectly, unless specific detrimental impacts can be identified. More generally, the aim should be to maximise employment in efficient rural non-farm activities through a mix of rural industry types. It may be possible to develop relationships of complementarity between different promotional programmes in the same area, supported by the same or different international agencies, a women's participatory programme, for instance, with a rural housing programme or a programme for producing new products in the informal sector.

III. MEASURES FOR THE PROMOTION OF RURAL SMALL-SCALE INDUSTRY

1. Macroeconomic policy and its effects

1.1 The development of rural and small scale industries is affected (a) by the overall policy framework in the country; (b) by specific measures adopted for rural industry promotion; and (c) by policies towards the agricultural sector and other parts of the resource base. Most commonly promotion programmes for SSI have comprised a variety of supply-side measures, offered independently or as a package: credit, industrial estates providing infrastructural facilities, entrepreneurship development, skills training and so forth, aimed at removing different perceived constraints on the production side. 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.

1.2 What has often been the case, and remains so in many countries, is that measures at the macro level and the sectoral level are contradictory. Thus at the same time as establishing special small industry development organisations (SIDOs), less developed countries, especially in Africa have been following as a basic industrial development strategy one of import-substituting industrialisation (ISI). This usually centres upon large-scale capital-intensive industry, often foreign-owned, with imported technologies. 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 the duty-free importation of capital goods and other advantages as listed below, biased in their effects in favour of more capital-intensive methods of production. Such industries do not use local materials to the same extent as rural or small-scale industry, and thus generate fewer linkages. The adoption of 'turn-key' technologies also reduces the possibilities for subcontracting to SSEs.

1.3 One effect of the pursuit of ISI has been to produce, in Africa particularly, a bimodal structure in manufacturing with some large modern factories, albeit with excess capacity, probably, and vast numbers of micro-enterprises, with very little in between. This phenomenon in Africa has been described as the problem of the 'missing middle' (World Bank, 1987).

1.4 Apart from a general strategy of ISI in many LDCs, most of the major policy instruments favour large rather than small scale production:

i. as just mentioned, capital goods are frequently importable duty-free, encouraging capital-intensive methods. This also inhibits the development of domestic capital goods production, which might well have been in part at least small-scale and rural-oriented. Opportunities in this direction are discussed presently. Lack of domestic capital goods production makes it difficult to develop different technologies appropriate to local requirements or linkages between different sectors of the economy.

ii. Tariff policy can have another type of negative impact on RSIE because of the way in which goods are sometimes classified, following conventions that are more appropriate to industrial countries. Thus Sierra Leone imposes a 25 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).

iii. tax policy can exert a similar bias to (i) 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 repercussion of the measures were to reduce employment in non exporting firms by some 35 per cent, and in exporting firms by 7 per cent.

iv. Interest rate policy can add still more bias in the same direction. Formal sector interest rates in developing countries are generally fixed at standard levels within a range of, perhaps, 8-16 per cent, irrespective of the level of inflation or the real scarcity of capital. Thus real formal sector interest rates may even be negative. Recent data for 25 countries showed a mean real rate of interest in the formal sector of only 3 per cent compared with 57 per cent in the informal sector, over 100 per cent in the case of Africa (Table 11).

Table 11: Interest Rates in the Formal and Informal Sectors of Developing Countries

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

Source: Derived from Haggblade et al (1986)

Where the rate of interest is maintained at an artificially low level like this, the effect is 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. This is referred to as the 'cheap credit paradox', under which low rates of interest result in non-price rationing of investible funds, with most cheap credit concentrated in relatively few large loans (Von Pischke and Adams, 1980). Low rates of interest have a more general regressive effect on income and asset ownership since financial institutions must in turn pay even lower rates on savings deposits, again often negative in real terms. This hurts small savers and acts as a 'tax' on financial savings, reducing their capacity to accumulate funds for the purchase of non-financial assets (Lycette, 1984). These small savers will include small farmers, potential rural entrepreneurs, and rural households generally.

v. 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 (Haggblade et al, 1986). 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 retard the development of still more 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). As in the case of interest rates, where exchange rates are permitted to diverge sharply from the equilibrium rate, available foreign exchange tends to be allocated on a rationing basis, which favours large private or

parastatal enterprises who can make application to the Central Bank or even apply pressures to it. Due to difficulties in obtaining either foreign exchange or actual import licences, small scale and micro-enterprises may fail to secure vital imported materials or parts, affecting their capacity to produce domestically or for export.

vi. 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 RSIE in the districts.

vii. In the area of technology, large units have a further advantage in being more able to invest in research and development, as well as being able to adopt ready-made technologies from abroad. Small-scale enterprises are not in the same position to develop technology for themselves within the enterprise. The appropriate technologies have often not been developed abroad and, to the extent that new technologies have been identified and introduced elsewhere, mechanisms do not exist in most developing countries for drawing on any such stock of knowledge, as mechanisms for international dissemination of this knowledge are weak.

2. <u>Supply-side measures</u>

a. Small industry development organisations (SIDOs)

2.1 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.

2.2 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. 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.

2.3 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).

2.4 What is needed rather than an institution centred squarely on distributed fixed-location estates is an organisational set-up designed to promote small scale urban and rural manufacturing enterprises comprising a wide range of different types, concerned with the panoply of possible policy measures towards SSI, including technology and promotion through NGOs, and involved at both national and district levels. In the urban areas such an organisation would be as much concerned with assistance via established concentrations of informal sector producers as with modern small scale establishments located in formal industrial estates.

b. Industrial estates

2.5 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.

2.6 Part of the rationale for the provision of industrial areas for medium or large scale factories, however, is a locational one, a means of attracting firms to locate in the country or region concerned or to stimulate investment by national entrepreneurs who might otherwise be unwilling to venture capital. By and large the problems of rural industry and urban informal sector enterprises are different, and it is not surprising that policies of establishing rural industrial estates on the urban model in the hope of stimulating local development in backward regions have mostly failed. Furthermore, 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.

2.7 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.

2.8 In Malaysia estates developed with reference to large enterprises 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).

2.9 What emerges 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.

2.10 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.

c. Infrastructure

2.11 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.

2.12 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.

d. Credit and finance

2.13 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?

2.14 The presumption of credit as a constraint derives particularly from incontrovertible evidence of heavy dependence by micro-enterprises on personal savings supplemented by loans from friends and relatives, with negligible credit from commercial banks or government sources. In Asia, more than Africa, expensive informal sector credit through urban and rural moneylenders may be available. Thus, according to data collated from different sources (IFAD, 1992, Table 7.6), the percentages of initial finance secured by small enterprise from own savings or relatives were Bangladesh 75 (1980, 11 thanas), Nigeria 98 (1970, 3 states), Sierra Leone 80 (1976, whole country), Tanzania 93 (1968, rural towns) and Haiti 81 (1979, Port-au-Prince). Percentages secured from commercial banks were 1 per cent or less in all cases. 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.

2.15 Secondly, numerous surveys which ask micro-entrepreneurs

directly what they consider the main constraints on their operation or expansion to be, the answer is almost invariably and overwhelmingly credit. Chuta and Liedholm (1979), for example, reported credit and capital as the greatest perceived needs of small business owners in Haiti, Sierra Leone and Nigeria. Numerous surveys in Kenya have found similar responses.

2.16 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. Certainly the responses of small scale entrepreneurs in questionnaire surveys should not be taken at face value, for a number of reasons. To take one, a more recent publication by Chuta and Liedholm (1985) with reference to Sierra Leone reveals substantial excess capacity in small scale industry (table 12), and concludes that 'particularly in the rural areas, the existing capital stocks of small scale industries in Sierra Leone were generally not fully utilised' (p 39). These findings are rather serious for rural industry promotion in general and support measures discussed here relating to demand-led development of SSI, exploitation and development of inter-sectoral linkages, and introduction of new technologies, rather than reliance on supply-side measures.

Table 12: Sierra Leone: Excess capacity [1] by small-scale industry by location, 1974-75

Industrial category	Localities				
	Less than 2000	2000-20000	20000-100000	Over 100000	All localities
Tailors	45%	34%	29%	24%	33%
n [2]	14	24	3	8	
Gara	-	15%	31%	18%	25%
n	-	1	3	1	
Carpentry	45%	33%	25%	22%	34%
n	9	9	8	3	
Blacksmiths	43%	47%	30%	-	41%
n	3	4	3	-	
Baking	-	41%	32%	30%	34%
n	-	6	7	6	
Others	38%	44%	27%	43%	36%
n	9	16	19	5	
Weighted grand mean					35%

[1] For definition of excess capacity measures, see text
[2]n = number of cases: includes both randomly and purposively sampled firms

Source: Chuta and Liedholm (1985)

An examination of Table 12 reveals that a substantial amount of excess capital capacity existed in all the major small-scale industries. The excess capacity varied by major industry,

however, ranging from a high of 41 per cent in the blacksmithing industry to only 25 per cent in gara dyeing. Even more striking, however, was the indication that the amount of excess capacity varied by location. In tailoring, for example, there was 45 per cent excess capacity in the villages but only 24 per cent in Freetown. The highest amount of excess capacity was found to exist in rural areas in the other major industries as well. This may be traceable, at least in part, to demand considerations.

2.17 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 also led a number of observers to conclude that lack of capital is not the main problem.

2.18 A recent IFAD mission (IFAD, 1990) concerned with the development of rural small industry in Kenya observed a substantial net flow of savings <u>from</u> 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.

2.19 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. The Industrial Finance Corporation of Thailand, for instance, would be typical in arguing that 'the high cost of administering small loans is inconsistent with its profit obligations' (Akrasanee et al, 1983), this despite its status as a development bank.

2.20 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.

2.21 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.

2.22 A number of Asian and African countries have begun to follow the experience of the Grameen Bank and experiment with adaptations of its 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 these attempts at replication need to be followed and analysed closely. Experience so far appears mixed.

2.23 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.

2.24 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.

2.25 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 and should be applied to groups of artisan-entrepreneurs and workshop-enterprises within informal sector manufacturing.

2.26 It should be possible also to encourage savings and loan associations (SLAs) or group savings associations, which are widespread in Africa and Asia 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 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. They have particular potential for women as a target group and are discussed more fully here in a later section.

2.27 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. They have underused potential in respect of rural women, in particular.

2.28 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).

e. Technology and product development and dissemination

2.29 In discussing 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. 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.

2.30 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.

2.31 Discussion of the need for appropriate technologies for labour-abundant countries and research into usable appropriate technologies themselves is in at least its third decade. The number of 'success stories' is not as great as would have been hoped, although, according to a recent reviewer (Smillie, 1991), 'there are, of course, many'. The review mentions (p 6) the 'hundreds of thousands of increasingly inexpensive handpumps' which 'have made life infinitely better for poor people in dozens of countries' and 'similar numbers' of cheap latrines which have had a major impact on health, together with fuel-efficient stoves (including a Zimbabwean and a Kenyan model), improved bakers' ovens, low-cost cement and other inexpensive, durable building materials, improved potter's wheels, and fishing boats. Staple food processing equipment for use by women in rural villages is discussed in a later section. In the area of energy, one can point to a WB/UNDP project which has installed 10,000 photovoltaic pumps in Egypt, Sudan, Mali and the Philippines. Biogas technology combined with use of briquetted agricultural wastes has so far made only limited headway outside China, where it is of considerable importance in the rural areas, and India. In India, however, the number of individual family-size biogas plants has increased from 10,000 in 1974/5 to over 800,000 in 1986/7 (Carr, 1991).

2.32 Some developments have come about as a result of

interested expatriate entrepreneurs such as Parry who, based in Birmingham, UK, developed an improved but hand-operated tile-making machine: within 5 years from 1985 the company's annual sales had risen from 50 to 500, with steady export orders from 20 developing countries. However, a few other cases which have attracted attention have been of indigenous entrepreneurs: one such is a former university technician in Ghana who launched his own company under the name of SIS Engineers, initially making small wooden items, such as T-squares, tripods, and rulers, but eventually began to produce complete saw-benches and then wood-turning lathes for sale to woodworkers in Anloga. Commenting on this experience, Smillie claims (Smillie, 1991, p 40) that:

'The circular saw bench and the wood turning lathe were to the woodworkers in Anloga what the Spinning Jenny was to the eighteenth-century British textile industry. Within five years the area had been transformed from a place where carpenters and sawyers produced very basic furniture, into an area half a mile long where lathes and power saws worked from dawn until well after dark. Products which had once been exclusive to large-scale formal sector producers were now being made by micro-entrepreneurs.'

This last observation identifies this as an example where a shift of the production boundary between large scale and small scale sectors has successfully been achieved.

2.33 This is an interesting example of the production of low-cost capital goods within the informal sector. Further examples can be given of such innovations developed entirely through rural craftsmen's independent initiative. Thus local manufacture of a millet mill (excluding the motor) by a village craftsman was observed in Morry Laye Village, Senegal, which was substantially cheaper than the imported version and had the major advantage of being able to process wet grain, satisfying the locally favoured taste (UNIFEM, 1988, p 44). In Kenya, similarly, a recent IFAD mission (IFAD, 1990) was surprised to find informal sector production of substantial tea processing machinery (again excluding the motor), using local inputs.

2.34 These are comparatively isolated cases, however, and the challenge is to introduce such products to a more substantial section of producers. It is quite possible that a much wider range of custom-built rural capital goods could be produced within the informal sector in market centres as well as in urban areas. In no country, it would appear, is there any institutionalised search capacity established with the directive of

finding items which could be simply copied but produced more cheaply, using local scrap and other materials. This leaves a particular gap in African countries where the light engineering industries are very much less developed, for various reasons, than in Africa.

2.35 More generally, it is important, once macroeconomic biases against the expansion of small scale industries are removed, that the small enterprise sector is able to respond, so that the boundary between what is produced in larger and in smaller enterprises is shifted in favour of the latter sector, to widen its scope. A question is how best to achieve some degree of technological upgrading of the sector to secure such a response.

2.36 Not all rural manufacturing activities 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.

2.37 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.

2.38 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.

2.39 Once the products to be manufactured have been identified, the next task 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. 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.

2.40 It has been suggested (Haan, 1989, p 56) that '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.

2.41 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.

2.42 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. 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 number 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.

2.43 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. 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.

2.44 Some countries have already moved in this direction. In Francophone West Africa, for example, Chambres des Metiérs 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.'

2.45 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. 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.

f. Training and entrepreneurship

2.46 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 macroeconomic framework or 'enabling environment' under which small enterprises can thrive, as already discussed. Identification of product possibilities and their dissemination, particularly through SSE 'clusters', represent more direct intervention. This involves entrepreneurs perceiving opportunities through a 'demonstration effect'.

2.47 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 toward SSEs, encouraging trade and other non-manufacturing SSEs also.

2.48 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).

2.49 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 <u>less</u> acceptable to informal sector entrepreneurs as recruits than those without prior training.

2.50 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 often only a minority succeed in achieving effective self-employment in micro-enterprise.

2.51 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.

2.52 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.

2.53 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.

3. Demand-side promotion measures

a. Product reservation schemes

3.1 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. 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.

3.2 In contrast with direct subsidies and even tariff protection, however, 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

3.3 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.

3.4 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.

3.5 In some cases it may be useful for households to form themselves into cooperative groups or associations to facilitiate dealings with parent firms or communication with extension officers in relation to production trechniques 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 nat. nal qualities.

3.6 Subcontracting of production to household industry, however, 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. Further discussion of the issues is included in the section relating to women in rural industry below.

3.7 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. Its possibilities in other countries have generally been neglected and call for further investigation.

3.8 Subcontracting 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.

3.9 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).

IV. DEVELOPING SECTORAL LINKAGES

1. The importance of inter-sectoral linkages

1.1 A close relation exists between agricultural production and incomes and the performance of the rural small scale enterprise sector. Indeed, the level of agricultural production and incomes principally determine the demand for manufacturing goods produced by small scale industries and employment opportunities in trade and services.

1.2 Here we can distinguish between (a) backward and forward linked SSI, either processing agricultural products or using products of the natural resource base, and (b) demand-linked SSEs which depend on the level of agricultural and overall incomes. There is potentially an important two-way process: development of SSI may provide a dynamic element in agricultural growth through the provision and dissemination of new technologies and the removal of processing or labour constraints, while an increase in agricultural incomes stimulates the demand for SSI.

1.3 Recent calculations for India have suggested a multiplier of 1.64 between agricultural income and rural non-farm income, a Rs 100 of the former generating an additional Rs 64 of the second, 25 per cent of this in the rural areas and 39 per cent in rural towns (Table 13). Data for four contrasted districts of Kenya show value added per person in informal sector establishments to vary widely between districts, reflecting differences in the level of agricultural incomes (Table 14).

Table 13: Rural Income Multipliers Across States with Different Agricultural Income, India

	Agricultural Income per Agricultural Population 1982/83 (Rupees/capita)	Change in Non-Farm Income Resulting from One-Rupee Increase in Agricultural Production		
		Rural Areas	Rural Towns(a)	Rural Areas & Rural Towns
Punjab/Haryana	2560	0.34	0.59	0.93
Karnataka/Gujarat	1130	0.24	0.40	0.63
Madhya Pradesh/Bihar	730	0.18	0.28	0.46
All India average	1100	0.25	0.39	0.64

Source: Hazell and Haggblade (1990)
(a) Rural towns are localities between 5000 and 100000 in population.

Table 14: Value added in rural informal sector establishments in 4 districts of Kenya, 1986

District*	Mean No. of persons engaged	Gross output per establishment (KShs) per month	Mean value added per est'ment (KShs) per month	Value added per person engaged (KShs) per month
Nyeri	1.50	14401.5	3092.3	2062
Meru	2.06	12936.0	2491.3	1209
Siaya	1.86	10453.7	892.4	480
Uasin Gishu	1.825	9152.0	1026.7	563

* The minimum wage outside Nairobi/Mombasa in June 1987 was KShs 589.

Source: Ng'ethe et al (1989)

1.4 Effective rural purchasing power is, however, affected by the density of population and the state of infrastructure, particularly the transport network. In Africa the dispersed settlement patterns with widely scattered homesteads, together with poor road systems, leads to a dissipation of what market exists, and could be expected to substantially reduce the ratio of non-farm to farm income, independently of the latter's level, compared with Asia. The contrast with Pakistan, for instance, is demonstrated by the following description by the ILO:

'In Pakistan, for example, it is clear that the size and dynamism of the rural small-scale industrial subsector (from which about 10 per cent of the population or about 6 million people earn a living) are attributable to four basic characteristics of the economy. There is a strong and dynamic agricultural base, particularly in the Punjab; there is a long tradition of rural industry; there are local concentrations of population in the most prosperous agricultural areas providing a corresponding concentration of accessible markets for non-farm goods and services; and there is a relatively well-developed transport and trade network (through which, for example, scrap steel from the ship-breaking industry near Karachi is recycled to rural blacksmiths throughout the country' (ILO, 1990, b, p 18).

1.5 The type of agriculture and degree of agricultural intensification makes a big difference to the extent of backward linkages in particular. Direct input-output linkages with agriculture may be either agro-oriented or agro-based. These can be quite rich: in Pakistan, for instance, agro-oriented industries, including fertilisers, tractors, agricultural implements, threshers, tubewells and surface pumps, accounted for 10

per cent of the total value of manufacturing output in 1986-7. Agro-based industries include grain-milling, sugar manufacture, leather tanning, juice 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. Within the total, there is obviously substantial opportunity for small scale and rural industries.

1.6 Backward production linkage effects in less developed countries are in general substantially lower than the forward linkages from agriculture: in Kenya they have been estimated at less than half and in Zambia less than 7 per cent (Haggblade, Hazell and Brown, 1990). This reflects the very low level of agricultural technology in Africa as a whole. In Kenya, for instance, the Rural Household Budget Survey of 1981-2 showed that 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. It is observed that '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).

1.7 It follows that the expansion of rural industry in any region must be based on a strong agricultural development strategy, and that the former will not develop without a strong agricultural base. In the case of Africa, it must depend especially on agricultural output growth, together with a progressive increase in the level of agricultural and rural technology. Indeed, a strong agriculture is very much part of the essential 'enabling environment' for rural industry, other elements of which have already been discussed.

1.8 Apart from the level of agricultural incomes and assets, their distribution is also important. Highly inegalitarian land ownership structures and incomes, with mass rural poverty, are not likely to generate the rural purchasing power which is the driving force underlying non-farm activities. As stated previously, the rural as well as the urban informal sector generally produces goods and services for the mass of low-income consumers. This means that not all agricultural development strategies are equivalent as regards the promotion of non-farm incomes. As an example, the appropriateness of the strategy being pursued in Malawi

was questioned in the early 1980s (UNIDO, 1983), this strategy giving some emphasis to large scale sugar and tobacco estates rather than to smallholders, in a situation of fairly widespread rural poverty, affecting the domestic market for industrial goods.

1.9 It follows again that promotion of the rural non-farm sector should not be seen as a substitute for or means of avoiding land reform, particularly if the objective is to reduce rural poverty. In some circumstances, land reform could, indeed, be a precondition for vigorous growth of the non-farm sector and for development of strong inter-sectoral linkages. In order to reach the rural poor, specifically, an overall strengthening of the rural economy is required, paying close attention to relations between sectors and activities, which are likely to be maximised within a relatively egalitarian economy as well as one exhibiting agricultural growth.

1.10 There are also implications for situations of rapid population growth in which the sizes of farm holdings are diminishing, sometimes equally rapidly. There is an evident possibility here of a malign sequence of diminishing farm plot sizes, reducing cash income per head, and thus purchasing power, in turn decreasing non-farm income by reducing the demand for SSE goods and services. If instead the development of SSIEs, producing agricultural capital goods of different kinds and helping to remove processing and labour constraints, were to raise agricultural productivity and incomes, even in such situations a benign scenario involving progressive interaction between the sectors might be achieved.

2. Integrated agro-industry initiatives

2.1 Different strategies have been put forward which emphasise inter-sectoral linkages. Some recent studies have argued strongly for an approach based on 'integrated agro-industrial development'. [1] While such an approach appears by definition attractive, its real content and practicability needs to be carefully assessed. 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

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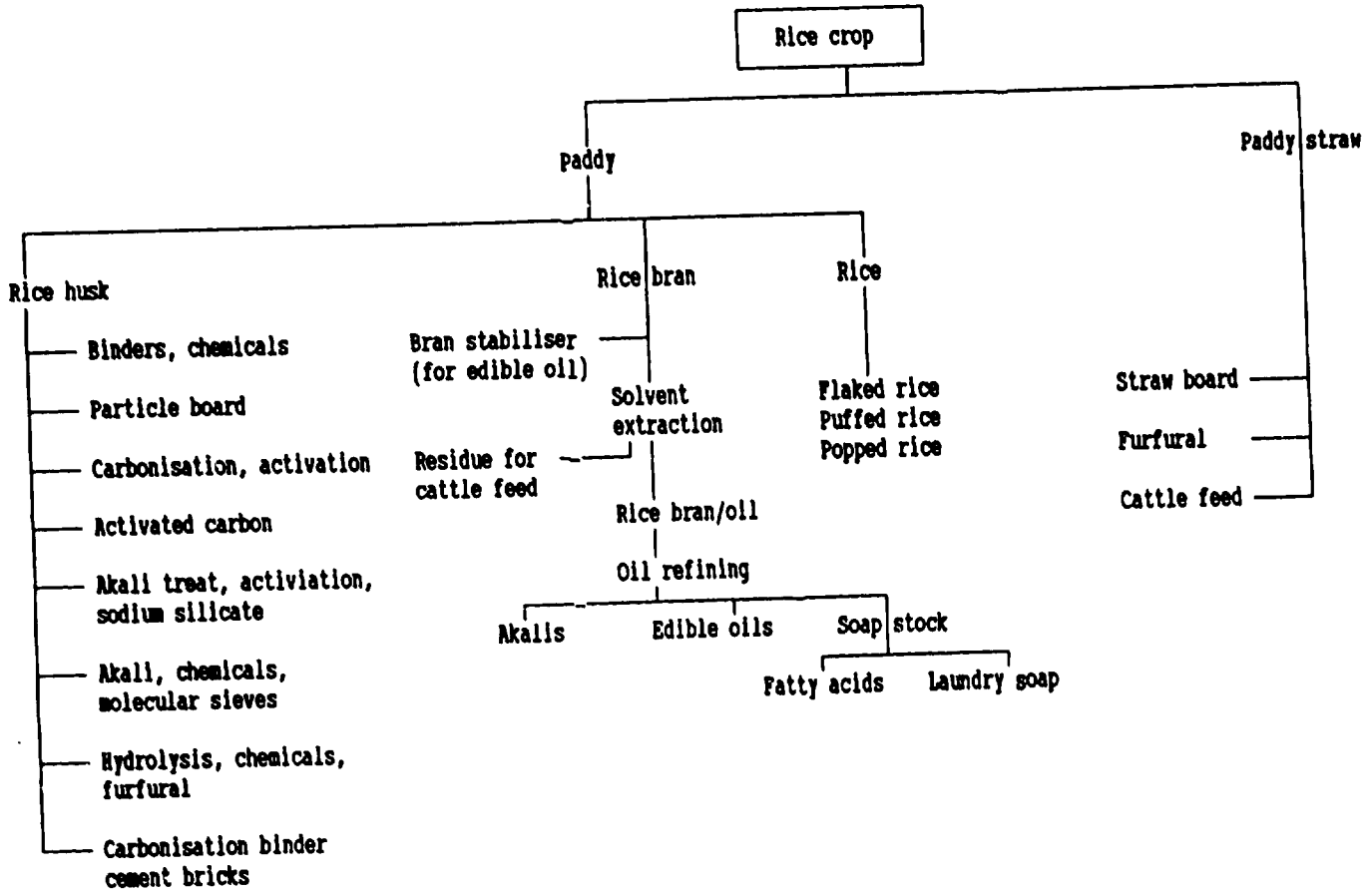
1. See various references to publications by the Centre on Integrated Rural Development for Asia and the Pacific (CIRDAP), particularly those by Rao (1988) and Choudhury (1988).

Figure 1: Integrated agro-industrial complex for rice



Source: Rao (1988).

or marketed and, on the other, processors cannot be expected to invest in productive capacity without reasonable assurances that adequate throughput will be forthcoming. This kind of intervention may be most appropriate where an export market has to be secured or developed simultaneously with increasing output, perhaps in fruit and vegetable production or in handicrafts, though an integrated approach could apply to an entirely domestic activity such as fish production, processing and marketing.

2.2 A different case is 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 (1988) 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 related to agro-based enterprises and 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'. While it would be unwise to assume replicability of this experience in other countries and situations, it does offer an example of more systematic development of small scale processing industry, organised on a participatory basis.

2.3 The promotion of agro-based industries in rural areas formed part of the Seventh Five-Year Plan in India. Some of these (pickles, spices, dals, bread, biscuits, pastry, rice-milling, confectionery, groundnut and rape seed oil, sago and flour) were reserved for the small scale sector. 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.

2.4 A schematic outline of a fully-fledged 'agro-industrial complex' based on rice (Figure 1) is put forward by Rao (1988). This indicates potential linkages but leaves 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 industrialised countries, which may provide stiff competition from efficient modern plants. Nevertheless, the figure does indicate the possible extent of linked industries and activities which might be explored in this or other similar situations, taking account

experience in other countries. The feasibility of rural location of linked industries can be considered at the same time.

3. The filière approach

3.1 Another approach which emphasises linkages is that of the filière. This diverges from a great deal of planning, policy-making and promotional effort, whether directed towards agriculture or industry, which is based on a horizontal perspective. A small industry development organisation (SIDO), for instance, covers a broad range of small scale industries which have no connection other than being small. The filière approach 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, from the raw materials stage to possible multiple final products. At each link in the chain, appropriate policy questions can be posed, such as whether production can best be developed on a large scale or small scale, whether tariffs or taxes bias this choice, whether complementarities such as subcontracting can be developed between large and small or household enterprises, whether urban or rural locations are preferable, whether particular constraints or opportunities exist at specific points. Possible complementarities between manufacturing and agricultural production, as in contract farming for example, or in natural resource supply, are made more obvious.

3.2 While sectoral planning divides the national economy into broad tranches, such as the agricultural sector, the filière is focused on a much thinner chain: thus filières may be established for wood-based activities (tree planting, sawmilling, charcoal production, building poles, ox-carts, furniture-making, paper manufacture), for metal products, including agricultural equipment, for livestock (embracing, for instance, animal feed, cattle rearing, meat-processing and leather industries), fish production, processing and marketing, or housing. A housing/construction filière is discussed in the next section.

3.3 The approach, if properly pursued, highlights the existence of any deliberate or unconscious biases in the incidence of policy variables such as taxes, tariffs or licensing as between large/small scale or urban/rural production, bringing together macro-policy variables and sectoral effects. This may call for interdisciplinary technical assistance, covering technical as well as economic alternatives and possibilities.

3.4 The approach is likely to be useful for analysing the possible ramifications of agricultural and technical change, since changes at one point in the chain may

produce effects or opportunities elsewhere. Thus the development of irrigation or new crops may offer new processing possibilities or require new inputs involving non-farm production. The approach can also provide the basis for 'linkage endogenization' (IFAD, 1991) through anticipation of connections and managed supply responses. Thus a set of requirement can be anticipated and placed in appropriate time sequence, such as training of craftsmen-entrepreneurs in new technologies, described presently in Malawi's Rural Housing Programme, or the employment of target groups in the initial construction component of a project.

3.5 A problem with the area-based planning associated with integrated rural development projects (IDRPs), for example, is that the local area planning may be carried on in isolation, handicapped by policies and choices made elsewhere at the national level or without access to information regarding known experience or technology which might have been available nationally or internationally.

3.6 Nevertheless, the main interaction between the exploitation of agriculture and other resources and rural industry and services and the people who are engaged in them is at the local district level. The filière approach fits in well by providing a vehicle for the incorporation of national level policies and choices into district or area planning, through combining horizontal and vertical perspectives.

3.7 The filière approach is particularly relevant to resource-based industry, by focusing also on the availability and production of the basic resource. It could be important in dealing with problems of sustainability by identifying actual or prospective shortages of basic materials which call for action. It is stated, for example, that:

'where a processing activity has been upgraded through the introduction of new technology (e.g. fish-smoking and gari-making in Ghana) supplies of the raw material may fall short of the increased demand if no plans have been made to ensure a complementary increase in production. In Bangladesh, a major portion of such raw materials as bamboos, wood and reeds (murta) and leaves for mats is grown on homestead land adjacent to the homes and on cultivable wasteland. The rapid growth in the pressure of population on the land has meant encroachment on such lands for habitation purposes and a reduction in the supply of these raw materials. The area under cultivable waste in Bangladesh has declined from 0.72 million hectares in 1964-1965 to 0.25 million hectares in 1980-1981 (IFAD, 1992, p 225).'

3.8 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 materials 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.

3.9 In some cases there is competition between different categories of producers for the available basic materials. In Malawi, for example, tobacco estates have made heavy demands for fuelwood for tobacco processing at the expense of small scale producers and householders who face supply problems which will become even more acute in the longer term (UNIDO, 1983).

3.10 The filière approach is perfectly designed to take care of poverty concerns, at every stage identifying areas of conflict in which the small scale, the rural and specific target group interests may be disadvantaged, or identifying useful complementarities between large scale and small scale which might be taken advantage of. It offers further safeguards by identifying resource needs and dangers affecting small scale industry and rural household activities. The approach is more easily tailored to dealing with the basic needs of the mass of rural consumers, compared with, for example, an urban-based import-substituting factory which is looked at in isolation as a 'project'. It can thus form part of a basic needs strategy, one which is less consumption-focused and incorporates production responses, as will be discussed next with reference to housing and construction.

V. RURAL HOUSING AND CONSTRUCTION AS A FOCUS FOR LINKED ACTIVITIES

1. Rural housing construction, rural industry and rural poverty

1.1 In assessing possibilities for promoting rural industry and non-farm activities, one important connection is seldom made: that with rural housing and construction. Surveys of rural small-scale enterprise generally show woodworking, metalworking and sometimes masonry among other activities such as tailoring and shoe repair. In fact woodworking (carpentry), metalworking and masonry are to an important degree linked to housing and construction in the rural areas and market centres. And a focus on housing and construction, covering also municipal and other buildings, may be a more effective means of developing the separate activities of carpentry and metalworking.

1.2 In discussing the scope for rural industry promotion, it was indicated that the main constraint is generally on the demand side, with non-farm activity a direct function of rural purchasing power as determined especially by incomes in agriculture. As a result supply-side measures such as training more carpenters and metalworkers may be unproductive. Programmes centred on rural housing and construction can provide, as explained more fully presently, a further basis for a demand-led approach.

1.3 It might be argued that a rural housing programme could not itself serve as a 'leading sector' because the consumer demand for housing is limited by the level of incomes. In fact such a programme could operate to maximise local demand linkages for artisans of different types and for a wide variety of construction materials and producers thereof. Leakages of demand into imports would be reduced and demand diverted from the products of the large scale, urban sector in favour of local goods. Housing, and rural construction generally, is a resource-based industry, so that backward linkages inevitably extend through a number of stages back to the extractive industry level. There may be further linkage effects into local skills development, for instance in metalworking and light engineering. Positive rural construction policies are important also as a basis for the planning of low-income settlements and rural growth centres as stimuli for rural development, involving more general externalities.

1.4 A rural housing and construction programme can be justified as a component of poverty alleviation policies both in terms of the consumer good provided and the

employment it generates. Housing or shelter is a basic need, linked directly also with health, poor housing and sanitation being perhaps the most important cause of poor family health in many countries. It is considered also to have important direct effects on labour productivity, providing economic as well as social justification.

1.5 Rural housing and construction is commonly neglected absolutely and relative to urban low-cost housing initiatives and to rural industry initiatives, which almost always omit direct reference to the sector. One reason is that rural housing is generally assumed to be covered by the 'traditional' system as part of non-monetary output. There is, in fact, widespread ignorance in most countries regarding the state of rural housing and of commercial construction activities in the rural sector. An admittedly old comment (UN, 1978 p.6) that 'the bulk of rural people .. about 750 million of them .. constituting the poorest among the poor of the world, live under leaky, makeshift, wormy roofs .. ' may not be outdated except as regards the numbers affected. It should be emphasised that widely varying situations exist in respect of housing quality, even between different parts of the same country, due especially to different local construction material availabilities. This makes it more important, however, that these needs be systematically assessed in each place.

1.6 While squatter slums in the urban areas provide a compelling argument for priority, urban and rural housing programmes are not simple competing alternatives: as argued above, rural housing (and construction) is important for rural development and welfare, and a useful component in a rural development strategy. The scale of the problem makes a participatory, community-oriented approach mandatory, and its solution not just a matter of resource allocation.

1.7 Rural housing and construction is both local resource-intensive and labour-intensive, and thus an important potential source of rural employment. It can specifically assist poverty categories such as the landless, rural youth, and women and children, who are commonly engaged in low-technology brick production and other construction-related activities. A study of resource-based industrial development in Malawi (UNIDO, 1983) found that more than 15,000 people, particularly women and children, were engaged in low-cost brickmaking activities, using off-peak labour, and contributing to the improved attractiveness of not only houses but community buildings in the rural areas. In 1981 some 400 small-scale brickmaking units were producing, by the simplest labour-intensive methods, about 70 million bricks per annum, compared with only about one million

machine-made bricks, the latter accounting for less than one and a half per cent of the combined total. The fact that construction activities can be made to dovetail with the seasonal cycle in agriculture means that they can be taken up to supplement agricultural incomes, particularly by those with the least land.

2. Mobilising savings for rural housing

2.1 The possibilities for using a rural housing programme to pursue a demand-led approach to the promotion of artisan industry in the countryside stem particularly from the extension of consumer credit for house construction, additions and improvements. Such credit is also a requirement for targeting benefits to the lowest-income groups. While house mortgages are commonplace in developed countries, with loans spread over decades, no equivalent exists in developing countries outside narrow formal sectors, and certainly not for the rural poor. In fact, housing is a major area in which the rich and urban are subsidised through government or company provision of housing or housing allowances and low real rates of interest on housing loans.

2.2 In many countries rural credit and thrift societies have shown themselves to be a very effective means of mobilising savings from the poor themselves, especially when targeted towards periodic major items of consumer expenditure such as this. The adoption of an 'evolutionary' or step-by-step approach to rural housing improvement can bring action here within the ambit of even very poor households, and provide a strong incentive to save, and even to work. By providing their own labour or supervision and utilising informal sector artisans and enterprises, households can make good use of even small loans for the purchase of building materials and labour.

2.3 A house-related thrift group is also well suited to dealing with the irregular income-earning patterns of most low-income workers, particularly seasonal sales income from agriculture and windfalls due to price fluctuations, permitting temporary surpluses to be put to good use. This can also help to retain rural monetary surpluses and to reduce their tendency to leak towards the urban sector through transfers or expenditure on urban goods.

3. Encouraging the small scale/informal sector in construction

3.1 As indicated above, rural house construction is just a part of the rural construction industry as a whole. Within both rural and urban construction, there is a strong case for encouraging small-scale production units and 'informal sector' entrepreneurship. As others have

pointed out, small-scale enterprises are more related to the shelter needs of the low-income population and 'ideally suited to operate in the self-help and low-income housing sector' (UNCHS, 1989, p.11). Large-scale construction enterprises are usually highly dependent on imported inputs and too high-cost for the majority of the population even in urban areas, while small-scale units use local materials to a much greater extent. According to one estimate, the net import cost of building materials by developing countries in 1982, for example, was $35 billion (UNCHS, 1988). In 1984 many African countries were still importing as much as 60 per cent of their building material requirements (UNCHS, 1984), much of this unrelated to the needs of the majority of the population.

3.2 Backward linkages from small-scale enterprise house construction generates further SSE or even cottage industry production of building materials. Substantial cottage industry production in Asian countries is referred to in a recent UN publication:

> In the Philippines, for instance, cottage industries produce bamboo, bricks and roofing materials on a substantial scale. In Indonesia, small-scale building-materials industries in both rural and urban areas (mostly unorganised labour-intensive cottage industries, run in traditional ways) produce clay bricks, tiles, cement products, lime, bamboo, timber elements, stone, gravel, sand and pozzolana-lime blocks. In Sri Lanka, small-scale and traditional production units produce bricks, country tiles, sand and lime, supplying more than 35 per cent, by value, of the total building materials in the country (UNCHS, 1990, p.16).

4. <u>A rural housing/construction filière</u>

4.1 The 'filière' approach to planning described earlier is quite appropriate to national planning and policy-making in respect of housing and construction. A national housing filière separating into urban and rural components would require a holistic appreciation of the housing and construction sectors involving: income and demand in the urban and rural sectors; distribution of promotional effort between the two; choices and perhaps complementarities/linkages between large-scale and small-scale production units in building or building-materials production; incidence of taxes and subsidies as between large and small units; special regard to the needs of informal sector and cottage industry producers.

4.2 This approach is well-designed to identifying present and potential constraints as well as opportunities and

choices at different points. The quality of rural housing is very much a function of locally available materials. Progressive scarcity of building poles or suitable clays could lead to poor housing as a whole, affecting most those least able to pay higher prices. Opportunities may take the form of designing or introducing appropriate technologies and products suitable for low-income populations in particular rural areas. Training needs at different points will emerge and be identified for action.

4.3 If housing agencies exist, they are in most countries urban-centred and in any case have no dealing with national or regional small industry development organisations (SIDOs) or broader small enterprise development organisations (SEDOs). There are important advantages in combining the vertical perspective of the filière with the area-based, 'horizontal' perspective of small-scale and/or rural industry organisations which take scale as the criterion, covering a wide range of different small-scale manufacturing activities rather than linked sets of activities and production units.

4.4 It is apparent that a rural housing-construction programme is well suited to an integrated rural development approach, as has been noted previously (UN, 1978, pp 2-3), because of its potential focus on linked activities and resource base. Despite this, very few IRD programmes have included such a component, housing being regarded only in terms of its social value, ignoring its production linkages.

4.5 In order to pursue a rural housing/construction filière, an appropriate institutional structure needs to be established embracing the functions of basic information collection, community-institution building, appropriate technology, R & D and dissemination, and training, coordinated at both national and local levels.

5. <u>Some relevant examples of low-cost housing programmes</u>

5.1 The following programmes in the area of low-cost housing carry useful lessons for a possible rural housing programme. The first three are discussed in a recent UN study (UNCHS, 1988).

a. (i) Land-buying companies in Mathare Valley, Nairobi.

Mathare Valley is a famous uncontrolled settlement in Nairobi. Although this is an urban programme it shows the advantages and power of self-help and community-based approaches within the non-formal sector which could apply also in rural areas. The approach is based on local squatter-area residents forming land-buying companies which then mobilise financial resources for home construction on the

acquired plots. House designs are based on a very simple back-to-back layout. The companies have become a major form of housing delivery in the area: under one company as many as 7000 low-cost housing units were constructed within a year. For the most part the companies allocate plots to their members who, in turn, mobilise resources for building their own dwellings, upgrading the building over time. The members may carry out the construction work themselves or hire informal sector artisans.

(ii) Mathare North Site-and-Service Scheme, Nairobi.

In the area provision was made to allocate 1500 serviced plots to local squatters. A number of house-type designs were prepared by the Housing Development Department of the Nairobi City Commission and loans issued for the acquisition of building materials. What is interesting is that the project generated its own informal building materials market, with petty traders dealing mainly in gum-poles, transported from nearby districts but also districts as far away as SW Kenya. To procure supplies of the main walling material, building stones, residents often hire lorries from petty entrepreneurs who have established transport businesses within the project site or can buy directly from suppliers moving around the sites with lorries loaded with stones or sand. The project generated employment for lorry drivers and loaders and stone-dressers, as well as the artisans mentioned.

Success appears to have been based on the satisfaction of a strong need and an appropriate response; the use of informal sector suppliers; and freedom of action by the house owners within a framework of light controls. These elements could be applied in the rural context and would be even more appropriate there where, due to dispersed locations and low incomes, top-down planning is even more difficult to apply.

b. The Million Houses Programme, Sri Lanka.

There are similarities here in that the government provided serviced land, loans, technical information and training, while most families employed local semi-skilled labour to assist themselves with house construction. A large proportion supplied the building materials themselves and hired labour, or contracted out the work to local small-scale construction companies. There was a useful employment generation effect in that the skilled artisans themselves took on more helpers as required, these also, gaining experience in house

construction (UNCHS, 1989, p.13). This provides an example of a demand-led approach to employment generation centred upon housing as a focal point.

c. Housing Association for Antyodaya ('the poorest of the poor') Families, Vedchli Intensive Area Scheme, Velod District, Swat, Gujarat, India.

This case is of particular interest in being targeted towards a specific underprivileged poverty group, demonstrating that a housing-related programme can be effective even in such an area, when appropriately designed. Velod is populated predominantly by a tribal population, accounting for about three-quarters of the people in the district, while in Swat even in 1971 a third of the population was landless (UNCHS, 1986). It also provides a concrete example of a housing assistance programme incorporated centrally for its development effects into an integrated rural development programme: the main focus of the Vedchi Intensive Area Scheme (VIAS) was housing assistance families, with housing assistance part of the overall development programme aimed at employment generation and income-augmentation for the target group.

The housing programme was based upon a system of credit and thrift societies, Gram Rachna Trusts, which were formed in 24 out of 40 villages in the Velod taluka, to collect savings for housing improvements. Two NGOs were involved in a major way, one in planning and implementation and one in funding. Under the scheme loan entitlement was proportional to a family's accumulated savings according to a 'savings x 4 rule'. This community approach was highly successful, 90 per cent of beneficiaries repaying regularly in one village cited as an example (UNCHS, 1986), despite the low level of incomes and the absence of any fixed repayment schedule, the village organisations providing an apparently effective self-regulating mechanism. Specific additional benefits derived from bulk purchase by VIAS of Mangalore tiles for roofing, producing a 30 per cent saving in material costs, and a village brickmaking component which generated useful income as well as producing bricks at 60 per cent of the market price.

d. The Malawi Rural Housing Programme.

The preparatory phases of this programme were initiated in 1981, with substantial operations commencing in 1985/6. The programme has since generated a great deal of international interest and a number of other African countries have sent delegations to assess the Malawian experience. In 1986 the programme won the World Habitat Award given by the British-based Building and Social Housing Foundation. It has also been cited for its

contribution to the United Nations International Year of Shelter for the Homeless.

The decision to initiate the programme was based on explicit recognition, first of all, of the poor quality of rural housing in Malawi and the negative effects that this would have. Houses were poorly ventilated, made of non-durable materials in need of periodic replacement, structurally unsafe and capable of collapsing in heavy rains. The basic building materials used were also becoming more scarce, due to the effects of increased population density.

The aim of the programme was to assist rural families to improve their housing conditions, using affordable, low-cost building materials. To achieve this, three objectives were set for the first, preparatory phase of the programme:

(i) the development and improvement of indigenous building materials;

(ii) the development of low-cost construction techniques and simple house designs capable of extension in stages;

(iii) the training of local artisans in the production of improved local building materials and their use in house construction, and their subsequent establishment as independent entrepreneurs in either house construction or building materials production.

A critical component was the provision of loans to rural families from a Revolving Fund, established with government and later UNCDF and UNDP funds, with a subsidiary credit scheme providing small business loans to the artisans trained under the programme.

The principal low-cost building materials developed under the programme were:

- hand-made sisal-cement roofing sheets and tiles.
- improved sun-dried mud blocks for internal walls.
- hand-made concrete grills and door frames.
- ant/damp-proof metal strips.
- waterproof cement paint.

Specific construction techniques which were introduced included:

- paved brick floor slab construction instead of mass concrete.
- combination of sun-dried mud block and burnt brick wall construction.
- mud mortar joints and sisal fibre/dambo sand wall plaster.

- application of concrete grills in window openings and wire nails instead of hinges for window shutters.
- use of gum poles on load-bearing cross walls instead of sawn timber and trusses.
- fixing roofing sheets and tiles with hook wires instead of screws.
- applying waterproof paint on sundried mud block walls and fair-faced brick wall finish.

Features of basic house design and construction were:

- they should take account of the traditional living patterns and behaviour of the community.
- they should be simple and easy for local builders and the families themselves to build, and make maximum use of locally available materials.
- they should be amenable to a step-by-step approach involving successive additions as money becomes available ('the house that grows'), starting with a 20 metre square room and store, with provision for a further living room, bedroom(s) and verandah.

Extras include a small water storage tank and improved brick pit latrine (VIP). According to the number of additions the price range is from US $250 to $725 (with three bedrooms and a kitchen).

Under the credit scheme any rural household may apply for a house improvement loan covering basic building materials of any kind, up to a maximum (in 1988) of MK 1000 (US $400). Repayment is over 10 years with a one-year grace period and 12 per cent rate of interest. A 10 per cent deposit is required. No collateral is necessary and the house is not under pledge, repossession being considered socially impractical in Malawi. Loan repayments are collected through the ordinary postal agencies of the national Post Office Savings Bank (POSB).

Artisans applying for business loans must have been trained under the Rural Housing Programme training scheme and be recommended by the Technical and Credit Divisions of the RHP. In order to facilitate training and technology diffusion RHP centres were established. House loan recipients are expected to construct their own houses, following basic training by RHP centre staff members, or to employ local builders and artisans, who are also offered training in the recommended techniques.

There have been some areas of weakness:

(i) there has been a high rate of staff turnover, and too much use of untrained personnel, especially at the lower level;

(ii) there have been problems of supply in respect of

required building materials;

(iii) most importantly, the credit/financial accounting arrangements have been rather loose. A 1989 evaluation mission identified a basic lack of an accounting system as a fundamental problem. Loan collection is left to the Post Office which sends only delayed and often incomplete information to RHP regional and district officers, who need to go out to locate loanees at their home, something which is severely constrained by lack of transport. If this were available, administration costs of checking and administration would be high. Thus not much pressure is put on people to repay. It is surprising, perhaps, that repayment of amounts due was as high as 67 per cent at the end of 1988. By this time loans of MK 1,700,000 ($680,000) had been approved and MK 790,000 ($316,000) disbursed, only a small proportion of this was due for payment. Consideration is being given to the organisation of groups as vehicles for credit distribution, which should facilitate collection.

The programme has successfully demonstrated that decent rural housing can be provided at a reasonable cost in a low-income country and within impoverished rural areas. The number of benefiting families is anticipated to exceed 2500 in 1992. It has been extended to all 24 districts of Malawi. Already by mid-1988 200 people had been trained in the application of construction techniques.

Table 15: Benefiting families under Malawi's RHP

Year	No. of benefiting families
1984	13
1985	78
1986	300
1987	400
1989	750
1990	150
1991	2000
1992 (est)	(2500)

6. Appropriate technologies in rural house construction

6.1 As the described case studies indicate, the special contribution made by rural housing and other construction to poverty alleviation is associated not only with direct provision of cheap shelter as basic need, but also in generating employment and incomes in the rural areas directly and in linked activities such as construction materials production using labour-intensive appropriate technology methods. Such methods applied locally can adumbrate nationally to major savings of foreign exchange for imported construction materials and in use of scarce capital

funds. Research on low-cost housing and construction materials and techniques has been going on for several decades now and it is worth asking just how far this has taken us in terms of immediately implementable technologies. Unfortunately, available information on this is extremely piecemeal and we can only give a few additional examples.

6.2 With respect to building blocks, research in India on low-cost binders has been successful in leading to the establishment of small and mini-plants for cement production producing rice-husk-ash cement and progress has been made with lime/lime-pozzolana production units. Fly-ash and soil-cement blocks (fly-ash is an industrial waste made from coal), with reduced import content, have been successfully introduced in low-cost housing development in Lusaka. As part of a rural housing improvement project in Busia, Kenya, technical training was provided to artisans and women's groups in the production of stabilised soil-cement blocks and fibre-cement roofing tiles. The blocks, which could be retailed at half the price of stone or concrete blocks, apparently rapidly gained popularity in the area (UNCHS, 1989, p.16). Fibre-concrete roofing technologies have been introduced in a number of countries, and appear to have been quite widely adopted in Malawi, for example (UNCHS, 1988, p.24).

6.3 The consensus, however, is that dissemination from research institutes remains comparatively limited and it is even asserted that the technologies are 'almost nowhere being used on any successful scale (UNCHS, 1989, p.11). Reasons suggested for this include adherence to inappropriate building standards, prejudice, large-scale production interests, and lack of a market-oriented approach by the research institutes, as well as inherently more genuine limitations such as cost, affecting the possibility of replication outside the institute or project area.

6.4 Where practical action programmes have been established to introduce new materials and technologies in the rural areas, NGOs have often been involved. Action Aid (Kenya) and ITDG, for instance, have helped to popularise fibre-concrete roofing technology in low-income settlements in Kenya. ITDG established courses in the technology for rural entrepreneurs at Karen, with assistance from another NGO, Partnership for Productivity (PFP), so that some time ago as many as 25 small scale manufacturing establishments for fibre-concrete tiles were already in independent operation in the settlements. In the Malawi example cited above, the Diocese of Malosa played an important role (UNCHS, 1988, p 24).

6.5 There is a general question as to whether NGO-based

projects can achieve a significant enough coverage of the huge target rural populations involved. Whether or not this is the case, it is evident that there is immense scope for the practical introduction of new materials and technologies relevant to the situation of low-income populations. Too often efforts stop at the stage of publication and distribution of descriptive manuals where concerted and sustained action on the ground through adequately resourced programmes is needed.

7. Policies and actions for rural housing and construction

7.1 It is evident that considerable potential exists for expanding rural non-farm activities that are linked directly or indirectly to rural housing and construction, with benefits to the rural poor both in terms of basic needs provision and in terms of employment and income generation. An initial handicap is lack of data: accurate and reliable information on the actual shortage and condition of rural housing in each of the developing countries is generally not available, while information on the rural small scale and informal sector construction industry is excluded from both surveys of large scale sector construction and surveys of rural small scale industries, which are often limited in coverage to market centres and towns.

7.2 In order to redirect housing and construction efforts at least partially towards the rural low-income population, a prerequisite is a proper assessment of the demand structure and an assessment of costs in relation to affordability. This evidently requires the adoption of non-conventional and innovation methods, including step-by-step 'evolutionary' approaches. Even incremental house improvement programmes require careful judgement. It is reported that a loans programme for rural housing improvement in Busia District, Kenya, found that even small loans could be an 'impossible burden' for the beneficiaries, due to very low and declining incomes (UNCHS, 1989, p.16).

7.3 The importance of an 'enabling environment' for the development of small scale industry was emphasised above. In relation to rural housing/construction, a basic component of such an environment would be the identification of a wide range of the raw materials required by local entrepreneurs, self-help builders and building cooperatives through land-use maps pinpointing suitable deposits or (wood) species, and the grant of access to these. Innovative methods of disseminating information to those small scale producers already engaged in production who may particularly lack the means of acquiring such information or action on it may be needed. Measures for granting concessionary rights may need to be simplified. An advantage of the filière

approach described previously is precisely to focus on the resource base affecting the scope and sustainability of linked activities. For renewable resources such as eucalyptus for building poles, measures to encourage local small scale private commercial production may be needed. Once low-cost building materials in the locality are identified and available, substantial progress may then be possible on a self-help basis, supported only by the judicious injection of credit to supplement own savings mobilised by groups or associations of producers. Incomes and employment can thus be generated locally in the production of indigenous building materials, whether in quarrying or growing trees, wood processing, block, brick and tile making, construction of houses and other buildings, carpentry and metalwork, and associated rural transport.

7.4 Appropriate macroeconomic policies are also part of an enabling environment. The kind of biases in such policies which have affected small scale industry development in general have existed also in the construction sector, where large scale contractors have benefited from artificially low interest rates, preferential access to credit, exemption from sales taxes and taxes on imported materials and machinery, and protection from competition.

7.5 An activity package which revolves around a rural housing and construction programme would constitute a demand-led approach to activity generation. Its basis is the adoption of the core housing or construction programme by national planners. To date hardly any governments have comprehensive strategies for the construction industry or coherent rural shelter policies. Once these are in place, the broadest possible impact can be achieved by participatory self-help approaches, reliance on informal sector, small scale entrepreneurs, and use of indigenous materials, supported by group credit and savings mobilisation, technical assistance for the introduction and development of appropriate technologies, and training (particularly through informal sector systems) in technical and entrepreneurial skills.

8. Action by the international agencies

8.1 UNCHS, together with the other international agencies, needs to press national governments to clarify their policies and establish clear strategies and programmes in respect of rural housing and the rural/national construction industry, drawing their attention to the associated potential in terms of linked activities.

8.2 Inter-agency country missions could usefully be established to cover different dimensions such as macro/sectoral policies, appropriate technologies,

community participation, credit and training.

8.3 Funding agencies should be made alive to the possible incorporation of housing/construction related activities into funded area-based development programmes, including those in refugee-affected areas.

8.4 It can be questioned whether UNCHS itself has been sufficiently alive to the needs of the rural as opposed to the low-income urban sector. Its Operational Activities Report of 1991 refers to 191 different projects world-wide, covering 96 countries, which include a mere handful of projects which are explicitly rural, and none which obviously has as its central focus a comprehensive rural housing/construction programme.

VI. WOMEN IN HOUSEHOLD AND RURAL SMALL SCALE INDUSTRY

1. Household non-farm enterprise

1.1 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 products of basic household items such as mats and baskets) are amongst the most common activities, as is the case in Africa, where beer-brewing is also a very widespread commercial activity in rural areas. In some places brick-making is an important additional, seasonal activity.

1.2 A sub-category of rural industry is household or cottage industry carried out actually in the home. A substantial proportion of women's participation in rural industry falls in this category and, vice versa, much, though not of course all, of household industry is by women, so that it will be convenient to deal with household industry in this section.

1.3 A feature of household industry, as can be seen with respect to Thailand (Table 16) is that much of it is

Table 16: Number of farm households reporting specified non-farm enterprises in N and NE Thailand, 1982

	Household 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

Source: O Kiatying - Ungsulee (1981)

resource-based, important activities in this case including the processing of agricultural products, bamboo products, mat-making and silk and cotton weaving. A similar picture is evident in Kenya (Table 17).

Table 17: 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 & 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

1.4 Resource availabilities therefore can become important. 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. Since it is unusual for local or national development officers to show much interest in household industry, it would be even more unusual if adequate awareness were shown of specific constraints affecting it. An advantage of the filière approach described above would be its propensity to highlight any such emerging difficulties.

1.5 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 particular parent firm/local household enterprise relationships in the second case. Two examples of the latter from Thailand are the rural furniture industry, which is heavily dependent upon plywood supplied from Bangkok, and the ready-made garment industry, in which almost all household enterprises depend on materials bought from Bangkok.

1.6 The 'putting out' system has been severely criticised for its exploitative aspects (Singh and Kelles-Viitanen, eds, 1987). Home-based workers are in a hyper-competitive labour market and are dispersed and difficult to organise. Measures to regulate levels of payment can be circumvented, for instance by selling materials to the worker and re-purchasing them as finished goods. Nevertheless it is important to investigate and monitor the conditions under which any such system operates to ensure fairness and eliminate abuses.

1.7 It is possible, however, for home-based activities to contribute in an important way to rural household viability and to poverty alleviation, as a study of rural carpet weavers in Turkey demonstrates (Berik, 1987), while again suggesting elements of exploitation. Earnings per weaving day in workshop production, independent household production and under the putting-out system were respectively TL 675, 434 and 307, earnings under putting out thus amounting to only 45 per cent of the first figure. At the same time daily earnings from weaving were not far short (about 90 per cent) of the alternative wage rate, and wage work was plentiful in any case in only 8 per cent of the villages surveyed.

1.8 The advantage of home-based work is, of course, that it can be combined with agriculture, and dovetailed seasonally to accommodate agricultural labour allocations, and with domestic obligations. Women weavers with children under 5 produced annual outputs 30 per cent greater than those without. The contribution to poverty alleviation is shown by the fact that the

share of weaving income in total household income was highest for the lowest income category (49 per cent), falling systematically to 28 per cent in the highest income category. Divorced or widowed women often lose rights to land and become dependent on weaving: female-headed households as a whole on average secured half the level of agricultural income per adult. Young women in landless households are often full-time weavers, 'supporting their households through weaving', whilst most young men are unemployed (Berik, 1987, p 63).

1.9 The study revealed that weaving made important contributions to subsistence and, secondly, permitted household accumulation in many cases. In respect of the first, weaving work in the non-agricultural season limited indebtedness, allowed purchase of agricultural inputs and provided a hedge against crop failures. As regards accumulation, the existence of two or more full-time weavers was decisive in enabling accumulation to take place: accumulated funds could be used to purchase cultivable land, or to buy the agricultural equipment needed to become a sharecropper, or even to buy a truck or minibus for business purposes. Weaving was therefore 'not necessarily associated with rural poverty and rural proletarianisation' (p 67).

2. Handicraft industry

2.1 The above is an example of home-based industry which is based, not only on materials in this case, but on labour-intensive skills applied to a craft product. The household or small workshop mode of production has specific opportunities compared with factory production in relation to craft goods. For this reason handicraft production has been picked on in different countries as a means of augmenting rural incomes, particularly among near-landless households. The most common problem has been marketability, success depending usually on access to export markets or at least a major local tourist market. In the absence of such access, projects centred on promoting crafts have not generated interesting levels of income or achieved significant coverage of target populations. In a number of cases, following active investigation and promotion, specific products have been found to have good export market potential. Prior assessment of this potential should, however, be a prerequisite for launching even pilot projects.

3. Women's non-farm activities

3.1 This applies more generally to women's income-generating projects as a whole. The others have pointed out (e.g. Soares, 1991, p 1), very few project documents include even a rudimentary feasibility study of the activities to be promoted, while most evaluation reports 'provide only superficial and partial analysis on

income-generating components'. Project failure rates, not surprisingly, are high. It is again important that market studies precede major investments of time in promotional projects for income-generation while, where loan funds are being offered, the long term sustainability of the project needs to be carefully considered beforehand.

3.2 Some women's projects, particularly 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, such as garment making or rural construction, and by adopting policies and programmes which benefit women in large numbers and significant activities, such as food processing.

3.3 While many non-farm activities are marginal in nature, in other situations they can make a considerable difference to household income. Thus a rural survey of Begumganj, Bangladesh, found that women participating in rural industries received on average an annual income equivalent to US$ 237, comparing very favourably with a per capita national income in Bangladesh in that year of $ 140, while the average monthly expenditure of such households on nutritious food items was very much higher than for other families (CIRDAP, 1988).

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

3.5 The locational factor which stems from the difficulty of working away from the household or village is a considerable one. It should not be underestimated in considering the real opportunities for rural industry involving women, taking account of the advantages of urban-based factory production in respect of many products. It is likely to increase the advantages for women of agriculture-related and local-resource based activities. Being tied to the household will aggravate marketing problems and reduce access to markets outside the local area. Special assistance in the area of marketing is likely to be required.

4. <u>Non-manufacturing opportunities for women</u>

4.1 Where obvious opportunities for village or household-based manufacturing by women do not exist, it may make more economic sense to concentrate on what might be called 'auxiliary agricultural production', agricultural activities which use very little land, such

as intensive vegetable production, stall-fed cattle, pigs or poultry, aquaculture or beekeeping. Such activities may be of particular relevance to the target group of the near-landless or to women-headed households which are handicapped in relation to extensive agriculture with its heavy labour demands. In dry or semi-arid areas, local purchasing power may well be insufficient to sustain manufacturing activities, which may be further handicapped by distance from markets, whereas activities such as goat-rearing can contribute to improved family subsistence and provide some cash income, as well as being in line with labour availabilities and expertise. Interest in promoting possible manufacturing activities should not therefore divert attention from exploring possibilities of agricultural intensification and income-generation in these areas.

4.2 By way of example, in the Production Credit for Rural Women Project in Nepal, though the profit margin in weaving was found to be low, a reasonably good income was obtainable in goat raising, while vegetable production was also a major activity (Soares, 1991). In the SEWA project for female-headed households in 4 villages in Jaunpur, India, goat rearing and pig production were found, similarly, to offer important sources of income as well as liquid assets for sale in times of distress, while potential was identified in the areas of beekeeping, rabbit rearing and fish farming (ILO, 1989, p 3).

4.3 The encouragement of goat-rearing, supported by cactus fodder production, was recommended as an important component of a survival strategy for the rural poor in the Brazilian Northeast, one of the poorest areas in the world, which is subject to droughts approaching Sahelian proportions (Livingstone and Assuncao, 1987). This was likely to make a much more substantial impact than rural industry in terms of numbers of poor rural industry in terms of numbers of poor rural households assisted in a dry region where a substantial proportion of the population is affected and purchasing power which might support rural industry is low.

4.4 It is important to emphasise again that manufacturing accounts for only a proportion of rural non-farm activities as a whole, trade and services, including catering, each account for larger proportions. In the case of women, trade is a particularly important component in many cases, in all regions of the developing world. In respect of Africa, for instance, it is observed that 'rural women are traders almost everywhere. In some West African countries up to 80 per cent of the labour force in all trade is female; rates for fish traders can be even higher' (FAO, 1984a).

4.5 It is noteworthy that in Bangladesh under the Grameen Bank, one of the most widely canvassed rural development projects, with substantial women's participation, a large proportion of credit disbursed to beneficiaries, mostly landless or near-landless, was for intensive livestock activities or trade, rather than manufacturing. As a general policy, it is absolutely correct to allow credit for distribution across the range of activities which appear to provide good economic rates of return, whether these are in manufacturing or non-manufacturing, and where the activities are able to provide the basis for repayment.

5. Economising women's time

5.1 Attempts to promote new manufacturing activities among rural women may fail if they are not consistent with household labour availabilities and in particular do not take account of the multiple roles played by women, each generating their own labour demands. Collection of basic information on labour availabilities should be a prerequisite for any new project.

5.2 Since many women currently spend 2 or 3 hours a day each on fuel gathering and water collection, as well as on domestic food processing, quite apart from the demands of agricultural production, it may be that measures to ensure fuel supplies or reduce distances to water should be considered before anything else. Introduction of new sources of energy such as biogas, producer gas and solar energy is an obvious possible solution in the first case. Partial success has been achieved in a few countries and efforts in this direction need to be redoubled and factors affecting replicability carefully considered. The fact that developments are mostly still limited to the experimental stage after a considerable lapse of time reflects the minimal amount of backing, national and international, that these efforts, often left to NGOs, have had. More concerted and, above all more systematic and coordinated efforts are needed by the national and international agencies, if any breakthrough is to be made. An international workshop to review progress and consider the possibilities for and obstacles to practical implementation of new energy technologies is called for.

5.3 With respect to water supplies, it may be commitment to people-oriented rural development that is lacking, rather than new technologies. Thus in the Brazilian Northeast, commented upon earlier, the rural population has been left for decades during the constant dry periods and droughts to scratch around for water supplies, using dug wells and other means of their own, while huge government expenditures have been devoted to the construction of immense dams not well designed to provide for rural needs (Livingstone and Assuncao,

1992).

5.4 While improved village storage facilities are important for themselves and should be an integral part of any rural housing programme, if successful they are likely to have a major effect in economising women's time. A recent USAID pilot project for developing on-farm storage in Western Kenya claimed to have reduced post-harvest losses of maize by as much as a third. Since women are heavily involved, and in a labour-intensive way, in maize-growing for subsistence as well as sale, such losses also represent a quite major wastage of female labour, affecting its availability for other activities. This project, subsequently adopted on a wider national basis, is also interesting for having pursued a filière approaching by generating linkages through the small-scale growing of trees for building poles and the training of artisans for the construction of model stores. Improvement of village storage structures has been a useful component of many rural development programmes in different countries in Africa (Cameroon) Asia (India, Pakistan) and Latin America (Peru).

5.5 These time economies are of value in themselves for reducing drudgery and thus the quality of life. Whether they result in non-farm activities being taken up or expanded is less certain. The most favourable circumstances, it has been suggested (Herzog, 1986, p 11), are where women are already engaged in a successful income-generating activity or where ongoing activities exist in the village. Thus in an FAO PFL project in the Baguineda region of Mali, labour economies resulting from the introduction of mechanised grain milling allowed a number of women to take up green bean production for export, previously carried out exclusively by male producers. In a different situation, in Burkina Faso, where there were not the same opportunities, less than 30 per cent used the time to take up additional income-generating activity, and this mostly in petty trading.

5.6 In some circumstances the introduction of new technologies may have negative distributional consequences. Thus the introduction and spread of Engleberg mills, replacing traditional manual rice hullers (dhekis) in Bangladesh, destroyed the only means of earning a living open to large numbers of landless women relying on this for part-time wage work (UNIFEM, 1988). Clearly it is important to assess the possibility of distributional consequences of this type in advance.

6. Appropriate technology and food processing

6.1 The most obvious area in which new technologies might be

introduced to the benefit of women is in the widespread daily business of food processing, where inefficient pounding methods have been traditional and where grinding mills have been shown capable of saving 2 or 3 hours a day of women's time. A hydraulic press can reduce the time spent pressing grated cassava from 1-6 hours using traditional methods to 1-2 minutes; an Agrico palm pounding machine can reduce the time pounding palm kernels from 5-6 hours to 40 minutes for equivalent loads, and a centrifugal palm kernel cracker can reduce time spent crushing 10 kg of palm kernels from 3-6 hours to 1.5-2 minutes (ILO, 1984).

6.2 A major factor limiting the introduction of these technologies relates to their effective scale of operation, which precludes their employment by individual households and requires group organisation or control by individual larger entrepreneurs. Thus in a pilot project for women's group processing of coconut oil in Nsein, Ghana, using a diesel-engined copra grater, output per person-day increased sevenfold compared with the traditional method, and members' incomes were increased by 50 per cent, part of which could be re-spent in oil production development (ILO, 1987c). However, initial capital required was $ 320,000. This was secured by village group members' contributions from savings, supplemented by a private loan. The group divided itself into a number of separate groups of 5-20 women for actual use of the machine.

6.3 A very similar example is described (ILO, 1987b) of a women's group pilot project in Antoa, Ghana, for gari processing using SIS diesel-powered equipment. This reduced processing time for all the stages from peeling to grating by two-thirds, while producing a more satisfactory product, but investment costs were 90 times as great as the traditional process.

6.4 As in the previous case, it was observed here that the mechanisation of processing permitted expansion of agricultural production by those involved, and even by non-members who were able to pay to have their cassava processed. Here members were able to market gari locally and transport quantities to market centres in the region. This demonstrates the very great potential value of replacing inefficient, time-consuming traditional processing of staple foodstuffs while at the same time raising different questions regarding the possibility of stable, effective organisational forms of ownership and operation.

6.5 Again, a TCC mechanical pounder for palm oil processing was introduced via a women's group at Essam, Ghana, in 1984, and proved very effective and manageable by the group. Labour time for pounding was reduced by

two-thirds. Investment costs, however, were 20 times the traditional method (ILO, 1985a).

6.6 Not all such technologies involve substantial economies of scale. Improved KAGAN ovens for fish smoking were introduced in 1984 in 4 locations along the Ghana coast, which could be operated by groups of just 2 or 3 women and involved investment costs just 3 times those of the traditional process. The new oven required just one-twentyfifth of the labour input per ton compared with the old method (ILO, 1985c).

6.7 Herzog (1986) describes trials with animal-powered cereal mills in Senegal and Burkina Faso, which began in 1984. Larger diesel-powered grinding mills were likely to exhibit excess capacity if introduced to some of the smaller villages in the area, and there was also a problem of the level of charges where villagers were relatively poor. Animal-powered mills, in contrast, had very low operating costs and were affordable by most rural women and were found to develop heavy customer demand. Since individual women were able to use their own animals in fulfilling their requirements, they were able also to enjoy a degree of independence in running the facilities without reference to the men in the village, and much wider access to mechanised milling was achieved.

6.8 A somewhat similar appropriate scale issue appears in sorghum milling in Botswana, where the Rural Industries Innovation Centre designed and developed an intermediate-sized sorghum de-huller, of a scale which would be suitable for adoption by smaller villages. Following its introduction in 1980, it achieved a significant response, 36 having been sold by 1985, with another 11 ordered (UNIFEM, 1988). Savings of 4 person-hours a day in processing line are reported, but nothing regarding the organisational side of mills which are still designed to satisfy whole-village requirements.

6.9 Given the rather dramatic savings in labour productivity achievable in these examples, clearly capable of replication in a wide range of food processing situations in different countries, it is important to ask why the different types of equipment in question have not become the norm. In the case of specially designed appropriate technologies, the existence of a 'missing link' between designers and manufacturers has been suggested (ILO, 1984, p 268), with manufacturers sceptical about embarking on production of devices not yet established in the market: 'as a result, many equipment prototypes of potential benefit to the rural people have never left the laboratories'.

6.10 Many of these items of equipment are not difficult to

fabricate and could be produced in rural informal sectors. As indicated earlier, there are cases of informal sector entrepreneurs independently fabricating their own processing machinery for sale. Again, systematic assessment is required at the national level of what real, marketable opportunities exist, followed by a much more active promotion of their production and distribution through the informal sector.

6.11 In many cases, as demonstrated, economies of scale associated with the introduction of mechanised processing methods will require either cooperative or capitalistic organisation, even if in both cases all villagers can benefit as consumers. It does not appear to have been systematically investigated as to whether this has proved an obstacle, and more generally there appears to be little systematic follow-up over a period of years. It is suggested that regular reviews of potential and experience with new technologies, covering technical, economic and organisational aspects, as well as distributional effects, be carried out through appropriately-designed regional institutions which should have strong national government support and involvement. Such institutions could serve as vehicles for the injection of expertise from the appropriate international agencies. More R & D and stronger dissemination efforts should be applied where improved technologies, including hand-operated equipment, can be managed by individual women or small groups.

7. Women's groups and rural industry

7.1 Women's groups have very evident advantages as a vehicle for delivery assistance. In processing activities, where economies of scale exist, women have not found it difficult in most rural societies to work effectively as a group. This obviously permits the participation potentially of all women villagers, including those with fewer assets and less income. Groups also allow women to circumvent intra-household obstacles to independent pursuit of economic activity by the women, and can permit technical and other progress to be made in respect of those sectors such as food production, processing and marketing or the raising of small stock in which women are the main participants.

7.2 Most encouraging has been progress in the area of credit and thrift societies. These have evolved in many cases from a strong foundation of traditional Rotating Savings and Credit Associations (ROSCAs) which have existed for a long time in many different countries in different continents. Advantages include: they serve as mechanisms for mobilising savings, as well as channelling credit, providing incentives to save because of the opportunities thrown up for useful 'lumpy' consumer or investment expenditures; they are suitable

for the poorest subsets within the community, because the principle is one of combining savings to generate an investment or social fund; through the procedure usually adopted of group guarantees (the group as a whole guaranteeing repayment of loans to individuals) the problem of lack of collateral, even land, among the poor especially is circumvented; groups can be used by aid agencies who may offer credit guarantees to banks or manufacturers and wholesalers providing trade credit; and where high costs of small loans administration have been a major reason for lack of interest by formal sector lending institutions to become involved in small loans distribution, particularly in rural areas, they offer a mechanism for lowering administration costs.

7.3 Rural women appear to be particularly conscientious when it comes to savings procedures and meeting repayment schedules, and seldom default on repayment. The repayment rates will achieved of 95 - 100 per cent (Mavrogiannis, 1991, p 56) are in marked contrast to the majority of small enterprise loan schemes. It is worth making brief reference to some examples which will support this assertion on repayment discipline but also bring out certain other common features or tendencies.

7.4 A project in Bangladesh, the BSCIC-FHH Project: Women's Group Development, was specifically directed towards female-headed households and, using a savings and loan revolving fund, was able to achieve repayment rates of 90-100 per cent. However, although a wide variety of income-generating activities were supported, the most important was that of rice-husking.

7.5 Progreso, a microenterprise credit programme started by Accion Communitara del Peru, in the barrios on the outskirts of Luna, although obviously a peri-urban rather than a rural programme, made more than 40,500 loans over a five year period to some 3500 microentrepreneurs, more than half women, and 1978 groups, 80 per cent women, and achieved repayment rates, without imposing collateral requirements, of about 95 per cent in both cases (Otero, 1987). However, the loans, in the range of $ 50-100, were mostly for working capital and, in the case of women, included a high proportion for the purposes of trade.

7.6 One of 27 women's cooperatives in Western Sumatra, mostly credit and savings cooperatives, Perwari is located in Bukitinggi in the highlands. It is of some interest as a younger women's cooperative. Each member makes an initial savings contribution of Rp 5000, and subsequently monthly contributions of Rp 1000, and is entitled then to credit up to a maximum of 3 times her accumulated savings. The society is self-run, administration costs are low, and repayment rates up to 1989 were 97 per cent (Mavrogiannis, 1991). A

limitation is the level of funding, limited to short term credit, usually repayable in 10 monthly instalments, and useful therefore only for working capital. Most of the members are described as small traders, using loans, other than consumption loans, for trade rather than manufacturing.

7.7 The Federation de Cajas de Credit (Fedeccredito) in El Salvador is interesting, again, for its success in extending credit, in collaboration with a government agency, to some of the poorest households in the country, 86 per cent of whom are specified as women (Lycette, 1984). The grupos solidarios conform to the standard model for such groups by providing joint guarantees for individual loans, a group representative collecting weekly payments from members for collection by the Credito agent. Though the women involved are an evident target group for poverty alleviation, operating tiny, home-based businesses providing over 50 per cent of the household's income, high repayment rates are again attained.

7.8 An illustration of the capacity of women's group organisation to serve the purposes in really low income-group situations is offered by the current GTZ-assisted project in Central/North Kenya at Wamba in a semi-arid pastoral area (IFAD, 1990). Pastoralist women here successfully established dukas (shops) in a remote pastoral area on the basis of credit from wholesale distributors in Wamba secured by a credit guarantee on the part of GTZ. Despite the apparently unfavourable circumstances and lack of both formal education and experience of commerce by the pastoralist women, 100 per cent repayment rates were being achieved, with particularly important benefits from the use of the dukas for the commercial distribution of animal vaccines.

7.9 From these examples, there seems to be no question that women's groups constitute a viable and widely successful vehicle for reaching poor rural women, for addressing problems of intra-household distribution, and for targeting specific vulnerable sections such as female-headed households and young women.

7.10 A limitation is the level of savings and credit which can be mobilised, which is generally low. However, a group's access to funds can be substantially expanded if supporting agencies can offer credit guarantees to allow them to acquire further fixed or working capital.

7.11 A related comment is that the groups are generally able to provide only for working capital and that this is more often for trade than for rural industry as such (excluding village food processing as described earlier) or for establishing new projects. An immediate question

which should be considered in all cases is whether more progress could be made in incorporating rural industry projects among group-supported activities. Hopefully, once a sound organisation has been established, its scope can be broadened in such directions. This is likely to be easiest where rural industrial activities are being carried on by a significant number of households already. A particular requirement, certainly, would be train more women as credit officers in order to develop such possibilities.

VII. INCOME-GENERATING ACTIVITIES FOR REFUGEES

1. The distribution of refugees

1.1 In considering the promotion of rural industry and non-farm activity as a whole in relation to poverty alleviation, refugees are an obvious target group. These numbered some 14 million in 1990, 80 per cent located in developing countries. Their number tripled between 1976 and 1980, and doubled again in the 10 years to 1990 (Table 18). During that time the share outside Europe and North America increased from 56 per cent to 86 per cent, due particularly to the increased share of Asia.

1.2 Their distribution is, moreover, concentrated in particular countries (Table 19) and regions within countries. Many of these host countries and specific host populations are themselves extremely poor. This means that the countries specifically involved, particularly the lowest-income asylum countries, need offsetting development aid and, since helping the target group will require the cooperation of the host country and of specific local area populations, that aid should be directed to the locality, including local populations, and not confined to refugees as an isolated group.

1.3 In particular, aid will need to be directed towards expanding infrastructure, both economic and social, to increase absorptive capacity. These considerations, in turn, point to the need for an area-based approach towards the absorption of refugee populations, embracing the whole population in the refugee-affected area.

Table 18: Changes in the geographical distribution of refugees, 1976-1990

	1976	1980	1985	1990
Total (no.)	2772000	8229300	11613300	17209722
Shares (%)				
Africa	43.3	44.5	29.9	34.7
Asia	6.5	28.1	48.8	43.6
S America	4.0	2.2	2.9	7.0
Oceania	1.8	3.8	0.8	0.6
N America & Europe	44.4	21.4	17.6	14.2

Source: UNHCR, Geneva

Table 19: World Distribution of Refugees, January 1, 1991

	No.	%
Africa	5388968	31.2
Malawi	926725	5.4
Sudan	780000	4.5
Ethiopia	772764	4.5
Somalia	460000	2.7
Zaire	416435	2.4
Guinea-C	325000	1.9
Ivory Coast	272284	1.6
Bwundi	268403	1.6
Tanzania	265184	1.5
Asia and Oceania	638827	3.7
China	287226	1.7
L America & Caribbean	1198880	6.9
Mexico	356400	2.1
Costa Rica	278000	1.6
Honduras	237100	1.4
Guatemala	223377	1.3
SW Asia, N Africa, Middle East	7632799	44.2
Iran	4174401	24.2
Pakistan	3255975	18.9
Europe & N America	2402263	13.9
Total	17261737	100.0

Source: UNHCR, Geneva

2. Absorption into agriculture

2.1 The need to identify suitable income-generating activities for refugee populations, whose presence in the host countries is frequently extended and even permanent, is that they cannot be maintained indefinitely, for their own or other people's satisfaction, in dole situations inviting 'donor fatigue'. The question to be considered here is how far once could look to the category labelled 'rural industry' for the appropriate activities.

2.2 In developing countries as a whole the predominant activity is agriculture. One would expect political dislocation to displace rural populations in particular and, indeed, the profile of refugees is mainly rural, with agricultural backgrounds. One should therefore look first to the agricultural sector for their absorption and to providing refugee families with at least a minimum of land.

2.3 In developing countries access to land means access to employment and very often lack of such access means unemployment. Moreover, non-farm activities are generally a source of supplementary income for

households deriving income from both farm and non-farm activities. It would in any case be difficult to absorb an entire refugee population, or even a large proportion, into non-farm activity, due to demand constraints, whereas the same limitation does not apply in agriculture where a household's first concern is the satisfaction of its own basic consumer wants. It is not only that the most immediate need of refugee households is to ensure their own food supplies: their failure to do so could add to an already substantial foreign exchange burden associated with food imports which are increasing in volume in many developing countries, particularly in Africa. The fact that a substantial proportion of refugees are women and children increases the need, where this is feasible, to start out from measures which ensure basic food provision. Settlement into agriculture is, moreover, likely to be the best way of dealing simultaneously with the next generation, as children grow up.

2.4 Needless to say, this strategy is easier to follow in the case of 'returnees' than for expatriate refugees, particularly where land is scarce. It is also the case that not all refugees have agricultural backgrounds.

3. Opportunities for men, women and youth

3.1 In considering assistance measures for refugee populations, awareness is necessary of the possible predominance within them of woman-headed households. This points to agriculture and livestock activities, particularly those using less land, such as vegetable-growing and poultry. Apart from 'auxiliary agricultural production' such as this, it would be important, however, to identify any possible non-farm activities for supplementary income purposes, since as a major poverty group they are likely to require multiple sources of income to achieve a viable or better level. Marketing and services, still outside the category of rural industry, may well be the next best option, suggesting in terms of policy the distribution of small loans through women's groups on the Grameen Bank model. Dressmaking/tailoring is the most obvious possibility within small scale manufacturing, perhaps facilitated by the distribution of sewing machines on hire purchase. The constraint here is likely to be on the demand side, combined with excessive competition from existing producers, and careful market studies would be essential beforehand. Other on-going non-farm activities in the region may offer the best clue as to what is feasible, brick and tile production in some places, for example, with credit facilitating entry by refugees.

3.2 For men, training or other assistance towards becoming established in carpentry, metalworking or masonry may be the most obvious but again raising questions of market

demand and competition from existing local producers. Many who have received such training have been confined to carrying out work within refugee camps rather than succeeding themselves as independent entrepreneurs. Assistance in finding wage employment may be a more effective means of absorbing large numbers of male refugees outside agriculture.

3.3 However, some of the general lines of action recommended above for non-farm activity promotion may be capable of application in refugee-hosting areas. Thus a rural housing programme could provide a focus for housing-related activities, including brick or block making, supported by a training programme. Taking account of the dependence of small scale enterprise activities on the resource base, employment in resource-conserving activities of different kinds, including agro-forestry initiatives, might be a component.

3.4 For boys, vocational training, similarly, is recommended. A longer term perspective being possible in this case, assurance of access to primary education, providing basic literacy and numeracy, may be a first priority, placing them on an equal basis with their local counterparts and thus eventually ending, perhaps, their separate status within the host population. Building and staffing more schools in the region, with NGO assistance, is appropriate. With respect to vocational training for youth, measures to encourage local mastercraftsmen within the informal sector to take on refugee apprentices might be considered.

4. <u>The role of NGOs</u>

4.1 It is almost self-evident that NGOs have an important role to play in development assistance to refugee-affected areas, these often being poor <u>before</u> the influx of refugee populations. Since financial and other resources are inevitably small in proportion to the affected population, participatory and self-help programmes have to be adopted, with NGOs more adept, very often, in identifying target groups and special needs locally.

5. <u>Cooperation between funding and technical agencies</u>

5.1 The UNHCR does not wish, quite properly, to assume the role of a development agency. It cannot be expected to have the range of technical expertise lodged in the other specialist agencies, and it should not attempt to duplicate this. Of necessity, it has to be concerned first with short term survival and alleviation measures. The necessity for an area-based approach, across sectors and activities, specifically requires injection of different types of expertise from different

UN agencies and an area development plan which may be beyond the capacity and terms of reference of UNHCR, as well as beyond its own funding remit.

5.2 Local area plans are very often prepared by single bilateral or multilateral funding agencies, in conjunction with national government officials, generally not drawing extensively on knowledge and expertise residing in the specialist agencies such as UNIDO or FAO. In the case of refugee-affected areas where action is needed across a number of fronts relating to farm and non-farm activities, which together will raise the absorptive capacity of the area, there is need for coordination among the relevant agencies under which each can contribute to an agreed assessment of what are feasible and practical short term and long term measures. How best to achieve this coordination at different stages of planning and implementation should be a matter for discussion.

5.3 Coordination is also needed to influence the distribution of financial and development effort by UN or multilateral/bilateral donor agencies in such a way as to recognise the extra claims of refugee-affected areas. In other cases, where the position is one of ongoing development programmes or projects, there may be need to introduce a specific refugee dimension, perhaps 'piggy-backing' refugee components to existing projects. The initiative here lies most directly with UNHCR as representing the interests of the refugee populations. It may be considered whether HCR is appropriately and has sufficient capacity at present, not to serve as a development agency, but to ensure this refugee dimension does not get omitted in different area programmes where opportunities and needs for its inclusion exist.

Case Study: The Revolving Fund Scheme for refugees in Eastern and Central Sudan

This scheme is worth examining as a substantial programme focused on a major area of refugee influx in Eastern and Central Sudan (1.3 million refugees from 4 different countries at end 1987). It illustrates some of the constraints and difficulties encountered by such a programme.

Following a request by the Government of the Sudan and UNHCR, and a number of studies which it itself carried out, ILO initiated a programme of action, based on 16 project proposals, in 1983, a Project Manager arriving in mid 1985. The focus was a Revolving Fund for the distribution of loans, using the group approach (maximum 20 members). The size of the Fund in 1986, when the first disbursements were made, was US$ 356,200. 85 per cent of loans were to be distributed to refugees in the settlements for the development of income-generating activities, and 15 per cent among local artisans. In addition a Marketing and Technology

Advisory Service, centred on an expatriate advisor, was established to provide advice towards upgrading techniques and products. By the end of 1987 96 loans had been distributed, with a mean size of $3862.

Table 20: Projects financed by the Revolving Fund

Small-scale manufacturing		71	Agricultural production and processing		11
(Metal workshops	13		(Grinding mills	5	
Carpentry	6		Other	6)	
Tailoring, embroidery	15		Animal husbandry-related		11
Spinning & weaving	8		(Dairy	2	
Handicrafts	9		Cheesemaking	2	
Leather, rubber products	10		Sesame oil extraction	2	
Other	10)		Other	5)	
Services and trade		3			
Total 96					

While a March 1987 ILO Evaluation Mission (ILO, 1987) reported very favourably on the success of the programme, particularly in securing substantial increases in income levels in many activities, closer examination of the evidence available suggests a need for caution.

1. Although reference is made to an impressive 96 per cent loan recovery rate, this refers to amounts due. Only a proportion of the amounts loaned were due for recovery by early 1987 and recoveries to December 1987 amounted to just over 12 per cent of amounts disbursed. It is not clear that the recovery rate was maintained subsequently.

2. Recovery also depended on close supervision of client groups. Other schemes providing extension services to widely scattered artisans such as that based on Rural Industrial Development Centres (RIDCs) in Kenya in the mid-70s have exhibited heavy extension costs relative to the turnover of those assisted. During the period 1984-86 here in the Sudan, capital and operating costs budgeted for the programme amounted to $1,039,606 compared with a revolving fund of $ 359,794.

   There were also major problems in supervising the activities promoted due to lack of adequate transportation, and it was reported that only one out of five extension officers were mobile in the field. There was also a problem of security for officers carrying sums of money. The project area is vast, embracing 28 refugee settlements and 6 towns.

   Distance and other physical factors created difficulties in procuring raw materials, equipment and marketing of finished products while dispersed, small scale production makes it difficult to achieve economies of scale in supply and distribution. These factors are not likely to be unusual in refugee-affected areas.

3. While the project period evaluated was comparatively short, the small number of project loans, 96, covering 446 beneficiaries, 1922 including dependents, represents a low coverage of the target group, and compared with 2500 immediate loan applications received and a refugee population of 1.3 million.

4. The estimates given for the mean net monthly income of the projects before and after loan receipts of $ 10,830 and $ 69,610 respectively are not convincing, particularly if the difference is compared with the mean loan size of $ 3862. Descriptions of the individual projects indicate some success in introducing or improving designs or linking up with urban markets but not, it would seem, sufficient to produce the across-the-board revenue improvements posited. In some cases, such as shoe-making and cheese-making there is specific reference to the limitations of the village market.

   One promising initiative was the investigation by the ILO Advisory Service of the potential for developing the cultivation of the Doum palm in the Eastern region. Since the Doum palm's fibre and wood by-products provide a source of income and employment for, it is stated, as many as 100,000 people, positive interventions here could certainly achieve significant coverage in terms of persons benefited. The problems are of severe drought and over-harvesting, leading to a danger of the palm's extinction. This provides an example of a situation which would be most easily identified under the 'filière' approach which links the resource base with connected small or large scale activities down the line. Here consideration is being given to establishment of protected cultivation and to finding a quick-growing palm to alleviate pressure on the Doum variety.

Lessons from the case study:

- difficult physical conditions in many refugee areas affecting extension costs.

- need to keep programme costs in proportion to income levels of target group.

- problem of achieving significant coverage of target group through non-farm activity promotion.

- need for coldly realistic evaluation of success, even if programme deserves a degree of subsidy.

- usefulness of filière perspective linked to resource base.

VIII. THE ROLE OF THE UN AGENCIES

1.1 The salient fact emerging from this lengthy discussion is that the promotion of rural industry, even less its specific use in poverty alleviation, cannot be dealt with by focusing on a 'rural industry sector' in isolation. Its development, indeed, depends on a number of inter-sectoral linkages and also generates development in other sectors through these linkages. It follows that a number of UN agencies will all be concerned in one way or another with rural industry.

1.2 The most important determinant of rural industry expansion is the growth of agriculture, together with fisheries and forestry. Opportunities for new rural industries may be associated with specific agricultural developments. Much of rural industry is in fact resource-based.

1.3 Developing non-farm activities may require prior elimination of rural labour constraints calling for the application of new technologies for economising time, particularly of rural women, but covering labour in agricultural production, food processing, rural energy, and transport. Different agencies, FAO, UNIDO and UNCHS all have expertise and interests in this field.

1.4 The promotion of rural industry here is seen as part of an overall strengthening of the rural economy, involving the interactions described. This is obviously well suited to an area-based approach and, indeed, requires it, although in combination with a vertical planning perspective also. The need for a participatory approach increases this need. The area focus is also important in relation to planning for sustainability. At present only IFAD is involved in area-based assistance to any extent, although quite a lot of bilateral aid is area-based. The work of the other agencies is often project-based, sometimes small project-based, and falls outside of these area initiatives. The latter could consider how their expertise could be better utilised within integrated, area-based programmes, or in planning them, in this case with reference to rural industry.

1.5 The experience with top-down promotion of rural and small-scale industry has been disappointing. When it comes to generating benefits for the rural poor and specific target groups in particular a participatory, grassroots approach is essential, especially if sufficient coverage of the groups in question is to be achieved. A recent review of 25 sample rural development projects in three African countries (Kabongo and Schumm, 1989) refers to the 'significant proportion

of United Nations system rural development activities' which 'seem to go awry' and notes that 'the traditional top-down project (expert + counterparts + equipment) rarely works effectively in this context'. It concludes that 'the validity of the project approach for rural development activities aimed at the poorest of the poor or at the grassroots level needs to be seriously called into question' (p 30).

1.6 A second salient fact we would stress is that a gap is evident between research and development into technologies and their introduction on a national basis in any recipient country, and between pilot projects covering a few villages and the major programmes with substantial coverage one might have expected as follow-up.

1.7 These gaps mean that a great deal of high quality work and important ideas generated within the UN technical organisations fall into the sand of non-action. A major reason for this is that practical implementation on a substantial scale calls for a national commitment on the part of the developing country governments. What is needed is much closer coordination among the UN agencies in order that national governments can have on offer fully integrated programmes in the various areas, rather than piecemeal offerings and suggestions on separate component elements.

1.8 Education of integrated approaches in some of the areas discussed in this paper may call for (a) inter-agency workshops covering particular subject areas and (b) inter-agency missions which can assist national governments in establishing appropriate strategies and programmes within the context of particular experience, needs and country possibilities, but perhaps working on a more continuous basis with national planning institutions.

1.9 In respect of rural industry promotion, specifically, the UN agencies could together press national governments for the adoption of integrated rural development approaches, of 'filière' planning perspectives, and of scale bias-free macroeconomic policies. In many countries national planning capabilities will need much more support in order to be able to establish and implement the required programmes.

1.10 Some of the UN agencies, particularly UNCHS and UNIDO, may need to allocate a greater share of their operational activities towards the rural sector, in order to contribute more to the immediate needs of poverty alleviation.

1.11 The UNDP system has been criticised for not exercising 'any efficient coordination' of external assistance to a given country (Edgren and Möller, 1990, p 39), particularly taking into account the independence of bilateral donors and the independent strength of the World Bank. The provision of a focus in the form of a combined rural farm/non-farm development strategy with a broad poverty alleviation objective could be of value here. In particular, if, partly as a result of a more coordinated approach on their part, the UN agencies can work more effectively with recipient governments in working out national development strategies combining some of the elements mentioned here (and similarly in other fields of operation), not only will this deal directly with the criticism, but it will provide the framework within which specific, periodic technical and financial inputs may be more usefully supplied. It will also be more likely that bilateral donors will distribute aid in a manner consistent with the approach recommended and pursued by UNDP.

1.12 Unfortunately, the report finds that recipient countries are even more critical of the specialised agencies' usefulness within the areas of data collection, research, policy advice and norm setting (p 40). This indicates that improvement in this area is of great importance. As regards data collection and dissemination, there appears to be a gap in the mobilisation of existing information and its incorporation into a 'state of the art' or science on which recipient countries can draw with confidence. This problem certainly seems to apply in the subject areas covered here such as rural industry promotion itself and technological opportunities in rural development.

1.13 Again, the Edgren/Möller study referred to comments that 'IPF resources under the UNDP country programme are often scattered on many small projects without sufficient overall coherence, rather than concentrated on a few programmes and projects aimed at institution building and enhancement of the recipient country's own national capability' (p 39). The emphasis in the present paper on the promotion of non-farm activities and rural industry as an integral part of rural development, incorporating major sub-programmes such as the rural housing and construction component, offers the opportunity for pulling together particular UN projects and inserting new ones within a consistent framework and reducing the impression of 'bittiness'.

1.14 The same report ascribes part of the general insufficiency of overall coordination of external assistance to given countries to the inability of most

of the recipient countries to undertake such coordination. This suggests the need for more involvement in national macro and sectoral (or filière?) planning by the UN agencies, as compared with project work. In turn, this indicates the need for more cooperation between the agencies involved in broader diagnostic and analytical studies, such as the ILO, and those dealing more directly with technical nuts-and-bolts projects, such as the FAO.

1.15 Unfortunately, the report points to the problem of separate UN agencies competing rather than cooperating with each other. The inter-sectoral relationships discussed here also show that the possible spheres of interest of the different UN agencies can certainly overlap, so that the scope for competition and confusion is perhaps even greater than suggested. This points to the need for strengthening existing coordination mechanisms between the agencies, perhaps around problem-oriented foci such as the one here in order to anticipate and defuse potential conflict.

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